

GENOA CHARTER TOWNSHIP BOARD
Regular Meeting
December 3, 2018
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: November 19, 2018
3. Request for approval of a fireworks display by Ace Pyro on Dec. 31, 2018 at Mt. Brighton.
4. Consider approval of a resolution establishing guidelines for granting of Poverty Exemptions.
5. Consider approval of a resolution for a charitable gaming license. Requested by Hornung Elementary P.T.O.

Approval of Regular Agenda:

6. Consideration of a recommendation for approval of a special use, site plan and environmental impact assessment for a proposed pet day care center (Dog Town and Kitty City Day Care) within an existing commercial building. The property in question is the former Knights of Columbus banquet hall located at 3557 E. Grand River Avenue in Howell and is petitioned by Paula Vanderkarr.
 - A. Disposition of Special Use Application
 - B. Disposition of Environmental Impact Assessment
 - C. Disposition of Site Plan.
7. Consideration of a recommendation for approval of an environmental impact assessment for a proposed addition and parking lot expansion to the existing Community Bible Church located at 7372 W. Grand River Avenue in Brighton and is petitioned by Community Bible Church.
 - A. Disposition of Environmental Impact Assessment
8. Introduction and first reading of an ordinance declining authorization of medical marihuana facilities and prohibiting all marihuana establishments within the Township pursuant to the Michigan Regulation and Taxation of Marihuana Act of 2018.

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: December 3, 2018

TOWNSHIP GENERAL EXPENSES: Thru December 3, 2018	\$84,694.56
November 20, 2018 Longevity Payroll	\$12,024.21
November 30, 2018 Bi Weekly Payroll	\$94,521.48
OPERATING EXPENSES: Thru December 3, 2018	\$277,308.86
TOTAL:	<u>\$468,549.11</u>

Check Date	Check	Vendor Name	Amount
Bank FNBCK CHECKING ACCOUNT			
11/15/2018	34864	ADVANCED DISPOSAL SERVICES	8,429.13
11/15/2018	34865	AMERICAN VIDEO TRANSFER INC	1,225.60
11/15/2018	34866	AMERICAN AQUA	76.00
11/15/2018	34867	BLUE CROSS & BLUE SHIELD OF MI	37,413.41
11/15/2018	34868	COMCAST	965.42
11/15/2018	34869	DTE ENERGY	156.15
11/15/2018	34870	LIVINGSTON CO ASSESSORS ASSOCIATION	20.00
11/15/2018	34871	MASTER MEDIA SUPPLY	39.53
11/15/2018	34872	MICHIGAN OFFICE SOLUTIONS	650.56
11/15/2018	34873	SAFEBUILT STUDIO	4,876.66
11/15/2018	34874	PAULETTE SKOLARUS	172.64
11/15/2018	34875	WELLNESS IQ	164.00
11/15/2018	34876	ANGELA WILLIAMS	44.15
11/20/2018	34877	AT&T	241.76
11/20/2018	34878	BULLSEYE TELECOM	405.68
11/20/2018	34879	COMCAST	190.14
11/20/2018	34880	EHIM, INC	9,605.19
11/20/2018	34881	ETHAN MURPHY	50.00
11/20/2018	34882	GREATLAND CORPORATION	223.45
11/20/2018	34883	LINDA GALLERANI	7.09
11/20/2018	34884	LIVINGSTON COUNTY CLERKS ASSOC	40.00
11/20/2018	34885	MASTER MEDIA SUPPLY	335.32
11/20/2018	34886	MHOG	443.87 V
		Void Reason: PAID WRONG AMOUNT	
11/20/2018	34887	PFEFFER, HANNIFORD, PALKA	3,350.00
11/20/2018	34888	SEWARD HENDERSON PLLC	8,560.00
11/20/2018	34889	US BANK EQUIPMENT FINANCE	1,840.85
11/20/2018	34890	VERIZON WIRELESS	374.27
11/26/2018	34891	MICHAEL ARCHINAL	500.00
11/26/2018	34892	AT&T	42.19
11/26/2018	34893	BUSINESS IMAGING GROUP	739.32
11/26/2018	34894	CHASE CARD SERVICES	115.90
11/26/2018	34895	DYKEMA GOSSETT, PLLC	840.00
11/26/2018	34896	FEDERAL EXPRESS	36.63
11/26/2018	34897	LIVINGSTON CO ASSESSORS ASSOCIATION	60.00
11/26/2018	34898	MHOG WATER AUTHORITY	403.52
11/26/2018	34899	NEOFUNDS	2,500.00
FNBCK TOTALS:			
Total of 36 Checks:			85,138.43
Less 1 Void Checks:			443.87
Total of 35 Disbursements:			84,694.56

Check Register Report For Genoa Charter Township
For Check Dates 11/20/2018 to 11/20/2018

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
11/20/2018	FNBCK	12852		1,000.00	854.46	0.00	Open
11/20/2018	FNBCK	12853		500.00	427.23	0.00	Open
11/20/2018	FNBCK	12854		750.00	620.84	0.00	Open
11/20/2018	FNBCK	12855		750.00	630.17	0.00	Open
11/20/2018	FNBCK	12856		1,250.00	975.65	0.00	Open
11/20/2018	FNBCK	12857		1,000.00	831.96	0.00	Open
11/20/2018	FNBCK	12858		1,250.00	975.64	0.00	Open
11/20/2018	FNBCK	12859		1,000.00	923.50	0.00	Open
11/20/2018	FNBCK	12860		1,250.00	982.19	0.00	Open
11/20/2018	FNBCK	12861		500.00	460.12	0.00	Open
11/20/2018	FNBCK	12862		1,000.00	804.56	0.00	Open
11/20/2018	FNBCK	12863		750.00	692.62	0.00	Open
11/20/2018	FNBCK	12864		500.00	434.92	0.00	Open
11/20/2018	FNBCK	EFT286	INTERNAL REVENUE SERVICE	2,410.35	2,410.35	0.00	Open
Totals:							
			Number of Checks: 014	13,910.35	12,024.21	0.00	
			Total Physical Checks:	13			
			Total Check Stubs:	1			

Check Register Report For Genoa Charter Township
 For Check Dates 11/30/2018 to 11/30/2018

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
11/30/2018	FNBCK	12865	BAYLEY, REBECCA N	14.00	14.00	0.00	Open
11/30/2018	FNBCK	12866	WENNERBERG, VIRGINIA M	84.00	84.00	0.00	Open
11/30/2018	FNBCK	EFT287	FLEX SPENDING (TASC)	1,303.47	1,303.47	0.00	Open
11/30/2018	FNBCK	EFT288	INTERNAL REVENUE SERVICE	21,774.90	21,774.90	0.00	Open
11/30/2018	FNBCK	EFT289	PRINCIPAL FINANCIAL	4,511.00	4,511.00	0.00	Open
11/30/2018	FNBCK	EFT290	PRINCIPAL FINANCIAL	1,415.11	1,415.11	0.00	Open
Totals:				29,102.48	29,102.48	0.00	
					Dir. Dep.		
Total Physical Checks:				2			
Total Check Stubs:				4			
					<u>65,419.00</u>		

\$94,521.48

Check Date	Check	Vendor Name	Amount
Bank 503FN DPW-UTILITIES #503			
11/14/2018	4472	ADVANCE AUTO PARTS	19.98
11/14/2018	4473	AUTO-LAB OF LIVINGSTON	2,470.55
11/14/2018	4474	CHASE CARD SERVICES	2,042.68
11/14/2018	4475	FASTENAL COMPANY	18.47
11/14/2018	4476	GRAINGER	370.12
11/14/2018	4477	OHM ENGINEERING ADVISORS	1,680.00
11/14/2018	4478	PORT CITY COMMUNICATIONS, INC.	367.00
11/14/2018	4479	RANDY'S SERVICE STATION	768.08
11/14/2018	4480	STAPLES CREDIT PLAN	541.88
11/14/2018	4481	TRUCK & TRAILER SPECIALTIES INC	1,894.01
11/15/2018	4482	POSTMASTER	303.52
11/15/2018	4483	WEX BANK	3,722.84
11/20/2018	4484	DELUXE FOR BUSINESS	292.58
11/20/2018	4485	VERIZON WIRELESS	728.38
11/26/2018	4486	GREG TATARA	700.00
11/26/2018	4487	MRWA	225.00
11/26/2018	4488	MWEA	135.00

503FN TOTALS:

Total of 17 Checks:	16,280.09
Less 0 Void Checks:	0.00
Total of 17 Disbursements:	16,280.09

Check Date	Check	Vendor Name	Amount
Bank 592FN OAK POINTE OPERATING FUND #592			
11/01/2018	4421	DTE ENERGY	1,256.17
11/02/2018	4422	DTE ENERGY	2,333.41
11/08/2018	4423	BRIGHTON ANALYTICAL , L.L.C.	205.00
11/08/2018	4424	CONSUMERS ENERGY	104.77
11/08/2018	4425	DTE ENERGY	737.91
11/13/2018	4426	AT&T LONG DISTANCE	55.63
11/13/2018	4427	BRIGHTON ANALYTICAL , L.L.C.	185.00
11/14/2018	4428	ADVANCE AUTO PARTS	15.98
11/14/2018	4429	AMERICAN AQUA	890.16
11/14/2018	4430	COOPER'S TURF MANAGEMENT LLC	7,198.00
11/14/2018	4431	DUBOIS-COOPER	7,172.50
11/14/2018	4432	GENOA TOWNSHIP D.P.W. FUND	39,853.50
11/14/2018	4433	GRAINGER	588.25
11/14/2018	4434	STATE OF MICHIGAN	1,338.05
11/14/2018	4435	TETRA TECH INC	67,440.89
11/14/2018	4436	UIS SCADA	10,920.26
11/20/2018	4437	AT&T	142.71
11/20/2018	4438	CONSUMERS ENERGY	146.51
11/20/2018	4439	GENOA TWP OAK POINTE SEWER BOND	103,508.13
11/26/2018	4440	BRIGHTON ANALYTICAL , L.L.C.	185.00

592FN TOTALS:

Total of 20 Checks:	244,277.83
Less 0 Void Checks:	0.00
Total of 20 Disbursements:	244,277.83

Check Date	Check	Vendor Name	Amount
Bank 593FN LAKE EDGEWOOD OPERATING FUND #593			
11/14/2018	3491	BRIGHTON ANALYTICAL , L.L.C.	67.00
11/14/2018	3492	COOPER'S TURF MANAGEMENT LLC	573.00
11/14/2018	3493	GENOA TOWNSHIP D.P.W. FUND	10,866.56
11/14/2018	3494	HARTLAND SEPTIC SERVICE, INC.	4,350.00
11/14/2018	3495	UIS SCADA	600.63
11/20/2018	3496	BRIGHTON ANALYTICAL , L.L.C.	67.00
11/20/2018	3497	BULLSEYE TELECOM	226.75
593FN TOTALS:			
Total of 7 Checks:			16,750.94
Less 0 Void Checks:			0.00
Total of 7 Disbursements:			16,750.94

Pine Creek Checks
No A/P checks issued for this Board Packet

GENOA CHARTER TOWNSHIP BOARD
Regular Meeting
November 19, 2018

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 no persons in the audience.

A Call to the Public was made with no response.

Approval of Consent Agenda:

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

1. Payment of Bills.

2. Request to Approve Minutes: November 5, 2018

3. Request for approval; for reappointments to the Planning Commission, Zoning Board of Appeals and Board of Review as recommended by Rogers.

4. Request Board approval to adjust the Refuse Special Assessment Roll, #X0012, and to include on the 2018 Winter tax roll, tax parcel numbers 11-07-200-046, 11-13-100-021, 11-14-300-022, 11-23-200-014, 11-25-301-035, 11-34-402-022, and 11-35-200-019.

Approval of Regular Agenda:

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

5. Request to consider action related to recreational marijuana.

Written comments from Manager Michael Archinal:

- Township voters approved Proposal 1 by 294 votes, 5,632 voting YES and 5,338 voting NO.
- The proposal was approved in eight out of 13 precincts, failed in four, and tied in one.
- We do not have a police department and would be difficult to enforce.

Township Attorney Joe Seward addressed the board with the following comments:

- The Township must opt-out or else we are in because the State authorizes the permit otherwise.
- Opting out is done by Township Ordinance and could be considered for both medical and recreational marijuana.

- The \$5,000 application fee is to defray and cost of administration, otherwise it is known as a tax.
- The State imposes a 10% tax on the process with a township receiving 15% of that tax.
- This new provision pre-empts all other statutes with regard to Marijuana in Michigan.
- All other laws inconsistent with this act do not apply to conduct that is permitted by this act.
- Any attempts to regulate that would be considered restrictive, may result in litigation.
- We may reverse our ordinance and opt-in at any time that we choose – again by ordinance.
- There is a chance that voters could petition the board to opt-in since the act passed in the township. That petition would need signatures from 5% of the voters who voted in the gubernatorial election.
- The petition and signatures once approved would then require a ballot question.

It was the consensus of the board to opt-out. Moved by Mortensen and supported by Croft to allow staff to consult with the township attorney to opt-out of both recreational and medical marijuana and provide a draft ordinance to accomplish this action. The motion carried unanimously.

6. Request to enter into a closed session pursuant to MCL 15.268(h) material exempt from disclosure by state statute, MCL 15.243 (g) regarding complaints from the Oak Pointe Community Association.

Moved by Hunt and supported by Lowe to move to closed session at 7:05 p.m. to discuss complaints from the Oak Pointe community Association. The motion carried by roll call vote as follows: Ayes – Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None. The regular meeting of the board was re-opened at 8:00 p.m.

Township staff will meet with Attorney Seward to discuss possible actions to be taken to resolve the issues raised by the Oak Pointe Community.

Mortensen asked that a page marked “No Check Written” for accounts with no activity be included with the payment of bills.

Moved by Mortensen and supported by Croft to adjourn the regular meeting of the Genoa Charter Township Board at 8:03 p.m.



Paulette A. Skolarus, Clerk
Genoa Charter Township Board



Mr. Michael Archinal

26 Nov 2018

Township Manager

Genoa Township

2911 Dorr Road

Brighton, MI 48116

Dear Mr. Archinal:

This letter serves as our request for a display permit for the annual New Year's Eve Celebration at Mt. Brighton. We are honored to be a part of their event, and have attached all required documents required by your office.

Looking forward to another exciting event, and we hope to see you there !

Thanks,



Michael Freeland PGI/CS

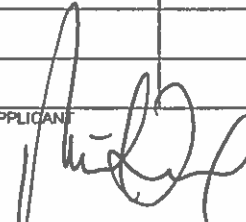
Vice President, Marketing

ACE PYRO, LLC

2018 Application for Fireworks Other Than Consumer or Low Impact

FOR USE BY LEGISLATIVE BODY OF CITY, VILLAGE OR TOWNSHIP BOARD ONLY

DATE PERMIT(S) EXPIRE:

Authority: 2011 PA 256	The LEGISLATIVE BODY OF CITY, VILLAGE OR TOWNSHIP BOARD will not discriminate against any individual or group because of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. If you need assistance with reading, writing, hearing, etc., under the Americans with Disabilities Act, you may make your needs known to this Legislative Body of City, Village or Township Board.	
TYPE OF PERMIT(S) (Select all applicable boxes)		
<input type="checkbox"/> Agricultural or Wildlife Fireworks <input type="checkbox"/> Articles Pyrotechnic <input type="checkbox"/> Display Fireworks <input checked="" type="checkbox"/> Public Display <input type="checkbox"/> Private Display <input type="checkbox"/> Special Effects Manufactured for Outdoor Pest Control or Agricultural Purposes		
NAME OF APPLICANT MICHAEL FREELAND FOR ACE PROD, LLC.	ADDRESS OF APPLICANT 975 LARUEE, MILFORD MI 48381	AGE OF APPLICANT 18 YEARS OR OLDER <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
NAME OF PERSON OR RESIDENT AGENT REPRESENTING CORPORATION, LLC, DBA OR OTHER N/A	ADDRESS PERSON OR RESIDENT AGENT REPRESENTING CORPORATION, LLC, DBA OR OTHER N/A	
IF A NON-RESIDENT APPLICANT (LIST NAME OF MICHIGAN ATTORNEY OR MICHIGAN RESIDENT AGENT) N/A	ADDRESS (MICHIGAN ATTORNEY OR MICHIGAN RESIDENT AGENT) N/A	TELEPHONE NUMBER 248.417.5559
NAME OF PYROTECHNIC OPERATOR MICHAEL FREELAND	ADDRESS OF PYROTECHNIC OPERATOR 975 LARUEE LN, MILFORD MI 48381	AGE OF PYROTECHNIC OPERATOR 18 YEARS OR OLDER <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
NO. YEARS EXPERIENCE 25	NO. DISPLAYS 200+	WHERE IA, WY, ND, WI, IN AND OHIO, MICH, GENESSEE, LIVINGSTON CO'S IN MICH.
NAME OF ASSISTANT MARK MELLOTT	ADDRESS OF ASSISTANT 13001 E. AUSTIN RD. MANCHESTER MI 48152	AGE OF ASSISTANT 18 YEARS OR OLDER <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
NAME OF OTHER ASSISTANT (WIK) NONE	ADDRESS OF OTHER ASSISTANT N/A	AGE OF OTHER ASSISTANT 18 YEARS OR OLDER <input type="checkbox"/> YES <input type="checkbox"/> NO
EXACT LOCATION OF PROPOSED DISPLAY FROM HILTOP R-S SHAWN, MT BRIGGTON, GEDA TWP, MI GPS = 42°32'21.41"N 83°48'32.16" W		
DATE OF PROPOSED DISPLAY 31 DEC 2018	TIME OF PROPOSED DISPLAY 2100 LCL; WINDOW FOR WEATHER FROM 2000 TO 2130	
MANNER AND PLACE OF STORAGE, SUBJECT TO APPROVAL OF LOCAL FIRE AUTHORITIES, IN ACCORDANCE WITH NFPA 1123, 1124 & 1126 AND OTHER STATE OR FEDERAL REGULATIONS. PROVIDE PROOF OF PROPER LICENSING OR PERMITTING BY STATE OR FEDERAL GOVERNMENT - NO ONSITE STORAGE! DIRECT SHIPMENT FROM OUR ATF APPROVED TYPE III MAGAZINES		
AMOUNT OF BOND OR INSURANCE (TO BE SET BY LOCAL GOVERNMENT) TEN MILLION DOLLARS (\$10,000,000.00)	NAME OF BONDING CORPORATION OR INSURANCE COMPANY THE PARTNERS GROUP, LTD	
ADDRESS OF BONDING CORPORATION OR INSURANCE COMPANY 1125 S.E. 6TH ST. SUITE #110 BELLEVUE, WA 98004		
NUMBER OF FIREWORKS	KIND OF FIREWORKS TO BE DISPLAYED (Please provide additional pages as needed)	
120 +	3" AERIAL SHELLS	
72 +	4" AERIAL SHELLS	
5 +	1" MULTI-TUBE CAME ITEMS	
1	1.4g LANCE SIGN "MT. BRIGGTON"	
	NOTHING FOLLOWS	
SIGNATURE OF APPLICANT 		DATE 26 NOV 2018



Mr. Michael Archinal

26 Nov 2018

Township Manager

Genoa Township

2911 Dorr Road

Brighton, MI 48116

Dear Mr. Archinal:

Per the requirements of Genoa Township's Permit process and BFS-999 Fireworks Display Permit application, This letter serves to notify that any and all 1.3g Fireworks not used, surplus, Faulty for return ("Dud") or otherwise unusable 1.3g product will not be kept at the proposed Display site set forth in our attached application packet. No onsite storage will take place; 1.3g Fireworks will be shipped directly from our ATF Approved Type 4 Magazine(s), set up at the Display site, and used. Any and all unused product will return to said magazine(s) directly.

Sincerely,

Michael Freeland PGI/CS


Vice President, Marketing

ACE Pyro, LLC

Mt. Brighton New Year's Eve Fireworks 2018

SHOWING 900' FALLOUT AREA; 280' REQUIRED

Legend

-  Bauery Restaurant
-  Mt Brighton New Year's Eve Display
-  Mt Brighton Ski Area
-  Showing Fallout Area



Public Burden Statement

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless this collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2126-0008. Public reporting for this collection of information is estimated to average approximately 1 minute per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Information Collection Clearance Office, Federal Motor Carrier Safety Administration, MC-80A, 1200 New Jersey Avenue, SE, Washington, DC 20590.

U.S. Department of Transportation
Federal Motor Carrier
Safety Administration

Medical Examiner's Certificate
(for Commercial Driver Medical Certificate)

I certify that I have examined Last Name Freeland First Name Michael in accordance with (please check only one):

- the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.43) and, with knowledge of the driving duties, I find this person is qualified, and, if applicable, only when (check all that apply) OR
- the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.43) with any applicable State variances (which will only be valid for intrastate operations), and, with knowledge of the driving duties, I find this person is qualified, and, if applicable, only when (check all that apply):
 - Wearing corrective lenses
 - Wearing hearing aid
 - Accompanied by a _____ waiver/exemption
 - Accompanied by a Skill Performance Evaluation (SPE) Certificate
 - Driving within an exempt intracity zone (49 CFR 391.62) (Federal)
 - Qualified by operation of 49 CFR 391.64 (Federal)
 - Grandfathered from State requirements (State)

The information I have provided regarding this physical examination is true and complete. A complete Medical Examination Report Form, MCSA-5875, with any attachments embodies my findings completely and correctly, and is on file in my office.

Medical Examiner's Certificate Expiration Date
6/30/18

Medical Examiner's Signature: [Signature] Medical Examiner's Telephone Number: 248.478.1616 Date Certificate Signed: 6/20/18

Medical Examiner's Name (please print or type): Steven N. Glavas D.O.

Medical Examiner's State License, Certificate, or Registration Number: 5101012727

Issuing State: Michigan - MI National Registry Number: 4950705276

Medical Examiner's Title: MD Physician Assistant Advanced Practice Nurse DO Chiropractor Other Practitioner (specify)

Driver's Signature: [Signature] Driver's License Number: FCASHUBA653100 Issuing State/Province: MI

Driver's Address: 975 LARIVEE City: MILFORD State/Province: MI Zip Code: 48381 CLP/CDL Applicant/Holder: Yes No

DOT CLEARANCE

This document contains sensitive information and is for official use only. Improper handling of this information could negatively affect individuals. Handle and secure this information appropriately to prevent inadvertent disclosure by keeping the documents under the control of authorized persons. Properly dispose of this document when no longer required to be maintained by regulatory requirements.

CURRENT CERT. OF TRAINING

THE PYROTECHNICS GUILD INTERNATIONAL, INC.
Certifies That
MICHAEL FREELAND
Has successfully completed the PGII Display Fireworks Operator Certification and Safety Program, requiring attendance at lectures and demonstrations, a passing score on a written examination, and documented display fireworks shooting experience.
Expires: 30 June 2021

MI COMMERCIAL CDL

MICHIGAN COMMERCIAL DRIVER LICENSE

04-29-2017
EXP 05-14-2021 051461

MICHAEL KENNETH FREELAND

Sex M Hgt 600 Eyes BLU
Lic Type CB End H
Restrictions NONE

DD# 007468253129 Veteran DONOR Save 05-21-2011

MI / MARSHAL ENDS

ATF EXPLOSIVES LICENSE

U.S. Department of Justice
Bureau of Alcohol, Tobacco, Firearms and Explosives
Federal Explosives Licensing Center
244 Neely Road
Marionburg, West Virginia 25403

901090: CRF/FLS
5400
File Number: 04113428

09169014

SUBJECT: EMPLOYEE POSITION LETTER OF CLEARANCE for:
MICHAEL KENNETH FREELAND - RESUME: 30740145

GENERAL LICENSE
04/29/2017
and is CDL # 051461 with the following Federal Explosives License/permits:

Dear MICHAEL FREELAND:

You have been approved to transport, ship, receive or possess explosive materials as an employee/possessor under the Federal Explosives Licensing Center (FELC), with a restriction allowing the nature of the error. This clearance is only valid under the license or permit referenced above.

Sincerely,
Christopher R. Reeves
Christopher R. Reeves
Chief, Federal Explosives Licensing Center (FELC)

FELC Customer Service. If you believe that information on your "Letter of Clearance" is incorrect, please return a COPY of the letter to the Chief, Federal Explosives Licensing Center (FELC), with a statement allowing the nature of the error. The Chief, FELC, shall correct the error, and return an amended letter to you.

Mail: ATF
Chief, FELC
Attn: LTR Correction
244 Neely Road
Marionburg, West Virginia 25403

Fax: 1-204-616-4401
Chief, FELC
Attn: LTR Correction

Call toll-free: 1-877-281-1192

WWW.ATF.GOV



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/15/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Partners Group Ltd 11225 SE 6th St., Suite 110 Bellevue WA 98004	CONTACT NAME: Janet Nau PHONE (A/C, No, Ext): 425-455-5640 E-MAIL ADDRESS: jnau@tpgrp.com	FAX (A/C, No): 425-455-6727
	INSURER(S) AFFORDING COVERAGE	
INSURED 14372 Ace Pyro, LLC 13001 E. Austin Rd Manchester MI 48158	INSURER A: T.H.E. Insurance Company INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	NAIC # 12866

COVERAGES

CERTIFICATE NUMBER: 1982876584

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	Y		CPP010442904	11/1/2018	11/1/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 10,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB EXCESS LIAB DED \$ RETENTION \$ <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE						EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A				WC STATU-TORY LIMITS \$ OTH-ER \$ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

The following are Additional Insured on General Liability as their interest may appear as respects operations performed by or on behalf of the Named Insured, as required by written contract:

Additional Insured: Mt. Brighton Ski Area, Vail Resorts, Genoa Township, its officers, assigns, and volunteers
 Event Location: Mt. Brighton Ski Area 4141 Bauer Rd Brighton, MI 48116
 Event Date: 12/31/2018, Rain Date: N/A

CERTIFICATE HOLDER**CANCELLATION**

Mt. Brighton Ski Area
 4141 Bauer Road
 Brighton MI 48116

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/15/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Partners Group Ltd 11225 SE 6th St., Suite 110 Bellevue WA 98004	CONTACT NAME: Janet Nau	
	PHONE (A/C, No, Ext): 425-455-5640	FAX (A/C, No): 425-455-6727
E-MAIL ADDRESS: jnau@tpgrp.com		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : T.H.E. Insurance Company		12866
INSURER B :		
INSURER C :		
INSURER D :		
INSURER E :		
INSURER F :		

INSURED 14372
 Ace Pyro, LLC
 13001 E. Austin Rd
 Manchester MI 48158

COVERAGES

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	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	\$ \$ \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE AGGREGATE	\$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A				<input type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	\$ \$ \$

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---	---

Memo

To: Genoa Township Board

From: Debra L. Rojewski

Date: 11/2/2018

Re: Instructions for poverty exemption, guidelines for poverty exemption, Poverty Exemption application and Poverty Exemption worksheet.

Manager Review: 

I would like the Genoa Township Board to adopt these guidelines for the 2019 Board of Review. The township is required to adopt guidelines that set income levels for our poverty exemption guidelines. The State of Michigan also requires that poverty exemption guidelines are established by the townships local assessing unit and we shall include an asset level test. An asset level test means the amount of cash, fixed assets or other property that could be used or converted to cash for use in payment of property taxes.

The income levels the township is using were supplied by the State of Michigan. I have attached the income levels which are the Federal Poverty Guidelines supplied to us from the State of Michigan. If you have any further questions feel free to contact me.

Please consider the following action:

Moved by _____, supported by _____, to

Approve the 2019 Instructions for poverty exemption, guidelines for poverty exemption, Poverty exemption application and Poverty exemption worksheet as submitted.

**RESOLUTION # 18
GENOA CHARTER TOWNSHIP
COUNTY OF LIVINGSTON, MICHIGAN**

**RESOLUTION ESTABLISHING GUIDELINES FOR GRANTING OF POVERTY
EXEMPTIONS FROM PROPERTY TAXES PURSUANT TO MCL 211.7u AND
ESTABLISHING BEGINNING DATE FOR THE BOARD OF REVIEW**

At a regular meeting of the Board of Trustees of Genoa Charter Township, County of Livingston, State of Michigan, held on December 3, 2018 the following Resolution was moved, supported and adopted.

RECITALS:

WHEREAS, P.A. 390 of 1994, which amended Section 7u of Act 206 of the Public Acts of 1893, as amended by Act 313 of the Public Acts of 1993, being section 211.7u of the Michigan Compiled Laws, requires the governing body of the assessing unit to determine and make available to the public the policy and guidelines for granting of poverty exemptions under MCL 211.70;

NOW, THEREFORE BE IT RESOLVED that to be eligible for a poverty exemption pursuant to MCL 211.7u in the Township of Genoa, a person must be the owner and must occupy the property as a homestead, as defined, for which the exemption is requested; file a completed and notarized application; file copies of federal and state income tax returns for all persons residing in the homestead, including property tax credit forms and/or Statement of Benefits Paid from Michigan Department of Social Services or Social Security Administration; meet local (Genoa Charter Township) poverty income standards;

BE IT FURTHER RESOLVED that the applicant must have an annual household income less than the amounts shown in Attachment A;

BE IT FURTHER RESOLVED that the applicant must have an annual taxable and/or non-taxable dividend income less than \$500;

BE IT FURTHER RESOLVED that the applicant's asset level, excluding the homestead, may not exceed \$10,000;

BE IT FURTHER RESOLVED that the applicant may not have ownership interest in any real estate other than the homestead;

BE IT FURTHER RESOLVED that a poverty exemption may be granted for only one year at a time;

BE IT FURTHER RESOLVED that for the 2019 tax year the Genoa Charter Township Board of Review will begin its proceedings on Tuesday, March 5, 2019;

BE IT FURTHER RESOLVED that the board of review shall request identification of the applicant and/or proof of ownership of the homestead under consideration for poverty exemption;

BE IT FURTHER RESOLVED that the board of review may request from the applicant any supporting documents which may be utilized in determining a poverty exemption request;

BE IT FURTHER RESOLVED that the completed poverty exemption application must be filed after January 1, but before the day prior to the last day of the board of review in the year for which exemption is sought;

BE IT FURTHER RESOLVED that the board of review shall administer an oath wherein the applicant testifies as to the accuracy of the information provided;

BE IT FURTHER RESOLVED that the board of review may deviate from the established policy and guidelines only for substantial and compelling reasons. The applicant will be notified, in writing, the reasons for deviating from the policy and guidelines for poverty exemption;

BE IT FURTHER RESOLVED that to conform with the provisions of P.A. 390 of 1994, this resolution is hereby given immediate effect.

ATTACHMENT A

POVERTY LEVEL GUIDELINES FOR 2019 TAX YEAR

FAMILY UNIT	HOUSEHOLD INCOME
Family of 1:	\$12,140
Family of 2:	\$16,460
Family of 3:	\$20,780
Family of 4:	\$25,100
Family of 5:	\$29,420
Family of 6:	\$33,740
Family of 7:	\$38,060
Family of 8:	\$42,380
For each additional person add:	\$4,320

Clerk's Certificate

The undersigned, being the duly qualified and acting Clerk of Genoa Charter Township, hereby certifies that (1) the foregoing is a true and complete copy of the resolution duly adopted by the Board of Genoa Township at a meeting at which a quorum was present and remained throughout, (2) the original thereof is on file in the records of the Genoa Charter Township, (3) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the open meetings act (Act No. 267, Public Acts of Michigan 1976 as amended) and (4) minutes of such meeting were kept and will be or have been made available as required thereby.

Paulette A. Skolarus, Clerk

Genoa Charter Township

Dated: December 3, 2018

**GENOA CHARTER TOWNSHIP
APPLICATION FOR ONE YEAR HARDSHIP REDUCTION**

COMPLETE ENTIRE APPLICATION AND RETURN IT ALONG WITH THE **MOST RECENT** COPIES OF THE FOLLOWING:

- (1) FEDERAL TAX RETURN
- (2) STATE OF MICHIGAN INCOME TAX RETURN
- (3) MICHIGAN HOMESTEAD PROPERTY TAX CREDIT CLAIM (1040-CR)
- (4) ALL INCOME STATEMENTS ASSOCIATED W/ABOVE RETURNS (1099'S, W-2'S)
- (5) 2 MONTHS OF ALL BANK ACCOUNT STATEMENTS
- (6) 2 MONTHS OF ALL CREDIT CARD STATEMENTS

YOUR APPLICATION WILL NOT BE CONSIDERED WITHOUT ALL OF THIS INFORMATION

PERSONAL DATA

Name: _____ Are you 65 or Older? YES NO
 Address: _____ Phone #: _____
 Social Security #: _____ Are you Disabled? YES NO
 Nature of Disability: _____

List all occupants of the home and their relationship:

NAME	RELATIONSHIP
_____	_____
_____	_____
_____	_____

Attach additional pages if necessary

PROPERTY INFORMATION

Year property was purchased: _____ Purchase Price: _____
 Do you own the property free and clear? YES NO -----> What is your monthly payment? _____
 Are the taxes included in your payment? YES NO
 Are the taxes current? YES NO -----> Amount past due: _____
 Do you own other real estate? NO YES -----> Please list below the location, value and type

LOCATION OF OTHER REAL ESTATE	VALUE	TYPE
_____	_____	_____
_____	_____	_____
_____	_____	_____

Attach additional pages if necessary

EMPLOYMENT STATUS

Are you, your spouse, or other members of the household employed?
 Self: NO YES -----> Employer Name & Address: _____
 Spouse: NO YES -----> Employer Name & Address: _____
 Other members in household: NO YES -----> Employer Name & Address: _____

**GENOA CHARTER TOWNSHIP
APPLICATION FOR ONE YEAR HARDSHIP REDUCTION**

INCOME

TOTAL ESTIMATED HOUSEHOLD INCOME DECLARATION

SOURCE	MONTHLY AMOUNT	ANNUAL AMOUNT
Wages / Salaries / Tips	_____	_____
Social Security / SSI	_____	_____
Pension or Retirement	_____	_____
Interest and/or Dividends	_____	_____
Rental Income	_____	_____
Business or Royalty Income	_____	_____
Disability Payments	_____	_____
General Assistance / ADC	_____	_____
Alimony	_____	_____
Child Support	_____	_____
Unemployment Benefits	_____	_____
Other Income from Family	_____	_____
Income from Land Contracts, etc.	_____	_____
Dependents Income	_____	_____
Food Assistance	_____	_____
Assistance with Gas or Electric Bill (OLSHA or Salvation Army Ect.)	_____	_____
Any Other Income (Source)	_____	_____

TOTAL PROJECTED INCOME FOR CURRENT YEAR

ASSETS

Cars	NO	YES ----->	Make: _____	Model: _____
Do you have a savings account?	NO	YES ----->	Balance: _____	Bank: _____
Do you own any time certificates?	NO	YES ----->	Type: _____	Value: _____
Do you own any stocks or bonds?	NO	YES ----->	Type: _____	Value: _____
401K or 457	NO	YES ----->	Type: _____	Value: _____
IRA or ROTH	NO	YES ----->	Type: _____	Value: _____
Recreational Vehicles	NO	YES ----->	Type: _____	Value: _____
Boat, Snowmobile Ect.	NO	YES ----->	Type: _____	Value: _____
Jewelry	NO	YES ----->	Type: _____	Value: _____
ART	NO	YES ----->	Type: _____	Value: _____
Life Insurance	NO	YES ----->	Type: _____	Amount: _____
Other Assets (Electronic, Coin Collection Ect.)			Type: _____	Amount: _____

**GENOA CHARTER TOWNSHIP
APPLICATION FOR ONE YEAR HARDSHIP REDUCTION**

EXPENSE INFORMATION

Average Monthly Expenses: _____

House Pmt (Prin. & Interest) _____

 Association Dues (if applicable) _____

Equity Loan Pmt. (Prin. & Interest) _____

Life Insurance _____

Health Insurance _____

Home Insurance _____

Auto Insurance _____

Taxes (Homestead) _____

Taxes on other Real Estate _____

Car Payment #1 _____ Year Make & Model _____

Car Payment #2 _____ Year Make & Model _____

Utilities: Electric _____

 Gas/Oil/Heat _____

 Telephone _____

 Water _____

 Cable _____

 Cell Phone _____

Child Care _____

Food & Clothing _____

Credit Card #1 _____ Balance _____

Credit Card #2 _____ Balance _____

Credit Card #3 _____ Balance _____

Other Loans _____

Medical Bills (After Insurance) _____

Lawn Care _____

Other (Specify) _____

Do you have any unusual expenses? NO YES-----> Please describe:

Is there any other information you feel the Board of Review should consider?

**GENOA CHARTER TOWNSHIP
APPLICATION FOR ONE YEAR HARDSHIP REDUCTION**

**I/WE DECLARE THAT I/WE ARE UNABLE TO PAY THE FULL PROPERTY TAX LEVY ON THE ABOVE DESCRIBED PARCEL AND
HEREBY MAKE APPLICATION FOR PROPERTY TAX RELIEF DUE TO HARDSHIP IN ACCORDANCE WITH SECTION 211.7u
OF MCL. I/WE DECLARE THAT THE STATEMENTS MADE HEREIN ARE COMPLETE, TRUE AND CORRECT. I/WE FURTHER
UNDERSTAND THAT IF ANY INFORMATION CONTAINED HEREIN IS FOUND TO BE FALSE OR INCOMPLETE, ANY AND ALL
RELIEF GRANTED BY THIS APPLICATION WILL BE FORFEITED AND PLACED BACK ON THE ASSESSMENT ROLL WITH
PENALTIES AND INTEREST, AND IS ALSO PUNISHABLE BY PENALTY OF PERJURY**

Applicant _____

Date _____

Applicant _____

Date _____

Witness / Notary _____

Poverty Exemption Affidavit

This form is issued under authority of Public Act 206 of 1893; MCL 211.7u.

INSTRUCTIONS: When completed, this document must accompany a taxpayer's Application for Poverty Exemption filed with the supervisor or the board of review of the local unit where the property is located. MCL 211.7u provides for a whole or partial property tax exemption on the principal residence of an owner of the property by reason of poverty and the inability to contribute toward the public charges. MCL 211.7u(2)(b) requires proof of eligibility for the exemption be provided to the board of review by supplying copies of federal and state income tax returns for all persons residing in the principal residence, including property tax credit returns, or by filing an affidavit for all persons residing in the residence who were not required to file federal or state income tax returns for the current or preceding tax year.

I, _____, swear and affirm by my signature below that I reside in the principal residence that is the subject of this Application for Poverty Exemption and that for the current tax year and the preceding tax year, I was not required to file a federal or state income tax return.

Address of Principal Residence: _____

Signature of Person Making Affidavit

Date



QUALIFICATION INFORMATION

The organization must complete this form and submit with the qualification documents. If this form does not accompany the qualification documents, documents will be returned to contact person. This will delay processing. Any misrepresentation is grounds for denial.

Please check the appropriate box(es) for the license you wish to obtain. <input type="checkbox"/> Millionaire Party <input type="checkbox"/> Bingo <input checked="" type="checkbox"/> Raffle <input type="checkbox"/> Charity Game Ticket				Application(s) and fee(s) enclosed? <input type="checkbox"/> Yes <input type="checkbox"/> No	
1. Name of Organization Parent Teacher Organization of Eleanor V Hornung Elementary School					
2. Doing Business As (DBA) (if applicable)				3. US Federal Employer Identification Number 81-4587338	
4. Organization Physical Address 4680 Bauer Road					
City Brighton		State MI	Zip 48116	County Livingston	
5. Organization Mailing Address <input checked="" type="checkbox"/> Same as Physical Address					
City		State	Zip	County	
6. Telephone Number 877-829-5500		7. Fax Number		8. Date Organization Established	
9. Briefly describe the purpose of the organization Elementary School PTO wanting to conduct a few prize and 50/50 raffles.					
10. Name of Authorized Contact Person Laura Mitchell			11. Authorized contact person's position or role with organization President		
12. Mailing Address 4680 Bauer Road					
City Brighton		State MI	Zip 48116	County Livingston	
13. Email Address lmitchell@sherwoodmitchell.net		14. Telephone Number 517-518-8274		15. Fax Number 517-376-6929	
The undersigned hereby certifies that the representations, information and data, presented are true, accurate and complete to the best of the undersigned's knowledge. The undersigned understands that failure to answer truthfully, completely and accurately could preclude the organization from receiving an approval to obtain a gaming license.					
Authorized Contact Signature William Rockwell				Date 11-29-18	
Print Name and Title William Rockwell PTO Member					

PLEASE READ CAREFULLY

If you are qualifying for a millionaire party license, mail this completed form and the required qualification documentation to Michigan Gaming Control Board, PO Box 30786, Lansing, MI 48909.

If you are qualifying for a raffle, bingo, or charity game ticket license, mail this completed form and the required qualification documentation to Charitable Gaming Division, PO Box 30023, Lansing, MI 48909.

If you are qualifying for a millionaire party AND raffle, bingo, or charity game license, you must submit copies of this form and all qualification documents to BOTH agencies.





Charitable Gaming Division
 Box 30023, Lansing, MI 48908
 OVERNIGHT DELIVERY:
 101 E. Hillsdale, Lansing MI 48933
 (517) 335-5780
 www.michigan.gov/cg

LOCAL GOVERNING BODY RESOLUTION FOR CHARITABLE GAMING LICENSES
 (Required by MCL 432.103(K)(ii))

At a _____ meeting of the _____
REGULAR OR SPECIAL TOWNSHIP, CITY, OR VILLAGE COUNCIL/BOARD

called to order by _____ on _____
DATE

at _____ a.m./p.m. the following resolution was offered:
TIME

Moved by _____ and supported by _____

that the request from _____ of _____,
NAME OF ORGANIZATION CITY

county of _____, asking that they be recognized as a
COUNTY NAME

nonprofit organization operating in the community for the purpose of obtaining charitable

gaming licenses, be considered for _____.
APPROVAL/DISAPPROVAL

APPROVAL

DISAPPROVAL

Yeas: _____

Yeas: _____

Nays: _____

Nays: _____

Absent: _____

Absent: _____

I hereby certify that the foregoing is a true and complete copy of a resolution offered and

adopted by the _____ at a _____
TOWNSHIP, CITY, OR VILLAGE COUNCIL/BOARD REGULAR OR SPECIAL

meeting held on _____.
DATE

SIGNED: _____
TOWNSHIP, CITY, OR VILLAGE CLERK

PRINTED NAME AND TITLE

ADDRESS

COMPLETION: Required.
 PENALTY: Possible denial of application.
 BSL-CG-1153(R6/09)



INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: DEC 09 2016

PARENT TEACHER ORGANIZATION OF
KLEANOR V HORNUNG ELEMENTARY
SCHOOL
4680 BAUER ROAD
BRIGHTON, MI 48116-7409

Employer Identification Number:
81-4587338
DLN:
26053742002846
Contact Person:
CUSTOMER SERVICE ID# 31954
Contact Telephone Number:
(877) 829-5500

Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(vi)
Form 990/990-EZ/990-N Required:
Yes
Effective Date of Exemption:
September 29, 2016
Contribution Deductibility:
Yes
Addendum Applies:
No

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

Letter 947

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: DEC 09 2016

PARENT TEACHER ORGANIZATION OF
ELEANOR V HORNING ELEMENTARY
SCHOOL
4680 BAUER ROAD
BRIGHTON, MI 48116-7409

Employer Identification Number:
81-4587338
DLN:
26053742002846
Contact Person:
CUSTOMER SERVICE ID# 31954
Contact Telephone Number:
(877) 829-5500

Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(vi)
Form 990/990-EZ/990-N Required:
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Letter 947

Prize Raffles: expected income less than \$500

1/17/19

2/21/19

3/21/19

4/18/19

5/16/19

50/50 Raffle: expected income less than \$1,000

2/22/19


3/15/19



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 Manager/Community Development Director
DATE: November 28, 2018
RE: Dog Town and Kitty City Pet Day Care – Special Land Use, Impact Assessment, Site Plan

Managers Review: 

Attached please find the project case file for a new pet day care facility within an existing vacant commercial building. The building was formerly utilized as the banquet hall facility for the Knights of Columbus and is located at 3557 E. Grand River in Howell. The property is within the General Commercial zoning district (GCD) and the request is petitioned by Paula Vanderkarr.

Procedurally, the Planning Commission is to make a recommendation to the Township Board on the special land use, site plan and impact assessment. The Township Board has the final review/approval authority over the proposal. The Planning Commission recommended conditional approval following three public hearings at their meeting held on November 13, 2018.

As required as a condition of the Planning Commission recommendation, the applicant has submitted revised materials for review prior to submittal to the Township Board. *Please note there is a letter from the property owner requesting relief on the Planning Commission requirement to eliminate the non-conforming pole sign.* Based on the action of the Planning Commission and in response to the revised materials I suggest Board consideration of the following actions:

Moved by _____, Supported by _____ to APPROVE the special use permit for a pet day care use because it has been found that the request meets the requirements of Section 19.03 of the Township Ordinance with the following conditions:

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

- 1.) The owner has acknowledged that this use occupies all the available parking on site.
- 2.) The noise study provided by a licensed sound engineer indicates that the maximum noise levels will be below ordinance levels from both the inside and outside of the building.
- 3.) Surface water runoff from the play area is prohibited.
- 4.) All requirements of Section 7.02.02(w) shall be met.

Moved by _____, Supported by _____ to APPROVE the Environmental Impact Assessment revised November 20, 2018 as received.

Moved by _____, Supported by _____ to APPROVE the site plan dated May 24, 2018 with the following conditions:

1. The scope of parking lot repairs as indicated by the owner shall be approved by the Township Engineer prior to issuance of a land use permit.
2. Surface water runoff from the play area is not permitted. The petitioner should provide documentation to the satisfaction of the Township Engineer on how they plan to manage surface water runoff in the outdoor play area including documentation on the underlying soil and its suitability for infiltration prior to issuance of a land use permit. If soil will not be suitable for downward infiltration, additional containment may be required to prevent illicit discharge.
3. Payment of all site plan review fee overages must be made prior to issuance of land use permit.
4. A cross access easement or agreement shall be provided by the property owner prior to issuance of Certificate of Occupancy. The form of this conveyance shall be approved by the Township Attorney.
5. The property owner shall authorize allocation of the assessed REU's to this user by signing the tap fee memorandum where indicated prior to issuance of the land use permit.
6. *OPTIONAL: The existing non-conforming pole sign shall be removed.*

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

Sincerely,



Kelly VanMarter
Assistant Township Manager/Community Development Director

November 16, 2018

Township Board of Trustees

Genoa Township

2911 Dorr Road

Brighton, MI 48116

RE: 3555 Grand River, Genoa Twp, MI 48843

Dear Board Members,

My name is Lou Lucaj and I am one of the owners of the property at 3555 Grand River. I am writing in response to The Board's request to remove the current sign on the property.

We understand the desire to have us take it down. However, the front building is old and awkward and, at some short time in the near future, we plan to redevelop the front property. Financially, it would not make sense to take it down at this time, as the size, shape, material and location could change depending on use. Resulting in re-doing the sign again.

We ask that The Board reconsider and allow us to delay replacing the sign until the development of the front property.

Thank you for your consideration.

Regards,

Lou Lucaj

248-798-6226



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

MEMORANDUM

TO: Paula Vanderkarr

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

DATE: November 29, 2018

RE: Dog Town and Kitty City Pet Day Care sewer and Water Tap Fees
 3557 E. Grand River (11-05-300-006)

This memo will describe the connection fees required for a new pet day care facility located in the vacant former Knights of Columbus banquet hall building located at 3557 E. Grand River, Howell.

The REU Table does not have a category for pet day care therefore the Kennel portion of Veterinary Facility with Kennel and the Beauty Salon sections have been used to calculate fees.

Kennel at 0.1 REU per kennel with 15 kennels (14 dog and 1 cat room) =	1.50 REU
One grooming station at 0.38 REU per station =	0.38 REU
TOTAL REU FOR PET DAY CARE USE:	1.88 REU
LESS PREVIOUSLY PAID:	Assessed 2.00 REU
NEW CONNECTION CHARGE =	----- REU

NOTE – THIS USE WILL UTILIZE ALL OF THE ASSESSED REU’S APPLICABLE TO THIS PARCEL. ANY NEW USERS ON SITE WILL BE REQUIRED TO PAY ADDITIONAL REU CAPACITY FEES AS A RESULT. THE PROPERTY OWNER MUST AUTHORIZE THE ALLOCATION OF ALL ASSESSED REU’S TO THIS USE PRIOR TO ISSUANCE OF A LAND USE PERMIT.

By signing below, I authorize the 2 REU assessed to my parcel to be allocated to the Dog Town Kitty City use in the building located 3557 E. Grand River. I understand that additional REU’s will need to be purchased for additional users on this property.

Lou Lucaj, owner

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



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Paula VanderKarr 7692 Backer Ct. ²⁰⁵⁵⁰ _{mi. 4886}
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Lou Lucaj 28715 Hovey LN. New Hudson M. 481

SITE ADDRESS: 3557 E Grand River Ave PARCEL #(s): 4711-05-300-0016

APPLICANT PHONE: (989) 277-1864 OWNER PHONE: (248) 798-6026

OWNER EMAIL: loulucaj@gmail.com / Applicant: p Vanderkarr@gmail.com

LOCATION AND BRIEF DESCRIPTION OF SITE: _____

This site used to be the home of the KofC and there are two Building on this property The front Building was where they held thier Meetings and the Back was a Banquet Hall I'm Looking to lease the Banquet Hall.

BRIEF STATEMENT OF PROPOSED USE: _____

I am looking to open a Doggie day care, w/group play, training and Boarding and down the road do ~~str~~ grooming We want to be part of this Community and help educate pet owners on the Responsibility of Pet ownership

THE FOLLOWING BUILDINGS ARE PROPOSED: _____

We would like to lease the Back building that was used as the Banquet Hall

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: Paula Vanderkarr

ADDRESS: 3555 E Grand River Ave Howell Mi. 48843

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

1.) Paula Vanderkarr of Dog Town & Kitty Cdy, LLC. at pvanderkarr@gmail.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: Paula Vanderkarr DATE: 7/31/2018
PRINT NAME: Paula Vanderkarr PHONE: 989-277-1864
ADDRESS: 7692 Badger Ct. Owosso, MI. 48867



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: Paula Vanderkarr

Submit a letter of Authorization from Property Owner if application is signed by Acting Agent.

APPLICANT PHONE: (989) 277-1864 EMAIL: pvanderkarr@gmail.com

OWNER NAME & ADDRESS: Lula, LLC. (Lou Lucaj) 28715 Hovey Ln. New Hudson, MI 48165

SITE ADDRESS: 3557 E Grand River Ave. Howell, MI 48843 PARCEL #(s): 4711-05-300-006

OWNER PHONE: (248) 798-6226 EMAIL: loulucaj@gmail.com

Location and brief description of site and surroundings:

This site was used as banquet hall in the 1980's to mid 2000's. Then was brief home for teenage kids to hang out on Friday and Saturday nights.

To the west sets the empty Pier 1 building and behind that a set of office buildings housing everything from beauty shop ,chiropractic center, Perspectives Therapy Services,Clear Strategy and to the east Payless Shoe store, and the Grand River plaza, and across the road Discount Tire

Proposed Use:

The space will be used as an indoor dog day care with supervised play groups, Boarding and Training and

in a year or so we will be grooming and bathing dogs and cats

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.

Retail shopping is getting harder to lease with the fact you can order just about anything online and have it delivered right to your door so in comes service related business like Doggie Day Care, Boarding for both cats and dogs, and Training. By re purposing this building we are not altering the exterior but cleaning it up and keeping it maintained with the natural tree lines that are there and controlling urban sprawl. This site works in accordance to zoning 7.02.02 (W)

- 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.

There will not be significant alteration to the exterior of the building other than updating lighting fixtures on the outside and painting any exposed wood and cleaning up over grown weeds and trash in the parking lot and re stripping parking spot. A white 6' vinyl fence will be add to the back of the building so the dogs in small supervised go out and play and go to the bathroom. The out side area will have K-9 grass installed that allow urine to filter thru and become water and will not get into the drinking water and any solid waste will be picked up promptly and disposed in a lined trash can.

- 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 police and fire protect will remain the same service as provided for the current existing building.

There is not a need for drainage structures and city and sewer services are currently provided to the existing building.

There will be a need for a medium dumpster that will be used for trash and to dispose of solid waste from the dogs and cats.

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?

There are only two items I can think that could be a nuisance is noise from barking dogs from the outside play area and it will be mitigated by only having 15 dogs in the outside play area that are supervised and if there is a dog that has a barking problem the will promptly brought inside. The inside of the building will be adequately sound proof in accordance to the zoning in section 7.02.02 (W-3). All other zoning ordinances in section 7.02.02 (w) will be followed to insure the public safe and wellbeing of the community.

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.

This property meets all the criteria and here is how. Hours of operation to the public will be 7am to 7pm, we will not have any individual outdoor dog runs, we will make sure the soundproofing of the building is adequate to meet and exceed the zoning requirement, the number of dogs will not exceed (1) pet per (100) square feet of gross floor area, length of stay will be limited to 14 consecutive days. Cleaning measures will be implemented to insure odor control both inside and out, the outdoor area will be made of white vinyl 6' tall and K-9 grass and will be 300 ft away from nearest residential use. No more the 15 dogs will be in outdoor play area with supervised.

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 Lou Lucaj STATES THAT THEY ARE THE FREE OWNER OF THE PROPERTY OF PROPERTIES DESCRIBED ABOVE AND MAKES APPLICATION FOR THIS SPECIAL LAND USE PERMIT.

* BY: _____
ADDRESS: 3557 E Grand River Ave Howell, Mi. 48843

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

Paula Vanderkarr of DayTown & Kitty City, LLC at p Vanderkarr@gmail.com
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: Paula Vanderkarr DATE: 7/31/2018
PRINT NAME: Paula Vanderkarr PHONE: 989-277-1864

Submitted to show signature of owner

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?

There are only two items I can think that could be a nuisance is noise from barking dogs from the outside play area and it will be mitigated by only having 15 dogs in the outside play area that are supervised and if there is a dog that has a barking problem the will promptly brought inside. The inside of the building will be adequately sound proof in accordance to the zoning in section 7.02.02 (M-3). All other zoning ordinances in section 7.02.02 (M) will be followed to insure the public safe and well-being of the community.

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 property meets all the criteria and here is how. Hours of operation to the public will be 10am to 7pm, we will not have any incidental outdoor dog runs, we will make sure the soundproofing of the building is adequate to meet and exceed the zoning requirement. The number of dogs will not exceed 15 per lot (100) square feet of gross floor area. Length of stay will be limited to 14 consecutive days. Cleaning measures will be implemented to ensure proper control with people and cars, the outdoor area will be made of white vinyl tile and it will be 200 ft away from nearest residential use. No more than 15 dogs will be in outdoor play area with supervision.

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 Lou Lucaj STATES THAT THEY ARE THE FREE OWNER OF THE PROPERTY OF PROPERTIES DESCRIBED ABOVE AND MAKES APPLICATION FOR THIS SPECIAL LAND USE PERMIT.

* BY: 

ADDRESS: 3557 E Grand River Ave Howell, MI. 48843

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

Paula Vanderkarr of DogTown & Kitty City, LLC at PVanderkarr@gmail.com
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: Paula Vanderkarr

DATE: 7/31/2018

PRINT NAME: Paula Vanderkarr

PHONE: 989-272-1864



June 6, 2018

Genoa Township – Michigan
Attn. Planning/Zoning
2911 Dorr Road
Brighton, MI 48116

RE: Use Application in favor of Paula VanderKarr (Dog Town & Kitty City)
For 3557 E. Grand River, Howell, Michigan.

To Whom it May Concern:

The undersigned is an authorized signatory of Lula, LLC, the owner of that certain parcel of real property commonly known as 3557 E. Grand River, Howell, Michigan. Paula VanderKarr is the Tenant of the property pursuant to a Lease Agreement.

This letter will confirm that Lula, LLC, has authorized Paula VanderKarr and her consultants to apply for and, obtain the necessary governmental approvals to permit Dog Town & Kitty City to operate its business at the referenced location.

Sincerely,

Lula, LLC

Lou Lucaj
Managing Partner

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
NOVEMBER 13, 2018
6:30 P.M.
MINUTES**

CALL TO ORDER: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Jim Mortensen, Chris Grajek, Marianne McCreary, Eric Rauch, Jeff Dhaenens, and Jill Rickard. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Gary Markstrom of Tetra Teach, Brian Borden of Safebuilt Studio, and an audience of 25.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

Moved by Commissioner McCreary, seconded by Commissioner Grajek, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

PRESENTATION BY LIVINGSTON COUNTY PLANNING DEPARTMENT

Scott Barb stated that the 2018 Livingston County Master Plan was adopted at the October Planning Commission Meeting. It is available for use by residents and Planning Commissions in Livingston County. This was a three-year process. He provided the Commissioners with a summary of the Master Plan. It provides Best Management Practices for trends around the state and the country. The entire Master Plan is available online and contains many links that are meant to be interactive. Although the plan has been adopted, they welcome feedback.

OPEN PUBLIC HEARING # 1... Review of a special use, site plan and environmental impact assessment for a proposed pet day care center (Dog Town and Kitty City Day Care) within an existing commercial building. The property in question is located at 3557 E. Grand River Avenue Howell. The request is petitioned by Paula Vanderkarr.

- A. Recommendation of Special Use Application
- B. Recommendation of Environmental Impact Assessment
- C. Recommendation of Site Plan.

Ms. Paula Vanderkarr provided a review of the business she is proposing. She will provide day care, training, and hopes to one day provide grooming services.

Mr. Borden reviewed his letter of November 7, 2018. He stated the applicant has revised the site plan to address the Township's concerns regarding the parking lot and landscaping. He noted that the sound study has been submitted.

The general conditions of the special land use standards of Section 19.03 have been met. There are some outstanding items regarding the use conditions of Section 7.02.02(w).

- Because the fencing being proposed is vinyl, the sound study consultant should address if additional insulation is needed or if the material should be changed to masonry. Ms. Mandy Kachur, of Soundscape Engineering, provided information on how she determined that the proposed vinyl fencing will be more than sufficient to block the sound from dogs barking outside and that the requirements of the ordinance have been met. She added that the existing vegetation will help with reducing the sound of the dogs to the residential properties to the north. Commissioner Mortensen questioned if installing an 8-foot fence would reduce the sound even further. Ms. Kachur stated that adding two more feet to the fence, would make a "just noticeable" difference.

There was a discussion regarding the fencing material. Ms. Kachur was not able to test with the proposed fencing material; however, because it is thicker than what she used, and has a tongue and groove system, this is more favorable than her testing.

- This one use will require all of the existing parking on this site so if there is a new tenant or occupant of the building in the front, the parking lot would need to be expanded.
- He suggested there be repairs made to the parking lot pavement. The property owner was present and he stated he will be repaving the parking lot.
- The cross access easement to the west is shown as an emergency access only. Ms. VanMarter stated it should be a shared access. Staff will work with the two property owners and the City attorney to facilitate this.
- The sizes of the proposed greenbelt and parking lot trees shall be provided.
- The floodlights must be removed as part of this project.
- The existing, non-conforming pole sign should be removed and replaced with a ground sign. Because the applicant is not the property owner, she would not be responsible for replacing the sign.

Mr. Markstrom reviewed his letter of November 7, 2018.

- The existing parking lot pavement is in poor condition. The petitioner should include replacing the existing parking lot within the scope of the project. Parking lot improvements should be shown on the site plan.

- Curb and drainage structures should be included around the parking lot perimeter to control storm-water and vehicle access to the site.
- In reference to his letter from August 16, 2018, surface water runoff from the play area will not be permitted, as this represents an illicit discharge to the natural storm water drainage system. The applicant has provided information on the K9 grass they are proposing and it was detailed; however, the petitioner should include documentation on how they plan to manage surface water runoff including documentation on the underlying soil and its suitability for infiltration. If soil will not be suitable for downward infiltration, additional containment may be required to prevent illicit discharge.

The requirements of the Brighton Area Fire Authority have been met.

The call to the public was made at 7:56 pm.

Mike Aubert, lives in The Landings at Rolling Ridge. He is also a Board Member of the association. He believes that the residents will hear this business, and that is not his concern, but he is concerned that it is going to be irritating and annoying.

Ms. Sharon Schmitz stated there is so much rural area in Genoa Township and asked why this has to be near a residential area.

Ms. Kimberly Kucisk is a member of the Board of The Landings at Rolling Ridge. She is a realtor and stated that this will drop their property values. She would like the Board of the association to be able to bring in their own sound expert. The Planning Commission advised Ms. Kucisk that the applicant's consultant's report is on the website and can be reviewed.

Ms. Carol Bedard stated that their community sits in a basin and the water already runs off to their property. She is concerned with the bacteria from the dog waste entering into the ground.

The call to the public was closed at 8:18 pm

Moved by Commissioner Mortensen, seconded by Commissioner Grajek, to recommend to the Township Board approval of the Special Use Permit for a business known as Dog Town and Kitty City to operate a daycare for pets, subject to the following:

- The owner will acknowledge, in writing, the loss of parking, which may prohibit commercial use of the building to the south of the site.
- This recommendation is made because the Planning Commission finds that it meets the requirements of Section 19.03 of the Township Ordinance for properties zoned General Commercial.
- A study provided by a licensed sound engineer indicates that the maximum noise levels will be below ordinance levels from both the inside and outside of the building
- The Planning Commissioner finds that the use is compliant with conditions of Section 17.02.02 of the Township Ordinance.

The motion carried. (Rauch - yes; Dhaenens - yes; Brown - yes; Rickard - yes; Grajek - yes; McCreary - no)

Moved by Commissioner Mortensen, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Environmental Impact Assessment dated July 30, 2018, Revised October 23, 2018, for Dog Town and Kitty City, subject to the following:

- The sound engineer's findings will be included as an attachment to the Environmental Impact Assessment.
- The owner will acknowledge, in writing, the loss of parking, which may prohibit commercial use of the building to the south of the site and it will become part of the Environmental Impact Assessment.

The motion carried. (Rauch - yes; Dhaenens - yes; Brown - yes; Rickard; Grajek - yes; McCreary - no)

Moved by Commissioner Mortensen, seconded by Commissioner Dhaenens to recommend to the Township Board approval of the Site Plan dated September 9, 2018 for a business known as Dog Town and Kitty City to operate a daycare for pets, subject to the following:

- The proposed vinyl screen fence is acceptable and the sample provided this evening will become Township property.
- Approvals must be obtained from outside agencies, copies of which will be provided to Township staff, before land use permit is granted.
- The pavement should be repaired as part of this project.
- Parking spaces shall be double striped per ordinance requirements.
- The restriction of emergency vehicles shall be removed from the site plan and the property owner should work with Township staff to ensure there is a cross access easement with the property to the west.
- Tree sizes should be noted on the plans.
- The existing flood lights must be removed as part of this project.
- The existing pole sign should be removed and replaced with a sign consistent with the Township ordinance.
- The requirements of the Township Engineer specified in his letter dated November 7, 2018 shall be met, excluding Item #2.

The motion carried. (Rauch - yes; Dhaenens - yes; Brown - yes; Rickard; Grajek - yes; McCreary - no)

OPEN PUBLIC HEARING # 2... Review of a special use, site plan and environmental impact assessment requesting final site condominium recommendation for a proposed 25-unit site condominium with a special land use to allow for grading within the 25 foot natural features setback. The property in question is located on approximately 61 acres involving parcels 11-33-400-003 and 11-34-300-005 on the east side of Chilson Road, south of Brighton Road along the southern Township boundary with Hamburg Township. The request is petitioned by Chestnut Development LLC.

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
October 9, 2018
6:30 P.M.
MINUTES**

CALL TO ORDER: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Jim Mortensen, Chris Grajek, Marianne McCreary, Eric Rauch and Jeff Dhaenens. Absent was Jill Rickard. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Gary Markstrom of Tetra Tech, Brian Borden of Safebuilt Studio, and an audience of 20.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

Moved by Commissioner Grajek, seconded by Commissioner Rauch, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

OPEN PUBLIC HEARING # 1... Request to POSTPONE TO NOVEMBER 13, 2018 review of special use, site plan, and environmental impact assessment for the re-use of an existing commercial building for a proposed pet day care for Dog Town - Kitty City. The property in question is located at 3557 E. Grand River Avenue, Howell. The request is petitioned by Paula Vanderkarr.

Chairman Brown noted that the applicant has requested to have this item tabled; however, the Planning Commission will hold a public hearing.

The call to the public was made at 6:32 pm.

Ms. Eileen Berger of 3497 Dewdrop Lane is opposed to this proposal because of the noise and the smell. Her condo backs up to this property. She suggested they go to a more rural area. She believes this could decrease the value of their homes.

Mr. Steve Siep of 3536 Snowden Lane appreciates that the Township wants to fill the empty buildings. His home is a tree line away from this property. The tree line is not a buffer for noise. When this building was used as a music venue, the noise sounded like it was in his yard. If this item is approved, he would like the fence to be made of a masonry material. He questioned how many dogs would be allowed outside at one time. He is concerned with the noise and the odor of 63 dogs. He is planning on putting an addition on his home; however, he may not do it if this approved.

Ms. Jackie Rafferty does not believe that this type of use should be on Grand River.

The call to the public was closed at 6:43 pm.

Moved by Commissioner Dhaenens, seconded by Commissioner Grajek, to postpone the review of special use, site plan, and environmental impact assessment for the re-use of an

existing commercial building for a proposed pet day care for Dog Town - Kitty City until the November 13, 2018 Planning Commission meeting per the petitioner's request. **The motion carried unanimously.**

OPEN PUBLIC HEARING #2... Review of sketch plan for the re-use of an existing commercial building for a proposed retail thrift store located at 2700 E. Grand River Avenue, Howell. The request is petitioned by Volunteers of America.

A. Disposition of Sketch Plan

Brent LaVanway of Boss Engineering, Brian Wilbur of Volunteers of America, and Jeff Peltier, the architect, were present.

Mr. LaVanway stated they have provided revised plans in response to the concerns raised at last month's Planning Commission meeting. He believes they have met the concerns of the consultants and the Planning Commission.

Mr. Borden stated that the applicant has met most of his concerns. He reviewed his letter of October 1, 2018.

- The Planning Commission may reduce the rear parking setback given the presence of shared access drives.
- He suggested pavement markings be provided noting the directional pattern through the parking lot. The applicant agreed to provide the suggested pavement markings.
- The landscape plan is deficient in terms of total plantings; however, there are existing site limitations precluding full compliance. The Planning Commission has discretion to waive or modify landscaping requirements; however, the larger parking islands could accommodate some of the required trees. Mr. LaVanway noted that the overhead electrical lines are right above the islands.
- There is a minor inconsistency on the landscape plan for the number of Little Business Daylilies. The applicant will make the correction.

Mr. Markstrom reviewed his letter of September 26, 2018. They have met most of his concerns.

- The petitioner should show the existing sanitary sewer lead connection and existing service connection from the well on the plans.
- The practice of the Township has been to require developments that come before the Planning Commission to have curbed parking lots. He added that having it curbed delineates where cars will park, and keeps them off of the grass, as well as controls the storm-water. Mr. LaVanway would prefer to have the Township defer to the Livingston County Drain Commissioner (LCDC) on this issue. The discussion continued which included the natural water flow of this site and the neighboring site to the east. Ms. VanMarter noted that the LCDC is currently addressing the storm water issue in this area. She suggested having them best determine how it should be handled.

Chairman Brown reviewed the Brighton Area Fire Authority's letter dated October 3, 2018. The applicant has met all of their concerns except for the building exceeding the allowable square footage as it relates to fire suppression. Mr. Peltier has made a proposal that is being reviewed by the Livingston County Building Department.

The call to the public was made at 7:18 pm with no response.

Moved by Commissioner Mortensen, seconded by Commissioner Grajek, to approve the sketch plan for Volunteers of America dated September 21, 2018 conditioned upon the following:

- The petitioner shall reconcile the landscape plan with regard to the quantity of Little Business Daylilies.

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
September 10, 2018
6:30 P.M.
MINUTES**

CALL TO ORDER: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Jim Mortensen, Chris Grajek, Marianne McCreary, Eric Rauch and Jill Rickard. Absent was Jeff Dhaenens. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Gary Markstrom of Tetra Teach, Brian Borden of Safebuilt Studio, and an audience of 24.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

Moved by Commissioner McCreary, seconded by Commissioner Mortensen, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

OPEN PUBLIC HEARING # 1... Review of special use, site plan, and environmental impact assessment for the re-use of an existing commercial building for a proposed pet day care for Dog Town - Kitty City. The property in question is located at 3557 E. Grand River Avenue, Howell. The request is petitioned by Paula Vanderkarr.

- A. Recommendation of Special Use Application
- B. Recommendation of Environmental Impact Assessment
- C. Recommendation of Site Plan

Mr. Brian Biskner with Powell Engineering and Ms. Paula Vanderkarr were present. Mr. Biskner provided a review of the business and showed the proposed site plan and fencing material samples. They will be using canine grass in the dog area. The stone underneath the artificial grass allows the liquid waste to filter more quickly into the ground. The solid waste will be collected and placed into trash containers.

They are asking for relief with some of the landscaping requirements. They are hoping to use the existing vegetation in the rear of the property to meet the requirements. This area is already quite dense. They are not proposing any landscaping along the east and west property lines as they would like to use the existing vegetation in that area also.

There was a discussion regarding the material that will be below the area where the canine grass will be placed and how it will properly filter the pet waste. Mr. Biskner stated the stone that will be under the grass will be the primary location that will trap the bacteria from the liquid waste. Ms. Vanderkarr has spoken to the canine grass company and they advised that 95% of pet waste is water and 5% is protein and other waste.

Commissioner Rickard would like to see additional engineering done to ensure that the bacteria from the pet waste will not enter into the storm sewer system.

Mr. Borden reviewed his letter dated August 29, 2018. The general special land use standards are met; however, with regard to the use standards, the following is still required:

- A noise impact study shall be done

Ms. Biskner stated that the sound study has not been completed at that time. She anticipates it being done within a week to 10 days. Commissioner Mortensen stated he will not vote for a recommendation for approval without the sound study being provided to the Planning Commission.

- The proposed fence does not match the existing building so the applicant will need to explain why the proposed fence is compatible with the building.

Commissioner Rauch believes the type of fence required could be determined by the sound study. Perhaps a masonry wall would be more appropriate. Commissioner Mortensen agrees and stated that if that is the case, he would like to see a rendering of the wall.

- Approvals from outside agencies are needed

Mr. Borden stated these approvals are typically obtained after approval by the Township Board.

Since writing his letter, the applicant provided parking details. They are proposing some parallel parking. He would like to see these spaces marked as "Employee Only" and have the patrons use the other parking spaces. He would also like to have the handicap accessible space relocated.

Additional comments from Mr. Borden's letter are:

- The parking lot pavement should be repaired / improved
- Landscape improvements shall be made. He noted that a revised plan with additional landscaping has been provided; however, he has not been able to review it in detail as of yet.
- The existing floodlights must be removed
- The existing, non-conforming pole sign should be removed and replaced with a ground sign. Because the applicant is not the property owner, she would not be responsible for replacing the sign. Commissioner Mortensen would like the property owner to be required to replace the sign.

Mr. Markstrom reviewed his letter dated August 28, 2018.

- The existing well should be abandoned to ensure there is no cross-contamination with the municipal water supply
- The private sanitary lead between the two buildings and grinder pump are not shown
- The private water lead between the buildings should be shown on the plans

There are no major changes being made to the site and some of the impervious surface is being removed, by removing the asphalt and installing the canine grass. He agrees with Mr. Borden that if pavement issues exist, it should be repaired.

Chairman Brown reviewed the Brighton Area Fire Authority's letter dated September 5, 2018. They are requiring an additional fire hydrant on the site. They also have concerns with the parking spaces.

The Call to the Public was made at 7:29 pm.

Ms. Stephanie Dallakian owns the building directly west of the building in the front of this building. That building's elevation is higher than the buildings to the west. She questioned how the runoff will be controlled. She would like to have landscaping around the fencing.

Mr. Steve Seek of 3536 Snowden Lane is concerned with the sound and the smell from this use. He questioned if the dogs will be left outside alone for a long time.

Mr. Robert Peterson of 3429 East Grand River, which is two properties away from this site, stated there is natural drain in his backyard. He questioned if animals will be left overnight.

Mr. Jim Strand of 3445 Dewdrop Lane is concerned with the waste from the pets. He does not believe it will be cleaned in the winter time. The evaporation of the liquid waste will put the bacteria into the air and that will attract bugs. Those bugs will transport that bacteria into the neighborhoods. He is also concerned with the noise.

The call to the public was closed at 7:46 pm.

There was a discussion about having a small canine grass area in the front of the building for dogs that need to relieve themselves when they are being dropped off or picked up.

Moved by Commissioner Mortensen, seconded by Commissioner McCreary, to table the request from Paula Vanderkarr until the October 9, 2018 Planning Commission meeting. The motion carried unanimously.

OPEN PUBLIC HEARING #2... Review of sketch plan for the re-use of an existing commercial building for a proposed retail thrift store located at 2700 E. Grand River Avenue, Howell. The request is petitioned by Volunteers of America.

A. Disposition of Sketch Plan

Brent LaVanway of Bross Engineering, Alex Brodrick and Brian Wilbur of Volunteers of America and Jeff Peltier, the architect, were present.

Mr. LaVanway reviewed the project and showed the site plan and colored renderings of all elevations. They will be repaving the parking lot, adding pavement to the rear of the building to accommodate more parking space, adding a sidewalk along Grand River, and adding landscape islands in the parking lot.

Mr. Brodrick provided a history of Volunteers of America and explained what services they provide.

Mr. Borden reviewed his letter of August 30, 2018. The following ordinance requirements must be met:

- The rear parking setback does not meet the requirements; however, the Planning Commission can waive that requirement because there is a shared access driveway.

November 20, 2018

DOG TOWN & KITTY CITY

**Planning Commission and Trustees
Genoa Township
2911 Dorr Road
Brighton, MI 48116**

Dear Commissioners and Trustees:

At this time I'm submitting a revised Environmental Impact Assessment dated November 20, 2018 which includes the sound study's findings, along with slides used in the presentation given by Mandy Kachur, PE, INCE. Bd.Cert. of Soundscape Engineering LLC.

Letters from the following:

- **Lou Lucaj in regards to requests from Tetra Tech and Safe Built Studio to the planning Commissioners**
- **Letter from Utility Dept.**
- **Letter from Drain Commissioner's Dept.**
- **Letter from me after speaking to the Environmental Health Dept.**
- **Form from abandon well**
- **Site plan**
- **Floor plan**

November 14, 2018

Planning Commission

Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention: Kelly Van Marter, AICP

Dear Commissioners:

At your request I (Lou Lucaj) president of Lula, LLC owner of parcel #4711-05-300-006 understand that at this time there are no parking spaces for the front building on the south west corner of the property.

I also will make sure

- Repair and strip parking
- Existing floodlights will be remove and replaced to meet zoning standards also will

Respectful,

Lou Lucaj
248-798-6226



MHOG Utility Department

2911 Dorr Road
Brighton, MI 48116

810-227-5225

www.mhog.org

November 19, 2018

Paula Vanderkarr
7692 Badger Court
Owosso, MI 48867

Subject: Approval of Dog Town & Kitty City Pet Waste Disposal Plan

Dear Ms. Vanderkarr;

As discussed, the proposed Dog Town and Kitty City location is served with a grinder pump. These pumps are highly susceptible to premature failure from abrasive materials found in indoor pet waste disposal products. As a result, the site plan was updated to provide solid waste receptacle and notations that all pet waste will be disposed of in on-site waste receptacles. Additionally, no drain connections are found in the pet care areas and only lavatory service is proposed. With this disposal method, the MHOG Utility Department approves service to this site with the existing grinder pump. However, it should be noted that should failure of the pump become an issue due to pet waste disposal, your facility may be charged for excessive repair items.

If you have any questions or require additional information, please contact me at your earliest convenience.

Sincerely,

Greg Tatara
Utility Director
MHOG Utility Department

Copy: Kelly VanMarter, AICP - Assistant Twp. Manager/Community Development Director
Amy Ruthig, Zoning Official

From: [Kelly VanMarter](#)
To: [Amy Ruthig](#)
Subject: FW: Dog Town/Kitty City
Date: Monday, November 19, 2018 2:51:19 PM

From: Shelly Messing [mailto:SMessing@livgov.com]
Sent: Monday, November 19, 2018 2:51 PM
To: Kelly VanMarter
Cc: Ken Recker; pvanderkarr@gmail.com
Subject: Dog Town/Kitty City

Dear Genoa Township Planning Commission:

Ken Recker has reviewed the plans for the Dog Town/Kitty City project and does not foresee any drainage issues with the planned changes. There will be a minimal change to the hardscape.

The plans have also been submitted for Soil Erosion Review which is currently pending.

Please let us know if you have any questions.

Best Regards,

Shelly Messing

Office Manager

Livingston County Drain Commissioner's Office

2300 E. Grand River Avenue, Suite 105

Howell MI 48843-7581

Phone: 517-546-0040 Ext: 6771

Fax: 517-545-9658

www.livgov.com/drain

November 16, 2018

Planning Commission
Geno Township
2911 Dorr Road
Brighton, Michigan 48116

Attention: Kelly Van Marter, AICP

Dear Commissioners:

I went to the Health department and talk to Barb at the front desk asked if there was anything that I needed to comply with as part of the approval process. She talked to Matt Bolang the Environmental Health Director who said:

Other than abandoning the well, which has been done there is nothing else they require for approval. I have attached a copy of the abandon well form.

Respectful,

Paula Vanderkarr
989-277-1864

ABANDONED WELL PLUGGING RECORD

Completion is required under authority of Part 127 Act 388 PA 1978.
Failure to comply is a misdemeanor.

WSSN & Source ID/Well No.
20990-47

Tax No.

Latitude **42.59088 N**

Longitude **83.88431 W**

County **Livingston**

Township **Genoa**

Distance & Direction from Road Intersection

Well Street Address, City/ZIP
**3555 E. Grand River -
Howell, MI.**

Fraction **SE 1/4 SE 1/4 NW 1/4**

Section **5**

Town No. **T2N**

Range No. **R5E**

Well Owner

Address

City/ZIP

Owner Address Same as Well Address? Yes No

Drilling Unknown Rotary Cable Tool

Method Other

Date of Well

Plugging

10.11.18

Well Use Household Type I Public
 Type II Public Type III Public Industrial
 Irrigation Test Well Heat Pump
 Other

Measured Well

Depth **85** ft.

Date Well

Constructed

Unknown

Well Construction Type Drift Well
 Rock Well Dry Hole Unknown
 Other
Flowing Well Yes No

Casing Steel-black Steel-galvanized Plastic

Clay Tile Crock Other

Diameter **4** in. to **85** ft. depth

Diameter _____ in. to _____ ft. depth

Plugging Material (Enter the layers from top to bottom.)

- | | | | | | | |
|---|---|--|-------------------|------------------|----------------------|---|
| <input checked="" type="checkbox"/> Bentonite Chips/Pellets | <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Clean Soil Fill | From 0 ft. | To 85 ft. | Quantity 10.5 | Units <input checked="" type="checkbox"/> Bags <input type="checkbox"/> Yards |
| <input type="checkbox"/> Concrete | <input type="checkbox"/> Neat Cement | <input type="checkbox"/> Other | | | | <input type="checkbox"/> Other |
| <input type="checkbox"/> Bentonite Chips/Pellets | <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Clean Soil Fill | | | | <input type="checkbox"/> Bags <input type="checkbox"/> Yards |
| <input type="checkbox"/> Concrete | <input type="checkbox"/> Neat Cement | <input type="checkbox"/> Other | | | | <input type="checkbox"/> Other |
| <input type="checkbox"/> Bentonite Chips/Pellets | <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Clean Soil Fill | | | | <input type="checkbox"/> Bags <input type="checkbox"/> Yards |
| <input type="checkbox"/> Concrete | <input type="checkbox"/> Neat Cement | <input type="checkbox"/> Other | | | | <input type="checkbox"/> Other |
| <input type="checkbox"/> Bentonite Chips/Pellets | <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Clean Soil Fill | | | | <input type="checkbox"/> Bags <input type="checkbox"/> Yards |
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| <input type="checkbox"/> Concrete | <input type="checkbox"/> Neat Cement | <input type="checkbox"/> Other | | | | <input type="checkbox"/> Other |
| <input type="checkbox"/> Bentonite Chips/Pellets | <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Clean Soil Fill | | | | <input type="checkbox"/> Bags <input type="checkbox"/> Yards |
| <input type="checkbox"/> Concrete | <input type="checkbox"/> Neat Cement | <input type="checkbox"/> Other | | | | <input type="checkbox"/> Other |
| <input type="checkbox"/> Bentonite Chips/Pellets | <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Clean Soil Fill | | | | <input type="checkbox"/> Bags <input type="checkbox"/> Yards |
| <input type="checkbox"/> Concrete | <input type="checkbox"/> Neat Cement | <input type="checkbox"/> Other | | | | <input type="checkbox"/> Other |

Casing Status After Plugging **1** ft. Below Grade Above Grade

Casing Pulled

Note: Cutting casing off 4 feet below grade is recommended.

Reason For Abandoning Well Public Water Connection Well in Disrepair

Well No Longer Needed Dry Hole Uncompleted Well

Other **Demo Building**

Abandonment Method Pumped Through Grout Pipe Poured From Surface

Poured Through Grout Pipe Other

Pumping Equipment Removed Yes No

Equipment Removed Bremer Check Valve Drawdown Seal

Drop Pipe Electrical Wiring Packer Fitness Adapter Spool

Check Valve Pump Cylinder Pump Rods Stones/Debris

Submersible Pump Turbine Pump Bows Unknown Obstruction

Obstruction Driven to Bottom Other

Note: Plugging well from bottom up to ground surface is required.

General Remarks

Water Well Contractor's Certification Well Owner Plugged Well
This well was plugged under my supervision and this report is true to the best of my knowledge and belief.

Ray's Well Drilling **63-2280**
Registered Business Name Registration No.

Address **9660 Buckhorn UK Rd**

City/State/ZIP **Holly, MI. 48442**

Signature of Registered Contractor **[Signature]** Date **10-11-18**

November 7, 2018

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Dog Town/Kitty City – Special Land Use and Site Plan Review #3
Location:	3557 East Grand River Avenue – north side of Grand River, east of intersection with Grand Oaks Drive
Zoning:	GCD General Commercial District

Dear Commissioners:

At the Township's request, we have reviewed the revised submittal for Dog Town/Kitty City, including the special land use application (dated 7/31/18) and revised site plan (most recently dated 9/19/18).

A. Summary

1. The special land use standards of Section 19.03 are generally met; however, the use conditions must also be met and any comments by the Township Engineer or Brighton Area Fire Authority must be addressed.
2. In order to demonstrate full compliance with the use conditions of Section 7.02.02(w):
 - a. We request the applicant/sound consultant address whether soundproofing insulation or a more substantial material (masonry) for the screen fence would be beneficial in terms of mitigating exterior noise concerns;
 - b. The proposed vinyl screen fence requires a finding that it is aesthetically compatible with the building and surrounding buildings; and
 - c. Approvals from outside agencies must be obtained. Evidence of such approvals must be provided to the Township for their records.
3. The proposed business will require almost all of the parking provided on-site. The property owner should be aware that re-use of the secondary building on the property will require additional parking.
4. The pavement condition should be repaired/improved as part of this project.
5. The parking spaces must be double-striped (looped), per Ordinance requirements.
6. We request the applicant explain why cross-access should be limited to emergency vehicles.
7. Sizes must be noted for the proposed greenbelt and parking lot trees.
8. The existing floodlights must be removed as part of this project.
9. The existing pole sign should be removed and replaced with a compliant sign as part of this project.



Aerial view of site and surroundings (looking north)

B. Proposal/Process

The project entails a new pet day care center within an existing commercial building. Such uses are allowed with special land use approval in accordance with Table 7.02 of the Genoa Township Zoning Ordinance. The use conditions of Section 7.02.02(w) also apply.

Procedurally, the Planning Commission is to review the requests for special land use, site plan and impact assessment and provide a recommendation on each to the Township Board following a public hearing.

As a side note, the existing site contains several elements that are either non-compliant with current standards or in relatively poor condition. The request for a new special land use on a developed site provides the Township with an opportunity to require improvements that bring site into (or closer to) compliance with current Ordinance standards.

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 identifies the subject site as General Commercial, which is intended for “businesses which serve the requirements of the community at large including Genoa Township, Howell, Brighton, and pass-by traffic along Grand River Avenue.”

Given the nature of the proposed business, it is generally in keeping with the intent of the General Commercial future land use category.

- 2. Compatibility.** Grand River is the primary commercial corridor through the Township. A pet day care business would generally be considered appropriate for this corridor/zoning designation, provided the use conditions are met and off-site impacts are mitigated.
- 3. Public Facilities and Services.** As a developed property along the main commercial corridor through the Township, we anticipate necessary public facilities and services are in place; however, the Commission should consider any comments provided by the Township Engineer and Brighton Area Fire Authority with respect to this standard.

4. **Impacts.** The use conditions of Section 7.02.02(w) are intended to limit impacts of the proposal upon the site and surrounding properties. Similar to the compatibility comment noted above, provided those standards are met, the proposal is not expected to adversely impact adjacent or surrounding properties and/or uses.
5. **Mitigation.** If further concerns arise as part of the review process, the Township may require additional efforts to mitigate potential adverse impacts.

D. Use Conditions

Pet day care centers are also subject to the use conditions of Section 7.02.02(w), as follows:

1. **Hours of operation open to the public are limited to twelve (12) hours per day and shall not extend later than 7 p.m.**

The special land use application and Impact Assessment identify the hours of operation as 7 a.m. to 7 p.m.

2. **There shall not be individual, outdoor dog runs.**

The site plan identifies a group outdoor area, but no individual dog runs.

3. **Walls, partitions and floor/ceilings assemblies separating dog daycare facilities from adjacent uses shall be adequately soundproofed with a sound transmission class over sixty (60) and shall be constructed so that there will be no emission of noise detrimental to surrounding properties. The applicant shall provide a noise impact study performed by a certified acoustical engineer to ensure the noise levels produced by the pet daycare use will not exceed fifty (50) decibels above ambient noise at the outside of an exterior wall or at the opposite side of a common interior wall. The study shall also confirm compliance with the Township Noise Ordinance in regard to noise levels at the property line.**

The special land use application notes that the building will be adequately soundproofed in accordance with this standard. In support of this claim, the applicant had a sound study prepared with soundproofing recommendations that must be met.

Based upon the study, so long as these measures are provided, the internal noise generated is expected to be in accordance with this requirement. Our only additional comment is that we request the applicant address whether soundproofing insulation or a more substantial material (masonry) for the screen fence would be beneficial in terms of mitigating exterior noise generation.

4. **The number of pets cared for at any one time shall not exceed one (1) pet per one hundred (100) square feet of gross floor area, which is subject to discretionary review by the Planning Commission.**

The Impact Assessment identifies the building as a 6,312 square foot commercial building; thus, the business can provide care for up to 63 pets at any given time. The Assessment further states that average daily usage is expected to be 40 animals (dogs and cats combined), while they expect to be at capacity (63 maximum) during holidays.

5. **Overnight boarding of pets shall be an accessory use to the daycare center. The length of stay for boarded animals shall be limited to fourteen (14) consecutive days, and no outdoor boarding shall be permitted.**

The initial application for special land use states that length of stay for boarding will be limited to 14 days.

6. Adequate odor control measures shall be implemented so that odor from inside or outside the pet daycare center will not be discernible outside the building or unit.

The special land use application states that cleaning measures and proper waste disposal will be implemented for odor control. The Impact Assessment includes additional details on such measures.

7. Any outdoor play area shall be attached to the center and shall be setback a minimum of three hundred (300) feet from the nearest residential use.

The outdoor area is 300 feet from the rear lot line, which is adjacent to a residential development.

8. The outdoor play area for the pets shall be surrounded with a masonry wall or other material that is aesthetically compatible in terms of material, color and finish with the principal and surrounding buildings. Said wall shall be at least six (6) feet in height and maintained in good condition at all times. Failure to maintain the wall in its original condition shall be considered a violation of the site plan approval.

The revised submittal provides for a 6-foot tall vinyl privacy fence as screening around the outdoor dog area. Since the proposal does not include a masonry wall, the applicant has noted that the white vinyl screen fence will be compatible with the light colored vinyl siding on the building. The Ordinance requires a finding that the proposed fence is “aesthetically compatible in terms of material, color and finish with the principal and surrounding buildings.”

As noted in standard #3 above, we request the applicant/sound consultant address whether a masonry wall (or the inclusion of soundproofing insulation with the screen fence) would better mitigate any outdoor noise concerns.

9. Any outdoor play area is for periodic use only, and pets shall not be allowed to access the outdoor play area on their own. Not more than fifteen (15) pets shall be permitted in the outdoor play area at any one time. While in the outdoor play area, dogs shall be escorted and supervised by a dog handler who will be responsible for preventing or quickly suppressing any dog behavior that may adversely impact surrounding uses, including loud or excessive barking.

The special land use application states that the proposed operation will comply with these standards.

10. The applicant shall provide a waste management plan detailing both indoor and outdoor waste management procedures to ensure animal waste is not discharged to surface or storm water. Outdoor animal areas shall be designated on the plan and shall consist of properly maintained lawn, special canine grass or other methods with an appropriate drainage system to control surface run-off. The outdoor area surface shall be approved by the Planning Commission following a recommendation by the Township Engineer. The outdoor play area must be maintained in a clean, sanitary manner, and adequate odor control measures shall be implemented so that odor will not be discernible beyond the area. Solid pet waste in the outdoor play area must be promptly picked up.

The site plan proposes a 1,340 square foot outdoor area surfaced with K-9 grass. There are also statements throughout the application forms and Impact Assessment noting how and when waste will be picked up and properly disposed of.

The submittal also includes a specification sheet for the K-9 grass, with a description of the cleaning process. A note has also been added to the Impact Assessment stating that “at no time will dog or cat waste, including kitty litter, be allowed down the sewer drains.”

- 11. Any pet and food waste shall be properly and lawfully disposed of to not create a litter, insect, rodent, vermin or offensive odor nuisance. Approval from the Utility Authority, Drain Commissioner and Health Department shall be provided as part of the special use application.**

As noted in previous review letters, the applicant must provide approvals from the outside agencies noted under this criterion.

- 12. The applicant shall demonstrate the proposed drop-off/pick-up pattern and shall provide one (1) parking space for each staff member and one (1) space for each 5 animals permitted at the daycare.**

The revised Impact Assessment describes the drop-off/pick-up pattern and ratio.

In previous submittals the applicant also indicated there would be 4 to 6 employees. Based on the maximum number of pets allowed, as well as the maximum number of employees noted, the proposal results in the need for 19 parking spaces.

The revised plan identifies 21 parking spaces, including 4 parallel spaces that are reserved for employees.

The majority of the paved area north of the building will not be striped and will include pavement markings stating “no parking/fire lane.”

- 13. Applicants shall submit, at the time of special land use application, a proposed site plan and floor plan and written operating procedures including waste and noise management methods, such as those recommended by the International Boarding and Pet Services Association (IBPSA). These procedures shall be followed for the duration of the business and shall be designed to prevent or control animal behavior that may adversely impact surrounding uses, including loud or excessive barking.**

The application forms and Impact Assessment include waste and noise management details, as well as operating procedures.

E. Site Plan Review

- 1. Dimensional Requirements.** The existing building is nonconforming due to its deficient east side yard setback. However, no external changes are proposed to the building and this condition does not impact the current request.
- 2. Building Materials and Design.** Similar to the comments above, the project does not entail any exterior building changes, although the special land use application notes that some exterior painting may be done.
- 3. Parking.** As noted under our review of the use conditions, the site provides sufficient parking for the proposed business. However, as has been discussed, there is another building on the property for which no parking information is provided.

Given the requirements for the proposed business, there is essentially no parking provided for future use of the other building.

This situation may work so long as the other building remains unoccupied (or if it is demolished); however, the owner of the site should be made aware that re-use of this building will result in the need for additional parking.

Additionally, based on a visit to the site, the existing parking lot appears to be in relatively poor condition. Repair/improvement of the pavement condition should be required as part of this project.⁵⁵

Lastly, the parking spaces must be double-striped (looped), per Ordinance requirements.

4. **Pedestrian Circulation.** The site plan identifies the existing 8-foot pathway along Grand River.
5. **Vehicular Circulation.** The proposal will utilize the existing driveway to/from Grand River. There is also a connection provided to the parking lot on the adjacent site to the west, which is noted as being for emergency access only. If this is a proposed restriction, we request the applicant explain why cross-access should be limited to emergency vehicles.
6. **Loading.** The site plan does not identify an area for loading/unloading; however, the applicant previously noted that they do not expect any large deliveries. Furthermore, there is a large paved area northwest of the building that will suffice should a loading area ever be needed.
7. **Waste Receptacle and Enclosure.** The site does not provide a waste receptacle/enclosure. Instead, the applicant proposes use of roll-away trash receptacles that will be stored within the fenced-in area and placed curbside for regular pick-up.

A statement has also been added to the Impact Assessment noting that if weekly pick-up is not sufficient, arrangements will be made for multiple pick-ups.

8. **Landscaping.** The revised plan includes 4 greenbelt trees (2 canopy trees and 2 evergreen trees), as well as 2 parking lot trees (both canopy) within 108-square foot landscape islands. Plant types are noted, but sizes are not indicated. This information must be added to the plan.

As with previous submittals, the large wooded area in the northerly portion of the site will remain undisturbed.

9. **Exterior Lighting.** The special land use application notes that exterior light fixtures will be replaced, and the previous submittal included a photometric plan and fixture details (though that information is not included with the most recent plan).

The previous plan showed the use of 11 wall mounted fixtures around the building with compliant light intensities (6.6 footcandles maximum) and fixtures (downward directed and cut-off).

Lastly, as was previously discussed, there are existing floodlight fixtures on the site. As noted in each of our review letters, these fixtures must be removed as they do not comply with current Ordinance standards.

10. **Signs.** As noted in each of our review letters and discussed during the meeting, the existing sign is nonconforming (pole signs are prohibited) and we are of the opinion that it should be removed and replace it with a compliant monument sign as part of this project. The applicant previously indicated that that they would consult with the owner about removal of this sign. The current submittal does not provide any updated information.

The previous submittal included a detail of the proposed pole sign replacement, depicting an approximately 8.5-foot tall sign structure with a 24 square foot sign and an additional 12 square feet (approximately) of changeable message copy; however, note of these details were included with the current submittal.

11. **Impact Assessment.** The submittal includes a revised Impact Assessment (dated October 23, 2018).

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. We can be reached by phone at (248) 586-0505, or via e-mail at bborden@safebuilt.com and steve.hannon@safebuilt.com.

Respectfully,
SAFEBUILT STUDIO



Brian V. Borden, AICP
Planning Manager



Stephen Hannon, AICP
Planner



November 7, 2018

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

**Re: Dog Town and Kitty City, LLC
Site Plan Review #3**

Dear Ms. Van Marter:

We have completed a third review of the site plan documents from Powell Engineering & Associates, LLC dated September 7, 2018, for the referenced project. The approximately 3-acre site is located at 3557 Grand River Avenue in Howell. The petitioner is proposing to modify the existing building to meet the requirements of Dog Town and Kitty City.

The petitioner has addressed most of our initial concerns, however there appear to be a couple of concerns that we believe require additional revisions to the plans.

GENERAL NOTES

1. The existing parking lot pavement is in poor condition. The petitioner should include replacing the existing parking lot within the scope of the project. Parking lot improvements should be shown on the site plan.
2. Curb and drainage structures should be included around the parking lot perimeter to control stormwater and vehicle access to the site.
3. In reference to our first letter from August 16, 2018, surface water runoff from the play area will not be permitted, as this represents an illicit discharge to the natural storm water drainage system. The petitioner should include documentation on how they plan to manage surface water runoff including documentation on the underlying soil and its suitability for infiltration. If soil will not be suitable for downward infiltration, additional containment may be required to prevent illicit discharge.

We recommend the petitioner address the above comments and resubmit the site plan for review.

Please call if you have any questions.

Sincerely,

A blue ink signature of Gary J. Markstrom, written in a cursive style.

Gary J. Markstrom, P.E.
Vice President

A blue ink signature of Shelby Scherdt, written in a cursive style.

Shelby Scherdt
Project Engineer

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

November 1, 2018

Amy Ruthig
Genoa Township
2911 Dorr Rd.
Brighton, MI 48116

Dog Town & Kitty City - Special Use
Pet daycare & boarding
3557 E. Grand River

Dear Amy:

The Brighton Area Fire Authority received a revised set of plans for the above mentioned project on October 29, 2018. This office has reviewed the site plan submitted in connection with a request for change of use from an Assembly hall to Business Occupancy Pet Daycare & Boarding facility located at 3557 E. Grand River in Genoa Township.

The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

It appears that all previous comments from the fire authority have been addressed, and meet the requirements of the fire authority and the adopted fire code.

If there are any questions concerning this matter, please contact the Fire Marshal at 810-229-6640.

Respectfully,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert
Fire Marshal

cc: Kelly VanMarter

Impact Assessment

For
Dog Town and Kitty City, LLC

Applicant:
Paula Vanderkarr
3557 East Grand River Avenue
Howell, Michigan 48844
989-277-1864

Prepared by:
Paula Vanderkarr
In conjunction with property information provided by:
Powell Engineering & Associates, LLC
4700 Cornerstone Drive, White lake, Michigan 48383
Brian Wiggins, Architect
11315 San Jose, Redford, Michigan 48239

Revised November 20, 2018

Introduction

This impact assessment has been prepared pursuant to Article 1.3 – Site Plan Review and Impact Assessment of Special Land Use for the Township of Genoa, Livingston County, Michigan. The assessment address the impact of the proposed internal construction of the existing 6,312 square foot commercial building at 3557 East Grand River Avenue.

- a. Name(s) and address(es) of person(s) responsible for preparation:
Paula Vanderkarr, 3557 East Grand River Avenue, Howell, Michigan.
Owner of Dog Town and Kitty City, LLC. This impact assessment has been prepared in conjunction with property information provided by Powell Engineering, LLC
4700 Cornerstone Drive, White Lake, MI 48383
Miss Dig
Garlock – Smith Land Surveying
516 E Grand River Ave, Howell MI 48844
- b. Map(s) and written description/analysis of the project site:
The existing building, pending approval on special use permit, located at 3557 East Grand River Avenue, is located behind the Knights of Columbus building and was their rental Banquet Hall for the past three decades. The building will be renovated in preparation for a pet boarding, daycare and training with grooming to be added at a later date. The site is on 2.83 acres, set back 312 feet from a residential area to the north. To the east is the Grand River Plaza Mall and to the west is the vacant Pier One Imports building. Behind these buildings are a dentist office, a hair salon and multiple small businesses. To the south is Payleess Shoe Store.
-An aerial photograph is provided for your review.
- c. Impact on natural features:
This is not applicable, as the proposed project is for the build out of the interior of a leased space in the existing building.
- d. Impact on storm water management:
This is not applicable, as the proposed project is for the build out of the

interior of a leased space in the existing building and a small exterior play area. In accordance to section 7.02.02(w) of the draft Ordinance Amendment, I have provided a sight plan and photographs of the proposed dedicated outdoor dog run area.

K9 Grass will be placed on a base of 'aggregated washed limestone and sand. This will decrease amount of water runoff. Urine is mostly water (about 95% water) the remaining consists of urea, uric acid, ammonia, hormones, dead blood cells, proteins, salts and minerals, and toxins from their bodies. The purpose of the sand and the washed crushed aggregated limestone acts like a filter. Feces will be promptly picked up and discarded in a waste contained outside the building which will be emptied by the waste collection company. The arrangement for these collections will be made by Dog Town & Kitty City pending approval of the special use permit. According to people who have worked in daycare and boarding place around 60 dogs produce ½ to ¾ of a 5 gallon pail of solid waste. Cat waste will be put in trash cans lined with trash bag.

Trash bags and will be taken to the trash cans outside on a daily routine. Housing 8 cats for 7 days might produce around 10 gallons of waste. If the two 96 gallon trash cans are not adequate for weekly pick up multiple picks will be arranged.

AT NO TIME WILL DOG OR CAT WASTE INCLUDING KITTY LITTER WILL BE ALLOWED DOWN THE SEWER DRAINS.

Impact on surrounding land used:

Noise is the potential impact on surrounding properties. The following methods for noise attenuation include:

- 1) Absorption – Panels will be hung on walls to absorb noise
- 2) Isolation – Provides a noise barrier. Spray foam, staggering 2x4s with insulation in between, rubber matting can be placed between the dry wall and insulation.
- 3) Masking – Calming music will be played throughout the facility to keep dogs from barking. Combining essential oils and pheromones can also be used with the calming music, to keep noise down inside the business.
- 4) Fiberglass insulation, soundproofing clip, drywall furring channel, then two layers of 5/8 drywall.

There is a dense canopy of trees behind the building that combined with my proposed noise solutions, will adequately reduce any noise.

Potential for air pollution and waste nuisance can be managed by adding cedar chips to mask the smell of the feces. This method, combined with scheduled waste pick up, along with disinfecting and cleaning protocols, will adequately prevent of any potential air pollution.

The proposed business is consistent with the development of adjacent properties. Growth along the Grand River Avenue corridor has consisted of a mixture of medical, office and commercial uses.

- e. **Impact on public utilities:**
The property is presently supplied by municipal sewer and water systems. The construction is limited to the interior of the existing building, so impact on public utilities will be minimal. After construction, there will be minimal impact on public utilities from the proposed business. According to Miss Dig, my proposed outdoor K9 Grass will not interfere with the city sewer and water systems.
- f. **Storage and handling of any hazardous materials:**
Not applicable.
- g. **Impact on Traffic and Pedestrians:**
The business is located in the site on Grand River Avenue, west of Latson Road, east of Grand Oak Drive. Access to the site will be through the existing driveway, located at the south site of the property. Grand River Avenue at this location is a four lane road with a left turn center lane.

Weekday peak hours will be from 7:00 a.m. -8:30 a.m. and 4:00 pm – 7:00 p.m. The proposed business hours are 7:00 am – 7:00 p.m., seven days a week.

This building is 6,312 square feet which bring my total animal capacity to 63. On average we expect to have 40 dogs and cats regularly and holidays at capacity.

How that relates to traffic in and out 45% will be picks ups to and from hospitals for hospital employee's pets using a climate controlled trailer.

Then 35% would be for commuters traveling to work and dropping off their dogs for daycare and picking up on their way home. The last 20% boarded animal which will be dropped off and left for multiple days.

On most given days saying we have 40 dogs, we would be picking up 18 dogs with one trip in and one trip out. Drop off by commuters would be 14 dogs with 14 drop offs in the morning and 14 pick up at night. As for boarding I would add 3 drop offs and 3 pick up every other day. So in reality this about 17 drop offs and 17 pickups.

Three days a week from 5:45 pm to 6:45 pm will have for training classes. On the weekends training will be scheduled for none peak times 10 am to 12pm with about 10 dogs per class.

- h. **Special Provisions:**

No special provisions or requirement are currently proposed for this facility.

i. List of sources:

Brian Wiggins, Architect
11315 San Jose, Redford, Michigan 48239

eNoise Control
297 North 9th Street, Noblesville, Indiana 46060

Garlock-Smith, Land Surveying
516 East Grand River Avenue, Howell, Michigan 48844

LULA, LLC
28715 Hovey Lane, New Hudson, Michigan 48165

Powell Engineering & associates, LLC
4700 Cornerstone Drive, White Lake, Michigan 48383

Soundscape Engineering
729 W Ann Arbor Trail, Ste. 150, Plymouth, MI 48170

[HTTP://www.soundproofingcompany.com](http://www.soundproofingcompany.com)

Chelsea Storm worked in dog daycare 989-413-2731

Elizabeth Watling worked in dog daycare 989-627-7246

See attached Sound study findings.



K9Grass®

ForeverLawn®



General Guidelines - Outdoor

Maintenance requirements for K9Grass outdoor installations are typically much less than with most other surfaces. However, proper maintenance is still required and will ensure many years of pet-friendly play. The following general guidelines provide a framework for you to develop a customized protocol for your specific application and desires.

Hair and Debris Removal along with Grass Grooming

K9Grass should be regularly groomed. For smaller applications this can be done manually. However, there are options for appropriately sized equipment that will brush the blades and extract residual debris and hair. A vacuum with a rotating brush and strong suction can be an effective tool. Power brooms and wider commercial grade vacuums are more effective for larger areas. Vacuuming should occur when the grass is dry. Frequency is dependent on use and exposure to hair and debris. Recommendation: vacuum once a week and increase/decrease based on results.

Cleaning

Since K9Grass is made of non-absorbent polyethylene and nylon fibers and contains antimicrobial AlphaSan®, you can be assured that the blades will not stain or retain odor. However, the surface of the blades, the backing, and the area around the grass still needs to be kept clean. K9Grass with its short dense design is a perfect solution.

Solid waste should be removed and disposed of immediately and soiled areas rinsed regularly. It is a good practice to "spot treat" these areas with an enzyme immediately after the waste is removed. It is unwise and not recommended to wash solid waste through the grass.

Required frequency of cleaning is based on multiple variables. Factors such as the number of dogs, the type of use (play or elimination), as well as personal preference should all be considered. Regular rinsing with water will remove much of the residual waste from the blades and will rinse the base material.

Disinfectants are a classification of cleaners that are used to clean (kill germs) the grass, floor, walls, and underlayment material. While "germ kill time" may vary, it is common to leave disinfectant on the surface for 15 minutes prior to being rinsed off. Disinfectants kill germs but they typically do not necessarily eliminate the source of odors (urine and feces).

Enzymes reduce and help eliminate the source of the odor (urine and feces) and should be applied to wet grass after disinfectants have been applied and rinsed off. Enzymes should be applied and left on for anywhere from 4 to 24 hours. While enzymes break down the source of odors, they do not necessarily kill germs. Longer enzyme exposure to organic waste and water will maximize results.

Most cleaning products are safe to use with K9Grass. However, any agent that contains bleach in a solution of greater than 1:20 should not be used. (A 1:32 ratio of bleach to water is sufficient to neutralize Parvovirus). It is recommended that any cleaning product be applied in a small test area first. Water in excess of 160 degrees should not be used on the grass.

The following list is a small sampling of disinfectant cleaning products to get you started:

- Triple 2 made by HTP - Health Technology Professional Products
- WYSIWASH - Available from ForeverLawn
- KennelSol - made by Alpha Tech Pet
- Accel - Accelerated Hydrogen Peroxide
- Bleach (no stronger than 1:20)
- White Distilled Vinegar and Water

The following list is a small sampling of enzyme products to get you started:

- Odor Pet - made by Alpha Tech Pet
- Eliminator - made by HTP - Health Technology Professional Products
- Foreverzyme - available from ForeverLawn
- K9Zyme - available from ForeverLawn West
- Nature's Miracle - available at most pet stores

Other Guidelines

For additional questions regarding the care and maintenance, please contact your local authorized ForeverLawn dealer or ForeverLawn corporate office.

ADDRESS

5801 Mayfair Rd., Suite 4,
North Canton, OH 44720

PHONE

866.992.7876

WEBSITE

k9grass.com

M0090 Rev. 04/15

Daily Operations

6:30 am

Employees will arrive at 6:30 and prep for the day.

Feed the dogs that boarded overnight.

7:00 am

Put the overnight guests outside to exercise (maximum of 15 dogs) - one of the employees go outside to supervise the exercise area.

Daytime dogs will begin to arrive - check in from 7:00 to 8:30. As the dogs arrive they will be taken back and put in a suite or a crate until after 8:30.

8:30 - Dogs will be taken to one of the play area based on size of the dogs. Again, each employee will be assigned to no more than 10 dogs to supervise in the play area. As the dogs play any messes will be mopped up and disinfected with a biodegradable cleaner immediately if liquid waste or collected if solid waste and disposed of in the indoor trash container lined with biodegradable trash can liner with cedar chips in the container.

9:30 - Dogs will be allowed out into the outside exercise area - one play area at a time. The assigned employee will go outside with the dogs to supervise for 20 minutes and then they will return inside to their designated play area. Any dog solid waste will be picked up immediately and disposed of in the trash receptacle lined with a biodegradable bag with cedar chips.

9:30 a.m. - An employee will be assigned to the cat room to play with the cats and clean litter boxes as needed with the waste to be put into designated trash receptacle lined with biodegradable trash bags with cedar shavings. Vacuuming and mopping of the floor/ wall areas will also be done at this time.

10:00 - The next group of dogs will be allowed outside into the outside exercise area for 20 minutes with the assigned employee to supervise them. Any solid dog waste will be picked up immediately and disposed of in the trash receptacle lined with a biodegradable bag with cedar chips.

10:30 - The last group of dogs will be allowed outside to exercise with the assigned employee for 20 minutes to supervise the dogs. Any solid dog waste will be picked up immediately and disposed of in the trash receptacle.

Daytime training sessions will be executed with the dogs that are scheduled for it. Dogs needing more exercise will be exercised indoors on the treadmills with constant supervision.

12:00 to 2:00 - will be quiet time for the dogs. They will be put into the crates or suites or in the quiet room for afternoon naps.

Employee assigned to the cat room will go back and check on the cats in the room, clean any litter boxes as needed and dispose of waste in the designated trash receptacle with

biodegradable trash can liners with cedar shavings. The cats will be offered food and water at all times and have climbing perches for them to utilize for their comfort.

At this time - the employees will take a staggered 30 minute lunch. Those not on their lunch break will sweep and mop and disinfect the play area floors with a biodegradable cleaner. One to two employees will be assigned to clean and disinfect with a biodegradable cleaner the outside grass exercise area by first vacuuming the hair up off the grass and disposing in the outside trash bins. After removing the hair - the grass area will be hosed down with a disinfect biodegradable solution for the second portion of the cleaning process. Any solid waste will be collected first if not already picked up and disposed in the outside trash receptacle lined with cedar chips and a biodegradable bag.

To control the noise volume inside the building - we will use calming music, dimmed lights and essential oil spray to help to keep the dogs calm and quiet.

Dog supplies such as food and treats will be collected in the drop off process and be immediately be put into a snap tight storage container and put in storage room.

2:00 pm to pickup time will be spent in play areas again with a maximum of 10 to 15 dogs based on their size and energy levels. Assigned employees will be with the designated play areas at all times.

2:00 p.m. - After dog quiet time the dogs groups will be put out in the outside exercise area for 20 minutes at a time with assigned employees outside with them the entire session supervising the dogs and cleaning up the waste messes immediately again by disposing in the designated trash receptacles lined with biodegradable trash bags and cedar chips. After being outside in the exercise area the group of dogs will be put into one of the inside play areas under supervision. Individual training sessions will continue with the dogs scheduled for those sessions.

2:30 p.m. - the next group of dogs will be taken out for exercise under supervision for 20 minutes with an assigned employee and then put into one of the inside play areas under supervision. Individual training sessions will continue with the dogs scheduled for those sessions.

3:00 p.m. - the last group will be taken out for exercise under supervision for 20 minutes with an assigned employee and then put into one of the inside play areas under supervision. Individual training sessions will continue with the dogs scheduled for those sessions.

3:30 - An employee will be assigned to clean the suites/crating area of the overnight boarders by vacuuming and mopping with a biodegradable disinfectant cleaner.

4:00 to 4:30 - begin getting ready for dog pickup for those going home.

4:30 - Put overnight boarding dogs into the suite/crating area to be given their evening meal. Staff will be assigned to continue with the pickup process for the day care dogs.

5:00 - First training classes will be scheduled from 5:00 to 5:50 p.m. for the public.

6:00 - Second training class session will be scheduled from 6:00 to 6:50.

7:00 - The last of the daycare dogs will be scheduled out as well as the last of the training classes will be over.

7:00 - will begin the evening cleaning and disinfecting of the indoor play area by first vacuuming the play areas and then mopping with biodegradable disinfecting product. Restrooms and kitchen area will be cleaned and disinfected as well with proper cleaning solutions.

Overnight boarding dogs will be allowed into a cleaned play area for exercise during the cleaning portion of the evening maintenance schedule.

The outside exercise area will be cleaned again by vacuuming up the hair and disposing in the proper outside trash receptacle then the grass will be disinfected with biodegradable cleaner for the evening shift.

9:00 to 9:30 - The overnight boarding dogs will be let out a final time in the outside exercise area for final relief before crating for the overnight time frame. They will be outside with supervision during this time. After all dogs have had a chance to relieve themselves they will be put back in the crating/suite area for the overtime time frame.

9:30 p.m. - evening trash collection of inside receptacles will be collected and containers washed out and have a clean biodegradable lining with cedar chips put into containers. Outside receptacles will also be emptied, cleaned and a new biodegradable liner with cedar chips installed. All dirty trash bags will be put into the 96 gallon trash receptacles for trash collection on scheduled days.

10:00 -The last of the employees will be going home and the facility will be locked and alarmed for the night.

At all times - any reference to cleaning or mopping will consist of using biodegradable disinfectant cleaners designed for this purpose. All receptacles at all times will have a biodegradable liner installed with cedar chips in the bottom of the container.

November 19, 2018

Paula Vanderkarr
989-277-1864
pvanderkarr@gmail.com

Dog Town & Kitty City, LLC
7692 Badger Ct.
Owosso, MI 48867

**Subject: Dog Town & Kitty City, LLC
Outdoor Play Area Exterior Sound Propagation Analysis**

Dear Paula:

The effectiveness of the vinyl fence around the outdoor play area was evaluated with respect to the Genoa Township noise ordinance. The sound level at the residential (north) property line was predicted based on the height and weight of the proposed sound barrier, which are the two properties relevant to the analysis. Our results are presented herein.

Acoustics Terminology

Glossary of acoustical terminology is included in Appendix A in case you wish to refer to it while reading the report.

Genoa Township Noise Ordinance

Regarding property line limits, Section 4.0: Decibel Level Prohibitions of the Noise Ordinance reads:

No person shall conduct or permit any activity, including those specific prohibitions listing in section 3 that produces an OBA at or beyond the property line of the property on which it is conducted which exceeds the levels specified in Table I. Such noise levels shall be measured on the property line or on the adjacent property, which is receiving the noise. Where property is used for both residential and commercial purposes, the limitations set forth below for commercial property shall apply.

Table I - Use of Property Producing Sound Use of Property Receiving Sound

Residential to Residential - (75 db from 7:00am to 10:00pm and 50 db from 10:00pm to 7:00am.)

Commercial to Residential - (80 db from 7:00am to 10:00pm and 50 db from 10:00pm to 7:00am.)

Residential to Commercial - (80 db from 7:00am to 10:00pm and 50 db from 10:00pm to 7:00am.)

The second condition, Commercial to Residential, applies at the north property line. All other receiving properties to the east, west and south are zoned commercial and therefore do not have a requirement.

The design of the building envelope was addressed in the Soundscape Engineering report dated 10/22/2018, which was submitted to the Township in October.

Sound Barrier Performance

Sound barrier screen walls and berms are often used to reduce the sound level at a listener's location. The sound is referred to as the source and the listener as the receiver.

In order for a screen wall or berm to have acoustical value, it must break the line of sight between the source and receiver. Otherwise, the sound traveling along the direct path without the barrier (i.e., in the direct line of sight of the source) is not attenuated by the barrier, but by distance and atmospheric absorption only.

The taller the wall is with respect to the source and receiver, the more effective it is acoustically. The acoustical performance of a screen wall or berm is referred to as the insertion loss, measured in dB. This is the difference in sound level at a receiver location with and without the barrier in place. The barrier performance is frequency dependent, with higher frequency sounds being more easily blocked than low frequency sounds.

Figure 1 provides an illustration of a sound barrier and how it blocks sound. The sound source is shown as a person and the receiver can be assumed for our purposes to be halfway between the house and barrier.

A sound barrier blocks sound in an area called the shadow zone of the barrier. This is depicted in Figure 1 as the shaded area on the house side of the barrier wall. The sound level in this shaded area depends on the sound level of the source and the amount of sound diffracted (or bent downward) over the top of the wall. The amount of diffraction depends on the frequency of the sound (shown as "angle of diffraction"). This amount is calculated by an equation.

Sound barrier walls have a practical upper performance limit of approximately 24 dB of reduction in the upper frequencies. Often the performance is less in the lower frequencies because the diffraction phenomenon over the top and ends of the wall is more prevalent at lower frequencies. The performance is dependent on how close the source and receiver are to the barrier and the distance that the barrier breaks the line of sight.

Different materials can be used for the sound barrier as long as the following conditions are met:

1. The amount of sound going through the barrier material (transmitted path) is much less than the sound going over the barrier (diffracted path). This means that the sound through the barrier must be at least 10 decibels less than the sound going over the barrier. For typical sound sources, such as traffic and mechanical equipment, this means that the barrier material must be roughly at least STC 33. An exception exists if the source consists of only mid or high frequency sound, for which the STC can be lower. A specific analysis is recommended for this case.
2. The material has no gaps or acoustically weak points that allow sound to pass through.

- The selected material is appropriate for the amount of maintenance that it will receive.

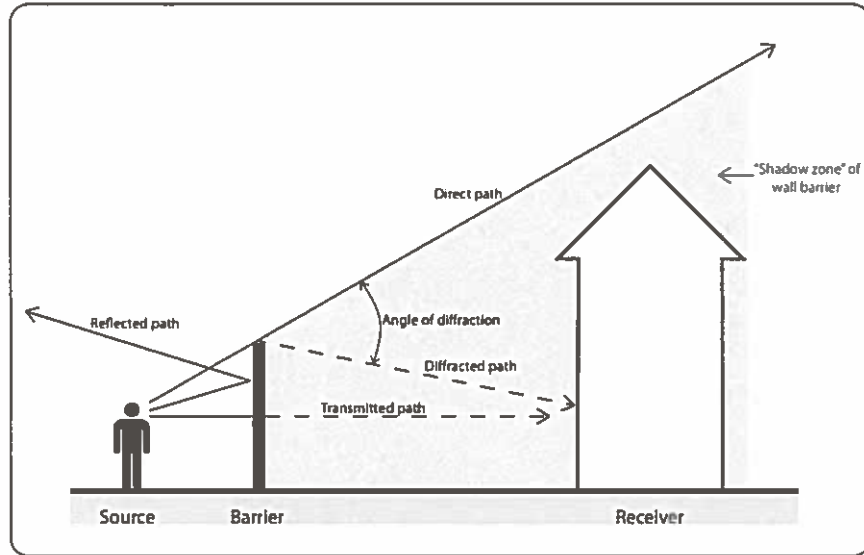


Figure 1: Barrier wall sound paths

Material Analysis

We understand a vinyl privacy fence that encloses the outdoor play area is being proposed. The product is the Tongue & Groove Privacy model of the series Vinyl Fence in-a-box by Genova Products.

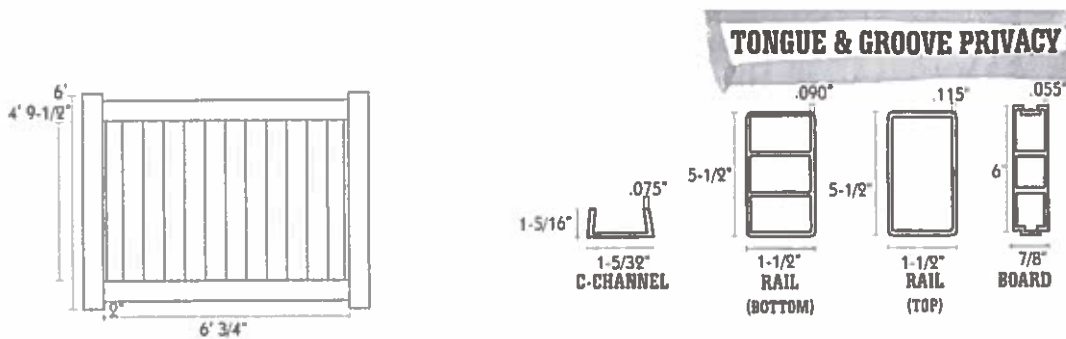


Figure 2: Tongue & Groove Privacy fence from Genova Products

The manufacturer provided us with the packaged weight without the posts, from which we subtracted an estimate of the box weight, and calculated that the surface weight of the product is 1.2 pounds per square foot.

The material Sound Transmission Class (STC), which is a measure of a material’s effectiveness at blocking sound going through it, was not available for the product. We selected other single layer materials for comparison as the closest available test data for use in our calculations. In particular, we selected the 3/8 inch plywood (1 pound per square foot) and the 1/2 inch gypsum board (2 pounds per square foot) as comparators. We expect that the vinyl fence in question will have a performance approximately between these two materials with the performance being closer to the lighter weight material.

Table 1: Transmission Loss and STC ratings

Building Construction	Transmission Loss (dB)						STC Rating
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	
<i>Walls*</i>							
<i>Monolithic</i>							
1 3/8-in plywood (1 lb/ft ²)	14	18	22	20	21	26	22
2 26-gauge sheet metal (1.5 lb/ft ²)	12	14	15	21	21	25	20
3 1/2-in gypsum board (2 lb/ft ²)	15	20	25	31	33	27	28

To walk through the analysis, we first calculated the insertion loss of the barrier using the source location at 12 feet from the barrier, 2.5 feet above the ground, and the property line at 300 feet from the barrier at 5 feet above the ground. That is the level highlighted in blue in Table 2. Dog barking is the highest in the 500 and 1000 hertz (Hz) octave bands, with the 250 and 2000 Hz bands contributing to a lesser extent. As long as the barrier material blocks 10 dB more than is diffracting over it in these bands, that level of performance is good enough to effectively block the sound. These levels are listed on line 2 “Transmission Loss of barrier material.” The comparison to the plywood and gypsum board are on the following two lines. The values are on the order of the required performance, and the vinyl fence is likely to have values a bit better than the plywood. While the concrete block on the last line clearly meets the requirements, this analysis demonstrates that it is not necessary acoustically.

Table 2: Barrier insertion loss and required material transmission loss performance

	Octave Band Center Frequency (Hz)					
	125	250	500	1000	2000	4000
barrier insertion loss (dB)	6	8	10	12	15	18
Transmission Loss of barrier material needs to be 10 dB higher to fully block incident sound	16	18	20	22	25	28
Transmission Loss of 3/8 plywood (1 psf)	14	18	22	20	21	26
Transmission Loss of 1/2" GWB (2 psf)	15	20	25	31	33	27
Transmission Loss of 6" dense concrete block	37	36	42	49	55	58

* Experimental data shows that 24 dB of attenuation is the practical upper limit

To help visualize this, we have provided an example in Figure 2. The sound source level is 51 dB at 500 Hz. A reduction of 10 dB occurs on the diffracted path, and a reduction of 22 dB occurs through the barrier material. The resulting levels at the listener location (face of the house) is 41 dB and 29 dB, respectively. Add the two of those up using the logarithmic method since they are both source levels, and the result is equal to the level that makes it over the barrier. Thus the height of the barrier is more important to the sound level at the receiver location as long as the transmitted path through the barrier is 10 dB or more less than the diffracted path.

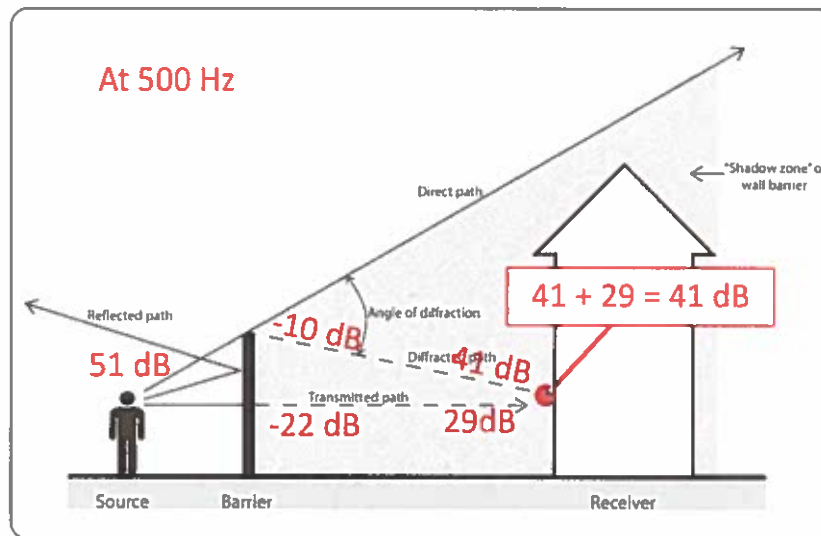


Figure 3: Example for comparison of diffracted and transmitted sound levels

To realize the predicted insertion loss, the fence must be sealed completely. The tongue and groove slat construction provides an extra means of blocking sound, as opposed to a straight through pathway. The gap at the bottom of the fence must also be blocked with either the waste containment curb, a parking curb, mounded asphalt or soil.

The propagation of the sound to the north property line has three components for this property. Note that insertion loss and attenuation are arithmetically subtracted from source levels because they are not sound sources being added together but adjustments to a sound source.

- The insertion loss for the barrier fence
- The attenuation for a 150 foot band of trees (essentially an insertion loss)
- The attenuation for a distance of 300 feet

The source levels for barking dogs were obtained from another dog daycare jobsite. Twenty-two dogs were behind a solid vinyl fence in an exterior play area, and the acoustics engineer suddenly came into view while vocalizing to the dogs. The average and maximum levels for the barking were recorded with the fast time response setting on the sound level meter. We understand that the maximum number of dogs

that will be allowed in the Dog Town outdoor play area at one time is fifteen, so the recorded levels of twenty-two dogs is conservative.

Since dog barking is percussive, we used the maximum levels in this analysis (first line in Table 3) as we believe this is more representative of how people perceive this type of sound. The maximum level is the highest level recorded the entire time while taking data. Other parameters may be appropriate to use (such as the level exceeded 1 percent of the time, or L_1), but the maximum level is most conservative. (Note: The maximum level is susceptible to extraneous data, which could lead to results that are too conservative.)

After the credit for the barrier, trees and distance are taken, the predicted level is adjusted for the A-weighted overall level calculation (all previous data were unweighted). The result is 57 dBA at the north property line, which is under the allowable daytime ordinance level of 80 dBA.

Table 3: Predicted level at the north property line from dogs in the outdoor play area

	Octave Band Center Frequency						Overall dBA
	125	250	500	1000	2000	4000	
22 dogs at 8-20 ft - Lmax (dB)	70	94	103	98	93	73	
barrier insertion loss (dB)	6	8	10	12	15	18	
sound pressure with barrier reduction	63	86	93	86	78	56	
propagation reduction between play area and north property line	-30	-30	-30	-30	-30	-30	
attenuation from 150' of trees	-5	-5	-5	-5	-5	-5	
predicted peak (not average) sound level at north property line	29	52	59	51	44	21	
A-weighting adjustment	-16	-9	-3	0	1	1	
A-weighted levels by octave band	13	43	56	51	45	22	57
Daytime ordinance level commercial to residential							80

57 dBA < 80 dBA, therefore the level meets the ordinance

It is also possible to mitigate the sound by taking the barking dogs inside the building. We understand this is a policy that Dog Town & Kitty City will make sure the employees follow.

Final Note

Please note that our recommendations and comments are exclusive to acoustics. We cannot comment on such things as local codes, life-safety requirements, or any other non-acoustic issues. Our recommendations should be reviewed by an appropriate design professional for code compliance before they are implemented.

This concludes our analysis and recommendations. We will be happy to elaborate on anything contained within this report.

Sincerely,

Soundscape Engineering LLC

Per:



Mandy Kachur, PE, INCE.Bd.Cert.
Principal Consultant
mkachur@SoundscapeEngineering.com
direct: (734) 494-0322

- Appendix A: Acoustics Terminology
- Appendix B: Sound Barrier Materials
- Appendix C: Slides Presented at Township Meeting on 11/13/2018

Appendix A: Acoustics Terminology

Sound level is measured in units called decibels (abbreviated dB). Decibels are logarithmic rather than linear quantities and thus a doubling of the sound level does not translate to a doubling of decibels. Also, the human ear does not interpret a doubling of sound energy as a doubling of loudness. The logarithmic nature of dB and the human subjective perception of relative sound levels result in the following approximate rules for judging increases in sound.

- 3 dB sound level increase or decrease - barely perceptible
- 5 dB sound level increase or decrease - perceptible and is often considered significant
- 10 dB sound level increase or decrease - perceived as twice as loud/half as loud

These perceived changes in the sound level are mostly independent of the absolute sound level. That is, a 35 dB sound will be perceived as twice as loud as a 25 dB sound, and a 60 dB sound will be perceived as twice as loud as a 50 dB sound.

Audible sound occurs over a wide frequency range, from low pitched sounds at approximately 20 hertz (Hz) to high pitched sounds at 20,000 Hz. These frequencies are commonly grouped into octave bands or 1/3 octave bands. Building mechanical systems generally produce sound in the 63 Hz to 1000 Hz octave bands, with the lower frequency sound generated by large fans. Human speech is predominantly contained in the 250 Hz to 2000 Hz octave bands.

Decibel addition is not on an arithmetic basis but on a logarithmic basis. This means that the level produced from two sound sources of 60 dBA is 63 dBA and not 120 dBA. While acoustics consultants use the mathematical formulas for this calculation, this table provides a shorthand method of calculation without the equations. To add up a spectrum of multiple bands, the logarithmic process has to be repeated multiple times.

When two dB values differ by...	...add the following dB to the higher value.
0 or 1	3
2 or 3	2
4 to 8	1
9 or more	0

Examples:

43 dB + 44 dB = 47 dB

43 dB + 48 dB = 49 dB

43 dB + 53 dB = 53 dB (sounds that are 10 dB or more less do not affect the final level)

A-weighted sound level - Humans do not hear equally well at all frequencies. We are especially poor at hearing low frequency sound and are best at hearing sound in the frequency range of human speech. A microphone does not have these same characteristics. Therefore, when sound is being measured to determine how well people will be able to hear it, a "weighting" or microphone-to-human correction factor is applied to the sound level measured using a microphone. The most common weighting is the "A-weighting" and the resulting sound level is expressed in A-weighted decibels (dBA). This weighting

reduces the low frequency sound, slightly increases the sound at the dominant frequencies of human speech, and slightly lowers the sound level at high frequencies.

Equivalent Sound Level (L_{eq}) is essentially the average sound level in an environment. However, the L_{eq} is not a simple arithmetic average of the sound level over time, but is a logarithmic average. It is the average sound energy level over a period of time. L_{eq} can be measured for any time period, but is typically measured for some increment or fraction of an hour such as 15 minutes, 1 hour or 24 hours.

Maximum sound level (L_{max}) is the highest sound level that occurs during a measurement period.

Slow Response or Slow Time Weighting is a measurement setting that uses a time constant of 1 second. This setting is most appropriate when the sound level being measured does not fluctuate much. Fan and condensing unit noise are examples of sounds that do not fluctuate much. Some regulations, ordinances, and standards call for a slow response setting regardless of the type of sound source.

Fast Response or Fast Time Weighting is a measurement setting that uses a time constant of 125 milliseconds. This setting is most appropriate when the sound level being measured fluctuates quickly, but is also often used as a default setting. Music and speech are examples of sounds that fluctuate quite a bit. Some regulations, ordinances, and standards call for a fast response setting regardless of the type of sound source.

Sound Transmission Class (STC) is a single number rating of the amount of sound blocked by a partition as measured or calculated in one-third octave bands. This metric is normalized and can be compared other partitions or test data. It is measured in a laboratory under ideal conditions. STC is most appropriately used to assess the ability of a partition to block sound in the frequency range of speech. The original sound transmission test reports should be consulted when the sound source contains low frequencies, such as music or mechanical noise. A higher number indicates better performance.

Transmission Loss is the amount of sound energy transmitted or lost through a material, often measured on a one-third octave or full octave band basis. It is the measurement required to calculate the Sound Transmission Class (STC) of a material. A higher number indicates better performance.

Insertion Loss is the reduction in decibels when a barrier is placed between the sound source and receiver. For example, if the sound level at the receiver is 55 dBA with no barrier and 48 dBA with the barrier, then the insertion loss is 7 dBA. Larger numbers indicate more sound being blocked.

Appendix B: Sound Barrier Materials

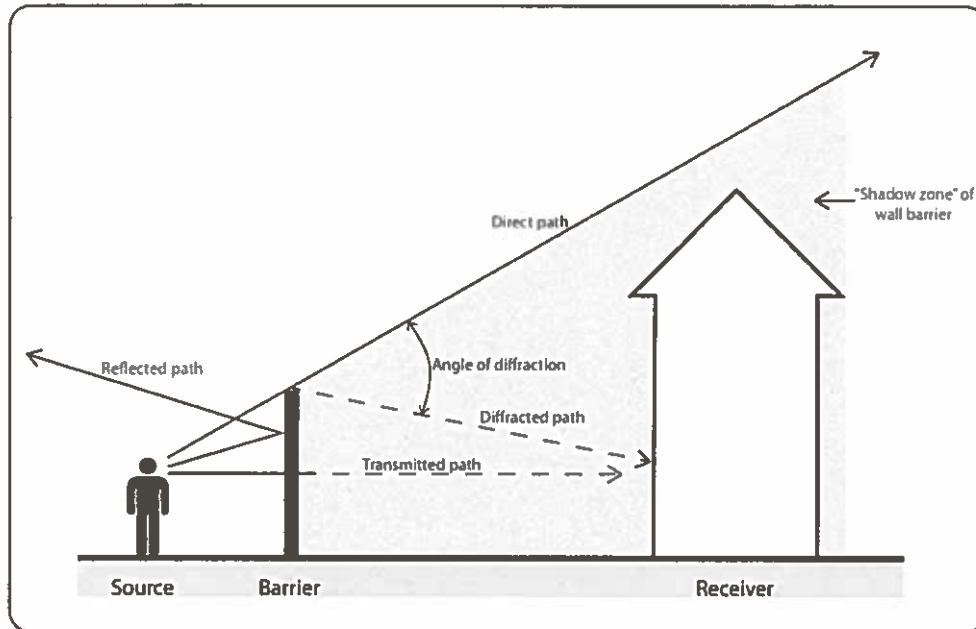
A description of various sound barrier materials is provided for your consideration. Further details can be found in the Noise Barrier Design Handbook at the US Department of Transportation - Federal Highway Administration website at the link below.

https://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/design/design00.cfm

- **Concrete:** Cast-in-place or precast panels can form the barrier. Concrete is a durable material that easily meets the STC requirement of a barrier wall. Precast panels can be erected quickly.
- **Brick and Masonry Block:** Hand-laid or preassembled panels are options with this material. A continuous concrete foundation is required. Both materials meet the STC requirements for a sound barrier wall. This type of material may not be as durable as concrete should it come into contact with deicing salts.
- **Metal:** These panels are lighter than concrete or masonry. Typical materials are steel, aluminum or stainless steel. The STC of these panels may not meet the minimum requirement, but corrugations or ribs will improve the performance. The manufacturer should submit test data to demonstrate the STC performance. Also, the typical 18 to 22 gauge thickness may not be structurally strong enough to withstand impact or other types of damage.
- **Wood:** Pressure preservative treated lumber, plywood, and glue laminated products are common materials used for wood barrier walls. This material may be aesthetically more desirable near residential areas. The main issues with wood are warping and shrinkage, which can open up cracks and gaps. This can be partially solved by specifying deeper than standard tongue and groove construction or screwing multiple sheet layers together. The STC rating of the material should be verified so that it meets the required performance.
- **Transparent Panels:** These panels block sound while allowing scenic views and reducing the visual impact of the barrier.
- **Plastics:** These engineered panels of polyethylene, PVC and fiberglass are lightweight and potentially recyclable. Some materials or products may not be dimensionally stable and over time and could deform, opening cracks in the wall. These openings can be sealed if the barrier is well maintained.
- **Recycled Rubber:** This material should be tested for its STC rating prior to selection. Some products may be too porous to meet the required performance.
- **Composites:** Combinations of the above materials may be available. Again, the STC rating of the assembly should be verified prior to specification.

Appendix C: Slides Presented at Township Meeting on 11/13/2018

Dog Town & Kitty City – Outdoor Play Area Fence



	Octave Band Center Frequency (Hz)					
	125	250	500	1000	2000	4000
barrier insertion loss (dB)	6	8	10	12	15	18
Transmission Loss of barrier material needs to be 10 dB higher to fully block incident sound	16	18	20	22	25	28
Transmission Loss of 3/8 plywood (1 psf)	14	18	22	20	21	26
Transmission Loss of 1/2" GWB (2 psf)	15	20	25	31	33	27
Transmission Loss of 6" dense concrete block	37	36	42	49	55	58

* Experimental data shows that 24 dB of attenuation is the practical upper limit

**Dog Town & Kitty City –
 Sound Level Prediction at Residential Property Line**

	Octave Band Center Frequency					
	125	250	500	1000	2000	4000
22 dogs at 8-20 ft - Lmax (dB)	70	94	103	98	93	73
barrier insertion loss (dB)	6	8	10	12	15	18
sound pressure with barrier reduction	63	86	93	86	78	56
propagation reduction between play area and north property line	-30	-30	-30	-30	-30	-30
attenuation from 150' of trees	-5	-5	-5	-5	-5	-5
predicted peak (not average) sound level at north property line	29	52	59	51	44	21

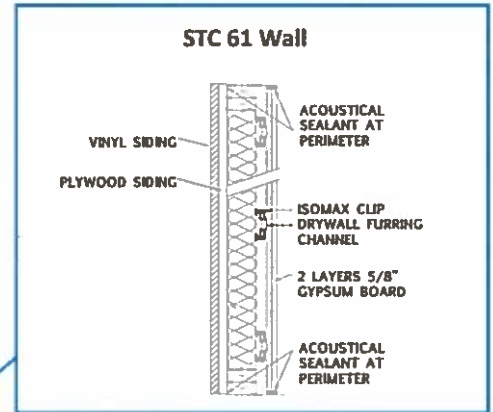
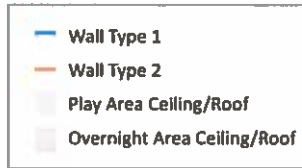
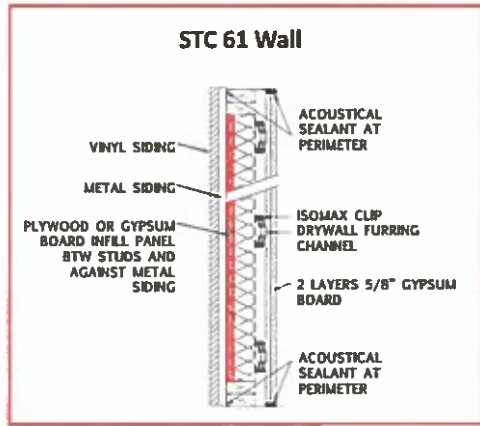
Overall dBA	
57	
80	daytime ordinance level - commercial to residential

meets ordinance

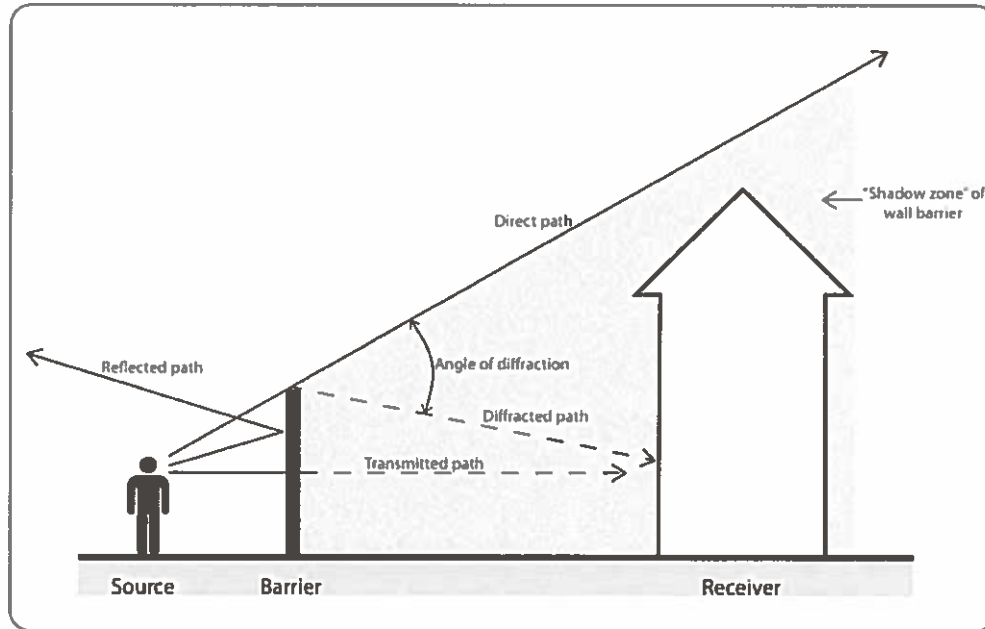
Note: The propagation reduction was higher in this analysis (-30 dB for distance) as opposed to the reduction used in the 10/22/2018 report (-25 dB for distance) because the source in this case was a dog barking (modeled as a point source) as opposed to radiation from the entire exterior wall (modeled as an area source) to capture the effect of the reverberant sound impinging upon the entire wall. The presented -5 dB attenuation for the trees is 1 dB higher than the -4 dB used in the other analysis, which is an inconsistency. Adding 1 dBA to the level of 57 dBA (linearly, in this case because it is a reduction and not a source level) gives 58 dBA, which still meets the ordinance. A difference of 1 dBA is not detectable to a listener.

**Average Sound Levels of
Familiar Sources (dBA)**

Dog Town & Kitty City – Building Envelope STC Analysis



Dog Town & Kitty City – Outdoor Play Area Fence



	Octave Band Center Frequency (Hz)					
	125	250	500	1000	2000	4000
barrier insertion loss (dB)	6	8	10	12	15	18
Transmission Loss of barrier material needs to be 10 dB higher to fully block incident sound	16	18	20	22	25	28
Transmission Loss of 3/8 plywood (1 psf)	14	18	22	20	21	26
Transmission Loss of 1/2" GWB (2 psf)	15	20	25	31	33	27
Transmission Loss of 6" dense concrete block	37	36	42	49	55	58

* Experimental data shows that 24 dB of attenuation is the practical upper limit

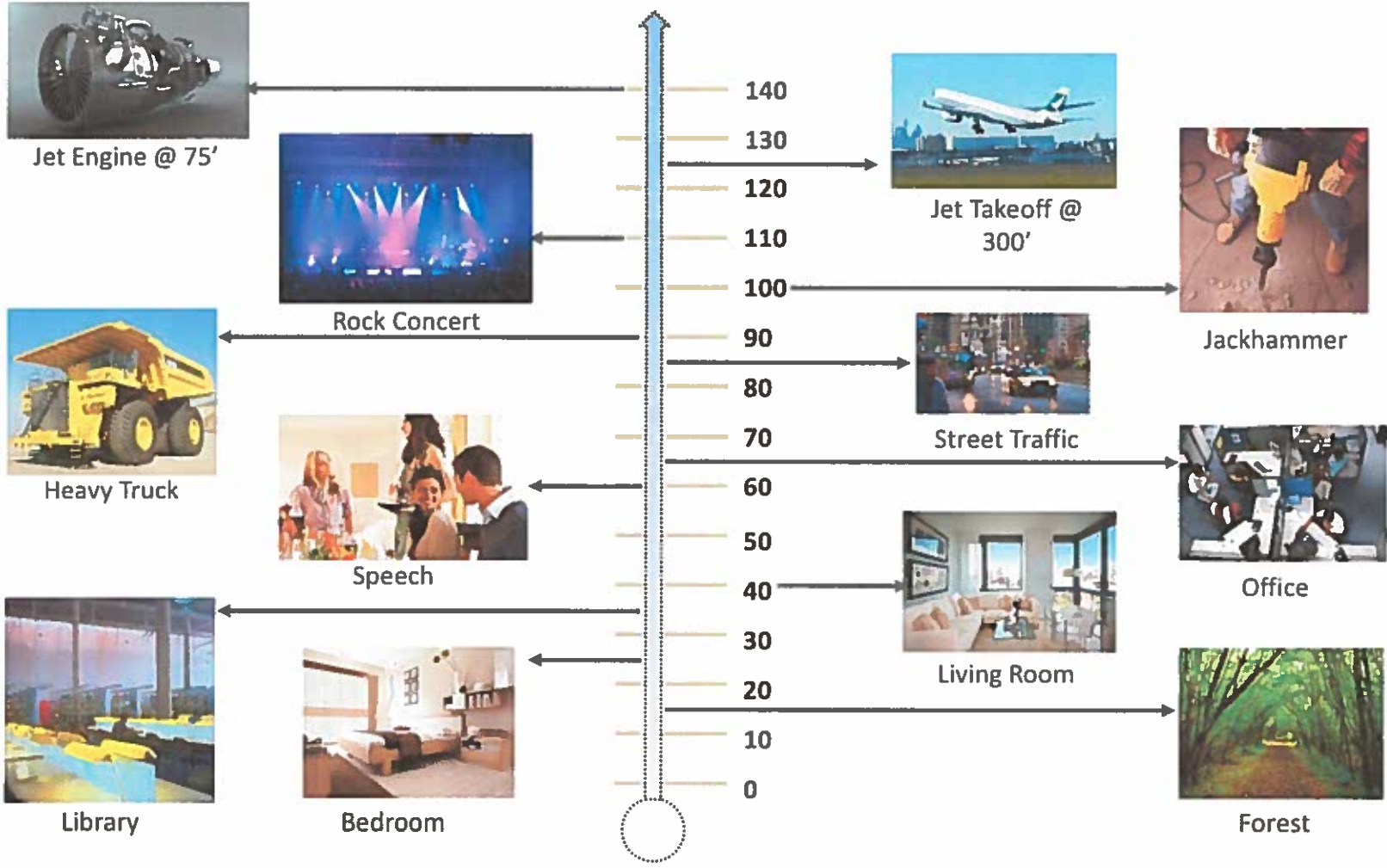
**Dog Town & Kitty City –
Sound Level Prediction at Residential Property Line**

	Octave Band Center Frequency					
	125	250	500	1000	2000	4000
22 dogs at 8-20 ft - Lmax (dB)	70	94	103	98	93	73
barrier insertion loss (dB)	6	8	10	12	15	18
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propagation reduction between play area and north property line	-30	-30	-30	-30	-30	-30
attenuation from 150' of trees	-5	-5	-5	-5	-5	-5
predicted peak (not average) sound level at north property line	29	52	59	51	44	21

Overall dBA	
57	
80	daytime ordinance level - commercial to residential

meets ordinance

Average Sound Levels of Familiar Sources (dBA)



October 22, 2018

Paula Vanderkarr
989-277-1864
pvanderkarr@gmail.com

Dog Town & Kitty City, LLC
7692 Badger Ct.
Owosso, MI 48867

Subject: Dog Town & Kitty City, LLC – Acoustical Report

Dear Paula:

Soundscape Engineering LLC has performed tests and analysis for the Dog Town and Kitty City project site for sound isolation of the building envelope and ambient sound level. The recommendations are presented in this report.

Soundscape Engineering Credentials

Soundscape Engineering LLC is an engineering firm that provides sound and vibration measurement, assessment, and design consulting services. We do not sell any products or have affiliations with any product manufacturers, allowing us to provide an unbiased service to our clients and to recommend solutions that fit their needs. Our principal consultants hold engineering licenses in four States, including Michigan, and are Board Certified by the Institute of Noise Control Engineering. Please refer to Appendix A for further details about our company.

Background

The building at 3557 Grand River Road, Howell, Michigan will house a dog and cat daycare and boarding company. Genoa Township has a specific compliance requirements for dog daycare facilities. The Genoa Township Zoning Ordinance, 7.02.02 Use Conditions, (w) Pet Daycare Centers, paragraph (3) reads:

Walls, partitions and floor/ceilings assemblies separating dog daycare facilities from adjacent uses shall adequately soundproofed with a sound transmission class over sixty (60) and shall be constructed so that there will be no emission of noise detrimental to surrounding properties. The applicant shall provide a noise impact study performed by a certified acoustical engineer to ensure the noise levels produced by the pet daycare use will not exceed fifty (50) decibels above ambient noise at the outside of an exterior wall or at the opposite side of a common interior wall. The study shall also confirm compliance with the Township Noise Ordinance in regard to noise levels at the property line.

Regarding property line limits, Section 4.0: Decibel Level Prohibitions of the Noise Ordinance reads:

No person shall conduct or permit any activity, including those specific prohibitions listing in section 3 that produces an OBA at or beyond the property line of the property on which it is conducted which exceeds the levels specified in Table I. Such noise levels shall be measured on the property line or on the adjacent property, which is receiving the noise. Where property is used for both residential and commercial purposes, the limitations set forth below for commercial property shall apply.

Table I - Use of Property Producing Sound Use of Property Receiving Sound

Residential to Residential - (75 db from 7:00am to 10:00pm and 50 db from 10:00pm to 7:00am.)

Commercial to Residential - (80 db from 7:00am to 10:00pm and 50 db from 10:00pm to 7:00am.)

Residential to Commercial - (80 db from 7:00am to 10:00pm and 50 db from 10:00pm to 7:00am.)

The second condition, Commercial to Residential, applies at the north property line. All other receiving properties to the east, west and south are zoned commercial and therefore do not have a requirement.

The overnight area and indoor playroom have exterior walls on the north and west sides of the building.

We understand that sound from the outdoor dog walking area will be controlled by bringing barking dogs inside.

Demolition in the building included removing the interior gypsum board on the exterior walls in these areas. The studs are bare and no acoustical insulation is installed. This is the current condition of the building.

Terminology

Glossary of acoustical terminology is included in Appendix B in case you wish to refer to it while reading the report.

Instrumentation

A Larson Davis model 831 sound level meter with a PCB model 377B02 microphone was used for the sound level measurements described herein. The microphone, pre-amp, and sound level meter meet the requirements for a Class 1 instrument in accordance with IEC 61672 or ANSI S1.4. The sensitivity of the sound level meter was checked, in the field, before and after making the measurement reported herein. Sensitivity was checked using a Larson Davis model 250 handheld sound level calibrator conforming to the Class 1 requirements of IEC 60942 and ANSI S1.40.

Observations and Exterior Level Calculations

A site visit was made on September 20, 2018 to observe the building's current condition and measure the outdoor ambient sound level. North of the project site is a residential area, approximately 312 feet north of the project site. To the south, east, and west are commercial areas, shown in Figure 1. Sound level measurements were taken approximately 3:30am to capture the quietest ambient condition, which is the most stringent condition to meet. An ambient sound level of 44 dBA was measured outside the north facade. This is likely the quietest location near the building as the building itself acts as a barrier to traffic noise coming from Grand River. This was the dominant sound source during our measurements.



Figure 1: Site Aerial

Per the noise ordinance, the sound level due to the dog daycare cannot exceed 50 dB above the ambient noise. With a measured ambient of 44 dBA, this produces an allowable level of 94 dBA at the exterior wall. The daycare occupies the entire building and therefore the interior common wall requirement does not apply.

We recorded dog barking sound in a large reverberant space for a different facility and measured a maximum level of 102 dBA inside the building. With the recommended exterior partition at this site, the predicted level outside the exterior wall is 38 dBA, which is less than 94 dBA. The level at the north property line is predicted to be 11 dBA, which is less than the allowable 50 dBA. Both these levels comply with the Township regulation. Supporting calculations are provided in Appendix D.

To put these levels into perspective, a reference of common sound levels is provided in Table 1.

Table 1: Various noise sources and their approximate sound levels

Average, L_{eq} , Sound Pressure Level (dBA)	Noise Source
130	Threshold of pain
120	Loud rock band near loudspeaker
110	Train siren at 50 ft
100	Loud automotive horn at 10 ft
90	Subway train at 20 ft
80	Lawn mower at 10 ft
70	Boeing 757 aircraft cabin during flight
60	Conversational speech at 3 ft
50	Average open office background sound
40	Soft background music or Wind in trees (10 mph)
30	Average residence – no activity
20	Whisper
10	Human breathing
0	Threshold of hearing

Recommendations

Based on the current building construction, we recommend the following steps and materials to achieve the ordinance-required wall and roof rating of over STC 60. Refer to Figure 2 for each wall and ceiling type location. Supporting test data and calculations are provided in Appendix D.



Figure 2: Site Layout

Unmarked exterior walls do not need acoustical upgrading since the rooms do not house dogs and they serve as a buffer space between rooms with dogs and the exterior. The combination of interior wall, buffer space, and exterior wall will achieve the criteria of greater than STC 60.

Blue Walls – These walls border the overnight area, dog suites, and play areas. In our understanding the exterior shell consists of vinyl siding, plywood, 5/8” rigid insulation and 2”x4” wooden studs. To meet the ordinance, we recommended the addition of the following materials. In Figure 3, the vinyl siding and plywood are approximately acoustically equal to and in place of the pictured 5/8” gypsum board.

- Fill stud cavities with 3-1/2” fiberglass batt insulation.
- Install two (2) layers of 5/8” Type ‘X’ gypsum board on resilient clips. In the Indoor Play Areas, the gypsum board must extend to the Dierks/plywood layer.
 - Acceptable manufacturer is Kinetics Noise Control – IsoMax clips <https://kineticsnoise.com/arch/isomax.html> or equal.

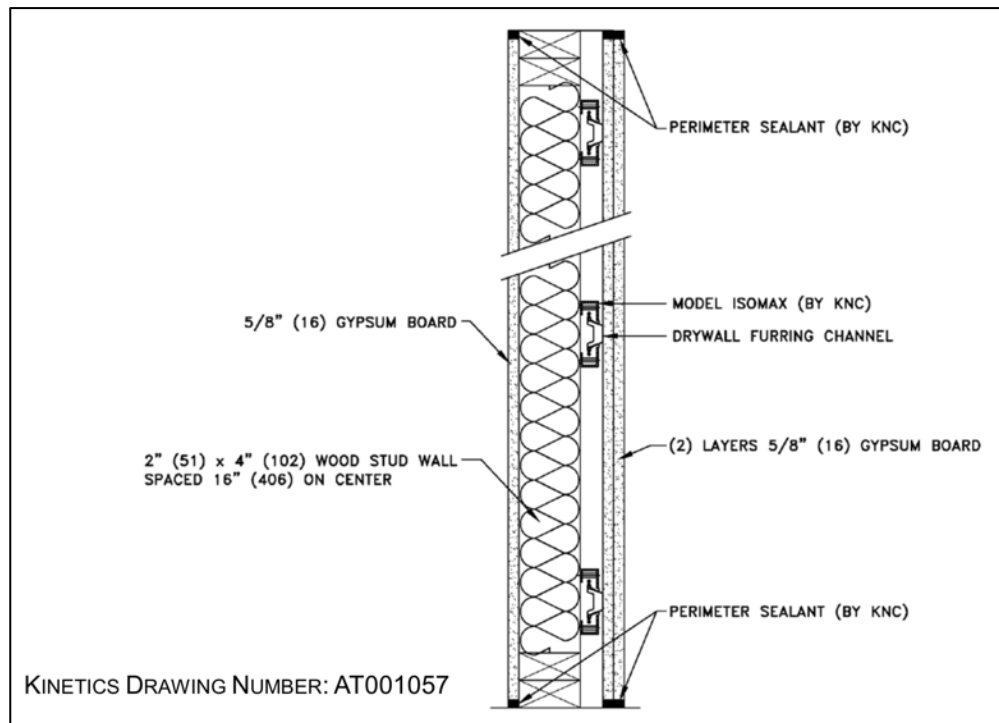


Figure 3: STC 61 Exterior Wall Construction

Orange Wall – This section of wall has metal siding in lieu of the exterior plywood sheeting, which does not perform as well acoustically. It is our understanding that the current construction consists of vinyl siding on profiled metal, both mounted to 2"x4" wooden studs. For this construction on the north wall, we recommend one of the following constructions:

- Exterior wall construction with resilient clips – Option 1
 - Infill the exterior stud side with a layer of 5/8" plywood or 5/8" gypsum board. Seal to the studs with acoustical caulk. The infill panels must extend up to the Dierks/plywood layer. See Figure 4.
 - Seal the exterior partition from the interior with acoustical caulk.
 - Fill the stud cavities with fiberglass batt insulation.
 - Mount two (2) layers of 5/8" Type 'X' gypsum board on resilient clips. This partition must extend to the Dierks/plywood layer.
- Exterior wall with double wall construction – Option 2
 - Erect a second row of studs spaced 5" from the existing studs to form a 12" cavity between the inside metal and gypsum board faces. The studs must extend to the Dierks/plywood layer.
 - Seal the exterior partition from the interior with acoustical caulk.
 - Fill the stud cavities with 10" fiberglass batt insulation.
 - Install three (3) layers of 5/8" Type 'X' gypsum board directly to the new stud row. This partition must extend to the Dierks/plywood layer.

- Install full perimeter seals for the door on the north side of Indoor Play Area “A”. See Appendix C for specifics on the door and seals.

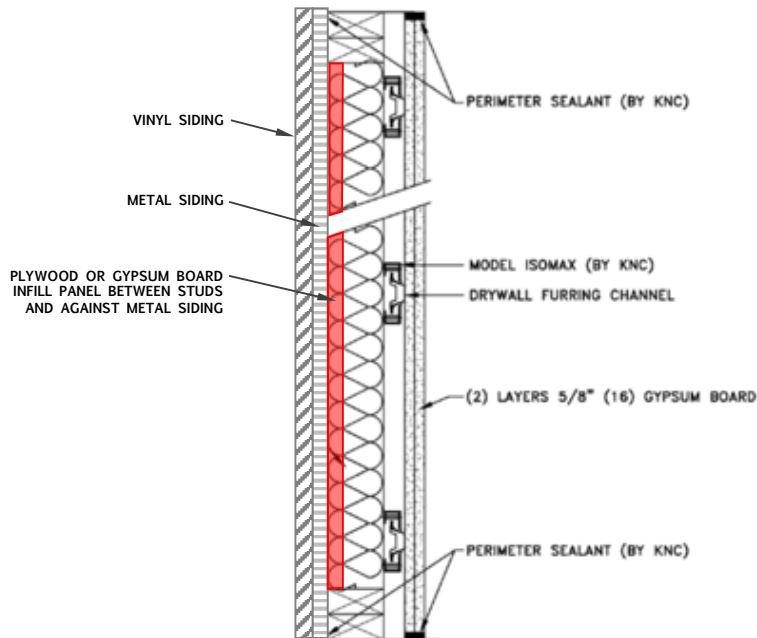


Figure 4: STC 61 Exterior Wall Construction

Refer to the General Notes about Methods and Materials section at the end of this report for typical notes and additional information about partition construction.

Indoor Play Area Ceiling/Roof - Green Shaded Area

Our calculations are based on the current construction, which is asphalt shingles, plywood deck, 1” blown in insulation, an additional layer of ½” plywood, insulation, and a 22” air space to the lay-in grid. We recommend the following upgrades to the construction to achieve an STC 61.

- Patch any holes larger than ¼” diameter that may exist through the existing plywood.
- Install an acoustical ceiling tile with a minimum CAC 35 into the existing lay-in grid.

Overnight Area Ceiling/Roof – Peach Shaded Area

Our calculations are based on the current construction, which is asphalt shingles, plywood deck, insulation, and one layer of gypsum board attached directly to the ceiling joists. We recommend the following upgrades to the construction.

- Install two (2) layers of 5/8" Type 'X' gypsum board on resilient clips over the existing gypsum board. Insert 1" batt or board fiberglass insulation between the existing and new layers of gypsum board. Do not use fasteners for the fiberglass that will bridge between the existing and new layers of gypsum board. This construction was calculated to achieve an STC 62 rating. Alternately, install two (2) layers of 5/8" Type 'X' gypsum board on 2x2 furring and resilient channel over the existing gypsum board. Insert 1" batt or board fiberglass insulation in the cavities formed by the furring associated with the clips. This construction also achieves an STC 62 rating.
- If a rating of STC 60 satisfies the township requirement, then install only one layer of gypsum board in lieu of the two layers above in either construction.
- A minimum batt insulation thickness of 5" is needed in attic ceiling joist cavities. Add additional batt to obtain the thickness as needed.

Refer to the next section of this report for typical construction notes and additional information.

General Notes about Partition Construction Methods and Materials

Gypsum board partitions must adhere to the following conditions:

- a. Use 5/8" thick Type "X" gypsum wallboard with density of 2.2 lb/ft² or greater. Do not use USG Ultralight panels, which do not have the necessary density for the acoustic partitions described in this report.
- b. Where batt insulation is called for in the sketches, it may be standard glass fiber, and it may be paper-faced or unfaced. It is not necessary to use "sound batt insulation" or mineral wool. The glass fiber batt must have 0.6 to 1.0 pcf density or minimum R-3.2 per inch thickness. Manufacturers include but are not limited to Knauf (EcoBatt), Owens-Corning (EcoTouch), Johns Manville and CertainTeed (Smart Batt).
- c. All gaps between panels of gypsum, around gypsum wall or ceiling perimeters, and around gypsum wall/ceiling penetrations (no larger than 1/2" wide) shall be sealed airtight with acoustical sealant, such as Tremco Acoustical Sealant or equivalent.
- d. When resilient clips are specified, use Kinetics Noise Control - IsoMax Clips or approved equivalent.
<https://kineticsnoise.com/arch/isomax.html>
- e. If resilient channels are used, it must be the RC Deluxe model, manufactured by Clarke Dietrich.

Final Note

Please note that our recommendations and comments are exclusive to acoustics. We cannot comment on such things as local codes, life-safety requirements, or any other non-acoustic issues. Our recommendations should be reviewed by an appropriate design professional for code compliance before they are implemented.

This concludes our analysis and recommendations. We will be happy to elaborate on anything contained within this report.

Sincerely,

Soundscape Engineering LLC

Per:



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- Appendix A: Soundscape Engineering Company Literature
- Appendix B: Acoustical Terminology
- Appendix C: Door Seal Description
- Appendix D: Supporting Test Data

Appendix A: Soundscape Engineering Company Literature



Soundscape Engineering
Practical Solutions from Professional Engineers

Company Profile

Acoustical design has a direct impact on people's perception and interaction with the built-environment. Functional success of a building includes providing the best acoustical environment for owners and occupants, whether that means speech privacy, ability to clearly hear the spoken word and music, or providing a quiet healthcare environment conducive to patient healing.

Soundscape Engineering LLC is a national engineering consulting firm specializing in acoustics, noise, and vibration control. Our team has consulted on a broad range of project types – engineering practical solutions that respect project budgets, aesthetics, and design constraints.

We utilize electronic communications and computer software to work seamlessly with clients all over North America. And whenever a physical presence is needed, our nationally central locations in Chicago and Detroit allow us to quickly travel to client meetings and perform site visits whether those sites are in Los Angeles, New York City, Atlanta, Vancouver or points in between.

We work closely with architects and engineers to ensure that projects have an acoustical environment that supports the facility programming and creates the impression of a quality space in which people want to work, live, or play.

When you require world-class, experienced and credentialed consultants, call in Soundscape Engineering. All of our consultants have degrees in engineering. Our Principal Consultants hold state engineering licenses and have been Board Certified by the Institute of Noise Control Engineering. They are involved with every project, ensuring that clients receive responsive service, attention to detail, and practical recommendations.

Service Quality

- Proactive approach
- Responsive service
- Extensive experience
- All consultants have engineering degrees
- Senior consultants have professional certifications
- Company owner involved with every project

If you want us to help you avoid or correct noise problems, we're ready with our practical approaches and solutions. If you want a soundscape that is carefully engineered to enhance your project, we're equipped with advanced engineering tools and are eager to assist. Contact us today and ensure that your project receives the attention to acoustics that it deserves.

Services

- Sound Isolation
- Room Shaping and Finishes Selection
- Mechanical and Electrical Systems Noise Control
- Design for Speech Privacy
- Vibration Assessment and Control
- Community Noise Impact
- Acoustical Measurements
- Vibration Measurements



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www.SoundscapeEngineering.com



Sustainable Design

LEED and sustainable design projects are increasingly common. Even when acoustics is not an explicit consideration for these projects, such as the acoustical requirements necessary to accredit a school under the LEED for Schools system, unique acoustical issues do arise when sustainable design strategies are employed. Mr. Sevener is a LEED Accredited Professional and has been working on the design of LEED certified buildings since 2000. He and Soundscape Engineering are ready to address the acoustical challenges of your next LEED project.

Firm Accreditation

Soundscape Engineering LLC is an NCAC member firm. This means that the company has undergone the rigorous vetting necessary to be admitted to the National Council of Acoustical Consultants, the highest level of professional accreditation for acoustical consulting firms.

Firm Ownership Structure

Soundscape Engineering LLC is a limited liability company organized in the State of Indiana and is registered with the Illinois Secretary of State and the Michigan Secretary of State. Soundscape Engineering LLC is owned by partners Nathan Sevener and Mandy Kachur.

Corporate Insurance

Soundscape Engineering LLC carries professional liability coverage, a.k.a. errors and omissions insurance, with an annual aggregate and per claim limit of \$1,000,000. We also carry general liability insurance. Certificates are available upon request.

Commendations

"I consider Mandy an expert in acoustical design and value her ability to understand and enhance each project regardless of program, budget, schedule, or other constraints."

- Jeff Gaines, Manager Planning & Programming
Albert Kahn Family of Companies

"Nathan was able to work with our design to create a better end product."

- Perry Hausman, Senior Associate
TowerPinkster

"Mandy is a person that I have a confidence upon to offer you quality 'sound & noise consulting' design services for your projects."

- Siraj Khan, Director of Engineering
Oakland University

"We have been pleased with Nate's work now at multiple client sites. Nate has been engaged in efforts to analyze noise issues at existing sites as well as recommendations during design to achieve low noise levels."

- Dan Miles, Director Engineering & Planning
BSA LifeStructures

"Nate has a sharp sensibility and patience with explaining acoustic concepts to clients that lends confidence to the decisions they (clients) make regarding complicated interior environmental quality issues."

- Julie Root, Associate Partner
ZGF Architects

Note: Some of the above commendations are based on experiences working with Mr. Sevener & Ms. Kachur prior to the formation of Soundscape Engineering LLC.



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Soundscape Engineering

Practical Solutions from Professional Engineers

Project Experience - Environmental Noise and Vibration Assessment

The following is a sample of the many projects that constitute the career experience of our staff.

- **Central Lake County Joint Water Agency (CLCJAWA)**
Lake Bluff Raw Water Pumping Station environmental noise survey.
Rockland Road Treatment Plant environmental noise survey.
Lake Bluff, Illinois
- **University of Michigan**
Auxiliary Services Building 1 Thermal Hydraulics Laboratory environmental noise impact assessment.
Ann Arbor, Michigan
- **Hobson Hill Development (Pulte Home Company)**
Tollway noise impact assessment for proposed Hobson Hill residential subdivision in Woodridge, Illinois. Scope of services included ambient noise measurements, computer modelling of environmental noise propagation, determination of noise mitigation requirements, and attendance at meetings with Village and Tollway Authority.
Woodridge, Illinois
- **Hamilton County Coal**
Ambient environmental noise survey at properties in vicinity of coal mine.
Dahlgren, Illinois
- **Nicor Gas Ancona Units 33&34**
Community noise impact analysis and noise control recommendations for compressor installation project.
Streator, Illinois
- **Dandy Acres Small Animal Hospital**
Assessment of noise transmission to residential properties and noise control consulting to support design of addition to facility.
Lyon Township, Michigan
- **M/I Homes Woodview Development**
Traffic noise impact assessment for proposed residential development next to Interstate 355.
Woodridge, Illinois
- **Prologis Park**
Noise impact assessment for proposed 200 acre warehouse development with adjacent residential land-use.
Lockport, Illinois
- **Toll Brothers Nixon Farm North**
Traffic noise impact assessment for 68 acre residential development located next to Interstate 23.
Ann Arbor, Michigan
- **Forging Plant (name not disclosed)**
Environmental noise survey to determine compliance of drop forging operations with local noise regulations.
Southeast, Michigan
- **City Hall Artspace Lofts**
Conversion of City Hall buildings into work-live artist lofts. 3-D computer modeling of site and nearby roadways to calculate traffic noise impact on the Dearborn City Hall property and to assess the extent of building façade changes that would be needed to comply with HUD noise guidelines.
Dearborn, Michigan
- **Hoosier Village**
Monitoring of existing sound levels at multiple locations in large senior living community, TNM 2.5 (traffic noise) modeling of new roadway with heavy truck traffic to be constructed through property by City, modeling of alternate roadway proposed by community, determination of noise impact on community and length and height of sound barrier walls needed to mitigate impact. Issued report suitable for submission to City.
Zionsville, Indiana
- **Mor/ryde**
Measurement of noise emitted to environment by existing manufacturing facility, prediction of sound levels at residences near proposed plant expansion, attendance at County planning commission meeting.
Elkhart, Indiana



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- **11 W Quincy Music Venue**
Consulting to project design team with respect to noise isolation of venue from adjacent buildings (butted together) and from other nearby properties, in order for the venue to meet the local noise ordinance. Also, follow-up testing per the requirements placed on the venue by the Village.
Westmont, Illinois
- **City of Des Plaines (Events Venue Noise)**
Consulting to the City with respect to noise produced by the Fountain Blue Banquet & Conference Center during events. Work included peer review of studies performed by Fountain Blue's consultants, meeting with residents, and attendance at City's Zoning Board of Appeals and City Council meetings.
Des Plaines, Illinois
- **Sears Holdings Corporation**
Data Center Expansion
Community noise assessment and noise control, including environmental noise emissions and propagation modeling.
Troy, Michigan
- **Standard Bar & Grill**
Measurement of entertainment sound level in apartment building abutting client's establishment. Issue report for use in judicial proceedings.
Chicago, Illinois
- **Northwestern University**
18 months of monitoring ground vibration associated with construction of new Kellogg School of Management building.
21 months of monitoring ground vibration associated with construction of Mudd Library building addition.
Evanston, Illinois
- **Rs-FUELS**
Measurement of car wash noise at several facilities and prediction of noise at residential property adjacent to proposed new car wash. Submission of report and presentation to Village Board of Trustees.
Wilmette, Illinois
- **The Chapman House**
Prediction and assessment of noise impact by a proposed outdoor event's venue located near residences. Preparation of report and presentation to City Planning Commission.
Rochester, Michigan
- **Fort Knox Studios**
Property line measurement of noise produced in recording studios located adjacent to residential development. Issued report for submission to City.
Chicago, Illinois
- **K9 Club**
Acoustical analysis and design recommendations for proposal animal boarding facility and veterinary clinic with nearby residential land uses. Attendance at zoning board of appeals hearing.
Mundy Township, Michigan
- **Fibertex Nonwovens LLC**
Property line noise level measurements near factory to assess level for compliance with noise code for the Village of Lakemoor.
Lakemoor/Ingleside, Illinois
- **The Woodmont Two Condominiums Inc.**
Assessment of noise produced by air-cooled chiller on adjacent commercial property and submission of report with options for noise mitigation.
Indianapolis, Indiana
- **A. Finkl & Sons Co.**
Ground vibration assessment for forging operations adjacent to residential community
Chicago, Illinois
- **Down Range Tactical**
Firing range noise measurement and assessment to determine compliance with State regulations.
Spring Valley, Illinois
- **Advocate South Suburban Hospital**
Design consulting for transformer upgrade and chiller plant addition, with the goal of maintaining the existing noise level at the hospital property line.
Hazel Crest, Illinois

¹ Work performed by Soundscape Engineering working as sub-consultant to partner firm Daniel Lyzun & Associates Ltd. or Acoustic Arts & Engineering

² Work performed by firm Partner while employed by Ove Arup & Partners, Ltd., Acoustics By Design, Inc., or Albert Kahn Associates, Inc.



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- **Land Rover Dealership**
Noise impact study for proposed Land Rover Dealership, including measurement of existing ambient, identifying and measuring potential noise sources, 3-D computer modelling of noise propagation from dealership to adjacent single-family residential properties, and speaking at Village Board of Trustees meeting.
Hinsdale, Illinois
- **Northeastern Illinois University**
Computer modeling to predict noise emissions from proposed South Campus Central Utility Plant to residential neighborhood and design support to limit emissions to below limits imposed by City ordinance.
Chicago, Illinois
- **Ypsilanti High School**
Measurement of community noise from pool equipment.
Ypsilanti, Michigan
- **Village of East Dundee**
Advising Village on noise control and noise monitoring options for bars with outdoor beer gardens.
East Dundee, Illinois
- **Concert Stage Noise Impact (Residential Client)**
Peer review, for submission to City of Indianapolis, of noise assessment report for proposed outdoor concert stage and beer garden at Bent Rail Restaurant and Brewery.
Indianapolis, Indiana
- **City of East Chicago**
HUD assessment and building envelope design for housing near freight rail line
East Chicago, Indiana
- **Irving Park Place (Pulte Homes)**
Consulting with respect to tollway and railway noise and vibration impact on proposed residential development.
Itasca, Illinois
- **Cottages at Barton Green**
Assessment of noise impact by communal clubhouse and pool to be part of new residential development, on the existing adjacent residences. Services included measurement of existing ambient noise, 3-D computer modelling of sound propagation from pool and clubhouse to neighborhood, and recommendation of sound barrier wall locations and heights.
Ann Arbor, Michigan
- **Nightclub Noise Impact**
Measurement and assessment of noise emitted from bar through wall common to Client's building
Ypsilanti, Michigan
- **Power Solutions International, Inc.**
Design consulting to allow new engine test facility to meet State of Illinois Title 35 noise regulations.
Itasca, Illinois
- **MSP Industries**
Ground vibration and airborne noise assessment for forging facility located near residences.
Oxford, Michigan
- **Food 'n' Fuel**
Environmental impact assessment for new car wash and drive-through window proposed to be constructed on the site of an existing gas station with convenience store and fast-food restaurant. Noise assessed against Will County code and Illinois Title 35. Attendance at zoning board meeting.
Frankfort, Illinois
- **Ryko Solutions, Inc.**
Study commissioned by Ryko Solutions to quantify the sound level produced by MacNeil car wash dryers and determine if the dryers could meet the noise restrictions imposed by the City of McHenry.
McHenry & Herscher, Illinois
- **Lodge at Nordman Lake**
Survey noise emitted to distant residential neighbors during wedding ceremonies and receptions on large rural property with private lake. Issue report for submission to township.
Dexter, Michigan (Lima Township)

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Project Experience - Environmental Noise and Vibration Assessment

- **Independence Place Apartments**²
Rural Housing and Economic Development (RHED) assessment for apartment complex where train noise dominated; building envelope design for noise control
Linton, Indiana
- **River Point Centre**¹
Cooling tower noise mitigation for ordinance compliance
Winnipeg, Manitoba
- **Saskatoon Police Service Headquarters**¹
New 350,000 sq.ft., police headquarters building with budget of CAD\$122 million. Environmental noise assessment included sound transmission from the 10 position indoor firing range and the building HVAC equipment and emergency gen-sets.
Saskatoon, Saskatchewan
- **Palm Street Middle School**²
Computer modeling to predict noise generated by new freeway to be built near school, peer review of State's predictions, measurement of sound isolation provided by existing building construction, recommendation of building upgrades to isolate classroom from future freeway noise.
Lemon Grove, California
- **Ciena Healthcare**
Property line sound level measurements to determine if rooftop exhaust fan at new skilled nursing facility is in compliance with township noise ordinance. Issue report for submission to township.
Shelby Township, Michigan
- **Triple C Development**
Computer modeling of noise emitted to environment by proposed Zippy's Car Wash. Comparison with State noise regulations and recommendation of noise mitigation options.
Carol Stream, Illinois
- **Car Wash Property Line Noise Study**
Measurement of noise produced by existing car wash and advising owner on mitigation options.
Dearborn, Michigan
- **Perrigo Company**
Measurement of noise produced by temporary air-cooled HVAC chiller and recommendation of options for reducing noise transmission to nearby residential neighborhood.
Holland, Michigan
- **Marlborough Condominium Association**
Measure noise level emanating from electrical vault across street from condominium building and issue report with assessment of whether the noise level exceeds any applicable regulations.
Chicago, Illinois
- **Constellation Place**²
Noise impact assessment and mitigation for bus and auto traffic associated with proposed new commercial tower
Century City, California
- **Stratosphere Hotel and Casino**²
Acoustical Analysis of Proposed Rollercoaster Type Attraction
Las Vegas, Nevada

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Project Experience - Environmental Noise and Vibration Assessment

- **Universal Studios**²
Acoustical assessment to support Master Plan Environmental Noise Impact Report and Noise Mitigation Measures for Theme Park and Studios Universal City, California
- **UCLA Santa Monica Medical Center**²
Environmental Impact Report Santa Monica, California
- **Linden Group Architects**
Survey noise levels in and near operating dog kennels and issue report with the results. Attend zoning board meeting to describe implications proposed new kennel.
Countryside and Oswego, Illinois
- **Avalon Del Rey**²
EIR for large residential development Marina Del Rey, California
- **Doggie in the Window**
Assessment and mitigation of sound from dog day care facility to neighboring building and properties Berkley, Michigan
- **DuPont Fabros Technology Inc.**²
Data center noise control Elk Grove Village, Illinois
- **Animal Samaritans SPCA**
Prediction of proposed animal shelter noise impact on nearby residential zone.
Thousand Palms, California
- **City of Elkhart**²
Noise and Vibration Assessment for "Mega-Shredder" Elkhart, Indiana
- **Humane Society of Huron Valley**²
Design of exterior courtyard and noise barrier for control of dog barking noise to neighboring residences
Ann Arbor, Michigan
- **Weatherford International**²
Rotaflex Oil Pump Carlsbad, New Mexico
- **Hayes Properties Inc.**²
Design recommendations to reduce noise transfer from Ravenswood Billboard Factory (Events Space owned and operated by Client) to nearby single-family residential properties.
Chicago, Illinois
- **Randy's Metal Recycling**²
Environmental noise assessment for proposed metal shredder
Benton Charter Township, Michigan
- **J Paul Getty Villa**²
Construction & operational noise prediction Malibu, California
- **DaimlerChrysler AG**²
Kenosha Engine Plant Kenosha, Wisconsin
- **J. Paul Getty Center**²
Tram Noise Assessment & Mitigation Brentwood, California
- **DaimlerChrysler AG**²
Transmission Plant Kokomo, Indiana
- **Greek Theater**²
Peer review of proposed community noise impact mitigation for large outdoor amphitheater Los Angeles, California
- **Chiyoda AES, Inc.**²
DMAX North American Diesel Engine Plant Moraine, Ohio
- **West Pico Drill Site Modernization**²
BrietBurn Energy Company Oil drilling facility located in residential community
- **Beck North Corporate Park**²
Community noise assessment and prediction Novi, Michigan
- **Verizon Wireless**²
Murray Hill Condensing Units – impact and mitigation on neighboring condominium complex Cleveland, Ohio
- **School District of the City of Royal Oak**²
Chiller and heat recovery unit noise mitigation Royal Oak, Michigan
- **Troy School District**²
Baker Middle School chiller noise mitigation

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Curriculum Vitae

Since 1991, Mandy Kachur has worked as an acoustics and noise control engineer. At Soundscape Engineering, she is responsible for all aspects of architectural acoustics project work and client development in addition to engineering analysis and measurement in room acoustics, sound isolation, building systems noise and vibration control, and community noise control.

She has worked on over 350 architectural projects, including auditoriums, healthcare facilities, university buildings, K-12 schools, acoustical and other laboratories, corporate offices, government, hotel and residential buildings, performing arts and recording spaces, worship, museums, and industrial facilities.

These projects include the award winning Henry Ford Health System West Bloomfield Hospital (560,000 sq.ft., 300 bed addition and 250,000 sq. ft. renovation), the Indiana Tech Law School Building (70,000 sq.ft. new construction), the LEED Gold Certified Agro-Culture Liquid Fertilizers World Headquarters Building (40,000 sq.ft. new construction), and the State of Michigan Hall of Justice, which houses the State Supreme Court and Court of Appeals (281,000 sq.ft. new construction). Her many small projects are just as important and include the LEED Gold Greenhills School addition in Ann Arbor and room acoustics for the Okemos Community Church.

In addition to working for acoustics consulting firms, she has also been an acoustics specialist at

a medium sized Detroit architectural/engineering firm, where daily integration into multi-disciplinary project teams heightened her sensitivity to the need for practical acoustical solutions to mesh with all aspects of a project's design.

Mandy is a Board-Certified Member of the Institute of Noise Control Engineering, currently serving as the Vice President of Public Relations, and is a prior member of the Board of Directors and chair of the Building Acoustics Technical Committee. She is a member of teams that contribute to the



Mandy Kachur
Principal Consultant
PE, INCE.Bd.Cert.

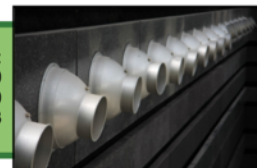
Facilities Guidelines Institute *Guidelines for Design and Construction of Health Care Facilities.*

She is an adjunct professor at Lawrence Technological University, and has been published at INCE conferences, at ASA meetings and in the peer reviewed American Journal of Nursing. Most recently, she was selected as a speaker at the National Academy of Engineering: Japan-America Frontiers of Engineering Symposium, presenting on healthcare acoustics. She is also a violinist with the Dearborn Symphony Orchestra.



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Professional History

2011-present – Partner & Principal Consultant,
Soundscape Engineering LLC

2004-2011 – Senior Consultant, Acoustics By
Design, Inc., Ann Arbor, Michigan

1999-2004 – Acoustics Specialist, Albert Kahn
Associates, Inc., Detroit, Michigan

1998 – Kolano and Saha Engineers, Inc., Project
Engineer, Waterford, Michigan

1994-1998 – Ford Motor Company, Inc., Product
Design Engineer, Sound Quality Group, Dearborn,
Michigan

1992-1994 – The Boeing Company, Inc., Product
Engineer, Noise Engineering, Seattle, Washington

1992 – Kirkegaard & Associates, Inc., Intern,
Downers Grove, Illinois

1991 - The Boeing Company, Inc., Intern, Noise
Engineering, Seattle, Washington

1987-1990 – British Petroleum, Co-op Student,
Cleveland, Ohio

Education

M.E. in Acoustics, The Pennsylvania State
University, 2008

B.S. Mechanical Engineering, Purdue University,
1991

Credentials

Board Certified, Institute of Noise Control
Engineering

Licensed Professional Engineer, State of Michigan,
#6201045637

Professional Associations

Acoustical Society of America

Institute of Noise Control Engineering

American Society of Heating, Refrigerating and Air
Conditioning Engineers

Publications & Presentations

"Managing Noise in Healthcare Environments
to Improve Patient Outcomes," 2014 Japan-
America Frontiers of Engineering Symposium,
National Academy of Engineering

"Acoustical materials for a green world: The
sustainable design transformation of the
architectural acoustics industry," Acoustical
Society of America, Baltimore Meeting 2010

"Architectural acoustics: Emerging opportunities
require new materials and solutions," Acoustical
Society of America, Baltimore Meeting 2010

"Small and Large Room Acoustics: Similarities
and Differences," Presentation to the Detroit
Section of the Audio Engineering Society, 2010

"Ensuring Quieter Hospital Environments,"
American Journal of Nursing, 2009

"A Case Study Of A Successful Patient Unit
Noise Reduction Program," Planetree Webinar,
2009

"Making Music with the DSO," Detroit
Symphony Orchestra PBS interview, 2009

"The greening of sound: Recent inclusion of
acoustics in sustainable building certification,"
Noise-Con Proceedings 2007

"LEED and Acoustics: Compatibility Check,"
Seminars on Sustainability, Detroit Chapter of
ASHRAE and Lawrence Technological
University conference, 2007

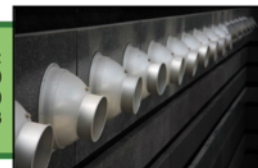
"Design and capabilities of a new sound and
vibration laboratory at Valeo" InterNoise
Proceedings 2002

"A survey of sound quality jury evaluation
correlations: Loudness versus A-weighted
sound level" Mandy Kachur Sound Quality
Symposium Proceedings 1998



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Appendix B: Acoustics Terminology

Sound level is measured in units called decibels (abbreviated dB). Decibels are logarithmic rather than linear quantities and thus a doubling of the sound level does not translate to a doubling of decibels. Also, the human ear does not interpret a doubling of sound energy as a doubling of loudness. The logarithmic nature of dB and the human subjective perception of relative sound levels result in the following approximate rules for judging increases in noise.

- 3 dB sound level increase or decrease - barely perceptible
- 5 dB sound level increase or decrease - perceptible and is often considered significant
- 10 dB sound level increase or decrease - perceived as twice as loud/half as loud

These perceived changes in the noise level are mostly independent of the absolute noise level. That is, a 35 dB noise will be perceived as twice as loud as a 25 dB noise, and a 60 dB noise will be perceived as twice as loud as a 50 dB noise.

Audible sound occurs over a wide frequency range, from low pitched sounds at approximately 20 hertz (Hz) to high pitched sounds at 20,000 Hz. These frequencies are commonly grouped into octave bands or 1/3 octave bands. Building mechanical systems generally produce noise in the 63 Hz to 1000 Hz octave bands, with the lower frequency noise generated by large fans. Human speech is predominantly contained in the 250 Hz to 2000 Hz octave bands. The highest sound levels of barking dogs are found in the 500 and 1000 Hz octave bands.

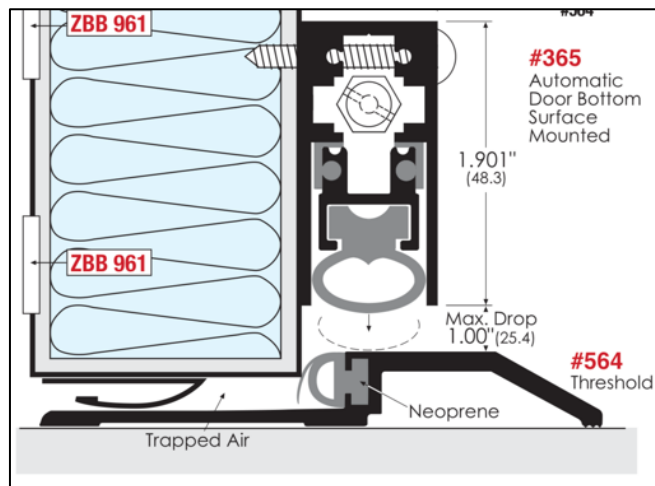
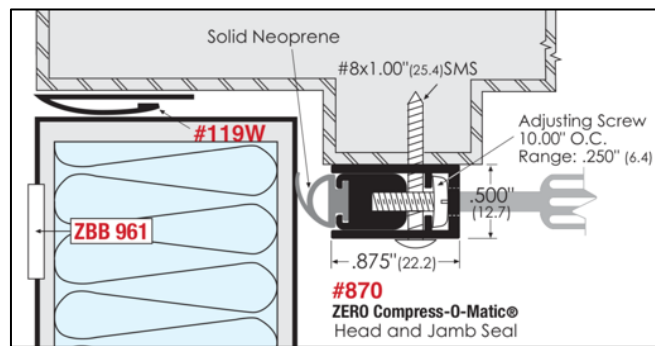
A-weighted sound level - Humans do not hear equally well at all frequencies. We are especially poor at hearing low frequency sound and are best at hearing sound in the frequency range of human speech. A microphone does not have these same characteristics. Therefore, when sound is being measured to determine how well people will be able to hear it, a "weighting" or microphone-to-human correction factor is applied to the sound level measured using a microphone. The most common weighting is the "A-weighting" and the resulting sound level is expressed in A-weighted decibels (dBA). This weighting reduces the low frequency sound, slightly increases the sound at the dominant frequencies of human speech, and slightly lowers the sound level at high frequencies.

Sound Transmission Class (STC) is a single number rating of the amount of sound blocked by a partition as measured or calculated in one-third octave bands. This metric is normalized and can be compared other partitions or test data. It is measured in a laboratory under ideal conditions. STC is most appropriately used to assess the ability of a partition to block noise in the frequency range of speech. The original sound transmission test reports should be consulted when the sound source contains low frequencies, such as music or mechanical noise. A higher number indicates better performance.

Ceiling Attenuation Class (CAC) is a single number rating of the sound blocking ability from room to room of a lay-in ceiling tile and grid system. Higher numbers mean better performance. Most commercial mineral fiber acoustical lay-in ceiling tiles have a CAC of 35 or 40.

Appendix C: Door Seal Description

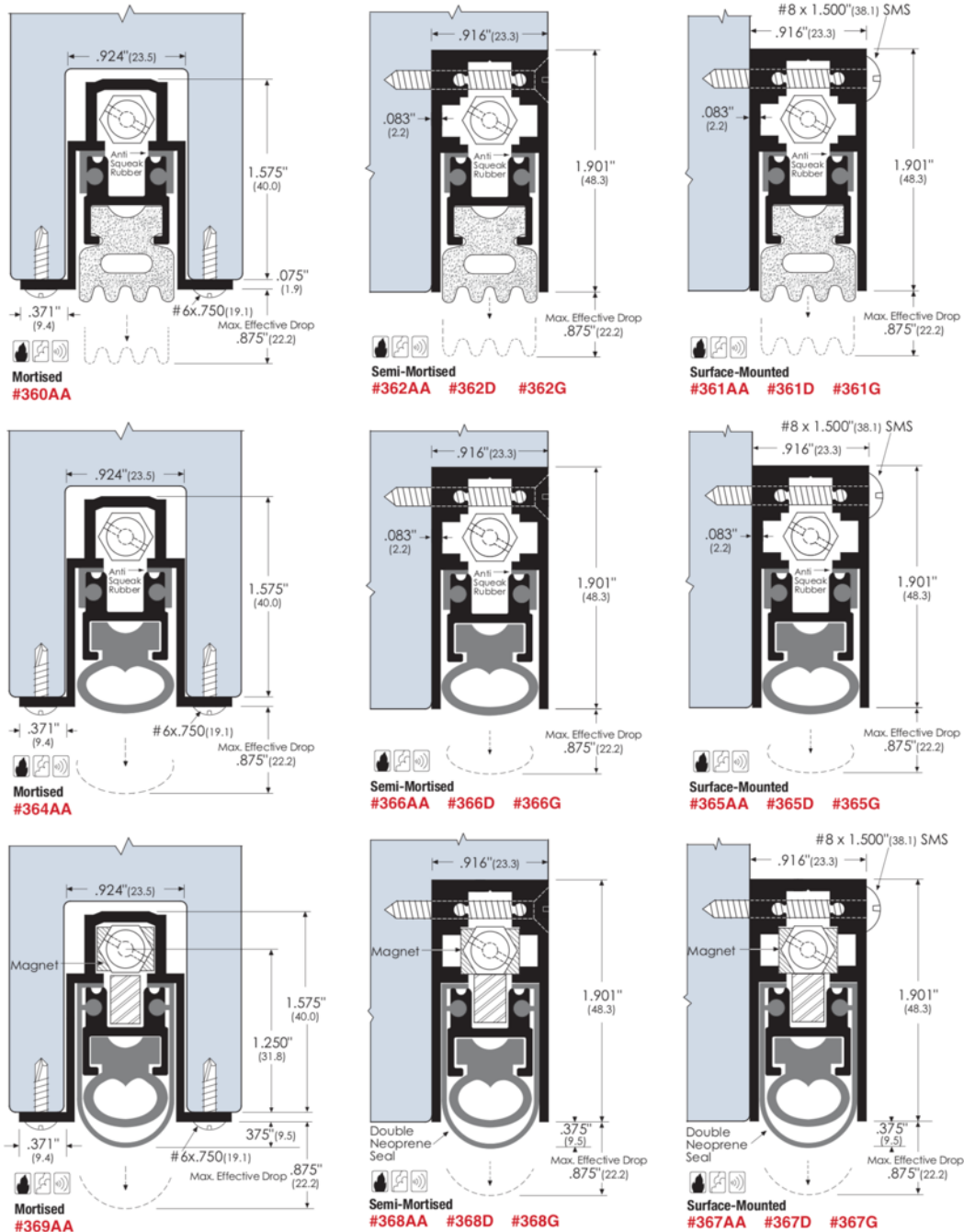
These are 1-³/₄" thick solid core wood or insulated 16-18 gauge metal doors. They need to have adjustable acoustic seals at the head and jambs plus an automatic door bottom which seals against a saddle or threshold. Zero International and Pemko can provide such seals.



Zero International acoustical sealing system at head and sill

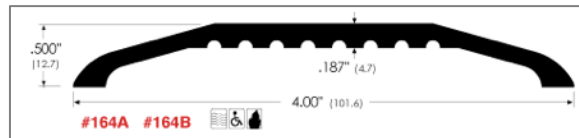
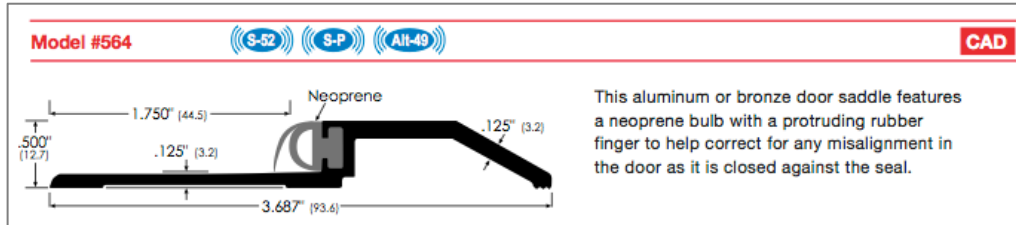
- Install sound rated door head and jamb seals from Zero International, model #870 or Pemko equal. This model has an adjustable seal for optimization over time.
- Install a supplemental bronze spring seal at the head, jambs, and sill (Zero International model #119W or Pemko equal). Attach to the frame.

- Install a mortised, semi-mortised, or surface mounted Zero International model #360 series automatic door bottom or Pemko equal.



Zero International model #367

- Install a metal threshold. Two types are shown below. The Zero International model #564 is preferred since it has an integral seal, thus providing a secondary seal. A smooth flat threshold, such as Zero International model #164B, is also acceptable, though will not perform quite as well due to the lack of the secondary seal. Pemko equals are acceptable. In all cases, the automatic door bottom should seal against the flat smooth surface. Level the threshold and embed in acoustical caulk for an airtight seal. The automatic door bottom must provide a continuous seal over the width of the door, and thus the leveling of the sill is critical.



Zero International model #564 and #164B

Appendix D: Supporting Test Data and Calculations

Project No. :	1633						
Project :	Dog Town & Kitty City - Building Envelope Design						
Partition Transmission Loss & Sound Propagation to North Property Line							
<i>assumptions: reverberant field near wall in Source Room and SPL is near the wall in Receiver Room</i>							
Partition Dimensions							
	10 ft						
	55 ft						
	Octave Band Center Frequency						
	125	250	500	1000	2000	4000	8000
Sound level of dogs barking in large reverberant space - 102 dBA maximum level	84	90	104	101	93	80	79
transmission loss of recommended partition	-36	-50	-60	-64	-63	-69	-69
Factor for outdoor free field	15000	15000	15000	15000	15000	15000	15000
Sound level just outside exterior wall	43	36	39	32	25	6	5
dBA weighting	-16	-9	-3	0	1	1	-1
dBA per octave band	27	27	36	32	26	7	4
Overall dBA outside building	38						
Propagation to north property line at 312' away	-24						
Credit for 150' of trees	-4						
Overall dBA at north property line	11						

Exterior wall construction at plywood sheeting locations (blue walls)

KINETICS NOISE CONTROL TEST REPORT #AT001057

- **KINETICS NOISE CONTROL PRODUCTS:**
 - ISOMAX CLIPS

- **ACOUSTICAL RATINGS:**
 - STC 61

- **TESTING AGENCY & REPORT NUMBER:**
 - RIVERBANK ACOUSTICAL LABORATORIES
 - RAL TL02-35

The diagram illustrates a vertical cross-section of an exterior wall assembly. From left to right, it shows: a 2" (51) x 4" (102) wood stud wall spaced 16" (406) on center; a layer of 5/8" (16) gypsum board attached to the studs; a vertical channel (drywall furring channel) attached to the gypsum board with Model Isomax clips; a second layer of 5/8" (16) gypsum board attached to the furring channel; and a perimeter sealant at the top and bottom of the assembly.

KINETICS DRAWING NUMBER: AT001057

KINETICS
Noise Control

6300 IRELAN PLACE, DUBLIN OH
PHONE: 800.959.1229
FAX: 614.889.0540
WEB: WWW.KINETICSNOISE.COM
EMAIL: ARCHSALES@KINETISNOISE.COM

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Kinetics Noise Control

Sound Transmission Loss Test
RAL™_TL02-35

ON: Kinetics Wall Isolation Clip on
2 x 4 Timber Framing 16 Inches on Center
With Single Layer 5/8 Inch Gypsum Board Direct
and Double Layer 5/8 Inch Gypsum Board on Clips

Page 1 of 4

CONDUCTED: 21 February 2002

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-99 and E413-87, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the client as Kinetics Wall Isolation Clips on 2 x 4 timber framing 16 inches on center with single layer 5/8 inch gypsum board direct and double layer 5/8 inch gypsum board on clips. The overall dimensions of the specimen as measured were 4.27 m (168 in.) wide by 2.74 m (108 in.) high and 171 mm (6.75 in.) thick. The specimen was installed directly into the laboratory's 2.74 m (9 ft) by 4.27 m (14 ft) wood-lined steel frame and was sealed on the periphery (both sides) with a dense mastic.

The description of the specimen was as follows: The test specimen consisted of a two-by-four wood stud wall assembly with 159 mm (6.25 in.) thick R-19 fiberglass and a single layer of 16 mm (0.625 in.) Type X gypsum board on the receive side. Kinetics Wall Isolation Clips and hat track were used on the source side with a double layer of 16 mm (0.625 in.) Type X gypsum board. A more complete description follows.

Floor and Ceiling Plates: The two 89 mm (3.5 in.) wide by 38 mm (1.5 in.) thick and 4.27 m (168 in.) long SPF wood plates were attached to the top and bottom of the test frame with 16d nails on 610 mm (24 in.) centers.

Studs: The twelve 89 mm (3.5 in.) wide by 38 mm (1.5 in.) thick and 2.67 m (105 in.) long SPF wood studs and runners were spaced on 406 mm (16 in.) centers. The studs were attached to the frame with 8d nails.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
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21 February 2002

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Insulation: The cavities formed by the studs were friction fit with R-19 unfaced fiberglass insulation batts measuring 159 mm (6.25 in.) thick and 381 mm (15 in.) wide.

Kinetics Wall Isolation Clips and Hat Track: On the source side of the wall, Kinetics Wall Isolation Clips were attached to studs on 610 mm (24 in.) centers vertically and on 1.22 m (48 in.) centers horizontally. The bottom row of clips was installed 76 mm (3 in.) from the bottom of the test frame. Clips in subsequent rows were staggered 406 mm (16 in.) vertically from adjacent rows. All clips were attached to studs with two 51 mm (2 in.) long coarse thread drywall screws. A total of thirty clips were used. The hat track was 25 gauge roll-formed furring channel which measured 22 mm (0.875 in.) deep by 65 mm (2.56 in.) wide. Six rows of track were mounted to the clips and were overlapped 152 mm (6 in.) and double wire tied with 18 gauge tie wire as necessary.

Gypsum Wallboard: A double layer of 16 mm (0.625 in.) Type X gypsum board was applied to the hat track on the source side of the wall. The base layer was applied horizontally and the face layer was applied vertically with fasteners on 305 mm (12 in.) centers. The gypsum board was attached using 25 mm (1 in.) and 41 mm (1.625 in.) long Type S bugle head drywall screws, respectively. A single layer of 16 mm (0.625 in.) Type X gypsum board was applied vertically to the studs on the receive side of the wall and attached using 41 mm (1.625 in.) Type W bugle head drywall screws on 305 mm (12 in.) centers. All joints were treated with an acoustical caulk in the joints and covered with aluminum faced tape. Screw heads were covered with tape.

The weight of the specimen as measured was 530.3 kg (1,169 lbs.), an average of 45.4 kg/m² (9.3 lbs/ft²). The transmission area used in the calculations was 11.7 m² (126 ft²). The source and receiving room temperatures at the time of the test were 21±2°C (70±2°F) and 59±2% relative humidity. The source and receive reverberation room volumes were 179m³ (6,298 ft³) and 177 m³ (6,255 ft³), respectively.

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TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data is within the limits set by the ASTM Standard E90-99.


<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	33	0.35	0	800	63	0.37	0
125	37	0.28	8	1000	63	0.29	1
160	42	0.26	6	1250	65	0.22	0
200	46	0.33	5	1600	64	0.25	1
250	52	0.37	2	2000	61	0.20	4
315	57	0.32	0	2500	64	0.18	1
400	59	0.34	1	3150	67	0.16	0
500	61	0.33	0	4000	69	0.14	0
630	61	0.36	1	5000	71	0.11	0

STC=61

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)
T.L. = TRANSMISSION LOSS, dB
C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT
DEF. = DEFICIENCIES, dB<STC CONTOUR
STC = SOUND TRANSMISSION CLASS

Tested by


Dean Victor
Senior Experimentalist

Approved by


David L. Moyer
Laboratory Manager

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1512 S. BATAVIA AVENUE
 GENEVA, ILLINOIS 60134

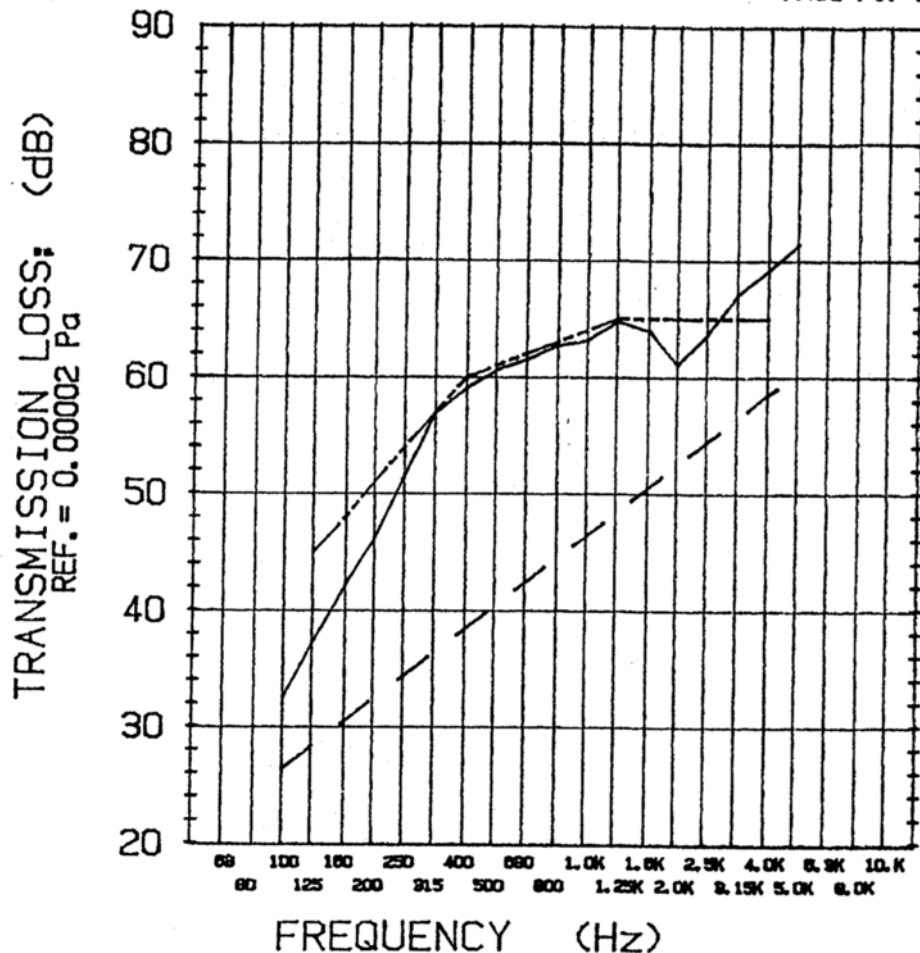
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 WALLACE CLEMENT SABINE

REPORT

**TRANSMISSION LOSS REPORT
 RAL-TL02-35**

PAGE 4 OF 4



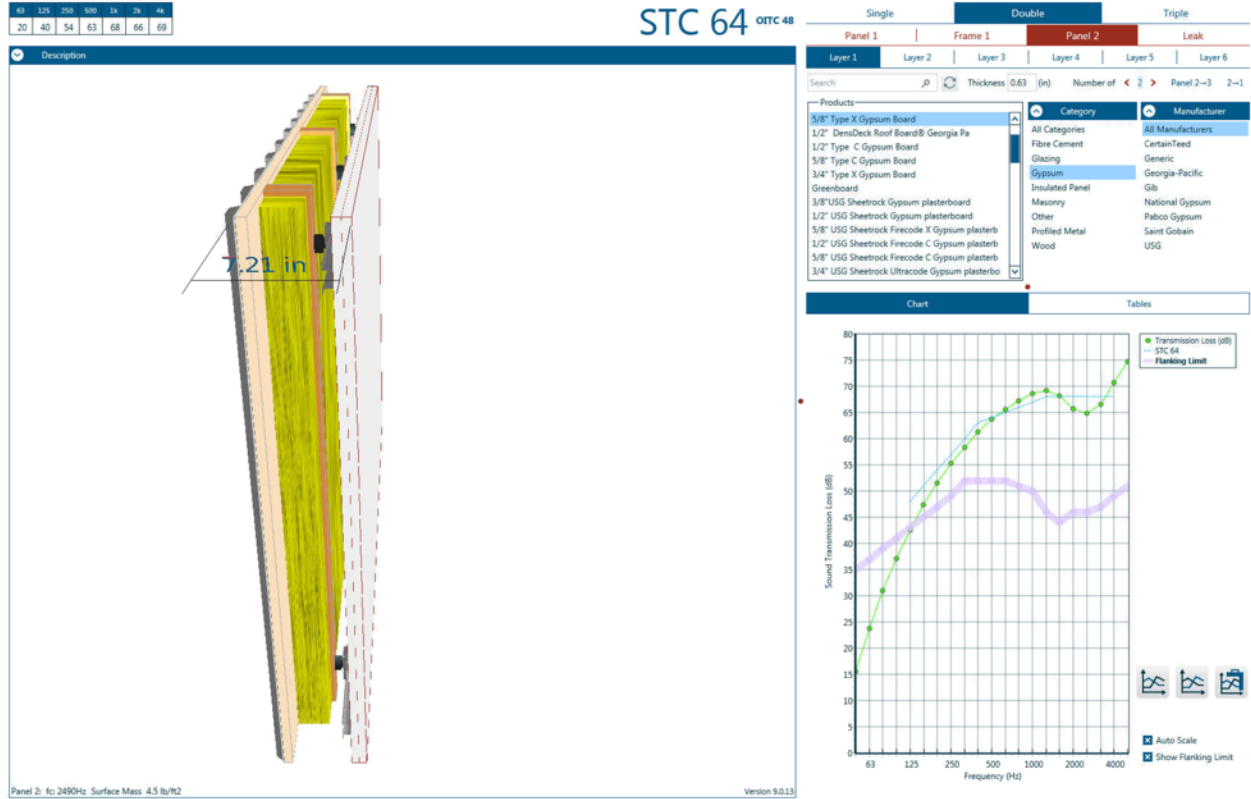
- TRANSMISSION LOSS
- - - SOUND TRANSMISSION CLASS CONTOUR
- . - MASS LAW CONTOUR

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.

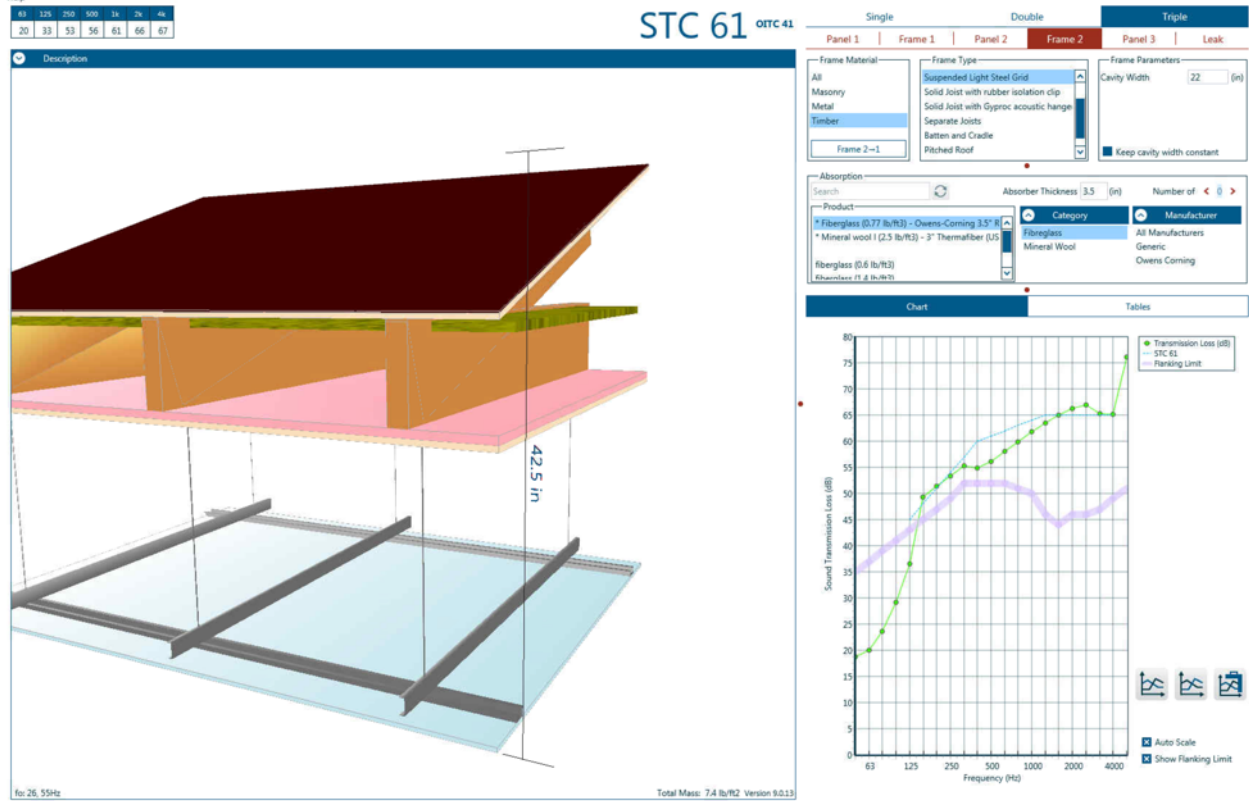


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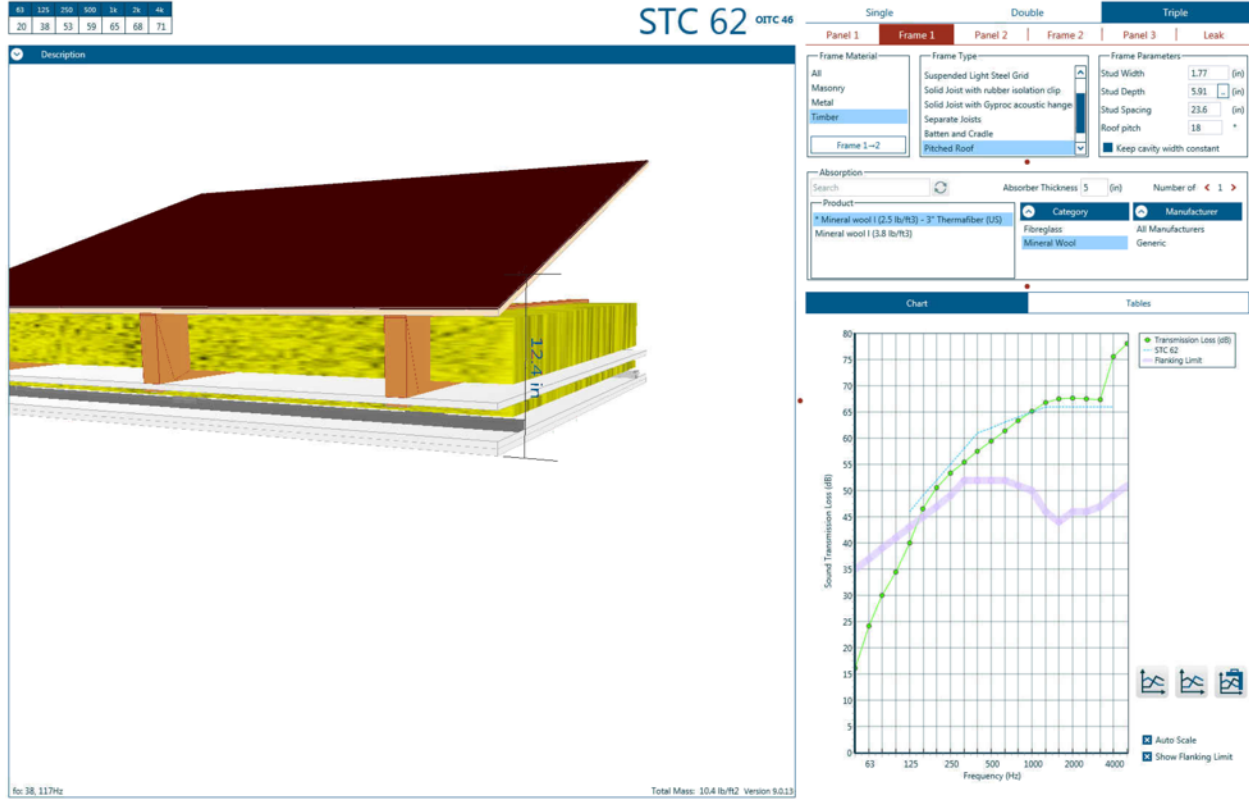
Exterior wall with metal siding (orange walls)



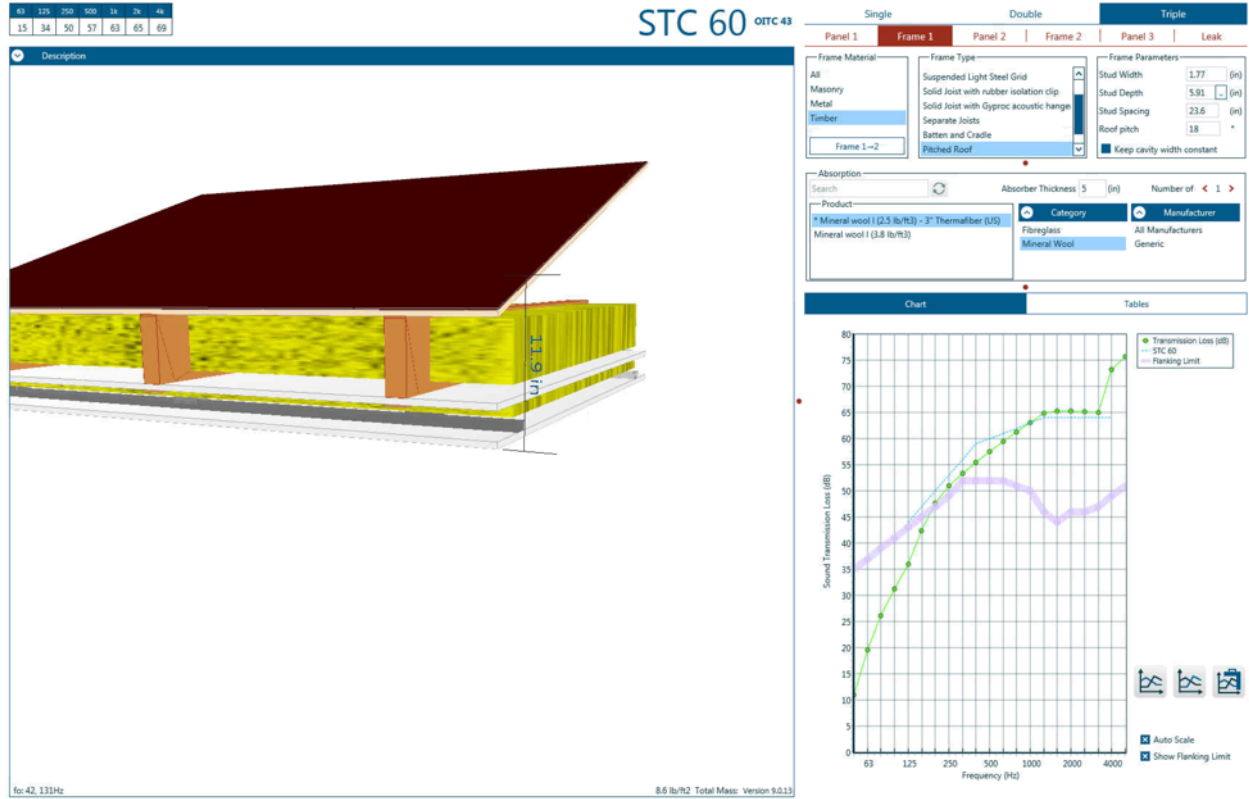
Ceiling/roof over Indoor Play Area



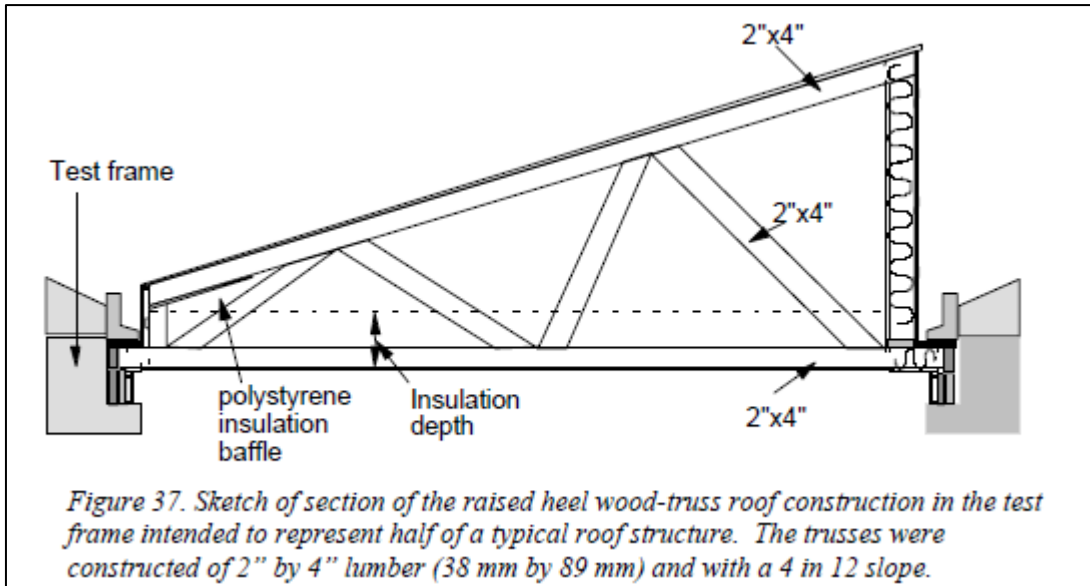
Ceiling/roof over Overnight Area – Two Additional Layers of Gypsum Board



Ceiling/roof over Overnight Area – One Additional Layer of Gypsum Board



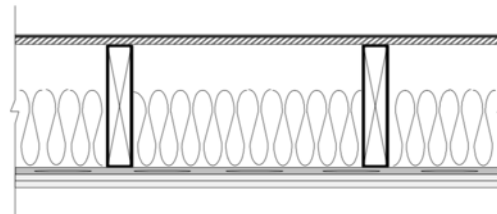
National Research Council Canada (NRC) test data was used as a second reference for pitched roof constructions for comparison to the ceiling/roof of the Overnight Area. It is within one point of our calculations, which indicates a high confidence level that the predictions are accurate.





TLF-98-111a
SHN3_BPAP0.7_OSB11_RHWT1626_GFB264_RC13(610)_2G13
Construction Type: roof

Element	Description
1	3 mm thick asphalt shingles
2	0.7 mm thick building paper
3	11 mm thick oriented strand board
4	1626 mm deep raised heel wood truss
5	264 mm thick glass fibre insulation in cavity
6	13 mm resilient channel at 610 mm on centre
7	13 mm thick regular gypsum board
8	13 mm thick regular gypsum board

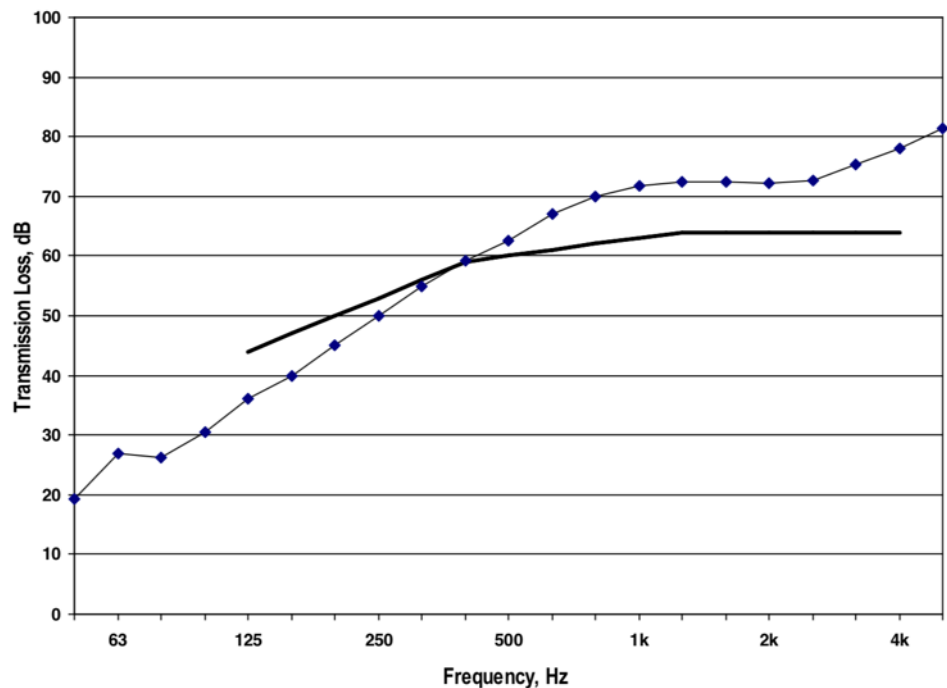


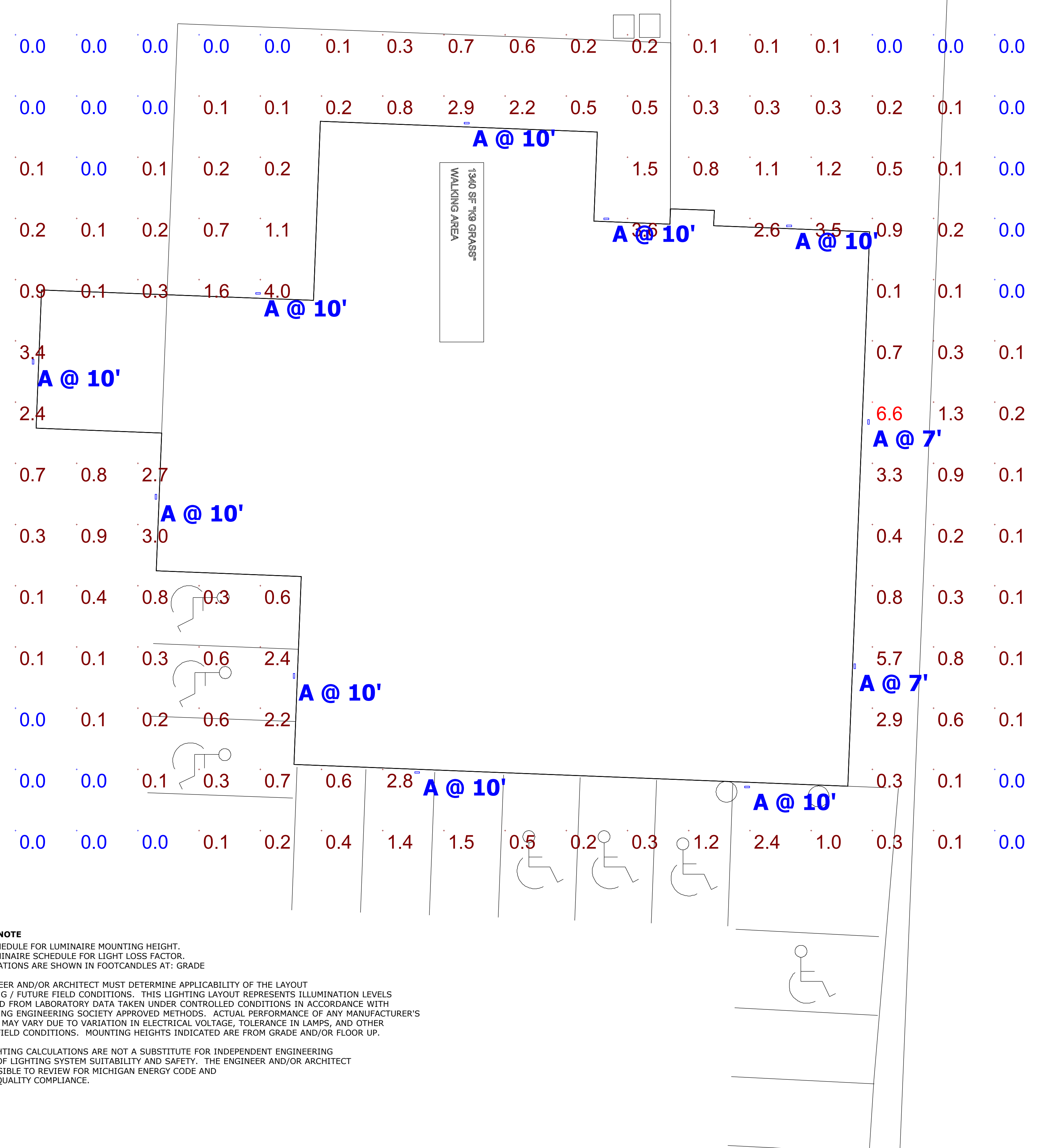
Vents: roof (6)

	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	shingles	building paper	subfloor	RH truss	insulation	resilient chan.	gypsum board	gypsum board
material	asphalt	*	OSB	wood	glass fibre	GP	regular	regular
thickness (mm)	3	0.7	11	1626	264	13	13	13
spacing (mm)	*	*	*	610	*	610	*	*
total mass (kg)	201	4.9	109	284	62	6.8	116	116
linear density (kg/m)	*	*	*	6.2	*	0.2	*	*
surface density (kg/m ²)	12	0.2	6.8	*	4.1	*	7.8	7.7
fastener spacing #1 (mm)	*	*	152 edges	*	*	*	610	305
fastener spacing #2 (mm)	*	*	305 field	*	*	*	*	*

* indicates not applicable

Freq. Hz	TL, dB
50	19
63	27
80	26
100	31
125	36
160	40
200	45
250	50
315	55
400	59
500	63
630	67
800	70
1000	72
1250	72
1600	72
2000	72
2500	73
3150	75
4000	78
5000	81
STC	60
OITC	43





GENERAL NOTE

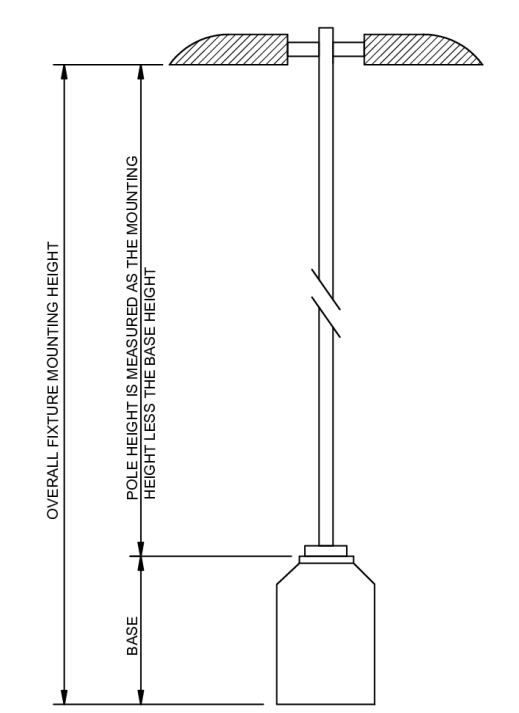
- SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
- SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
- CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE

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.

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage
	A	11	Lithonia Lighting	OLWX1 LED 13W 40K DDB	13W 4000K LED WALL PACK	LED	1	OLWX1_LED_13W_40K_DDB.ies	1260	0.9	14

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Lot	+	0.7 fc	6.6 fc	0.0 fc	N/A	N/A	0.1:1



POLE NOTE:
 MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

Specifications

Width: 7-1/2" (190mm)

Height: 8" (203mm)

Depth: 3" (76mm)

Weight: 5 lbs (2.3kg)

OLWX1 LED LED Wall Luminaire

DLC, ENERGY STAR, LIGHTING FACTS

Introduction

The OLWX1 is versatile and energy efficient. It is designed to replace up to 250W metal halide while saving over 87% in energy costs. Whether you are mounting it to a recessed junction box, conduit through wiring, as an up light, as a down light, or as a flood light – the OLWX1 has all applications covered.

Ordering Information

EXAMPLE: OLWX1 LED 20W 50K

Series	Performance Package	Color Temperature	Voltage	Controls	Finish
OLWX1 LED	10W 13 watts	40K 4000K ¹	(Blank) 120V ¹	(Blank) None	(Blank) Dark bronze
	20W 20 watts	50K 5000K	120 120V ¹	PE 120V button photocell ¹	
	40W 40 watts		347 347V		

Accessories

OLWX1S Slipfit – size 1

OLWX1Y Yoke – size 1

OLWX1BK Knuckle – size 1

FEATURES & SPECIFICATIONS

INTENDED USE
 The versatility of the OLWX1 LED combines a sleek, low profile wallpack design with energy efficient, low maintenance LEDs for replacing up to 250W metal halide fixtures. Mounting accessories are available to convert the OLWX1 LED into an energy efficient flood light.

CONSTRUCTION
 Cast aluminum housing with textured dark bronze polyester powder paint for durability. Integral heat sink optimizes thermal management through conductive and convective cooling. LEDs are protected behind a glass lens. Housing is sealed against moisture and environmental contaminants (IP65 rated). See Lighting Facts label and photometry reports for details.

ELECTRICAL
 Light engine consists of a high efficiency Chip On Board (COB) LED with integrated driver board mounted directly to the housing to maximize heat dissipation and promote long life (25,000/50,000 hours at 25°C). Electronic drivers have a power factor >90% and THD <20% and a minimum 2.5W surge rating. Flood light mounting accessories include an additional 4x4 surge protection device. LEDs are available in 4000K and 5000K CCTs.

INSTALLATION
 Easily mounts to recessed junction boxes with the included wall mount bracket, or for surface mounting and conduit entry with the included junction box with the 1/2" threaded conduit entry tube. Flood light mounting accessories (sold separately) include in-situ, integral slipfit and pole mounting options. Each flood mount accessory comes with a 1/8" vent and ventral guard. Luminaires may be wall or ground mounted in downward or upward orientation.

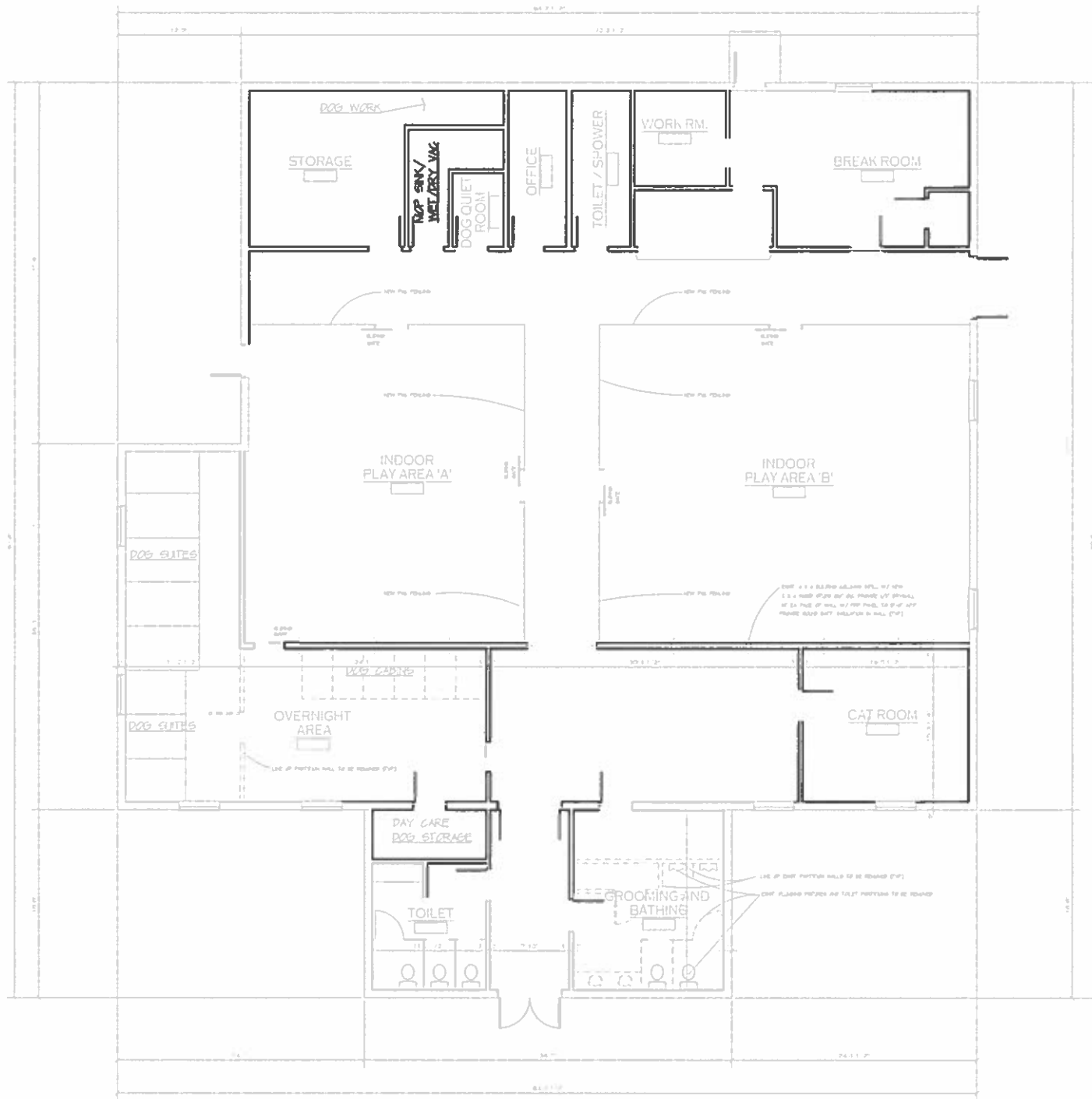
LISTINGS
 UL listed to U.S. and Canadian safety standards for wet locations. Rated for 40°C minimum ambient. Tested in accordance with IESNA LM-79 and LM-80 standards. DesignLights Consortium (DLC) qualified product. Not all variants of the product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which variants are qualified.

WARRANTY
 5-year limited warranty. Complete warranty terms located at: www.lithonia.com/Support/Service/Service%20and%20Warranty.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

LITHONIA LIGHTING

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8011 • www.lithonia.com
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FLOOR PLAN
SCALE: 3/8" = 1'-0"

BWA
BRIAN WIGGINS
ARCHITECT
1215 N. 10TH ST.
ANN ARBOR, MI 48106-1501
313.937.0852
2016 ARCHITECTURE BY BWA ARCHITECT

A NEW INTERIOR BUILD-OUT FOR:
**DOGGY TOWN AND
KITTY CITY
PET DAYCARE / BOARDING
FACILITY**
22000 GRAND RIVER AVE.
GENOA TOWNSHIP, MI 48008

FLOOR PLAN

DATE: 11/11/2016
PROJECT: 18125
SHEET NO.:
SHEET TOTAL:
SITE PLAN APPROVAL:
DATE:

18125
A1

A SITE PLAN FOR "DOG TOWN & KITTY CITY, LLC" GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN TAX ID# 4711-05-300-006

LEGAL DESCRIPTION:
BEGINNING AT THE CENTER OF SECTION 5, T2N, R5E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN AS MONUMENTED; THENCE N88°31'51"W (PREVIOUSLY RECORDED AS S89°01'W) 177.42 FEET ALONG THE EAST-WEST 1/4 LINE OF SAID SECTION AS PREVIOUSLY SURVEYED AND MONUMENTED; THENCE S02°24'39"W 649.99 FEET (PREVIOUSLY RECORDED AS S01°11'W 651.48 FEET) TO A POINT ON THE CENTER LINE OF GRAND RIVER AVENUE; THENCE S60°26'30"E 200.34 FEET (PREVIOUSLY RECORDED AS S62°42'E 200 FEET) ALONG SAID CENTER LINE; THENCE N02°20'38"E 744.32 FEET (PREVIOUSLY RECORDED AS N01°1'E 746.38 FEET) ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 5 AS PREVIOUSLY SURVEYED AND MONUMENTED TO THE PLACE OF BEGINNING, BEING A PART OF THE SOUTHWEST 1/4 OF SECTION 5, T2N, R5E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN CONTAINING 2.83 ACRES OF LAND, MORE OR LESS, BEING SUBJECT TO THE RIGHTS OF THE PUBLIC OVER THE SOUTHWESTERLY 50.00 FEET THEREOF, AS IS OCCUPIED BY GRAND RIVER AVENUE, ALSO BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.

SITE NOTES:
1) THE APPLICANT PROPOSES TO REMOVE AN AREA OF EXISTING ASPHALT PAVEMENT AND INSTALL K-9 GRASS WITH A VINYL PRIVACY FENCE. ALL OTHER CHANGES WILL BE BUILDING RELATED.
2) THE CURRENT STORM DRAINAGE SHEET FLOWS TO THE WEST PROPERTY LINE AND THEN TO THE BACK OF THE PROPERTY. THE K-9 GRASS WILL DECREASE THE OVERALL AREA OF IMPERVIOUSNESS OF THE SITE.
3) NO ANIMAL WASTE SHALL BE DISPOSED OF IN TWP SEWERS.
4) SEE PHOTOMETRIC PLAN BY GASSER BUSH FOR LIGHT TYPE AND LOCATION
UTILITY NOTES:
1) NO CHANGE TO THE CURRENT WATER SERVICE IS PROPOSED.
2) NO CHANGE TO THE CURRENT SANITARY IS PROPOSED.
3) NO CHANGE TO THE STORM DRAINAGE SYSTEM IS PROPOSED.

ENVIRONMENTAL IMPACT NOTE:
THE APPLICANT PROPOSES TO REMOVE A PORTION OF THE ASPHALT PAVEMENT AND INSTALL K9 ARTIFICIAL TURF SYSTEM, REDUCING THE OVERALL STORM WATER RUNOFF FROM THE SITE. THE TURF SYSTEM IS MEANT TO COLLECT AND THEN DISPOSE OF THE LIQUID PET WASTE WITHIN THE STONE BED USING AEROBIC MICROBES. THIS PROCESS IS FASTER AND MORE EFFICIENT THAN THAT OF NATURAL MICROBIAL SOIL BREAKDOWN. ALL SOLID PET WASTE WILL BE COLLECTED AND DISPOSED OF IN THE REUSE CONTAINERS.

OWNER:
LULA, LLC
28715 HOVEY LANE
NEW HUDSON, MI 48165
PHONE: 248-798-6226

PROPRIETOR/DEVELOPER:
PAULA VANDERKARR
7602 BADGER COURT
OWASSO, MI 48867
PHONE: 989-277-1864

SURVEYOR:
GARLOCK-MITH
516 EAST GRAND RIVER
HOWELL, MICHIGAN 48843
PHONE: 517-546-3340

PARKING CALCULATION:
BUILDING = 6,312 SF
MAX # OF PETS ALLOWED = 6,312 SF / 100 SF/PET = 63 PETS

SPACES REQUIRED
1 SPACE PER STAFF MEMBER
1 SPACE PER EACH 5 ANIMALS
63 PETS / 5 ANIMALS/SPACE = 13 SPACES
5 EMPLOYEES = 5 SPACES
18 SPACES REQUIRED
21 SPACES PROVIDED

DRAINAGE CALCULATION:
K9 GRASS AREA = 1340 SF = 0.03 AC.
C FACTOR = 0.3
STORAGE ONLY IN NON-SLOPED GRASS AREA = 818 SF
40% VOID RATIO
100yr V = 16,500(0.3)(0.03 AC) = 152 CF REQUIRED
VOLUME IN STONE = 818 SF X 0.5 FT = 409 CF X 40% = 164 CF
164 CF / 152 CF

STORAGE PROVIDED IN SAND AND SLOPED STONE AREA WILL BE CONSIDERED SAFETY FACTOR

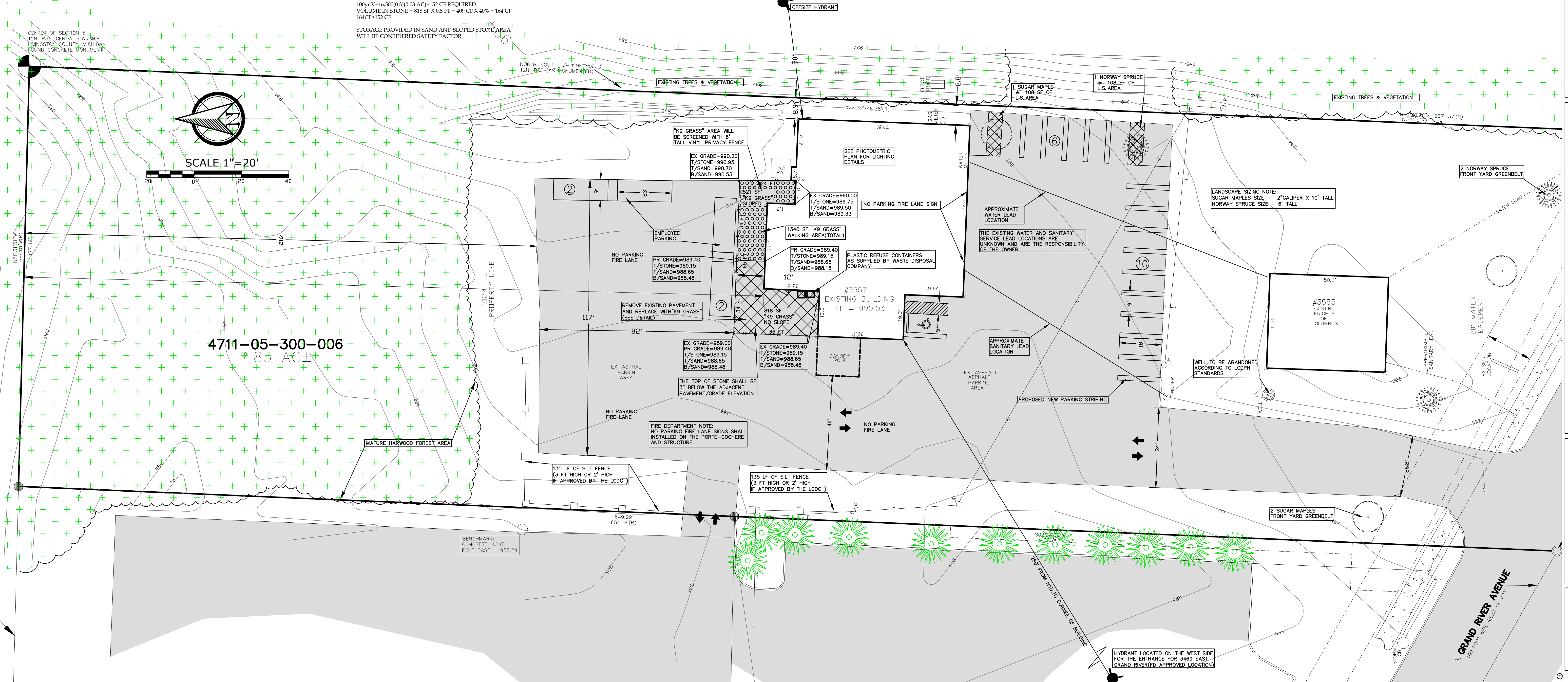
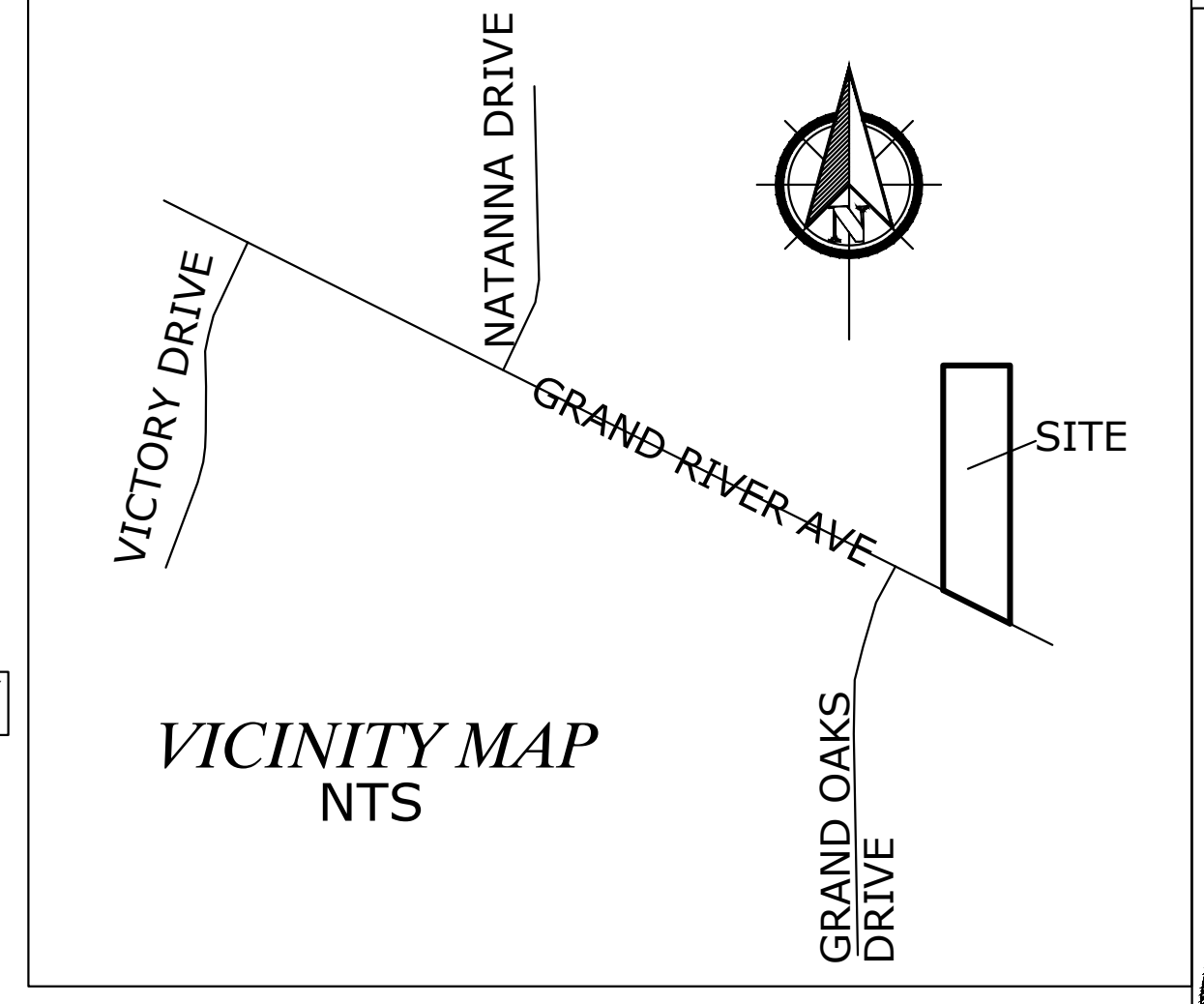
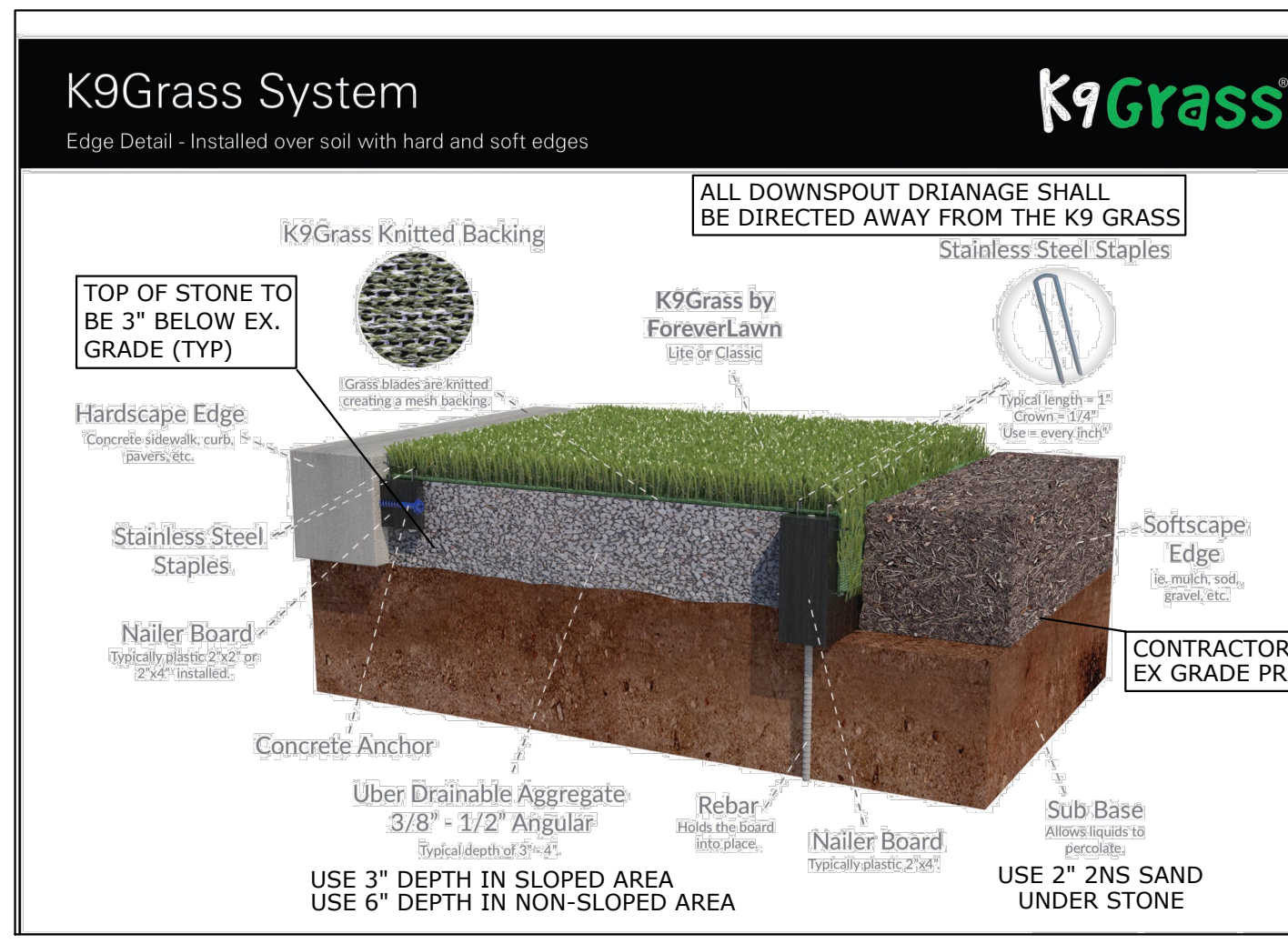
- SEQUENCE OF CONSTRUCTION FOR SOIL EROSION CONTROL**
- OBTAIN SOIL EROSION PERMIT FROM LIVINGSTON COUNTY DRAIN COMMISSION.
 - INSTALL SILTATION FENCE AS SHOWN ON THE SOIL EROSION CONTROL PLAN. (TEMPORARY)
 - CONSTRUCT K9 GRASS AND SEED AND MULCH ANY DISTURBED GRADE TO STABILIZE PERMANENTLY.
 - INSPECT AND REPAIR AND/OR REPLACE ANY DAMAGED SILT FENCE
 - REMOVE TEMPORARY SOIL EROSION CONTROL MEASURES AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.
 - IT IS THE RESPONSIBILITY OF THE DEVELOPER TO INSURE THAT ALL SOIL EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED.
 - DUST MUST BE CONTROLLED AT ALL TIMES.
 - VEGETATION MUST BE ACCEPTABLY ESTABLISHED PRIOR TO FINAL RELEASE OF THE CONSTRUCTION DEPOSIT.

PROGRAM PROPOSAL FOR THE CONTINUED MAINTENANCE OF ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL DEVICES

THE OWNER IS RESPONSIBLE FOR ANY DISTURBED AREAS NOT HAVING VEGETATION ESTABLISHED. MAINTENANCE SHOULD BE PERFORMED FOLLOWING ANY STORM AND SHOULD INCLUDE:

ANY PROBLEM DISCOVERED DURING THE MAINTENANCE CHECKS SHOULD BE ADDRESSED IMMEDIATELY.

ANY ACCUMULATED SEDIMENT REMOVED DURING INSPECTION SHOULD BE REMOVED FROM THE SITE SO THAT IT DOES NOT RE-ENTER THE DRAINAGE COURSE.



Consulting Civil Engineers
"Engineering A Better Michigan"
Powell Engineering & Associates, LLC
4700 Cornerstone Drive, White Lake, Michigan 48383
P: 248.714.9895 info@powellengineeringllc.com

NOTE: AS AN AID TO THE CONTRACTOR, UTILITY LINES AND UNDERGROUND STRUCTURES ARE SHOWN ON THESE PLANS AND PROFILES. ALL INFORMATION ON THESE PLANS AND PROFILES IS TAKEN FROM FIELD NOTES AND AVAILABLE RECORDS, BUT THE OWNER AND ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR DOES ENCOUNTER A UTILITY OR STRUCTURE NOT IDENTIFIED ON THESE PLANS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER FOR DIRECTION ON HOW TO PROCEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES, NOTWITHSTANDING THE START OF ANY CONSTRUCTION.

BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171

**PET DAYCARE
SITE PLAN**
PET DAYCARE
GENOA TOWNSHIP

ISSUE DATES

SITE PLAN	5-7-18
SITE PLAN	7-27-18
SITE PLAN	9-6-18
SITE PLAN	9-7-18
FIRE MARSHAL	9-7-18
TOWNSHIP	9-19-18
TOWNSHIP	11-13-18
TOWNSHIP	11-14-18

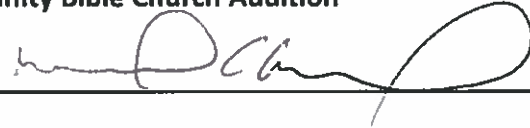
DRAWN BBB
DESIGNED BBB
APPROVED MCP
P.E. JOB No. 18-454
SCALE AS SHOWN
S1



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: November 28, 2018
RE: Community Bible Church Addition

MANAGER'S REVIEW: 

Attached please find the project case file regarding a building addition and parking lot expansion for the Community Bible Church located at 7372 Grand River Avenue, Brighton. The applicant requests approval for an 18,000 square foot addition to the existing 13,000 square foot church with a proposed total of 265 parking spaces.

Procedurally, the Planning Commission has authority over the site plan and issues a recommendation to the Board regarding the Environmental Impact Assessment. The Planning Commission heard the case at the November 13, 2018 meeting. At the meeting, the Commission approved the site plan and recommended Board approval of the Impact Assessment. In this regard, please consider the following action:

Moved by _____, Supported by _____ to approve the Environmental Impact Assessment dated October 3, 2018 provided all conditions of the Planning Commission are satisfied.

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

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



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

GENOA TOWNSHIP

OCT - 3

RECEIVED

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: COMMUNITY BIBLE CHURCH - JAMES WICKMAN
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: COMMUNITY BIBLE CHURCH

SITE ADDRESS: 7372 GRAND RIVER AVE PARCEL #(s): 11-13-300-008 & 11-13-300-055
11-13-300-007

APPLICANT PHONE: (810) 227-2255 OWNER PHONE: ()

OWNER EMAIL: WICKMAN3093@YAHOO.COM

LOCATION AND BRIEF DESCRIPTION OF SITE: LOCATED AT 7372 GRAND RIVER
ON THE SOUTH SIDE OF GRAND RIVER BETWEEN EULER RD AND
GENOA BUSINESS PARK

BRIEF STATEMENT OF PROPOSED USE: SITE WILL CONTINUE TO
FUNCTION AS A CHURCH BUT WILL RECEIVE A
BUILDING AND PARKING LOT EXPANSION.

THE FOLLOWING BUILDINGS ARE PROPOSED: A BUILDING EXPANSION
CONSTRUCTED OFF OF THE EXISTING CHURCH BUILDING OF
APPROXIMATELY 18,000 SQFT.

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: James Wickman, Deacon 

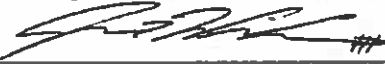
ADDRESS: 7372 Grand River Avenue, Brighton, MI 48116

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

1.) BRETT LAVANWAY of BOSS ENGINEERING at BRETT.L@BOSSENGL.CO
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: 10/2/2018
PRINT NAME: James Wickman, Deacon PHONE: (810) 333-3841
ADDRESS: 7372 Grand River Avenue, Brighton, MI 48116

The motion carried unanimously.

OPEN PUBLIC HEARING #3...Review of site plan and environmental impact assessment for a proposed addition and parking lot expansion to the existing Community Bible Church located at 7372 W. Grand River Avenue Brighton. The request is petitioned by Community Bible Church.

- A. Recommendation of Environmental Impact Assessment
- B. Disposition of Site Plan

Mr. Brent LaVanway of Boss Engineering, Mr. James Wickman, the Deacon for Community Bible Church, and Mr. Wayne Bickel, the architect were present.

Mr. LaVanway provided a review of the project. They are proposing to expand the parking lot and add an 18,000 square foot expansion to the building.

Mr. Bickel provided colored renderings of the proposed addition. He reviewed the building materials and colors.

Mr. Borden reviewed his letter of November 6, 2018.

- The amount of metal paneling proposed on the building exceeds the limit established by Ordinance; however, the Planning Commission has discretion to waive this requirement. Mr. Bickel provided samples of the metal paneling, brick, stone, and wood.
Commissioner Rauch feels that the architect did a great job of incorporating the different materials and colors with this building. It complements the other buildings in this area along Grand River.
- The easement language for the sidewalk should be subject to review and approval by the Township.
- The amount of parking proposed is 132% of the minimum requirement. This requires Planning Commission approval based on supporting evidence from the applicant. Deacon Wickman advised the Planning Commission they require the amount of parking proposed.
- The Commission may waive/modify the buffer zone requirements along the south and east lot lines due to existing conditions (presence of a wetland and presence of existing trees, respectively).
- There is a minor inconsistency between the landscape plan and table that must be corrected.

Mr. Markstrom stated his concerns with the water service will be addressed with the applicant during a construction plan review meeting. He is satisfied with the traffic management plan proposed by the applicant.

The Brighton Area Fire Authority has one outstanding item that needs to be discussed further with the applicant.

The call to the public was made at 9:58 pm.

Mr. Terry Simpson, who is the owner of the property next door, is in favor of this project.

The call to the public was closed at 10:00 pm.

Moved by Commissioner Mortensen, seconded by Commissioner Rauch, to recommend to the Township Board approval of the Environmental Impact Assessment dated October 3, 2018 for the addition and parking lot expansion to the existing Community Bible Church. **The motion carried unanimously.**

Moved by Commissioner Mortensen, seconded by Commissioner Rauch, to approve the Site Plan dated October 2, 2018 for Community Bible Church, subject to the following:

- The easement language for the sidewalk should be submitted to Township staff for review and approval.
- The requirements in the Township engineer's letter dated November 7, 2018 shall be met, with special reference being made to the traffic mitigation plan submitted.
- The requirements of the Brighton Area Fire Authority's letter dated November 8, 2018 shall be met.
- The minor inconsistency between the landscape plan and table will be corrected.
- The renderings and building materials reviewed this evening area acceptable to the Planning Commission and will become Township property. Although the metal paneling exceeds the ordinance maximum, the Planning Commission finds the building is attractive, these are high quality materials, and is keeping with and will enhance the Grand River corridor in the immediate vicinity. The metal is placed in an area of potential future expansion of the building.
- The shared access easement for Harte drive shall be provided prior to issuance of land use permit.

The motion carried unanimously.

ADMINISTRATIVE BUSINESS

- Staff Report

Ms. VanMarter had nothing to report.

Approval of the October 9, 2018 Planning Commission meeting minutes

There were typographical errors noted by Commissioner McCreary.

Moved by Commissioner McCreary, seconded by Commissioner Rauch, to approve the minutes of the October 9, 2018 Planning Commission Meeting with the changes noted.

The motion carried unanimously.

- Member Discussion

Chairman Brown suggested that when a Commissioner is going to vote "no" on a motion, they should advise the applicant and the other Commissioners prior to the vote.

- Adjournment

November 6, 2018

Planning Commission
 Genoa Township
 2911 Dorr Road
 Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Community Bible Church – Site Plan Review #2
Location:	7372 Grand River Avenue – south side of Grand River, between Euler Road and Genoa Business Park Drive
Zoning:	GCD General Commercial District

Dear Commissioners:

At the Township’s request, we have reviewed the revised site plan submittal from the Community Bible Church (plans most recently dated 10/24/18) for an expansion of the existing church and parking lot, and exterior site improvements (waste receptacle/enclosure, landscaping and lighting).

A. Summary

1. The amount of metal paneling proposed on the building exceeds the limit established by Ordinance.
2. The applicant must provide documentation from the project architect supporting the amount of metal paneling for the Commission’s consideration. Alternatively, the amount of metal paneling proposed must be reduced.
3. The applicant should be prepared to present building material and color samples for the Commission’s consideration.
4. The easement language for the sidewalk should be subject to review and approval by the Township.
5. The Commission should consider the Township Engineer’s comments related to the traffic impacts and proposed mitigation efforts.
6. The amount of parking proposed (132% of the minimum requirement) requires Planning Commission approval based on supporting evidence from the applicant.
7. The Commission may waive/modify the buffer zone requirements along the south and east lot lines due to existing conditions (presence of a wetland and presence of existing trees, respectively).
8. There is a minor inconsistency between the landscape plan and table that must be corrected.

B. Proposal/Process

The project entails an expansion of the existing church building, as well as associated site improvements. In accordance with Section 7.02 of the Township Zoning Ordinance, churches, temples and similar places of worship are permitted by right in the GCD.

Per Section 18.02 an expansion of more than 10% from the original site plan approval for non-residential uses requires full site plan review by the Planning Commission.

As such, the Planning Commission has review and approval authority over the site plan.



Aerial view of site and surroundings (looking north)

C. Site Plan Review

1. Dimensional Requirements. As shown in the table below, the project complies with the applicable dimensional standards. It is important to note that churches are subject to different setback and height standards than a conventional GCD project. As such, the requirements noted are a combination of those found in Sections 7.03 and 11.01.

	Min. Lot Req.		Minimum Yard Setbacks (feet)				Max. Lot Coverage (%)	Max. Height (feet)
	Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking Lot		
Required	1	150	35	28 (E) 26 (W)	37	20 front 10 side/rear	35% building 75% impervious	60
Proposed	9.24	585	35	28.8 (E) 263 (W)	203.8	36 front 10 side/rear	7.8% building 32.7% impervious	41.25

2. Building Materials and Design. The proposed building elevations include a number of materials: brick, 2 types of stone, glass, metal panels, wood and green/live-wall panels.

There is a significant amount of metal paneling proposed. Material calculations provided on the revised plans note more metal paneling (50.2%) than allowed by Section 12.01 (25% maximum).

The Planning Commission has some discretion to allow deviation from Section 12.01; however, this should be based on information provided by the project architect demonstrating that the proposal meets the intent and purpose of the Township’s design standards and is in keeping with the character of the surrounding area.

In our opinion, this aspect of the proposal warrants additional discussion at the upcoming meeting.

The color renderings included with the initial submittal show shades of brown and gray. Color and material samples must be presented for the Commission’s consideration.

- 3. Pedestrian Circulation.** As required by Section 12.05, the plan proposes a 5-foot wide concrete sidewalk along Grand River. A portion of the sidewalk is located on private property, while the remainder is within the public right-of-way. A note indicates that a variable width easement will be provided for the portion on private property. Easement language should be reviewed and approved by the Township prior to recording.

The project also proposes an internal sidewalk system connecting the parking lots to the building, including a connection to the public sidewalk.

- 4. Vehicular Circulation.** Internal parking and drives meet or exceed the dimensional standards of the Zoning Ordinance and the proposal entails the removal of two existing driveways along Grand River. As proposed, the site would have one full turning movement driveway on the west side to/from Grand River, with secondary access provided via Harte Drive to the east.

The Impact Assessment references discussions with the Township Engineer and County Road Commission with respect to potential impacts along Grand River during peak usage. The proposal includes staggered start times for services so as to not conflict with the nearby church to the east, as well as a circulation plan (Sheet C3A). As noted in our initial review, we defer to the Township Engineer for a technical review of the traffic impacts.

- 5. Parking.** The proposed parking has been reviewed for compliance with the standards of Article 14, as follows:

	Required	Proposed	Comments
Parking Spaces Churches (1 space/3 seats or 6' of pews)	201	265	14.02.06 limits parking to 120% of the requirement; the proposal entails 132%, which requires PC approval based on evidence in support of that amount
Barrier Free Spaces	8	8	In compliance
Dimensions Spaces (75 to 90-degree) Drive aisle width (two-way)	9' x 18' 24'	9' x 18' 24'	In compliance
Loading Between 5,000 SF and 60,000 SF	2	0	Churches do not typically require dedicated loading zones for deliveries; the applicant states deliveries will be coordinated to avoid conflicts

- 6. Landscaping.** The landscape plan (Sheet C6) has been reviewed for compliance with the standards of Section 12.02, as noted in the following table:

Standard	Required	Proposed	Notes
Front yard greenbelt	20' width 15 canopy trees	35' width 15 canopy trees	Requirements met
Parking lot	18 canopy trees 1,767 SF landscaped area	19 canopy trees 3,040 SF landscaped area	Requirements met
Buffer zone "B" (south)	20' width 18 canopy trees 18 evergreen trees 70 shrubs 6' wall or 3' berm	Existing wetland and vegetation to remain undisturbed	PC may waive/modify this requirement based on existing conditions
Buffer zone "C" (west)	10' width 18 trees or 72 shrubs (or combination thereof)	10' width 16 trees 8 shrubs	Requirements met
Buffer zone "C" (east)	10' width 22 trees or 86 shrubs (or combination thereof)	10' width Existing trees along Harte Dr. 3 trees 20 shrubs	PC may waive/modify this requirement based on existing conditions
Detention pond	11 trees 110 shrubs	11 trees 110 shrubs	Requirements met

The landscape plan and table are inconsistent in terms of the number of Majestic Beauty (LT) and Arnold (LTA) Tulip trees. The number notation on the plan must be corrected for consistency.

7. **Waste Receptacle.** The proposed waste receptacle has been reviewed for compliance with the standards of Section 12.04, as follows:

	Requirement	Proposed	Comments
Location	Rear yard or non-required side yard	Rear yard	Requirement met
Access	Clear access w/ out damaging buildings/vehicles	Sufficient maneuvering area for refuse removal vehicles	Requirement met
Base design	9' x 15' concrete pad	18' x 20' concrete pad	Requirement met
Enclosure	Must have lid 3-sided enclosure w/ gate Constructed of brick or decorative concrete; 6' height	Lid provided 3 sides w/ gate across 4 th Screen wall – colored CMU 6'-10" height	Requirements met

8. **Exterior Lighting.** Sheet C7 includes the photometric plan and lighting details for this site. The plan includes 17 parking lot light poles, 18 illuminated bollards along the internal walkways, and 6 decorative wall mounted fixtures.

The photometric plan complies with maximum intensities allowed by Ordinance (both on-site and along property lines) and the proposed LED fixtures are downward directed, cut-off and shielded. Maximum pole height of 20 feet and mounting height of wall sconces (12 feet) are also compliant.

9. **Signs.** The site plan identifies a monument sign along Grand River and the building renderings include wall signage; however, details of the monument sign are not provided.

The applicant has stated that details will be provided during the separate sign permit process.

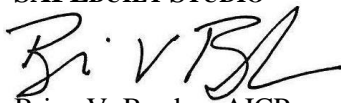
10. **Impact Assessment.** The submittal includes an Impact Assessment dated October 3, 2018.

In summary, the Assessment notes that the project is not anticipated to adversely impact natural features, public services/utilities or surrounding land uses. Supplemental information is provided with respect to traffic generation and operational procedures to help mitigate potential impacts.

Similar to previous comments, we defer to the Township Engineer for a detailed review of traffic impacts and the mitigation efforts proposed.

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 bborden@safebuilt.com and steve.hannon@safebuilt.com.

Respectfully,
SAFEBUILT STUDIO



Brian V. Borden, AICP
 Planning Manager



Stephen Hannon, AICP
 Planner



November 7, 2018

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

**Re: Community Bible Church
Site Plan Review #2**

Dear Ms. Van Marter:

As requested, we have performed a second review the site plan documents from Boss Engineering, last dated October 24, 2018, for the referenced project. The approximately 9-acre site is located at 7372 Grand River Avenue and is proposed for a 18,000-square-foot expansion to the existing 13,000-square-foot church. Tetra Tech has reviewed the site plan documents and offers the following comments:

WATER SERVICE

1. Rather than live tapping the existing water main on Harte Drive twice, the water main should be shut off at the existing valve and the main should be cut and fitted with a tee and cutting in sleeve at connection locations. To eliminate the proposed water main running parallel to the existing water main on Hart Drive, tees can be installed near WTV 02 and WTH3, and for the service connection. This can be done in a manner similar to what is shown in the attached drawing.
2. The water main improvements will be public infrastructure and will require construction plan review and MDEQ permitting through MHOG. The petitioner will be required to provide easement documentation for the proposed water main prior to MDEQ permitting. After site plan approval plans should be submitted electronically to planreview@mhog.org for construction plan review and permitting.

TRAFFIC

1. In our previous letter Tetra Tech reviewed and provided rationale for the approval of the traffic impact assessment. We currently have no further comments regarding the traffic impact assessment.

We recommend the petitioner address the above comments as part of the site plan review and approval process.

Please call if you have any questions.

Sincerely,

A blue ink signature of Gary J. Markstrom, written in a cursive style.

Gary J. Markstrom, P.E.
Vice President

A blue ink signature of Shelby Scherdt, written in a cursive style.

Shelby Scherdt
Project Engineer

Attachment



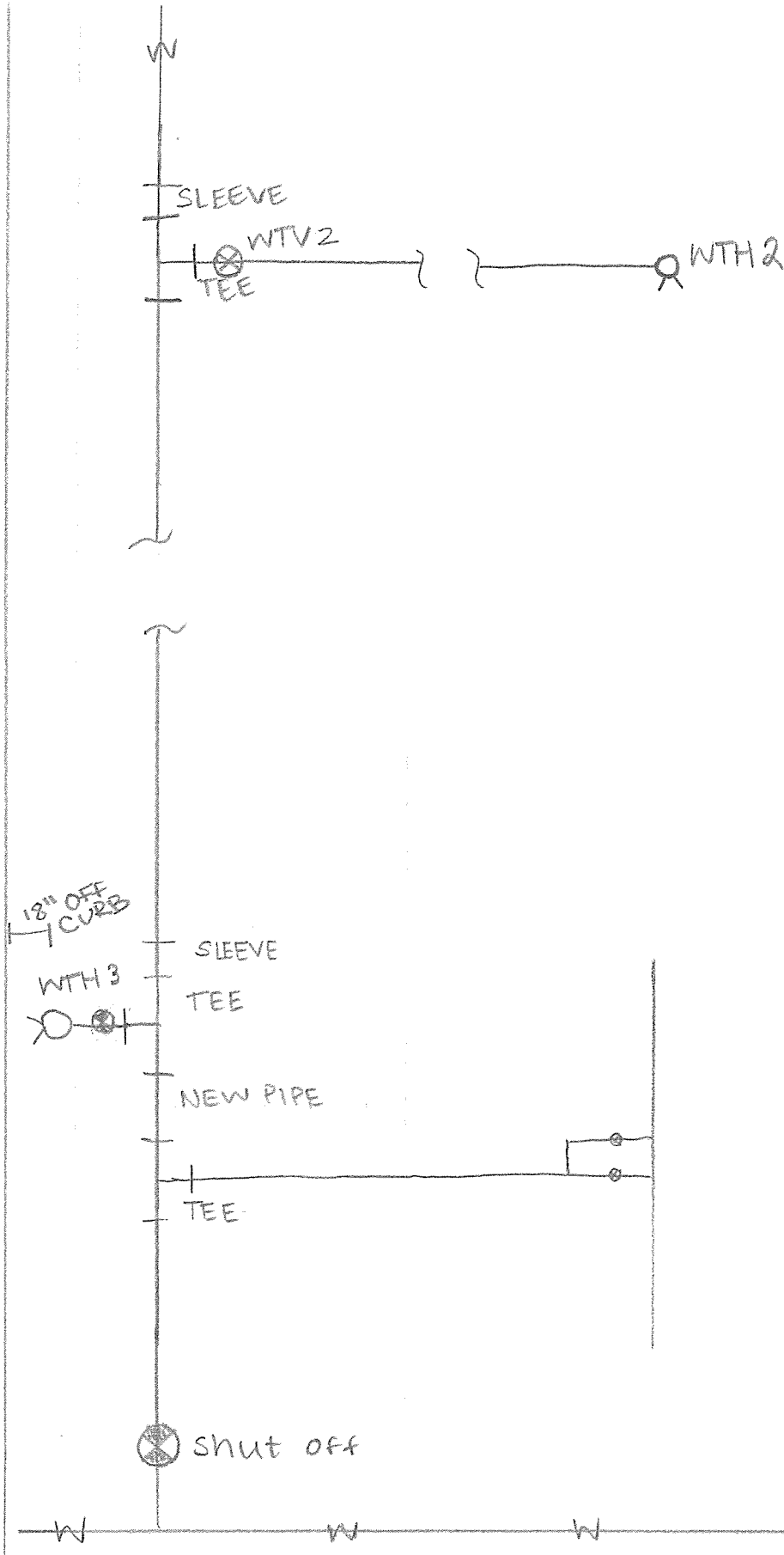
TETRA TECH MPS

JOB COMMUNITY BIBLE CHURCH SHEET NO. _____

SUBJECT _____ FILE NO. _____

COMPUTED BY _____ DATE 11/6/2018 CHK. BY _____ DATE _____

HARTE DRIVE





BRIGHTON AREA FIRE AUTHORITY

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

November 8, 2018

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Community Bible Church - Addition
7372 Grand River Ave.
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Authority has reviewed the above mentioned site plan. The plans were received for review on October 29, 2018 and the drawings are dated October 24, 2018. The project is based on an existing Assembly Occupancy (A-3 Church) that will undergo significant site alteration and expansion to include a new 31,223 square foot addition.

The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

1. The fire department connection (FDC) shall be relocated to the front (Grand River) side of the building and be located within 100' of a fire hydrant. **(A new fire hydrant has been added to Harte Dr. to accomplish the 100' spacing. After speaking with the engineer, we agreed to leave the FDC in the proposed location. This will overall improve hydrant spacing and coverage for the structure. The FDC is installed along a roadway therefore accessible for use.)**

IFC 912.2
2. The building addition is noted to be provided with an automatic sprinkler system in accordance with NFPA 13, *Standard for the Installation of Automatic Sprinkler Systems*. I recommend the 6" underground fire protection lead be increased to 8" to accommodate the future additions and potential suppression of the existing portion of the structure. **(The underground fire protection line has been increased to an 8" for future expansion potential.)**

IFC 903
3. To improve hydrant spacing to be within range and coverage for fire flow of the structure (including future additions) an additional hydrant shall be added to the landscape corner near CB04. The existing hydrant locations are acceptable if the new hydrant is added. If not locations will need to be re-worked and an additional hydrant likely added along Harte Dr. It is recommended that the 8" water main be looped through the site. **(Hydrant WTH02 was relocated to the west approximately 75' to a landscape island. A new hydrant WTH03 has been added along Harte Dr. This resolves spacing and fire flow concerns for the facility.)**
4. It is noted that the addition will be fire sprinklered, however, it is unclear if the existing building will be. If it is not, proper fire separation or fire suppression shall be provided. It is my recommendation to fire sprinkler the entire facility to increase flexibility of the space. **(Clarification was provided. The existing building will be separated from the new addition by an appropriate fire separation rather than providing sprinklers throughout.)**



November 8, 2018

Page 2

Community Bible Church - Addition

7372 Grand River Ave.

Site Plan Review

5. The building shall include the address on the street side and 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. The address is noted to be compliant by Note 5 on Sheet C3. Show the location of the address on the structure in its proposed location. **(The address is now shown on the architectural north elevation.)**

IFC 505.1

6. The building height measured from the lowest elevation of emergency vehicle access exceeds 30-feet. At 30-feet, at least one entire side of the addition shall be provided with an aerial apparatus access road located between 15 and 30-feet from the exterior wall. This access would ideally be placed at the rear between Lot "C" and the structure. **(The aerial apparatus access requirement has been thoroughly discussed with the engineer. Revisions are required to the alternative access. Just following submittal of this set contact was made with the engineer requiring width revision of this access. SHown is a 12' wide HD access with mountable curb. The width must be a minimum 20' with mountable curb. Further discussion is necessary to accomplish the for the access feature.)**

IFC D105

7. A minimum vertical clearance of 13½ feet shall be maintained throughout all apparatus access roads. Multiple trees on Landscape Sheet C6 indicate an intrusion to the clear width and clear height. These tree locations, species or access road widths shall be revised to ensure that the access clearances are maintained. **(This has been noted and landscaping species revised.)**

IFC 503.2.1

IFC 503.2.2

IFC 503.4

8. The location of a key box (Knox Box) shall be indicated on future submittals. The Knox box shall be located adjacent to the front door of the structure. (The Knox box is noted on the drawing Sheet C3. **(The location of the Knox Box is shown on the architectural north elevation adjacent to the main entrance.)**

IFC 506.1

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,

Rick Boisvert, CFPS
Fire Marshal

Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575
Telephone: (517) 546-4250 • Facsimile: (517) 546-9628
Internet Address: www.livingstonroads.org

October 30, 2018

Scott Tousignant, P.E.
Boss Engineering
3121 E. Grand River Ave
Howell, MI 48843

Re: Community Bible Church - Addition, Genoa Township, Section 13
LCRC# C-18-15

Dear Mr. Tousignant:

I have completed the review of the plans, dated October 24, 2018, for the above-referenced project and offer the following comments.

1. The selected contractor must submit a certificate of insurance to the LCRC with the following language: "The Board of Livingston County Road Commissioners, the Livingston County Road Commission, and their officers, agents, and employees are listed additional insured parties with respects to General Liability." This item is not needed for plan approval but will be needed prior to the issuance of a permit.
2. The LCRC requires a 3 lane commercial approach to consist of 2 outbound lanes at widths of 12 feet each and 1 inbound lane at a width of 15 feet. Therefore, the width of the paved approach should be 39 feet not including the concrete curb.

Please submit two (2) copies of revised plans for review. If you have any questions, please do not hesitate to contact me.

Sincerely,



Kim Hiller, P.E.
Utilities and Permits Engineer

Cc: File
Kelly VanMarter, Genoa Township (via email)
Ken Recker, Livingston County Drain Commissioner's office (via email)

**IMPACT ASSESSMENT
FOR
SITE PLAN PETITION
"COMMUNITY BIBLE CHURCH"
GENOA TOWNSHIP, LIVINGSTON COUNTY
MICHIGAN**

Prepared for:

**COMMUNITY BIBLE CHURCH
7372 GRAND RIVER
BRIGHTON, MICHIGAN 48114
(810) 227-2255**

Prepared by:

**BOSS ENGINEERING COMPANY
3121 E. GRAND RIVER
HOWELL, MI 48843
(517) 546-4836**

October 3rd , 2018

14-047 EIA

INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed development may have on various factors in the general vicinity of the project. The format used for presentation of this report conforms to the *Submittal Requirements For Impact Assessment* guidelines in accordance with Section 18.07 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

DISCUSSION ITEMS

A. Name(s) and address(es) of person(s) responsible for preparation of the impact assessment and a brief statement of their qualifications.

Prepared By :
Brent W. LaVanway, P.E.
BOSS ENGINEERING COMPANY
Civil Engineers, Land Surveyors, Landscape Architects and Planners
3121 E. Grand River
Howell, MI 48843
(517) 546-4836

Prepared For :
Community Bible Church
Client
7372 Grand River
Brighton, MI 48114
(810) 227-2255

B. Map(s) and written description / analysis of the project site including all existing structures, manmade facilities, and natural features. The analysis shall also include information for areas within 10 feet of the property. An aerial photograph or drawing may be used to delineate these areas.

The 9.24 acre site is located on the south side of Grand River immediately west of Harte Dr and across from Euler Rd. The subject property is currently the Community Bible Church Facility. There is the existing Church building, gravel parking lot, detention basin and house which is currently used for storage and the occasional class or meeting. The south end of the property contains a natural area with shrub/scrub vegetation and a wetland. There is an established tree row along Harte Dr just off of the subject property.

C. Impact on natural features: A written description of the environmental characteristics of the site prior to development and following development, i.e., topography, soils, wildlife, woodlands, mature trees (eight inch caliper or greater), wetlands, drainage, lakes, streams, creeks or ponds. Documentation by a qualified wetland specialist shall be required wherever the Township

determines that there is a potential regulated wetland. Reduced copies of the Existing Conditions Map(s) or aerial photographs may accompany written material.

Resources utilized to study the natural features of the site included a on-site visit, aerial photos from Google Earth, a web soil survey prepared by the USDA, Wetlands Inventory Maps prepared by the MDEQ as well as resources prepared by the Huron River Watershed Council and other Livingston County Natural resources agencies.

The front (north) portion of the site is the existing Church facility, while the south contains the parking lot and natural area. The developed site slopes generally to the south toward the wetland. The soils on site consist of loam, loamy sand and muck. The soils shown on the USDA map are consistent with the field assessment of the upland and low land areas found on site. The land cover identified in the field is also consistent with the soils which consist of impervious surface, compacted lawn area, wetland and wooded shrub scrub areas. Existing vegetation specifically tree species found on-site that would be removed include Red Oak, Cottonwood, Basswood, Maple, Cherry, Cedar, and Pine. Given that the site has already been developed tree removal and natural features disturbance will be minimal.

D. Impact on storm water management: Description of measures to control soil erosion and sedimentation during grading and construction operations and until a permanent ground cover is established. Recommendations for such measures may be obtained from County Soil Conservation Service.

Topography on the site ranges from a low of 961.81 at the wetland edge to a high of 992.54 at the north central portion of the property near Grand River Road. The property is undulating, but largely drains from the north to the south toward a wetland system that extends off the property.

The land cover found in the field consisted of three different types; impervious surface (parking lot, building), wetland, wooded area including shrub scrub as well as compacted lawn areas.

The proposed stormwater design will utilize catch basins at low areas onsite and pipe stormwater to a detention basin located in the southeast corner of the site then be discharged into the existing wetland. In general existing drainage patterns on-site are being followed as closely as possible with the proposed stormwater system.

Soil erosion measures will be utilized throughout the construction process to reduce the risk of erosion and sedimentation. This will be accomplished through the use of silt sacks placed in catch basins, silt fence installed along the perimeter of the property, and weekly inspections from a certified stormwater operator.

E. Impact on surrounding land use: Description of the types of proposed uses and other man made facilities, including any project phasing, and an indication of how the proposed use conforms or conflicts with existing and potential development patterns. A description shall be provided of any increases of light, noise or air pollution which could negatively impact adjacent properties.

As previously stated the site is the current home of Community Bible Church. The use of the site conforms with development patterns of the surrounding area and will feature an expansion of the existing facility.

In general the site will see an increase in use due to the expansion of the facility but, that is anticipated to occur over the next few years. Increased use would be during Sunday's service hours and perhaps occasional nights during the week after 5pm for various church related functions or activities. The increase in use will be minimal in that the site is already a functioning Church and this expansion is more of an overdue necessity to properly provide an adequate parking lot and worship area with associated classrooms, storage, and clerical space. Currently, Sunday school services are unable to be held at the church due to lack of space so a shuttle transfers children and young adults across the road to an offsite building not associated with the church to provide their education. With an expansion of their own facility shuttling elsewhere would no longer be required by keeping all Church related education and activities on-site instead of relying on local nearby facilities. Because the site is located in a commercial area increases in light or noise should not cause any issues with adjacent property owners.

F. Impact on public facilities and services: Description of number of expected residents, employees, visitors, or patrons, and the anticipated impact on public schools, police protection and fire protection. Letters from the appropriate agencies may be provided, as appropriate.

With the expansion of the existing facility impacts on public facilities and services are anticipated to be minimal. An increase in attendance and membership with the church is expected but again, the increase amount is anticipated to increase gradually over next few years.

Local school districts won't be affected by the addition, and the only impact to emergency services such as police protection and fire is the larger building footprint and perhaps some more patrons. Both of those impacts will be minimal and of little concern to each department.

G. Impact on public utilities: Description of the method to be used to service the development with water and sanitary sewer facilities, the method to be used to control drainage on the site and from the site, including runoff control during periods of construction. For sites service with sanitary sewer, calculations for pre- and post development flows shall be provided in equivalents to a single family home. Where septic systems are proposed, documentation or permits from the Livingston County Health Department shall be provided.

The existing Church is currently served by M.H.O.G public water and Genoa Township public sanitary sewer. With the building expansion comes the requirement to purchase additional REU's for the potential increased use of municipal utilities. Due to some special assessments on the property and coupled with REU's they had already purchased previously the church will need to purchase an additional 2 water REU's and 4 sanitary sewer REU's. The fees associated with the purchase cover the potential increase of usage or impact the expansion will have on public utilities.

Given the use of the building and peak usage times being Sunday mornings the impact on sanitary and water is anticipated to be minimal.

H. Storage or handling of any hazardous materials: Description of any hazardous substances expected to be used, stored or disposed of on the site. The information shall describe the type of materials, location within the site and method of containment. Documentation of compliance with federal and state requirements, and a Pollution Incident Prevention Plan (PIPP) shall be submitted, as appropriate.

There will be no hazardous materials used or disposed of on this site.

I. Impact on traffic and pedestrians: A description of the traffic volumes to be generated based on national reference documents, such as the most recent edition of the Institute of Transportation Engineers Trip Generation Manual, other published studies or actual counts of similar uses in Michigan.

Initial discussions with the Livingston County Road Commission and the Genoa Township Consulting Engineer produced a primary concern of traffic potentially backing up onto Grand River when patrons are entering the site. We have provided an on-site traffic circulation plan (Sheet 3A in plan set) specifically to help prevent this issue. Parking spaces located near the entrance off of Grand River will be designated for Church staff and volunteers only on Sunday's occupying spaces that otherwise could cause traffic backups. Signage on-site will be utilized as well as volunteer parking lot aides if needed to help direct traffic and prevent backups.

A breakdown of anticipated traffic based upon capacity of the new expansion is provided below:

Existing Seat Count- 375

Proposed Seat Count- 601

According to a parking study performed by Jeffery Parker Associates it was determined that for every 2.4 seats there is 1 associated car. Therefore, we apply that factor to both the existing and proposed seat counts:

Existing Seats: $375 / 2.4 = 156$ vehicles

Proposed Seats: $601 / 2.4 = 250$ vehicles

From information provided from the Church on member addresses we also know that forty two percent (42%) of members travel from the east and fifty eight percent (58%) travel from the west. Turning movements entering and exiting the site can then be broken down as follows:

Existing Turning Movements:

-Entering the site:

-156 vehicles x 42% = 65 vehicles turning left into the site

-156 vehicles x 58%=91 vehicles turning right into the site

-Exiting the site:

-156 vehicles x 42% = 65 vehicles turning right out of the site

-156 vehicles x 58%= 91 vehicles turning left out of the site

Proposed Turning Movements:

-Entering the site:

-250 vehicles x 42% = 105 vehicles turning left into the site

-250 vehicles x 58% = 145 vehicles turning right into the site

-Exiting the site:

-250 vehicles x 42%= 105 vehicles turning right out of the site

-250 vehicles x 58% = 145 vehicles turning left out of the site

As one can see the turning movements entering and exiting the site do increase but only by approximately 50 vehicles at peak capacity. During the typical Sunday it will be considerably less.

Community Bible Church currently has two (2) services on Sunday's, one at 9:30am and one at 11am. 2|42 Church located east of the proposed site has three (3) services on Sundays starting at 9am, 10:30am, and 12pm. The staggering of service times between the two churches also helps to alleviate some of the traffic on Grand River during those time periods.

J. A detailed traffic impact study shall be submitted for any site over ten (10) acres in size which would be expected to generate 100 directional vehicle trips (i.e. 100 inbound or 100 outbound trips) during the peak hour of traffic of the generator or on the adjacent streets.

A traffic study is not required for this site.

K. Special Provisions: General description of any deed restrictions, protective covenants, master deed or association bylaws.

An easement for access to Harte Dr will need to be obtained from owner of property to the east and a permit will be required to discharge into a MDEQ regulated wetland.

L. A list of all sources shall be provided.

Genoa Township's *Submittal Requirements For Impact Assessment*

Genoa Township Zoning Ordinances

Soil Survey of Livingston County, Michigan, U.S.D.A. Soil Conservation Service

National Wetland Inventory Plan, United States Department of the Interior, Fish and Wildlife Service

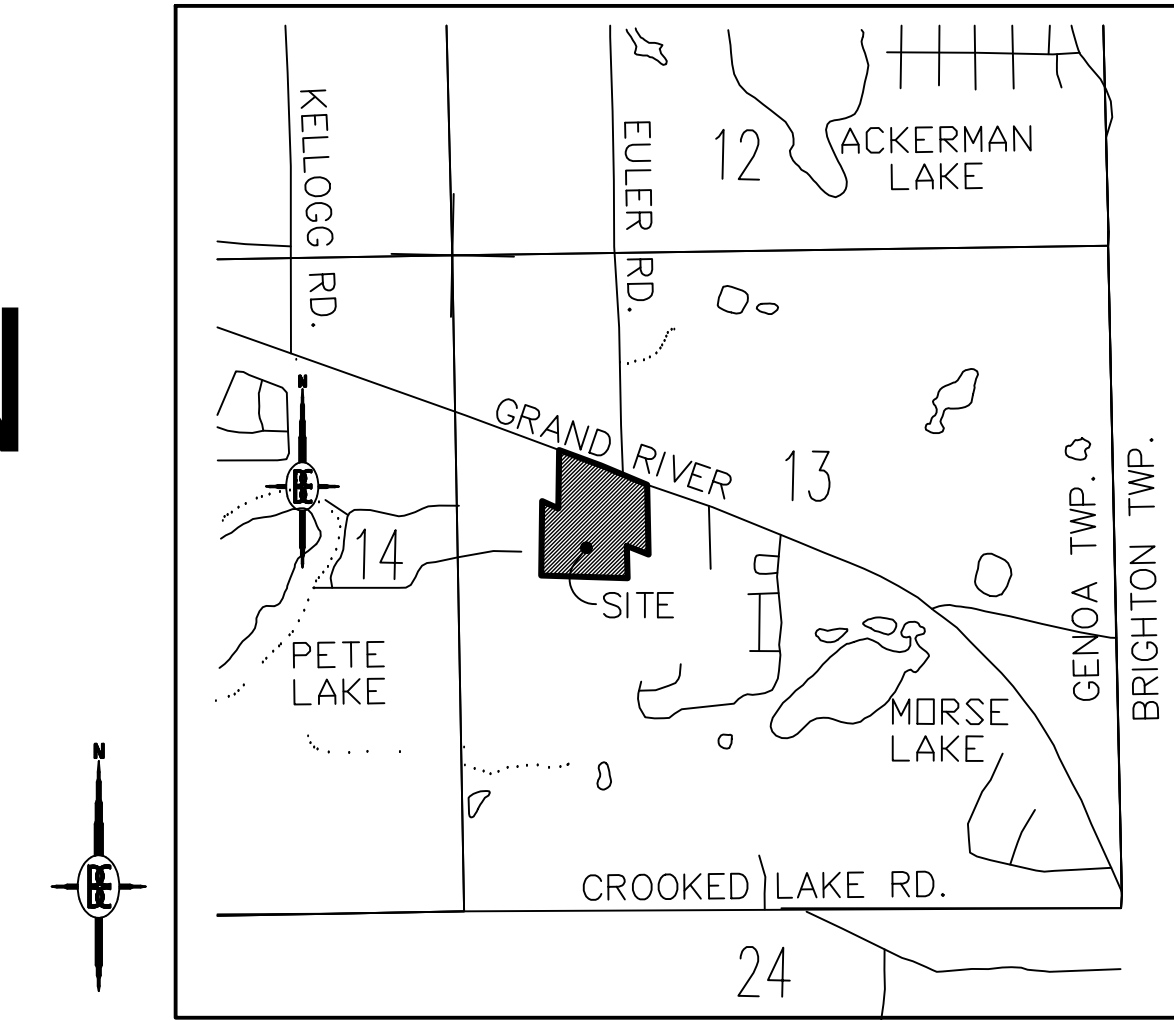
SITE PLAN FOR COMMUNITY BIBLE CHURCH EXPANSION

PART OF NORTH 1/4 CORNER, SECTION 13, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MI

PROPERTY DESCRIPTION:

PARCEL DESCRIPTION (AS SURVEYED) (4711-13-300-055):
Part of the Northwest 1/4 of Section 13, T2N-R5E, Genoa Township, Livingston County, Michigan, more particularly described as follows:
Commencing at the West 1/4 Corner of Section 13, thence along the East-West 1/4 line of Section 13, as previously surveyed and monumented, S 88°51'48" E, 1341.91 feet, to the POINT OF BEGINNING of the Parcel to be described, said point also being the Southwest Corner of the Southeast 1/4 of the Northwest 1/4 of Section 13, as monumented; thence N 00°39'48" E, 460.60 feet (recorded as N 00°41'35" E, 461.41 feet); thence S 65°23'01" E, 110.15 feet (recorded as 110.00 feet); thence N 00°50'02" E, 363.14 feet (recorded as N 00°34'55" W, 362.88 feet); thence along the Southerly Right of Way line of Grand River Avenue (50 foot wide 1/2 Right of Way), on the following two (2) courses: 1) S 69°36'24" E, 275.61 feet (recorded as S 71°02'45" E, 272.00 feet and S 71°06'30" E, 3.42 feet); 2) S 67°16'23" E, 312.61 feet (recorded as S 68°46'30" E, 312.69 feet), (said point bearing the following two (2) courses, from the Center of Section 13: 1) along the North-South 1/4 line of Section 13, as previously surveyed and monumented, N 00°04'53" E, 315.11 feet (recorded as N 01°03'38" W, 314.82 feet); 2) along the Southerly Right of Way line of Grand River Avenue (50 foot wide 1/2 Right of Way), N 67°16'23" W, 748.03 feet (recorded as N 68°46'30" W, 749.36 feet); thence S 00°04'47" W, 430.35 feet (recorded as S 01°23'01" E, 430.25 feet); thence N 66°58'10" W (recorded as N 68°25'58" W), 145.05 feet; thence S 00°07'44" W (recorded as S 01°20'04" E), 206.68 feet; thence N 87°55'48" W (recorded as N 88°46'13" W), 523.39 feet, to the POINT OF BEGINNING, containing 9.17 acres, more or less, and subject to the rights of the public over the existing Grand River Avenue. Also subject to any other easements or restrictions of record.

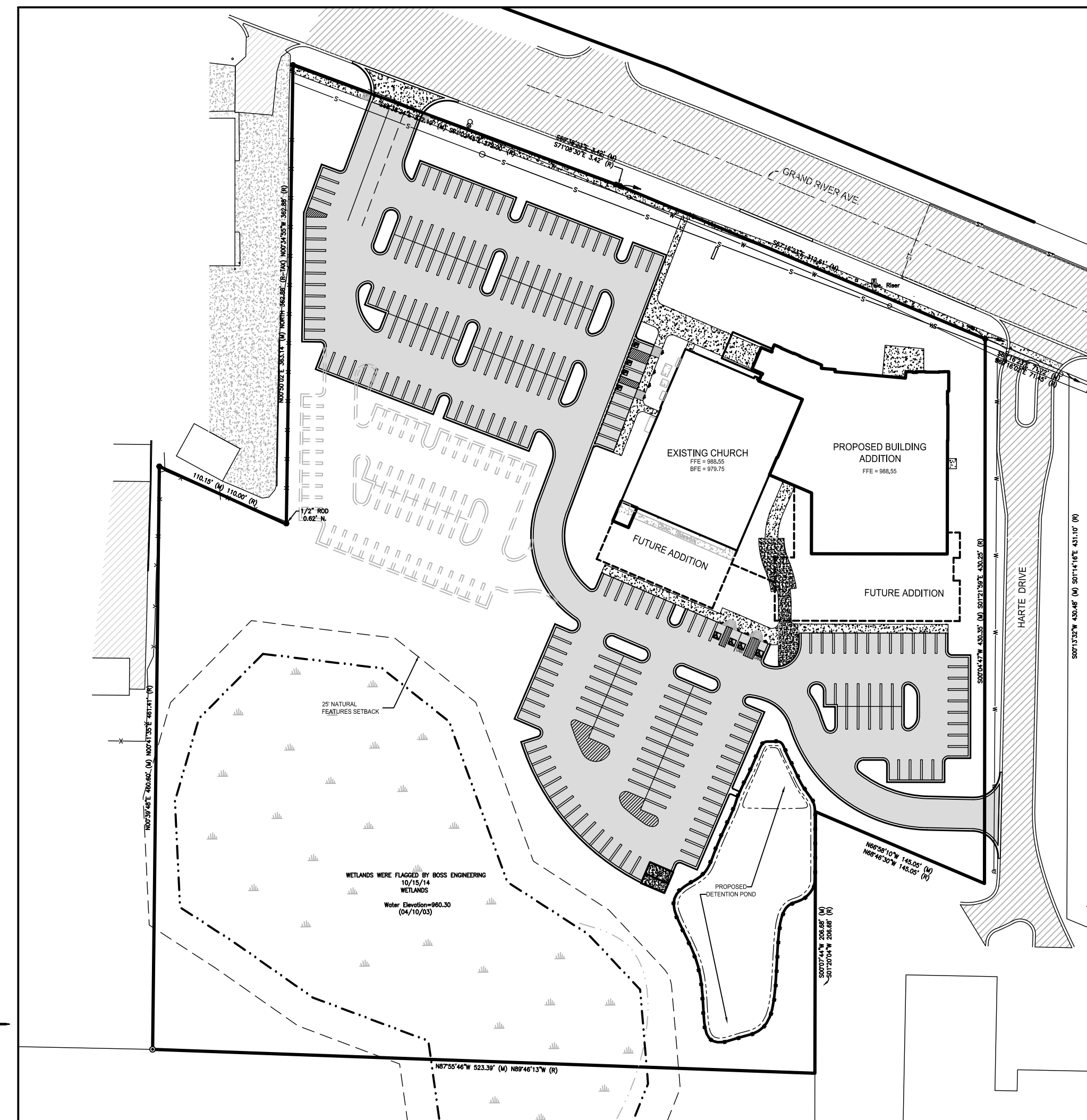
Description containing parcels: 4711-13-300-007, 4711-13-300-008, & 4711-13-300-035



LOCATION MAP
NO SCALE

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING NOTES AND ANY WORK INVOLVED SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.
 - DO NOT SCALE THESE DRAWINGS AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
 - A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
 - IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
 - ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
 - PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
 - ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS.
 - ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
 - THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHTS-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
 - THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
 - THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
 - THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
 - THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 - ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).
 - ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
 - NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
 - DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
 - IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
 - NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
 - ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDED OR SEEDING AS SPECIFIED OR DIRECTED BY THE ENGINEER.
 - ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
 - TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
 - ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
 - AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.
 - ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
 - NO SEEDING SHALL BE DONE AFTER OCTOBER 15 WITHOUT APPROVAL OF THE ENGINEER.
 - ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
 - SOIL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
 - ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.



OVERALL SITE MAP
NO SCALE

CONTRACTOR:

CONTRACTING RESOURCES
8273 GRAND RIVER, #150
BRIGHTON, MI 48114
CONTACT: JOHN JICKLING
PHONE: 810-229-4320

ARCHITECT:

JEFFREY PARKER ARCHITECTS
855 28TH STREET SE
GRADN RAPIDS, MI 49508
CONTACT: JEFFREY PARKER
PHONE: 616-241-0090

SHEET INDEX

SHEET NO.	DESCRIPTION
C1	COVER SHEET
C2	EXISTING CONDITIONS & DEMOLITION PLAN
C3	SITE PLAN
C3A	ON-SITE TRAFFIC CIRCULATION PLAN
C4	GRADING PLAN
C4A	SOIL EROSION CONTROL PLAN
C5	UTILITY PLAN
C6	LANDSCAPE PLAN
C7	PHOTOMETRIC PLAN
C8	CONSTRUCTION DETAILS
C9	DETENTION BASIN DETAILS
C10	DRAINAGE STUDY
C11	WATER MAIN STANDARD DETAILS
DRAWINGS PREPARED BY ARCHITECT	
A1-0	FLOOR PLAN
A1-1	LOWER FLOOR PLAN
A3-0	EXTERIOR ELEVATIONS

COMMUNITY BIBLE CHURCH EXPANSION



PREPARED FOR:

COMMUNITY BIBLE CHURCH
7372 GRAND RIVER AVENUE
BRIGHTON, MI 48114
CONTACT: JAMES WICKMAN
PHONE: 810-227-2255

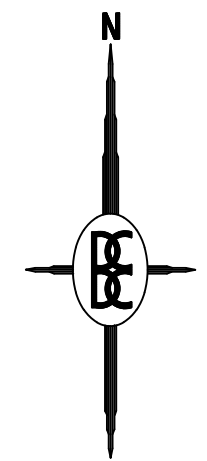
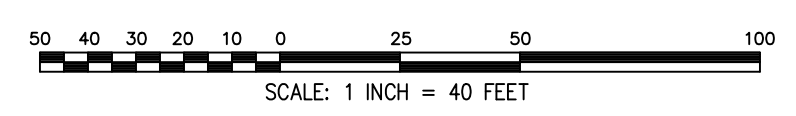
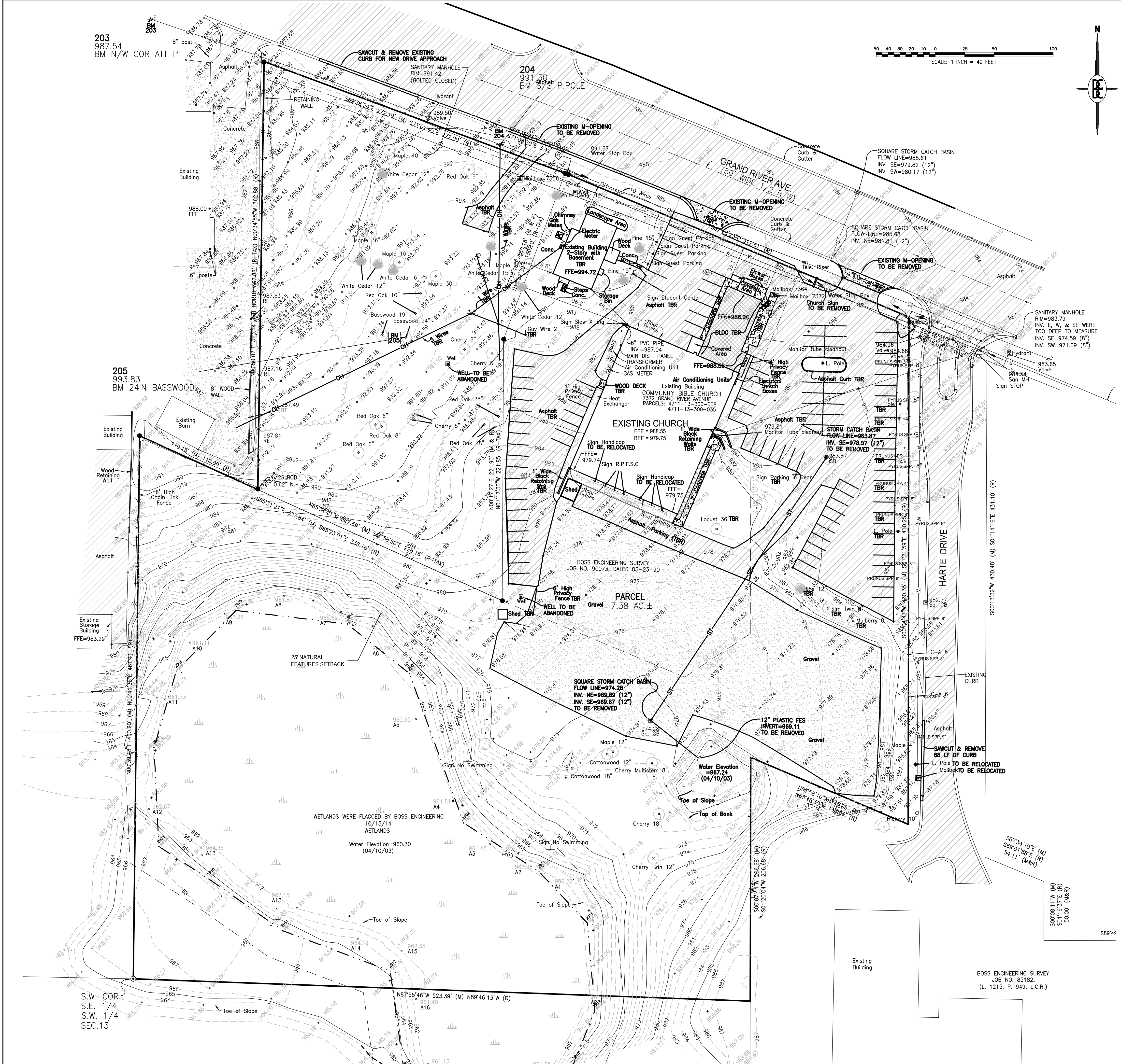
PREPARED BY:

BEBOSS
Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
800.246.6735 FAX 517.548.1670

INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

				C1
2	ST	PER TOWNSHIP REVIEW & P.C.	11-26-18	
1	ST	PER TOWNSHIP REVIEW	10-24-18	ISSUE DATE: 10/2/18
NO	BY	CK	REVISION	DATE



SITE AERIAL

LEGEND

- 900 CONTOUR
- 922.08 SPOT ELEVATION
- WETLAND SYMBOL
- POWER POLE
- HYDRANT
- GATE VALVE
- SANITARY SEWER
- WATERMAIN
- STORM SEWER
- GAS MAIN
- ELECTRIC
- TELEPHONE
- OVERHEAD WIRES
- FENCE
- SIGN
- SQUARE STORM CATCH BASIN
- BEEHIVE STORM CATCH BASIN
- SANITARY MANHOLE
- POST
- BENCHMARK
- FINISHED FLOOR ELEVATION
- DECIDUOUS TREE
- CONIFEROUS TREE
- MAILBOX
- GAS METER
- TELEPHONE RISER
- ELECTRIC METER
- AIR CONDITIONING UNIT

SOILS INFORMATION:
 MIAMI LOAM (Mo), 2% TO 6% SLOPES
 -EASTERN EDGE OF SITE ALONG HARTE DRIVE
 MIAMI LOAM (Mo), 6% TO 12% SLOPES
 -NORTHERN AND WESTERN EDGES OF SITE
 MIAMI LOAM (Mo), 12% TO 18% SLOPES
 -ACCOUNTS FOR ENTIRE CENTRAL PORTION OF SITE
 CARLISLE MUCK (Cg)
 -WETLAND AREA IN SOUTHWEST CORNER OF SITE

BENCHMARKS:
 BENCHMARKS ARE BASED OFF CENOA TOWNSHIP BENCH MARKS BY MCNAMEE, PORTER & SEELEY (#197 & #198) (NGVD29 DATUM)

BENCHMARK #203
 NW COR. TELEPHONE PAD, S/S GRAND RIVER AVE. BETWEEN HANDI-RENTAL AND SMEDE & SON. ELEVATION = 987.54

BENCHMARK #204
 BOSS TAG/NAIL SET S/S P. POLE IN FRONT OF HOUSE #7356. ELEVATION = 991.30

BENCHMARK #205
 BOSS TAG/NAIL SET NW/S 24" BASSWOOD IN BETWEEN HOUSE #7356 & EXISTING GARAGE. ELEVATION = 993.83

BENCHMARK #207
 BOSS TAG/NAIL SET NW/S P. POLE IN GRAVEL PARKING LOT, 170'± SOUTH OF CHURCH BUILDING. ELEVATION = 977.33

ALL INFORMATION CONTAINED HEREIN IS UNLESS OTHERWISE SPECIFICALLY STATED, THE PROPERTY OF BEBOSS ENGINEERING, INC. BEBOSS ENGINEERING, INC. IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DOCUMENT. THE USER OF THIS DOCUMENT SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.

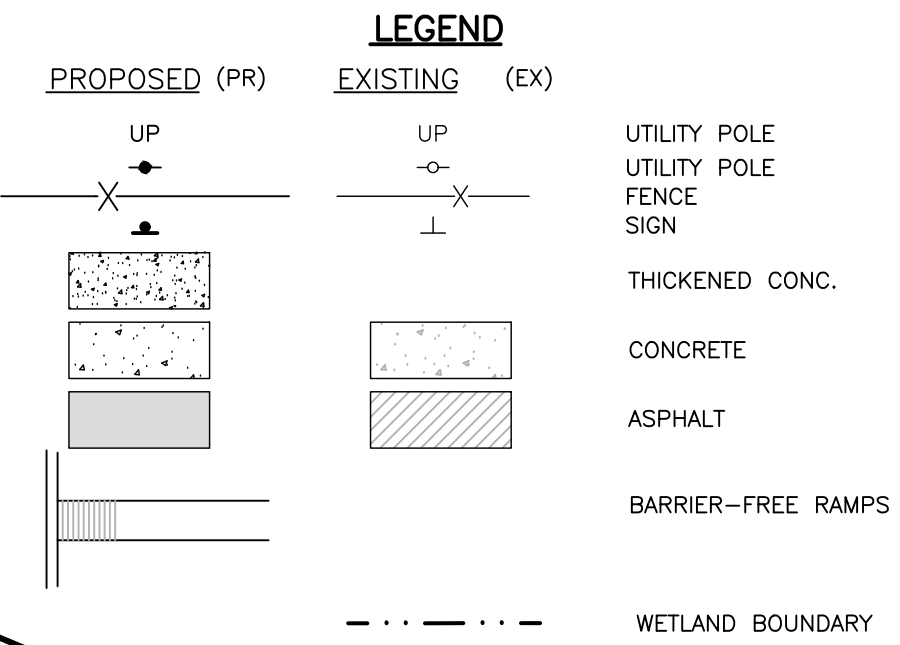
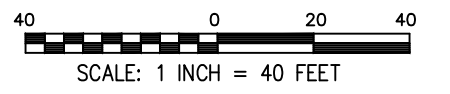
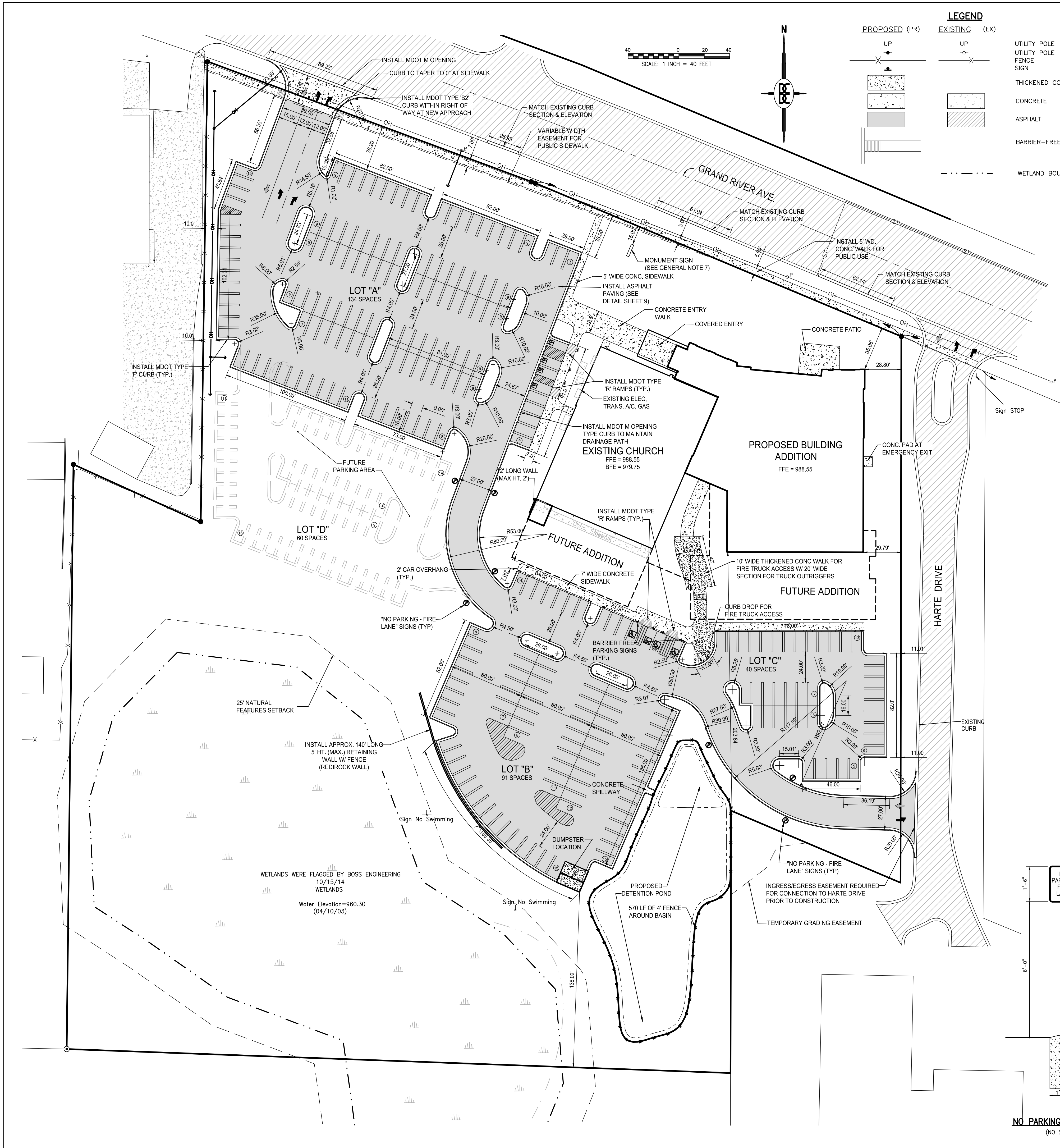
BEBOSS Engineering
 Engineers Surveyors Planners Landscape Architects
 3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 800.246.6735 FAX 517.548.1670

COMMUNITY BIBLE CHURCH EXPANSION
 COMMUNITY BIBLE CHURCH
 7372 GRAND RIVER AVENUE
 BRIGHTON, MI 48114
 810-227-2255

PROJECT	PREPARED FOR	TITLE
COMMUNITY BIBLE CHURCH EXPANSION	COMMUNITY BIBLE CHURCH	EXISTING CONDITIONS & DEMO PLAN

NO	BY	DATE	REVISION PER
1	ST	10-24-18	
2	ST	11-26-18	

DESIGNED BY: ST
 DRAWN BY: ST
 CHECKED BY:
 SCALE: 1" = 40'
 JOB NO. 14-047
 DATE: 10/2/18
 SHEET NO. **C2**



SITE/BUILDING DATA

PARCEL SIZE:	9.24 AC.
EXISTING ZONING:	GENERAL COMMERCIAL DISTRICT
EXISTING USE:	CHURCH
PROPOSED USE:	CHURCH (35 FT IF NO PARKING IN FRONT YARD)
REQUIRED FRONT SETBACK:	35.00 FT.
REQUIRED SIDE SETBACK:	15 FT.
REQUIRED REAR SETBACK:	28.80 FT.
PROPOSED REAR SETBACK:	203.84 FT.
PARKING LOT SETBACK:	20.00 FT., 10.00 FT(SIDE/REAR)
PROPOSED PARKING SETBACK:	11.00 FT. (SIDE)
MAX. BUILDING HEIGHT:	**50 FT MAX. PROVIDED THE FRONT, SIDE, AND REAR YARDS SHALL NOT BE LESS THAN THE HEIGHT OF THE BUILDING WALL ABUTTING ON SUCH YARD (ORDINANCE 11.01.05 (a))
BUILDING WALL ABUTTING ON SUCH YARD:	1 STORY
PROPOSED BUILDING HEIGHT:	1 STORY
MAX. LOT COVERAGE:	35% BUILDING 75% IMPERVIOUS
BUILDING FOOTPRINT	
EXISTING CHURCH:	13,036 S.F.
PROPOSED CHURCH:	18,176 S.F.
TOTAL:	31,212 S.F. (7.75%)
IMPERVIOUS COVERAGE	
PROPOSED BUILDING:	31,212 S.F.
PROPOSED PAVING:	100,301 S.F.
FUTURE PAVING/BLDG:	37,014 S.F.
TOTAL:	131,513 S.F. (32.67%)
TOTAL (W/ FUTURE PAVING):	168,527 S.F. (41.87%) (TOTAL SITE BUILD-OUT)

PARKING DATA

PARKING REQUIRED:

CHURCHES:

- 1 SPACE FOR EACH 3 SEATS IN MAIN WORSHIP AREA
- 601 SEATS / 3 SEATS PER SPACE = 201 SPACES
- 201-300 SPACES REQUIRES 7 BARRIER-FREE SPACES
- 301-400 SPACES REQUIRES 8 BARRIER-FREE SPACES

PARKING PROPOSED:

FUTURE PARKING:

- 265 SPACES (INCLUDING 8 BARRIER-FREE SPACES)
- 60 SPACES (NOT PART OF THIS PROJECT)

- GENERAL NOTES**
- ALL OUTDOOR LIGHTS SHALL BE SHIELDED TO REDUCE GLARE AND SHALL BE ARRANGED TO NOT INTERFERE WITH THE VISION OF PERSONS ON ADJACENT ROADWAYS OR ADJACENT PROPERTY.
 - ALL SIGNS SHALL MEET LOCAL MUNICIPALITY ORDINANCE REQUIREMENTS.
 - 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 OF 75,000 POUNDS.
 - THE PROPOSED BUILDING ADDITION IS TO HAVE AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.
 - THE BUILDING ADDRESS SHALL BE A MINIMUM OF 6" HIGH LETTERS OF CONTRASTING COLORS AND BE CLEARLY VISIBLE FROM THE STREET. THE LOCATION AND SIZE ARE TO BE VERIFIED PRIOR TO INSTALLATION.
 - A KNOX BOX FOR FIRE DEPARTMENT USE SHALL BE LOCATED ADJACENT TO THE MAIN ENTRY.
 - PROPOSED MONUMENT SIGN TO MEET TOWNSHIP ORDINANCE REQUIREMENTS AND PROVIDED DURING THE SIGN PERMIT PROCESS.
 - DELIVERIES SHALL NOT OCCUR ON SUNDAYS DURING SERVICE TIMES TO AVOID TRAFFIC CONFLICTS.

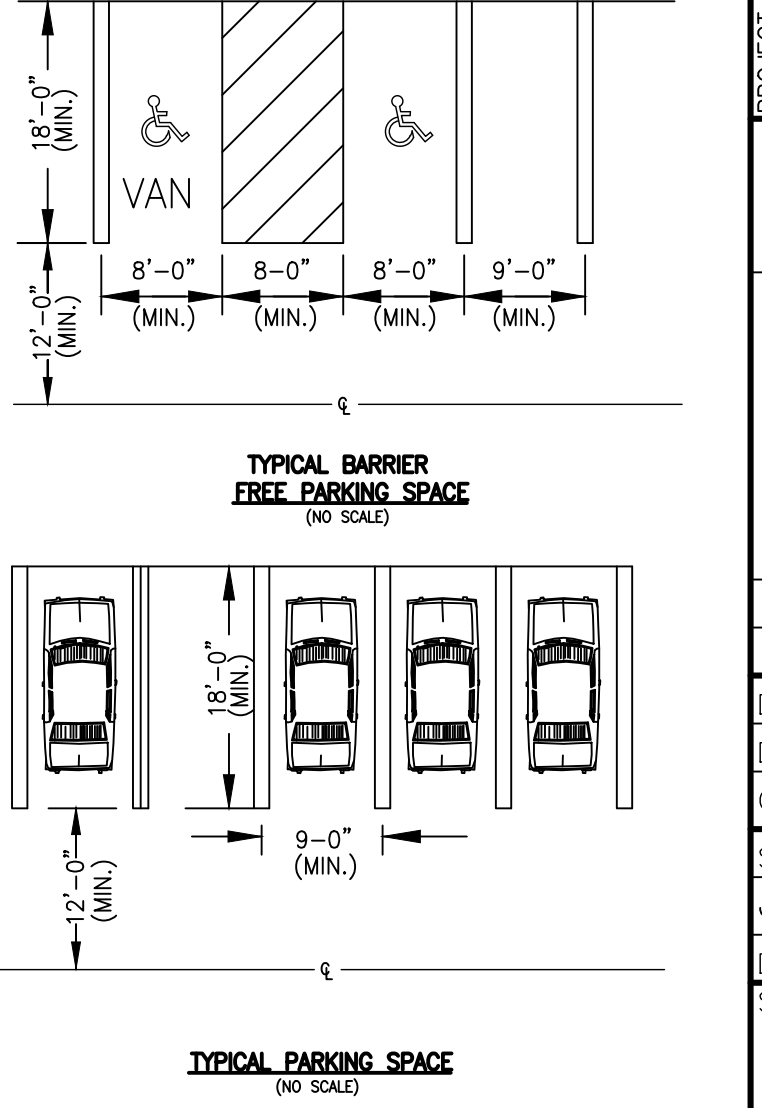
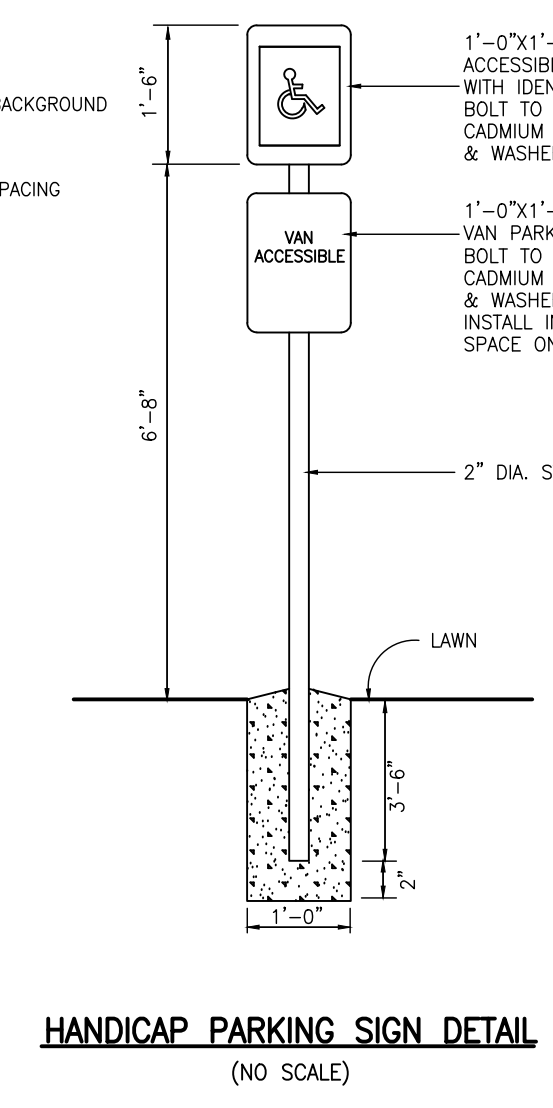
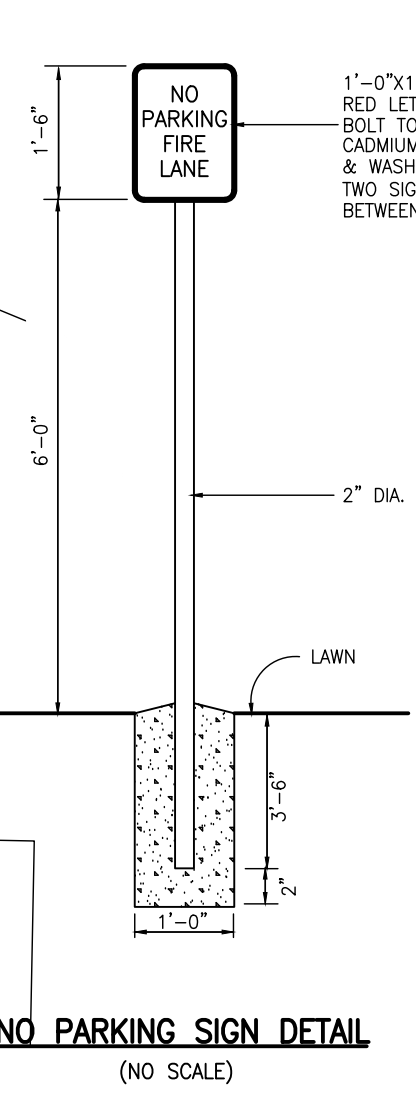
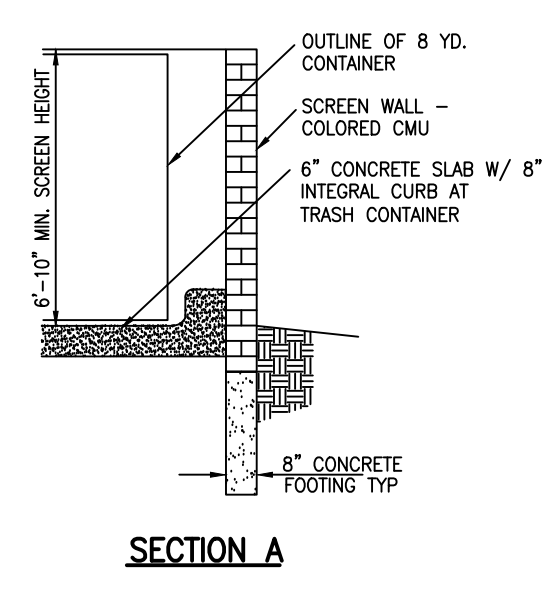
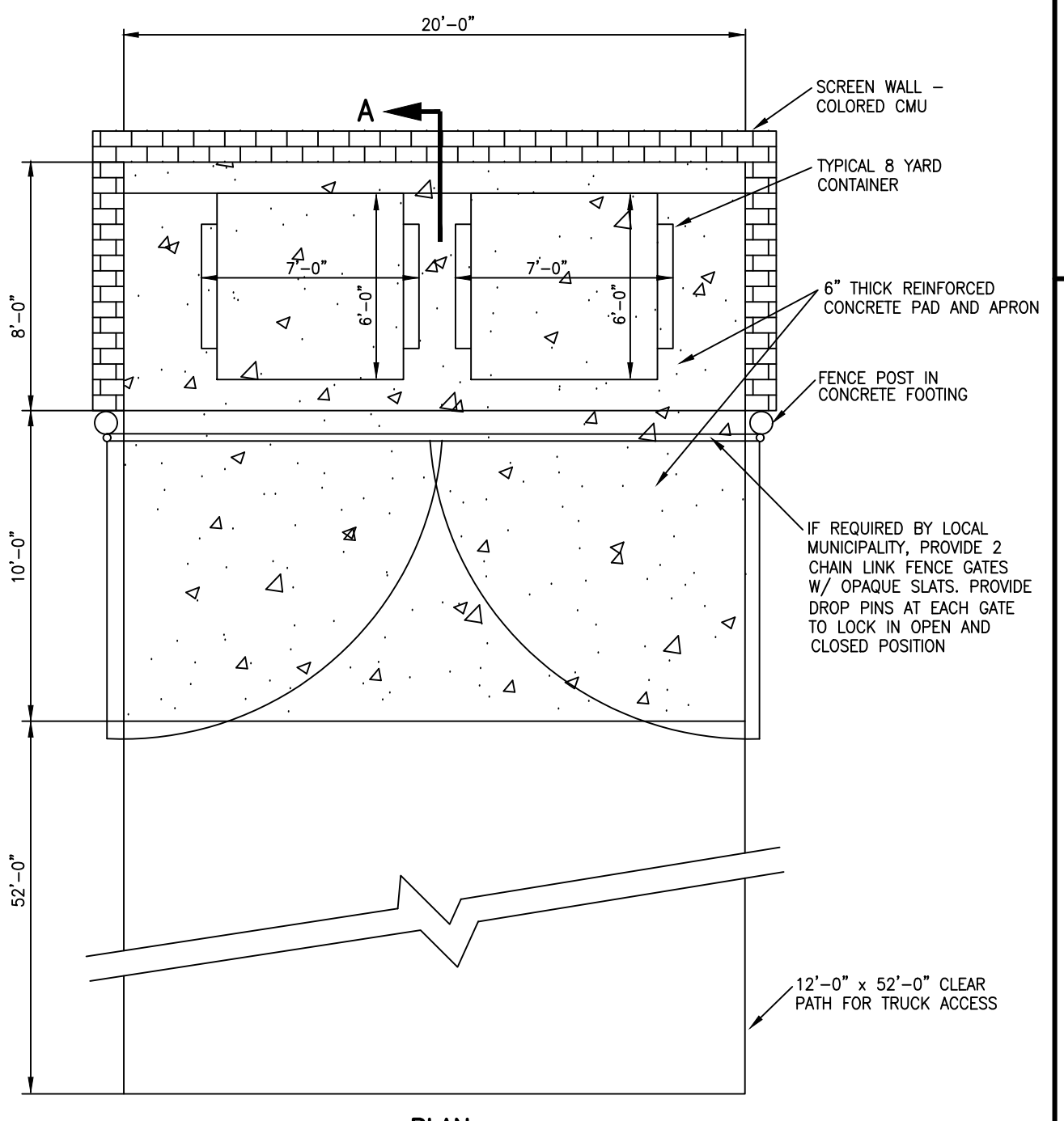
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PROJECT: COMMUNITY BIBLE CHURCH EXPANSION
PREPARED FOR: COMMUNITY BIBLE CHURCH
7372 GRAND RIVER AVENUE
BRIGHTON, MI 48114
810-227-2255
TITLE: SITE PLAN

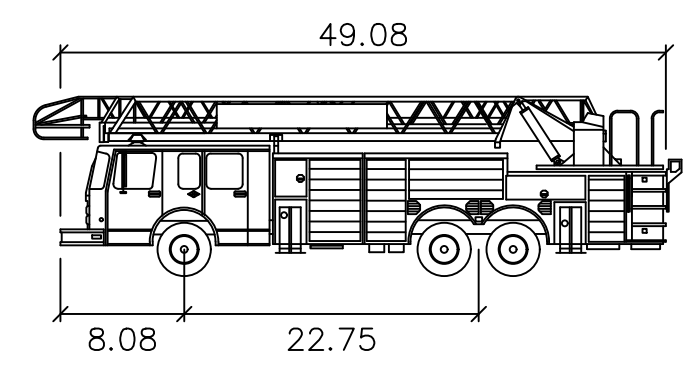
NO.	DATE	REVISION	BY
1	10-24-18	PER TWP REVIEW	ST
2	11-29-18	PER TWP & P.C.	ST

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DATE: 10/2/18
SHEET NO. C3

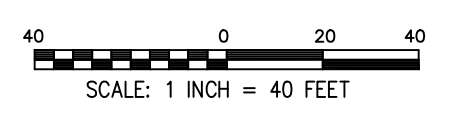
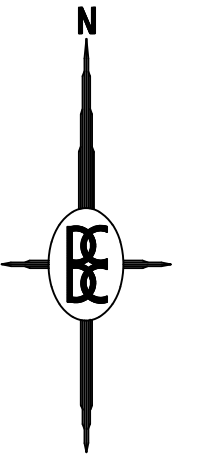
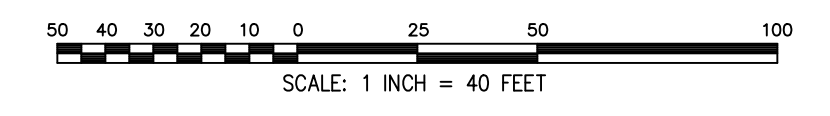


FIRST 15 SPACES AS INDICATED WILL BE FOR USE BY CHURCH VOLUNTEERS AND STAFF ONLY. SPACES WILL BE FILLED PRIOR TO GENERAL CONGREGATION ARRIVING AT SITE.

EMERGENCY VEHICLE ACCESS ROUTE



Genoa Fire Truck feet
 Width : 8.25
 Track : 8.25
 Lock to Lock Time : 6.00
 Steering Angle : 32.00



LEGEND

PROPOSED (PR)	EXISTING (EX)	UTILITY POLE
UP	UP	UTILITY POLE
↓	↓	FENCE
↑	↑	SIGN
▒	▒	CONCRETE
▓	▓	ASPHALT
▨	▨	BARRIER-FREE RAMPS
---	---	WETLAND BOUNDARY

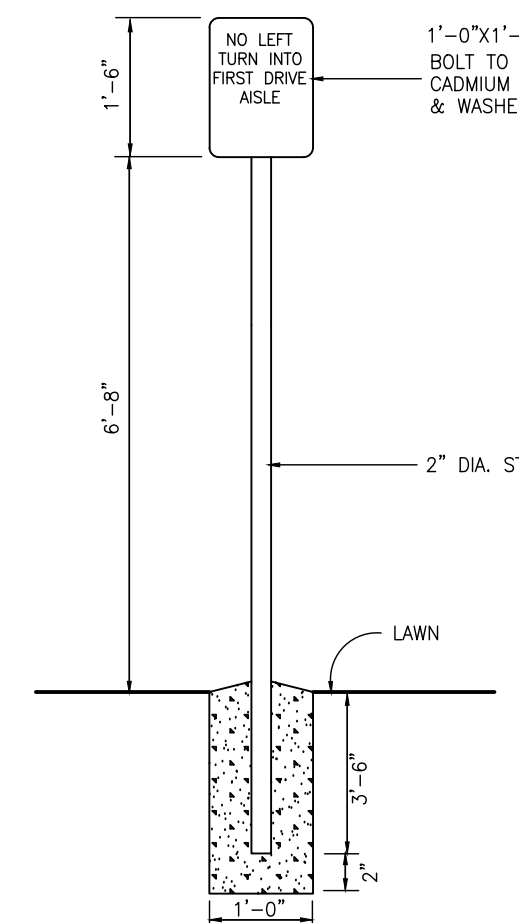
NOTES:

- SIGNAGE WILL BE INSTALLED AT SPECIFIC LOCATIONS ON THE SITE TO HELP THE FLOW OF TRAFFIC.
- COMMUNITY BIBLE CHURCH SERVICE TIMES ARE AT 9:30AM AND 11AM ON SUNDAYS.
- 2442 CHURCH LOCATED TO THE EAST OF COMMUNITY BIBLE CHURCH HAS SERVICE TIMES OF 9AM, 10:30AM, AND 12PM ON SUNDAYS AND 4PM AND 5:30PM ON SATURDAYS.
- VOLUNTEER PARKING LOT ATTENDANTS WILL BE AVAILABLE TO HELP COORDINATE TRAFFIC PROCEDURES.
- INSTRUCTIONAL PAMPHLETS SHALL BE DISTRIBUTED TO CONGREGATION MEMBERS EXPLAINING SITE CIRCULATION AND PROCEDURES BEFORE CONSTRUCTION IS COMPLETED. SERVICES LEADING UP TO COMPLETION DATE OF CONSTRUCTION AND SERVICES IMMEDIATELY FOLLOWING FIRST USE OF PROPOSED PARKING LOTS WILL ADDRESS PARKING RELATED ITEMS. THE FOLLOWING ITEMS WILL BE DISCUSSED:

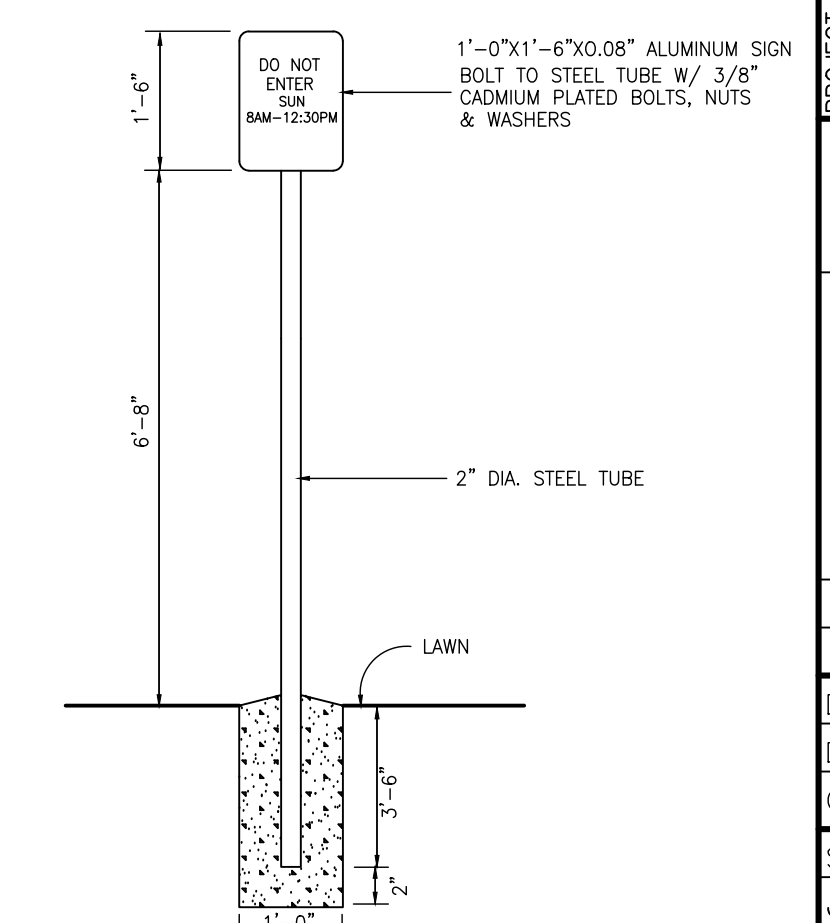
- AVOIDANCE OF CAR STACKING ONTO GRAND RIVER.
- NO LEFT TURNS INTO FIRST DRIVE AISLE AFTER ENTERING THE SITE FROM GRAND RIVER.
- ETIQUETTE FOR ALLOWING FRONT PARKING LOT DRIVE LANES EXIT AFTER SERVICE.
- BEST EXIT / ENTRANCE TO USE BASED UPON DIRECTION OF TRAVEL.
- DESIGNATION OF SPACES TO BE DEDICATED TO CHURCH VOLUNTEER AND STAFF.

CHURCH MEMBER TRAVELING DIRECTION NOTE:

BASED UPON CURRENT CHURCH CONGREGATION ADDRESSES FORTY TWO PERCENT (42%) OF MEMBERS WILL TRAVEL FROM THE EAST TO ARRIVE AT THE SITE AND TURN LEFT INTO THE SITE. FIFTY EIGHT PERCENT (58%) WILL BE TRAVELING FROM THE WEST AND TURN RIGHT INTO THE SITE.



"NO LEFT TURN" SIGN DETAIL
(NO SCALE)



"DO NOT ENTER" SIGN DETAIL

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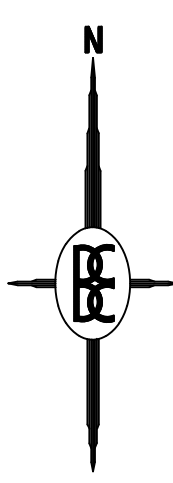
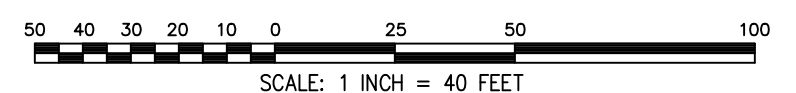
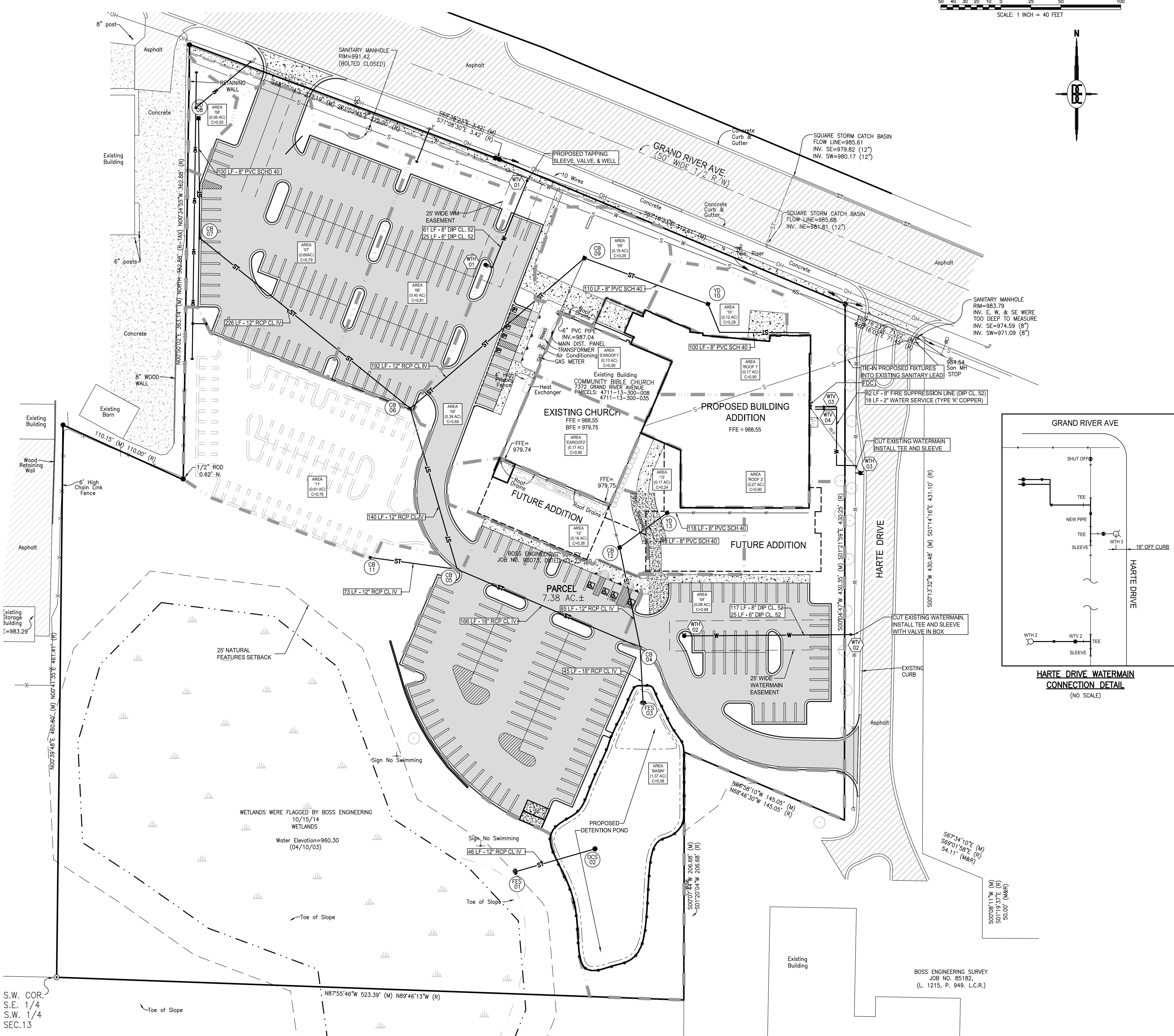
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PROJECT: COMMUNITY BIBLE CHURCH EXPANSION
 PREPARED FOR: COMMUNITY BIBLE CHURCH
 7372 GRAND RIVER AVENUE
 BRIGHTON, MI. 48114
 810-227-2255
 TITLE: ON-SITE TRAFFIC CIRCULATION PLAN

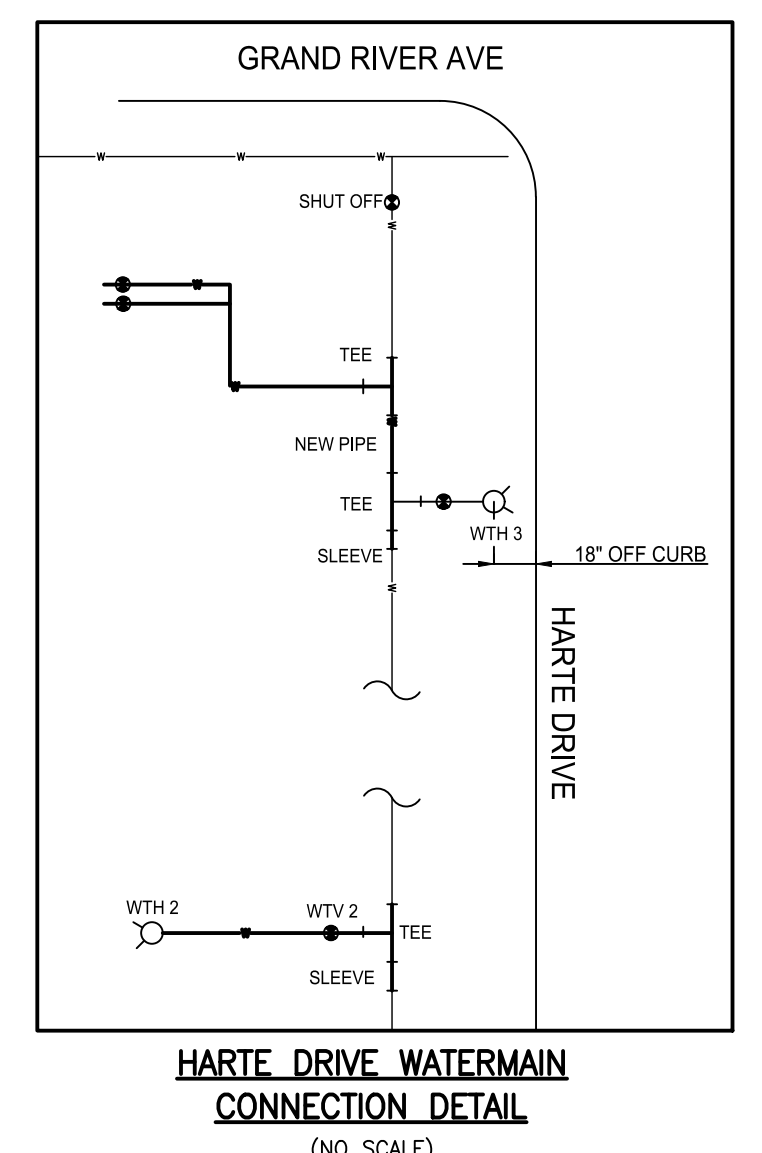
NO	BY	REVISION PER	DATE
2	ST	PER TWP & P.C.	11-26-18
1	ST	PER TWP REVIEW	10-24-18
NO	BY	REVISION PER	DATE

DESIGNED BY: ST
 DRAWN BY: ST
 CHECKED BY:
 SCALE: 1" = 40'
 JOB NO. 14-047
 DATE: 10/2/18
 SHEET NO. C3A





PROPOSED (PR)	EXISTING (EX)	
900	900	CONTOUR
T/C	T/C	STORM DRAINAGE FLOW
XXXXXX	+ 922.08	SPOT ELEVATION
FF	FF	FINISHED FLOOR ELEVATION
T/A	T/A	FINISHED GRADE ELEVATION
T/C	T/C	TOP OF ASPHALT
T/W	T/W	TOP OF CURB / CONCRETE
F/L	F/L	TOP OF WALK
T/P	T/P	FLOW LINE
B/P	B/P	TOP OF PIPE
RIM	RIM	BOTTOM OF PIPE
INV	INV	RIM ELEVATION
MH	MH	INVERT ELEVATION
IN	IN	MANHOLE STRUCTURE
CB	CB	INLET STRUCTURE
RY	RY	CATCHBASIN STRUCTURE
ES	ES	REARWARD STRUCTURE
GV	GV	END-SECTION
HY	HY	GATEVALVE STRUCTURE
LIP	LIP	HYDRANT
SN	SN	UTILITY POLE
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
T	T	TELEPHONE
MH	MH	MANHOLE
INLET	INLET	INLET / CATCHBASIN
FLARED	FLARED	FLARED END-SECTION
GATE	GATE	GATE VALVE
HYDRANT	HYDRANT	HYDRANT
FENCE	FENCE	UTILITY POLE
SIGN	SIGN	FENCE
		SIGN
		SANITARY SEWER LABEL
		STORM SEWER LABEL
		WATER MAIN LABEL
		SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
		SILT FENCE
		LIMITS OF GRADING/CLEARING
		WETLAND BOUNDARY



STORM SEWER STRUCTURE SCHEDULE			
FES 01	FLARED END SECTION	INV. NE.	12 " 965.66
OCS 02	COVER GRATE	RIM	974.75
		INV. SW.	12 " 966.00
FES 03	FLARED END SECTION	INV. S.	18 " 972.00
CB 04	4' DIA. CATCH BASIN, COVER "K"	RIM	977.80
		INV. S.	18 " 972.79
		INV. NW.	18 " 972.79
		INV. N.	12 " 973.19
		2' SUMP	
CB 05	4' DIA. CATCH BASIN, COVER "K"	RIM	979.35
		INV. SE.	18 " 974.45
		INV. NW.	12 " 974.85
		INV. W.	12 " 974.85
		2' SUMP	
CB 06	4' DIA. CATCH BASIN, COVER "K"	RIM	985.50
		INV. SE.	12 " 979.75
		INV. NW.	12 " 979.75
		INV. NE.	12 " 979.75
		2' SUMP	
CB 07	4' DIA. CATCH BASIN, COVER "K"	RIM	985.50
		INV. SE.	12 " 980.88
		INV. N.	8 " 981.14
		2' SUMP	
YD 08	8" DIA. NYOPLAST YARD DRAIN, DOME GRATE	RIM	985.00
		INV. S.	8 " 982.14
CB 09	4' DIA. CATCH BASIN, COVER "E"	RIM	987.00
		INV. SW.	12 " 982.15
		INV. SE.	8 " 982.41
		2' SUMP	
YD 10	12" DIA. NYOPLAST YARD DRAIN, DOME GRATE	RIM	986.50
		INV. NW.	8 " 983.51
		INV. SE.	8 " 983.51
CB 11	2' DIA. CATCH BASIN, COVER "K"	RIM	981.50
		INV. E.	12 " 976.31
CB 12	4' DIA. CATCH BASIN, COVER "E"	RIM	978.00
		INV. S.	12 " 974.25
		INV. NE.	8 " 974.52
		INV. NW.	8 " 974.52
		2' SUMP	
YD 13	12" DIA. NYOPLAST YARD DRAIN, DOME GRATE	RIM	978.50
		INV. SW.	8 " 975.50
		INV. E.	8 " 975.50
		2' SUMP	

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PROJECT: COMMUNITY BIBLE CHURCH EXPANSION
PREPARED FOR: COMMUNITY BIBLE CHURCH
7372 GRAND RIVER AVENUE
BRIGHTON, MI 48114
810-227-2255
TITLE: UTILITY PLAN

NO.	DATE	BY	REVISION
1	10-24-18	ST	PER TWP REVIEW
2	11-26-18	ST	PER TWP & P.C.

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DRAWN BY: ST
CHECKED BY:
SCALE: 1" = 40'
JOB NO. 14-047
DATE: 10/2/18
SHEET NO. C5

GENERAL LANDSCAPE NOTES:

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY AND SHALL BE NURSERY GROWN. ALL SIZES AND MEASUREMENTS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ALL PLANT MATERIAL SHALL BE OF SELECTED SPECIMEN QUALITY AND HAVE A NORMAL HABIT OF GROWTH. ALL PLANT MATERIAL IS SUBJECT TO APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED STOCK OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLAN BALLS SHALL BE FIRM, INTACT AND SECURELY WRAPPED AND BOUND.
- ALL PLANT BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND OTHER EXTRANEUS OBJECTS AND POOR SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BACKFILLED TO GRADE WITH PLANTING MIX (SEE BELOW).
- PLANTING MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL FROM ON SITE, 1 PART PEAT, AND 5 POUNDS OF SUPERPHOSPHATE PER CUBIC YARD OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED TO A UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS SHALL BE MULCHED WITH A 4 INCH LAYER OF SHREDDED BARK MULCH.
- ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD OF TIME ALL DEAD PLANTS AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL REQUIREMENTS.
- EDGING, WHERE NOTED ON THE PLANS, SHALL BE BLACK ALUMINUM EDGING, 3/16 INCHES BY 4 INCHES. INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
- SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUEGRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4 INCH, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10 INCHES BY 18 INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36 HOURS AFTER CUTTING.
- ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVE, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDDED AND MULCHED.

SEED MIXTURE SHALL BE AS FOLLOWS:
 KENTUCKY BLUEGRASS
 (CHOOSE 3 VARIETIES: ADELPHI, RUGBY, GLADE OR PARADE) 30%
 RUBY RED OR DAWSON RED FINE FESCUE 30%
 ATLANTA RED FESCUE 20%
 PENNFINE PERENNIAL RYE 20%

THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 POUNDS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL LAYER SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-20-10 ANALYSIS:

10% NITROGEN: A MINIMUM OF 25% FROM A UREA-FORMALDEHYDE SOURCE
 20% PHOSPHATE
 10% POTASH: SOURCE TO BE POTASSIUM SULFATE OR POTASSIUM NITRATE.

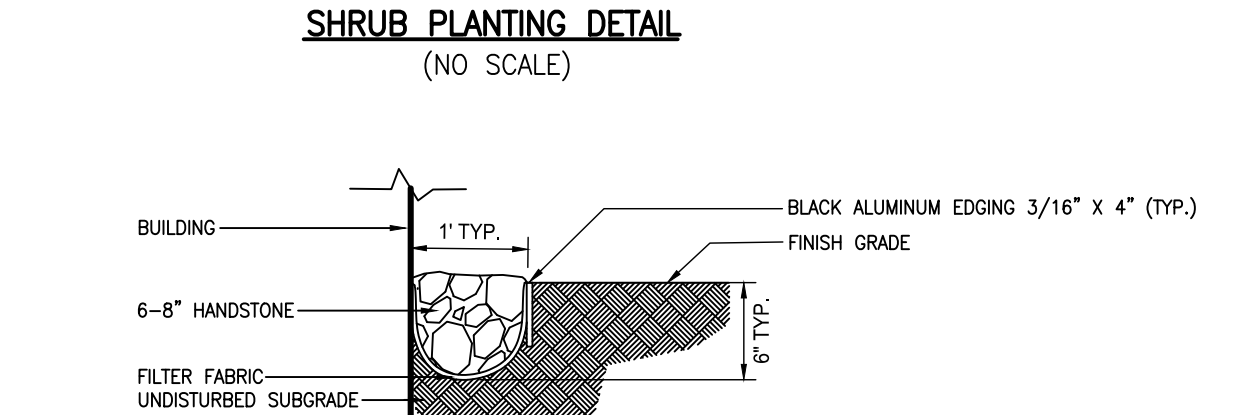
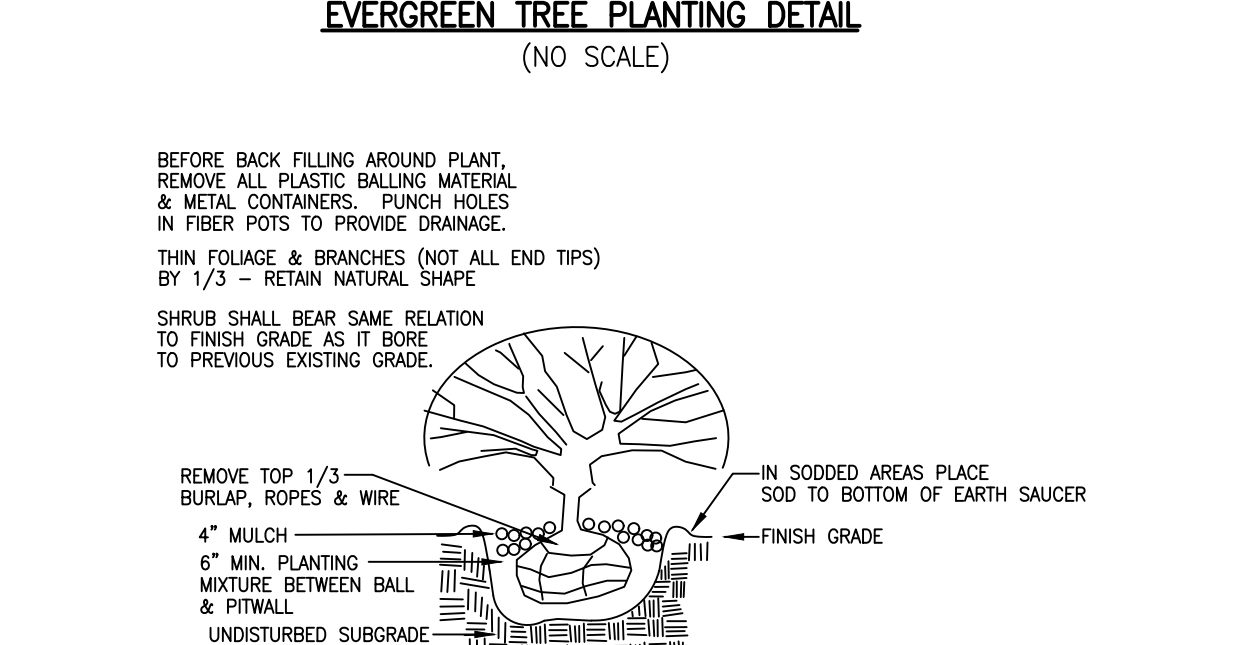
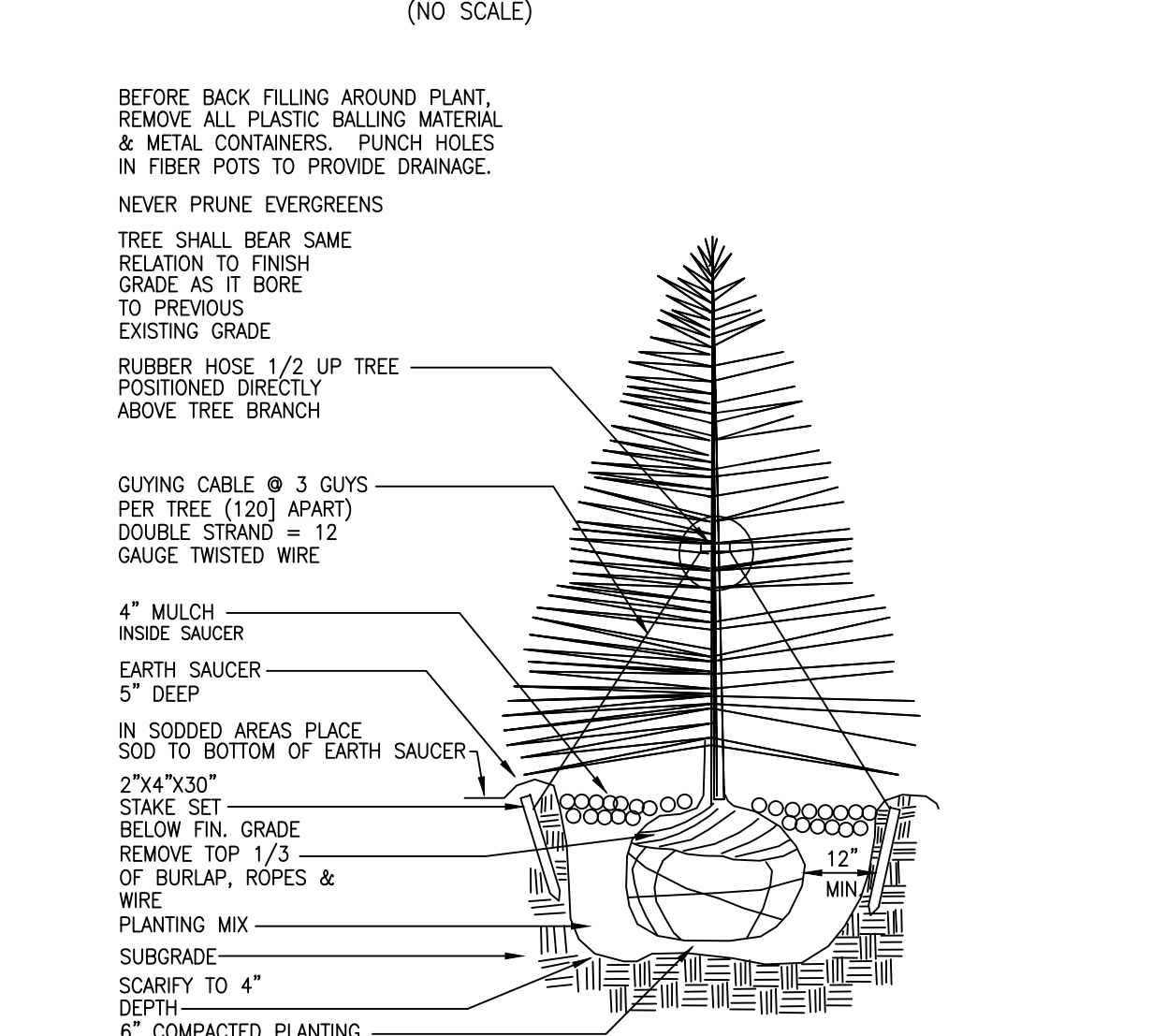
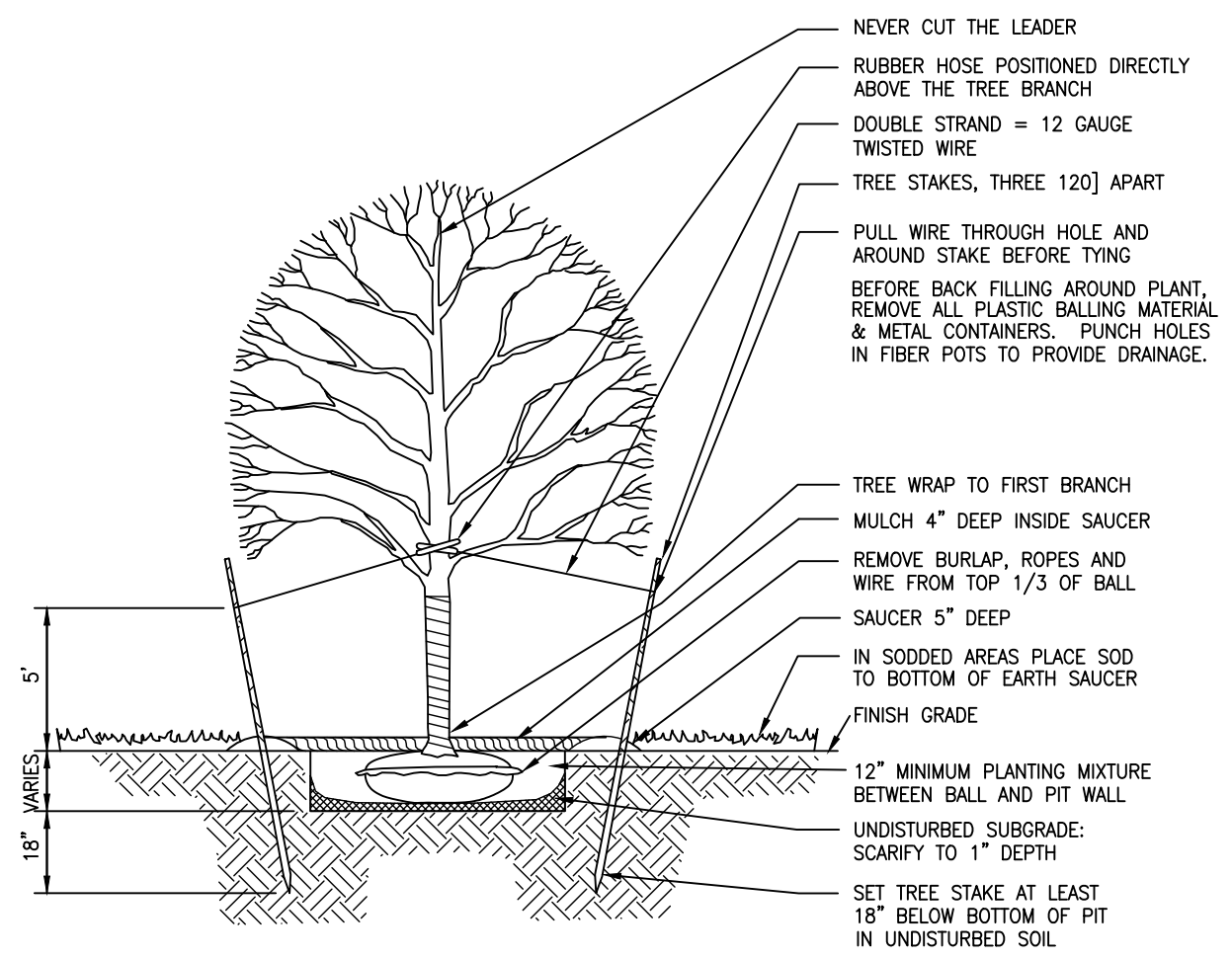
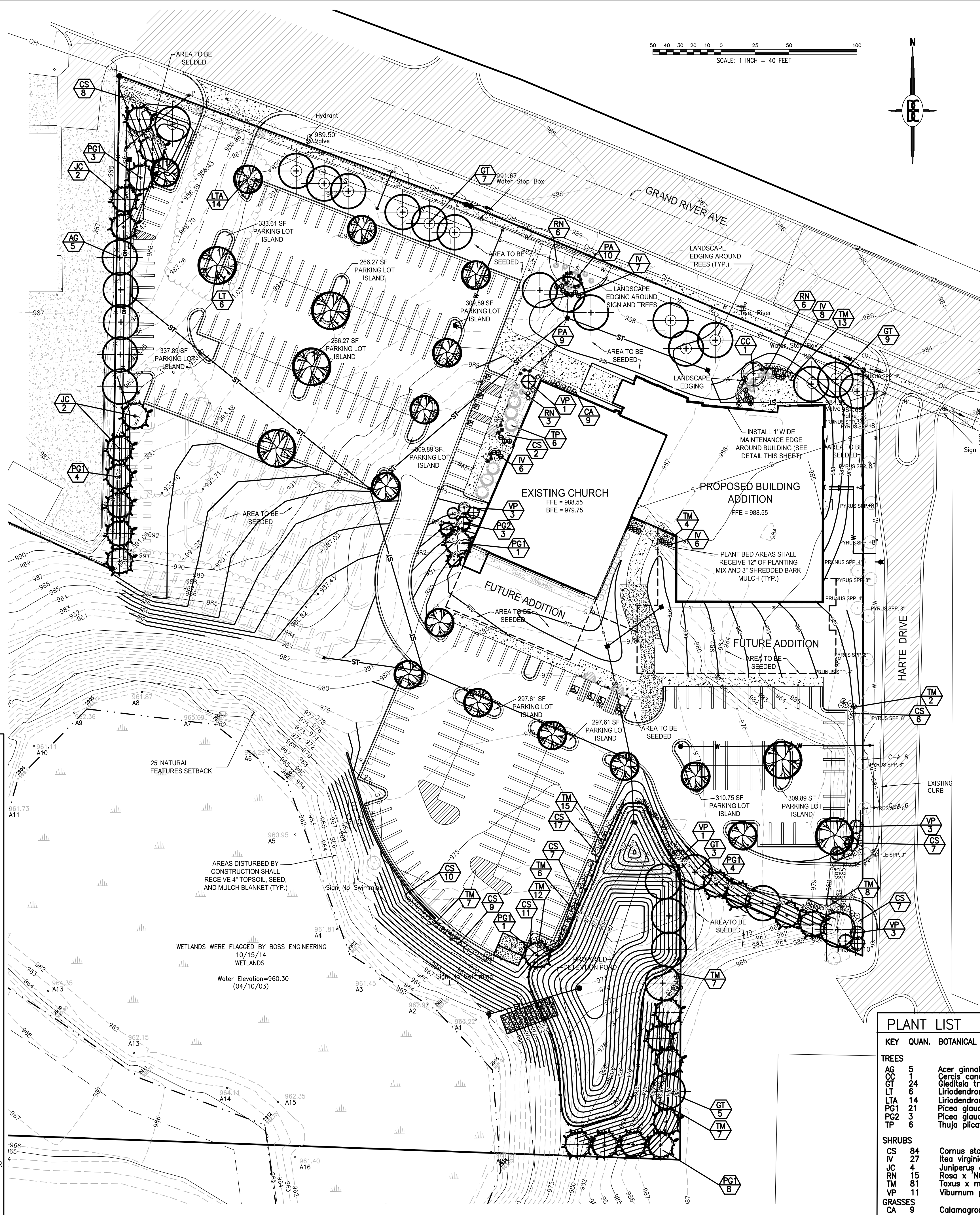
THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 POUNDS OF BULK FERTILIZER PER 1000 SQUARE FEET.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RESEEDDED AND SUCH RESEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.

- ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 4 INCH LAYER OF CLEAN, FRIABLE TOPSOIL. THIS SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.
- ALL PLANT MATERIALS SHALL BE FREE OF WEEDS, INSECTS AND DISEASE.
- ALL LANDSCAPE BEDS TO BE IRRIGATED BY UNDERWATER IRRIGATION SYSTEM. A ONE FOOT WIDE MAINTENANCE DRIP EDGE IS SPECIFIED TO SURROUND THE BUILDING WITH 6"-8" HANDSTONE OVER FILTER FABRIC INSTALLED WITH EDGING WHERE BORDERED BY LAWN.
- UPRIGHT ARNOLD TULIPTREE SPECIFIED ALONG FIRE APPARATUS ACCESS ROAD. THESE TREES ARE TYPICALLY 8-10 FEET WIDE. ALL TREES WITHIN PARKING LOTS TO BE MAINTAINED AT PROPER HEIGHT TO NOT IMPEDE VIEWS OR ACCESS.

LANDSCAPE REQUIREMENTS

- FRONTYARD GREENBELT**
 REQUIRED:
 20' WIDE AND 1 TREE PER 40 LF OF FRONTAGE (583 LF FRONTAGE = 15 TREES)
 PROVIDED:
 16 TREES
- LANDSCAPE BUFFERS**
 REQUIRED:
 10' WIDE BUFFER TYPE 'C' FOR COMMERCIAL PROPERTIES ADJACENT TO OFFICE/COMMERCIAL REQUIRES 1 TREE OR 4 SHRUBS FOR EACH 20 LF ALONG PROPERTY LINE
 PROVIDED:
WEST PROPERTY LINE TYPE 'C' (363 LF/20 LF = 18) : 16 TREES AND 8 SHRUBS
EAST PROPERTY LINE: DUE TO EXISTING TREES IN THIS LOCATION - (7) 3-4" PRUNUS CERASIFERA, (11) 8" PYRUS SPP. AND (1) 9" ACER SPP. - A BUFFER WAS NOT INCLUDED.
SOUTH PROPERTY LINE: DUE TO EXISTING WETLAND AND SCREENING VEGETATION IN THIS LOCATION (INCLUDING TREE SPECIES SUCH AS ACER, QUERCUS, POPULUS AND PICEA IN VARIOUS SIZES STARTING AT 6" DBH), A BUFFER WAS NOT INCLUDED.
- PARKING LOT**
 REQUIRED:
 1 CANOPY TREE AND 100 SF LANDSCAPE AREA PER 15 PARKING SPACES
 250 SPACES PROPOSED/15 = 16.67 TREES REQUIRED
 250 / 15 = 16.667 (* 100 SF) = 1,667 SF OF LANDSCAPE AREA REQUIRED
 PROVIDED:
 19 TREES AND 3,040 SF OF LANDSCAPE AREA WITHIN PARKING LOT
- PARKING IN A FRONT YARD**
 REQUIRED:
 ACCORDING TO FOOTNOTE (g) TO TABLE 7.03.01 OF GENOA TWP ORDINANCE, REDUCED FRONT YARD SETBACK IS ALLOWED FOR SITES THAT DO NOT HAVE PARKING IN THE FRONT YARD AND PARKING LOT MUST BE LOCATED IN SIDE YARD NO CLOSER TO THE FRONT LOT THAN THE FRONT WALL OF THE BUILDING
 PROVIDED:
 REDUCED FRONT YARD SETBACK
- DETENTION POND**
 REQUIRED:
 1 DECIDUOUS TREE OR EVERGREEN AND 10 SHRUBS FOR EVERY 50 LF OF POND PERIMETER
 550 LF/50 LF = 11 (* 1 TREE) = 11 TREES REQUIRED
 550 LF/50 LF = 11 (* 10 SHRUBS) = 110 SHRUBS REQUIRED
 PROVIDED:
 11 TREES AND 110 SHRUBS BASED ON 550 LF POND PERIMETER



KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
TREES					
AC	5	Acer ginnala	Forest Pansy	2" Cal	B&B
CC	7	Cercia canadensis 'Forest Pansy'	Amur Maple	2" Cal	B&B
GT	24	Gleditsia triacanthos 'Inermis Surocale'	Sourwood	2" Cal	B&B
LT	6	Liriodendron tulipifera 'Aureomarginatum'	Majestic Beauty Tulip Tree	2 1/2" Cal	B&B
LTA	14	Liriodendron tulipifera fastigiata 'Arnold'	Arnold Tulip Tree	2 1/2" Cal	B&B
PG1	21	Picea glauca 'Densata'	Black Hills Spruce	7'-8" Hgt	B&B
PG2	3	Picea glauca 'Densata'	Black Hills Spruce	4' Hgt	B&B
TP	6	Thuja plicata 'Green Giant'	Green Giant Arborvitae	7'-8" Hgt	B&B
SHRUBS					
CS	84	Cornus stolonifera 'Farrow'	'Arctic Fire' Dogwood	36-48" Hgt	B&B
IV	27	Itea virginica 'Sprich'	'Little Henry' Sweetspire	No. 3	Cont
JC	4	Juniperus chinensis 'Blue Point'	'Blue Point Juniper	6" Hgt	B&B
RN	15	Rosa x NOA250092	Flower Carpet Rose - Pink Supreme	No. 3	Cont
TM	81	Taxus x media 'Densiformis'	Dense Spreading Yew	24" Hgt	B&B
VP	11	Viburnum picatum tomentosum	Summer Snowflake Viburnum	36-48" Hgt	B&B
GRASSES					
CA	9	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	No. 3	Cont
PA	19	Pennisetum alopecuroides 'Hameln'	Hameln fountain grass	No. 3	Cont

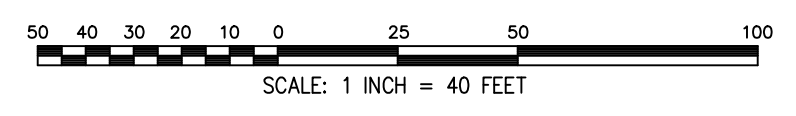
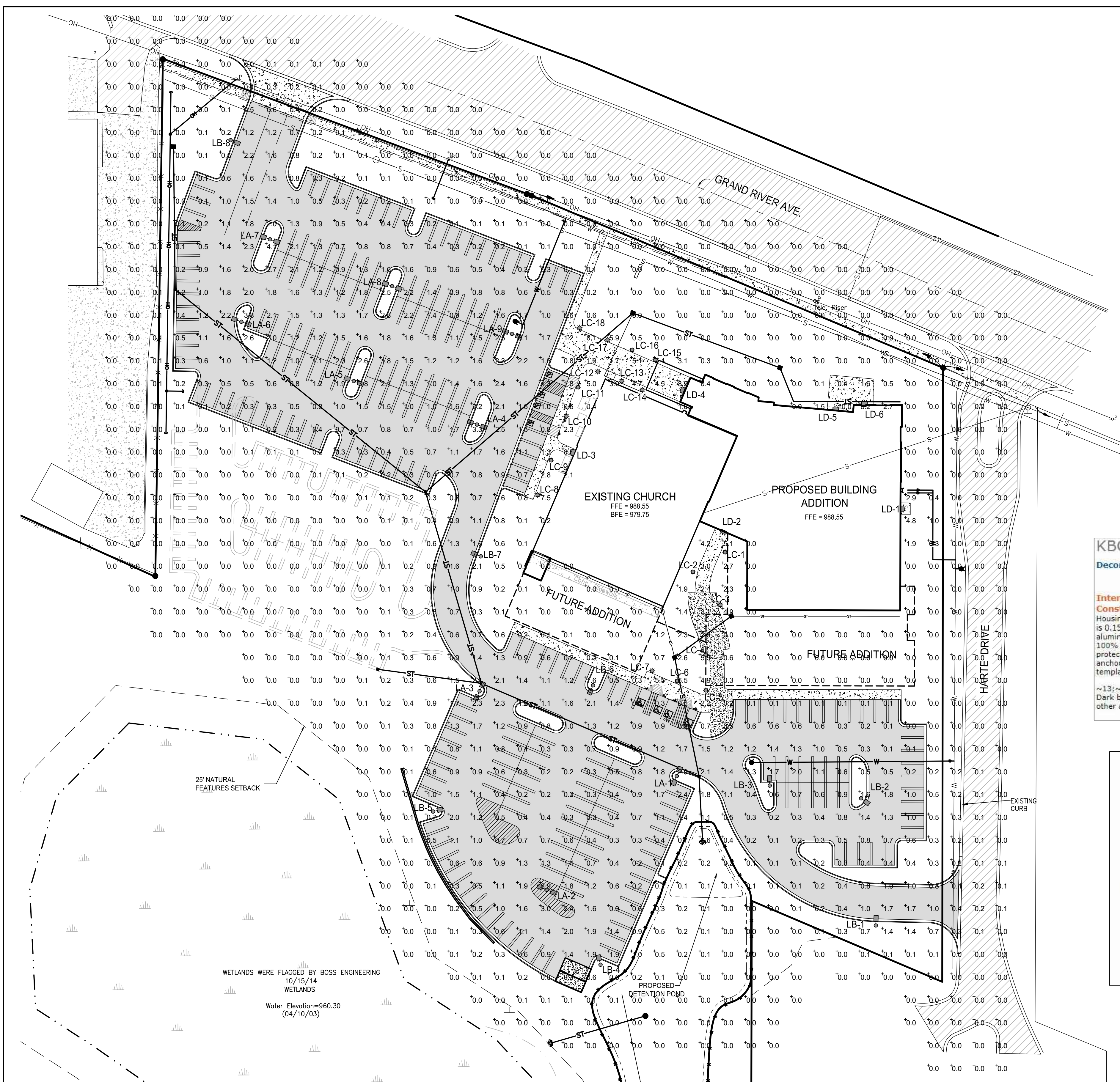
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COMMUNITY BIBLE CHURCH EXPANSION
 COMMUNITY BIBLE CHURCH
 7372 GRAND RIVER AVENUE
 BRIGHTON, MI 48114
 810-227-2255

PROJECT: COMMUNITY BIBLE CHURCH EXPANSION
 PREPARED FOR: COMMUNITY BIBLE CHURCH
 DATE: 11-28-18
 PER TWP & P.C.: 11-28-18
 PER TWP REVIEW: 10-24-18
 DATE: 10/2/18
 SHEET NO. C6

DESIGNED BY: JA
 DRAWN BY: JA
 CHECKED BY:
 SCALE: 1" = 40'
 JOB NO. 14-047

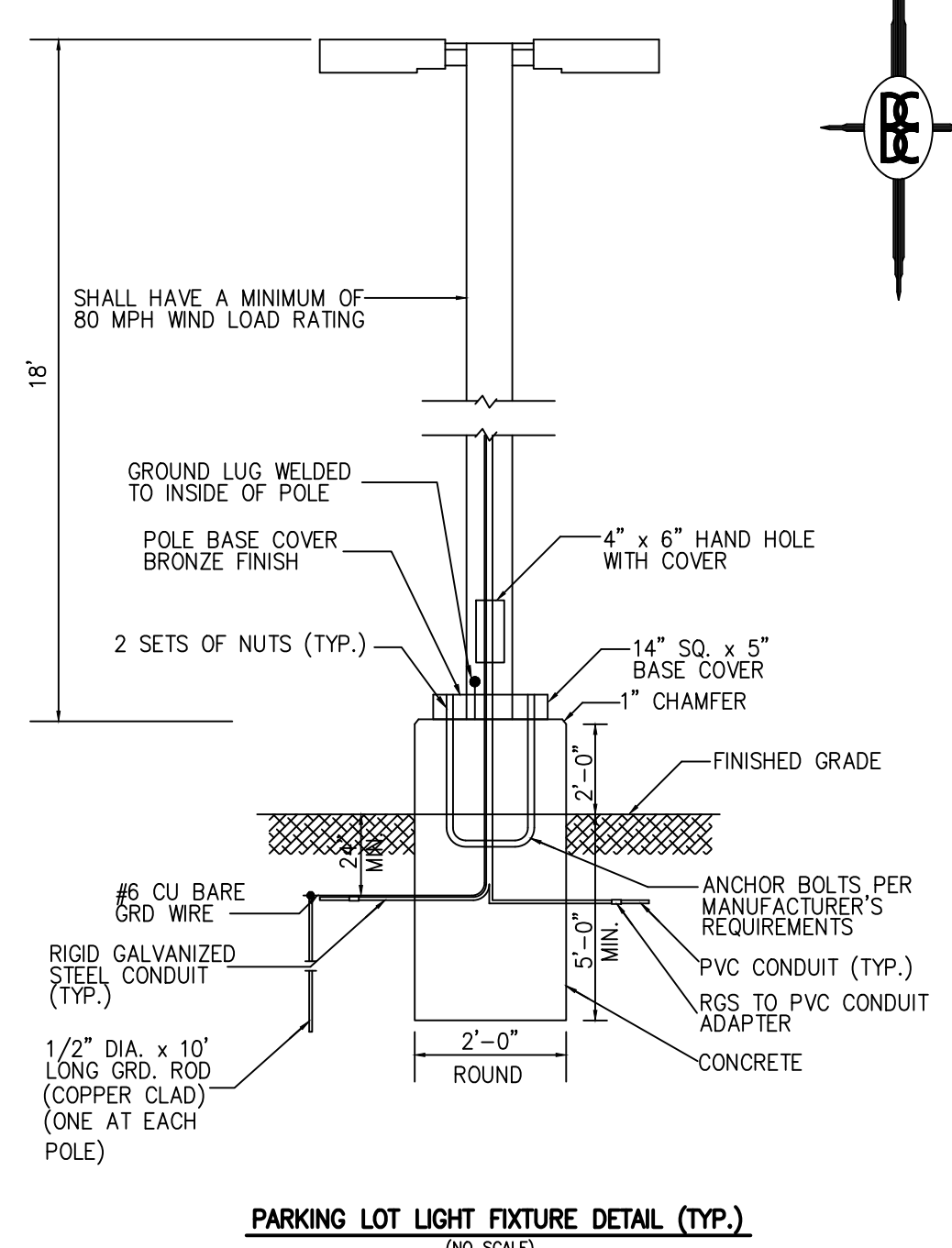
BEBOSS Engineering



PROPOSED (PR)	EXISTING (EX)	
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
		TELEPHONE
		DOUBLE FIXTURE LIGHT POLE
		SINGLE FIXTURE LIGHT FIXTURE
		WALL MOUNTED LIGHT FIXTURE
		BOLLARD LIGHT FIXTURE
		FOOT CANDLES ON SITE

SITE LIGHTING SUMMARY
 LIGHTING LEVELS ARE SHOWN IN FOOTCANDLES AT GRADE
 MAXIMUM PAVED LIGHT LEVEL: 10.0 FC.
 MINIMUM PAVED LIGHT LEVEL: 0.4 FC.
 MAX. LIGHT LEVEL AT THE PROPERTY LINE: 0.1 FC.
 MIN. LIGHT LEVEL AT THE PROPERTY LINE: 0.0 FC.

- GENERAL LIGHTING NOTES**
- THE LIGHTING PATTERN 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.
 - ALL POLES ARE TO BE MOUNTED ON CONCRETE PEDESTALS 2' ABOVE GRADE IN PARKING LOTS AS SHOWN IN DETAIL.
 - ALL POLES LOCATED OUTSIDE OF THE PARKING AREA SHALL BE LOCATED 3' FROM BACK OF CURB OR EDGE OF SIDEWALKS.
 - SHOP DRAWINGS FOR THE ELECTRICAL WIRING OF THE POLES NEED TO BE SUBMITTED TO THE ENGINEER FOR COORDINATION OF UNDERGROUND CONDUIT AND APPROVAL OF LAYOUT.



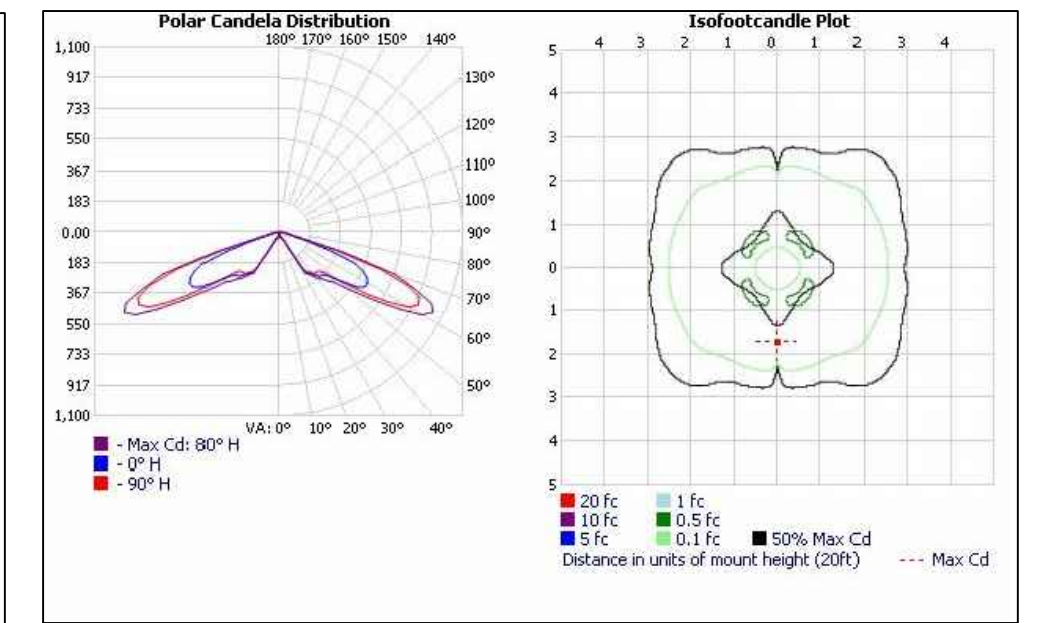
BOLLARD FIXTURE

KBC Decorative Round Bollard

Intended Use For walkways, plazas or pedestrian areas.

Construction Housing: KB_8: Bottom housing is 0.125" extruded aluminum. Top cover is 0.156" cast aluminum. KB_8: Bottom housing is 0.156" extruded aluminum 42" overall height standard. Flush-fitting lens is 1/2", clear, 100% virgin acrylic. All exposed hardware is tamper-resistant steel protected by a 1,000 hour corrosion-resistant coating. Four 1/2" x 11" anchor bolts with double nuts/washers and 4-1/2" diameter bolt circle template provided for mounting (shipped separately).

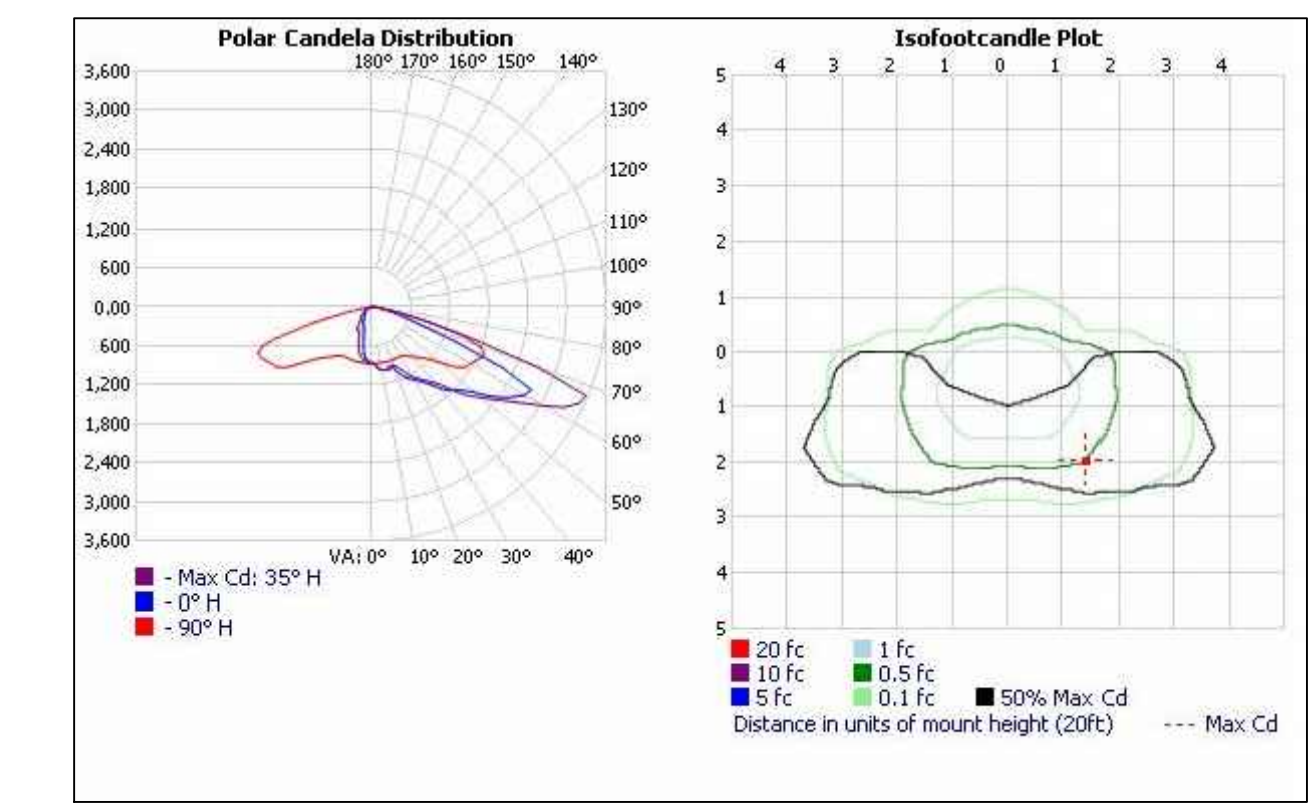
~13;~10; Dark bronze (DDB) corrosion-resistant polyester powder finish standard; other architectural colors available.



PARKING LOT LIGHT FIXTURE

D-Series Size 1 LED Area Luminaire

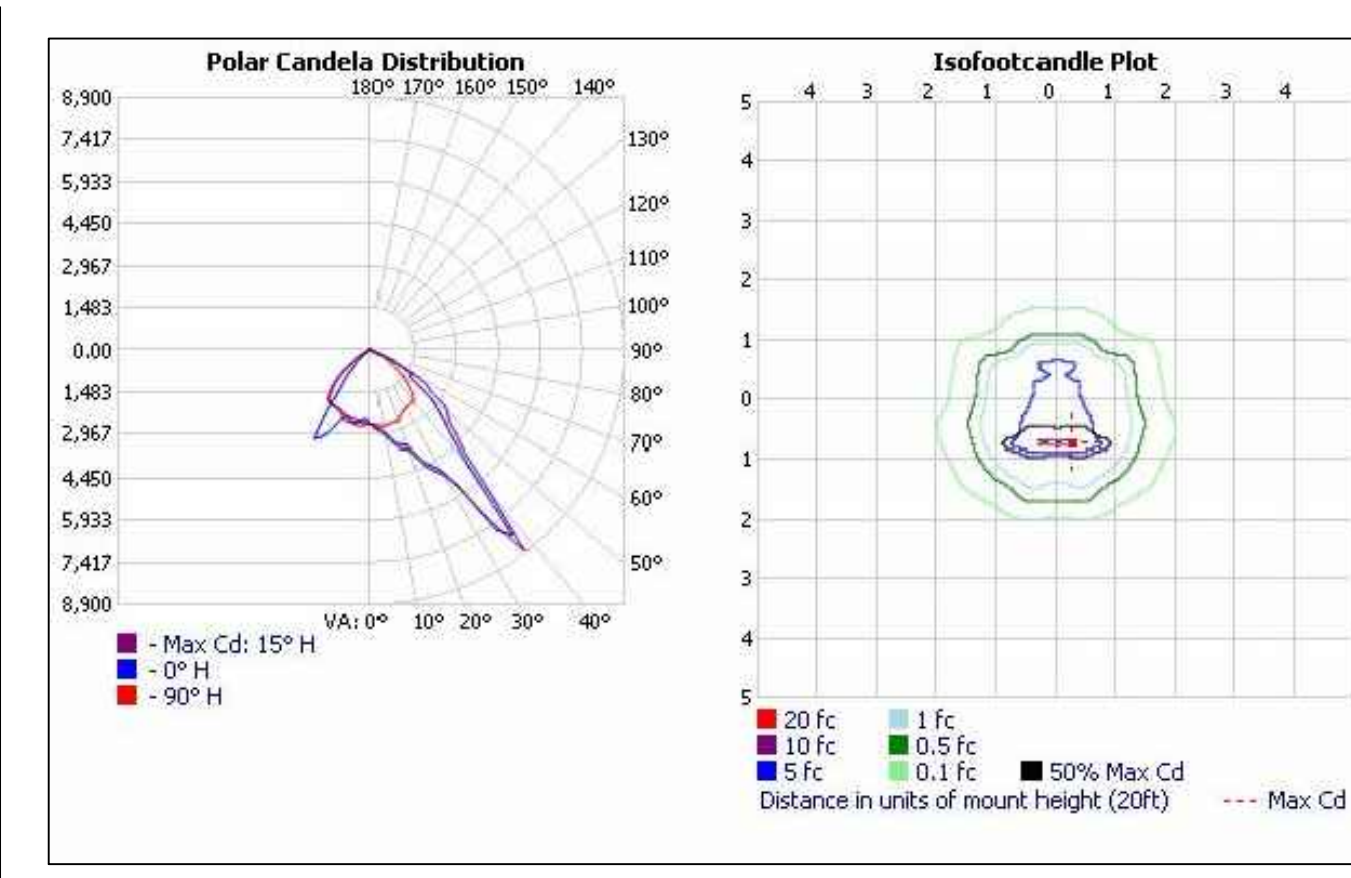
Specifications
 EPA: 1.01 ft² (0.09 m²)
 Length: 33" (841 mm)
 Width: 13" (330 mm)
 Height: 7-1/2" (190 mm)
 Weight (max): 27 lbs (12.2 kg)



WALL MOUNTED FIXTURES

WST LED Architectural Wall Sconce

Specifications
 Luminaire
 Height: 8-1/2" (215 mm)
 Width: 17" (430 mm)
 Depth: 10-3/16" (265 mm)
 Weight: 20 lbs (9.1 kg)



SYMBOL	LABEL	QTY.	DESCRIPTION	CATALOG NUMBER	LAMP	LUMENS	LLF	POLE DESCRIPTION	POLE HEIGHT	BASE HEIGHT	TOTAL HEIGHT
LA	LA	9	(2) DSX1 LED P1 40K T4M MVOLT W/ HOUSE SHIELD	LITHONIA #DSX1 LED P1 40K T4M MVOLT HS	LED	ABSOLUTE	.93	SSA 25 6G T25 DM28 FBC BA	18'	2'	20'
LB	LB	8	DSX1 LED P1 40K T4M MVOLT W/ HOUSE SHIELD	LITHONIA #DSX1 LED P1 40K T4M MVOLT HS	LED	ABSOLUTE	.93	SSA 25 6G T25 DM28 FBC BA	18'	2'	20'
LC	LC	18	KBCB WITH 4 LIGHT BOLLARDS (16 LED'S), 530mA DRIVER, 4000K COLOR TEMP, AND SYMMETRIC OPTIC	LITHONIA #KBCB LED 16C 530 40K SYM MVOLT	LED	ABSOLUTE	.93		42"	0"	42"
LD	LD	6	ARCHITECTURAL SCONCE WITH MEDIUM THROW DISTRIBUTION WITH CLEAR FLAT GLASS LENS. COATED LAMP MEETS 'NIGHT TIME FRIENDLY' CRITERIA	LITHONIA WST 100M MD	LED	ABSOLUTE	.93		12' WALL MOUNTED	0"	12'

ALL IES FILES PROVIDED BY MANUFACTURER FOR CALCULATION OF LIGHTING LEVEL.

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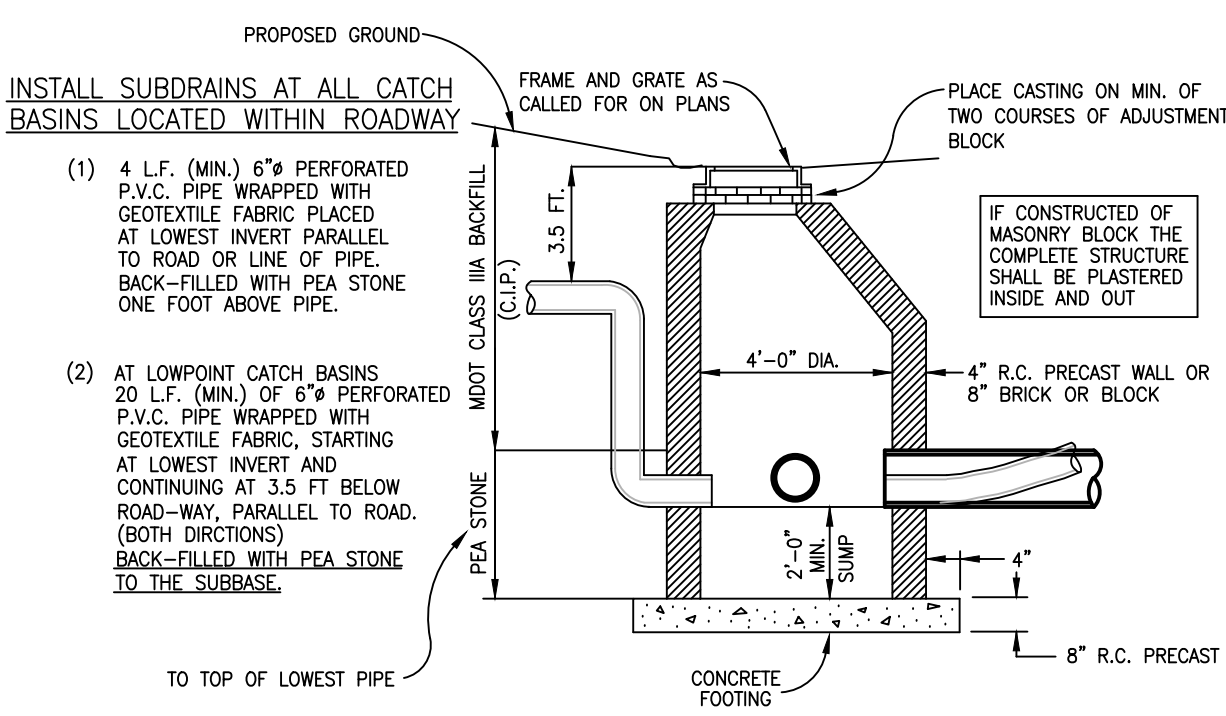
COMMUNITY BIBLE CHURCH EXPANSION
 COMMUNITY BIBLE CHURCH
 7372 GRAND RIVER AVENUE
 BRIGHTON, MI. 48114
 810-227-2255

PROJECT: COMMUNITY BIBLE CHURCH EXPANSION
 PREPARED FOR: COMMUNITY BIBLE CHURCH
 TITLE: SITE PHOTOMETRIC PLAN

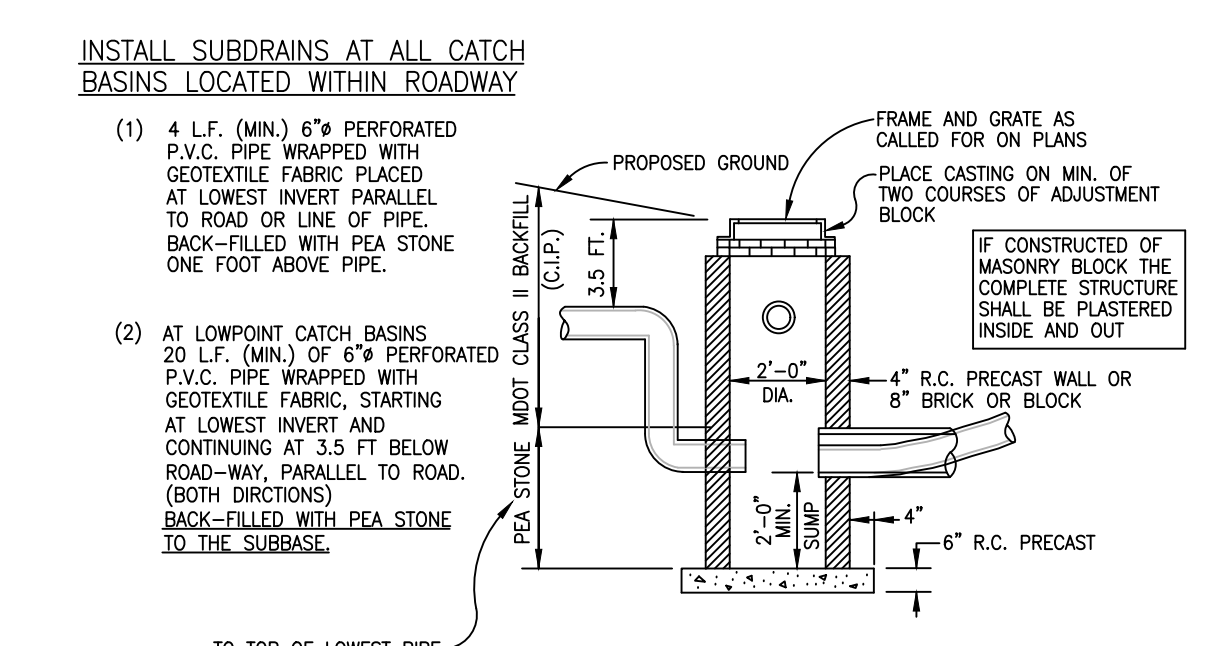
NO.	BY	DATE	REVISION PER
1	CH	11-20-18	
2	ST	10-24-18	

DESIGNED BY: ST
 DRAWN BY: ST
 CHECKED BY:
 SCALE: 1" = 40'
 JOB NO. 14-047
 DATE: 10/2/18
 SHEET NO. C7

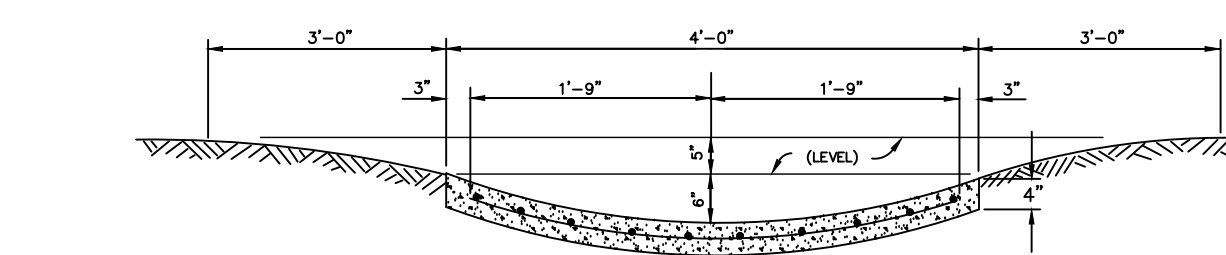
STRUCTURE FRAMES & COVERS					
COVER	TYPE	USE	MANUFACTURER OR EQUAL	TYPE OF COVER OR GRATE	
A	MH	ALL	EAST JORDAN 1040	RE-NH R-1916 F1	SANITARY-SELF SEALING STORM-VENTED
D	CB & INLET	TYPE D2 CURB	7065	R-3030 A	
K	CB & INLET	TYPE C & F CURB	7000-T1-M1	R-3070	FLAT GRATE WITH VERT. 4" OPEN THROAT
G	CB & INLET	VALLEY CURB	7065	R-3034 D	
D	CB & INLET	PARKING LOTS	1020-MI	R-2660 D	FLAT GRATE
E	CB & INLET	LAWN AREA OR DITCH	1020-01		BEEHIVE GRATE 4" HIGH



4 FT. DIA. CATCH BASIN W/SUMP
NO SCALE

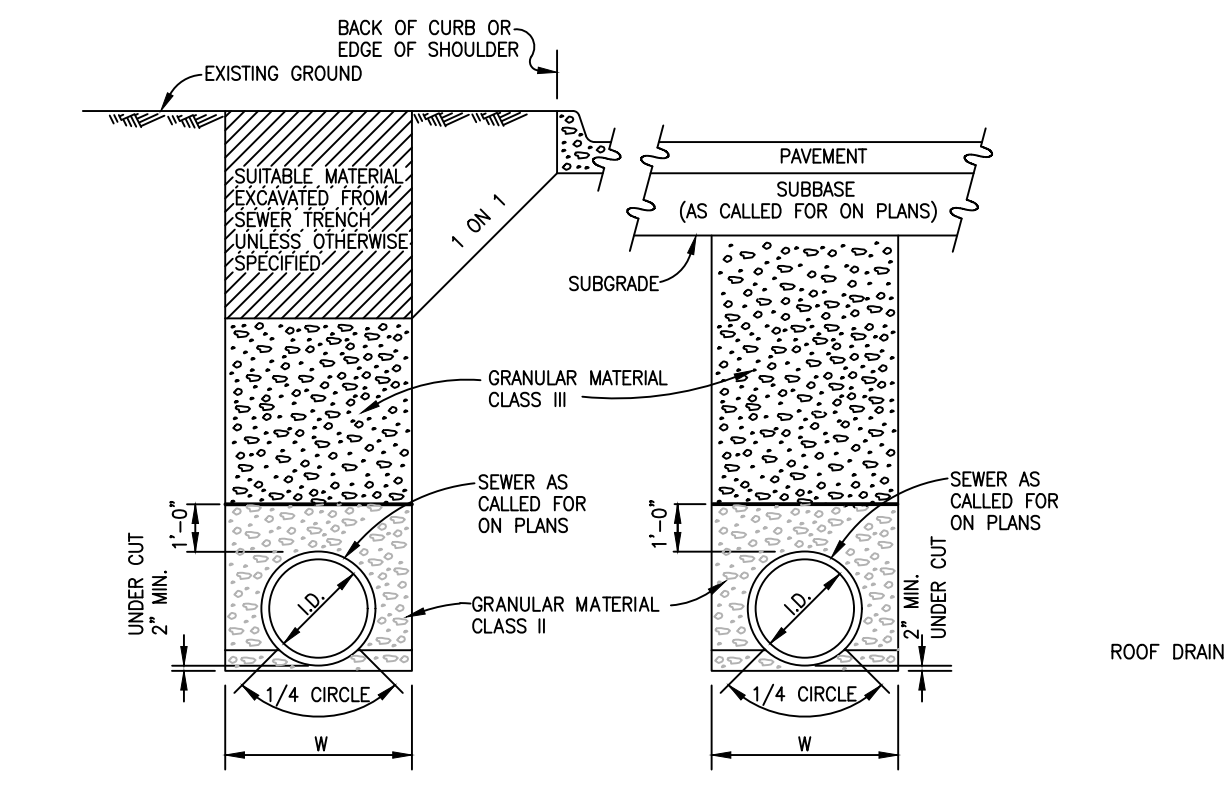


2 FT. DIA. CATCH BASIN W/SUMP
NO SCALE

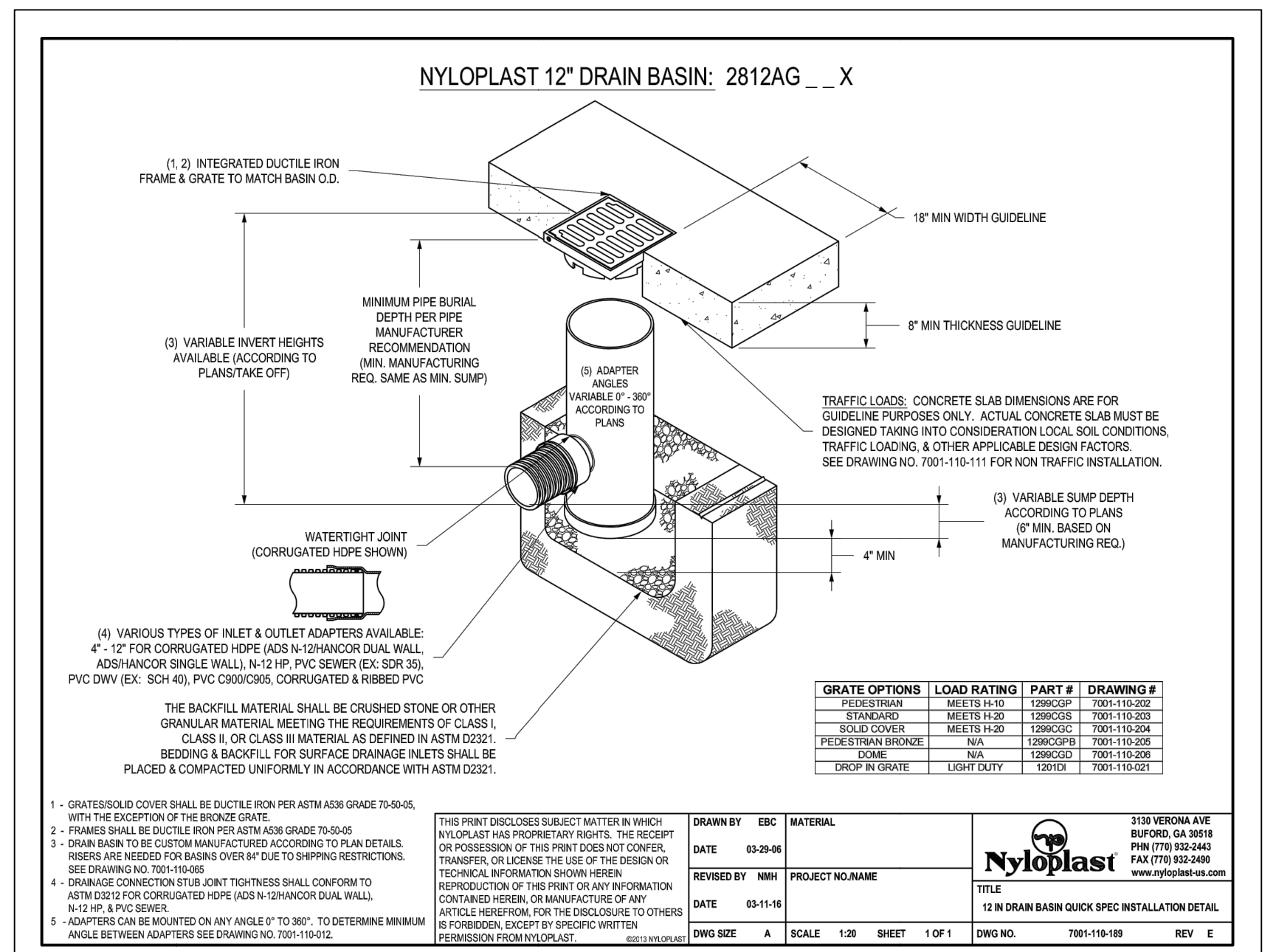


CONCRETE SPILLWAY
SCALE: NONE

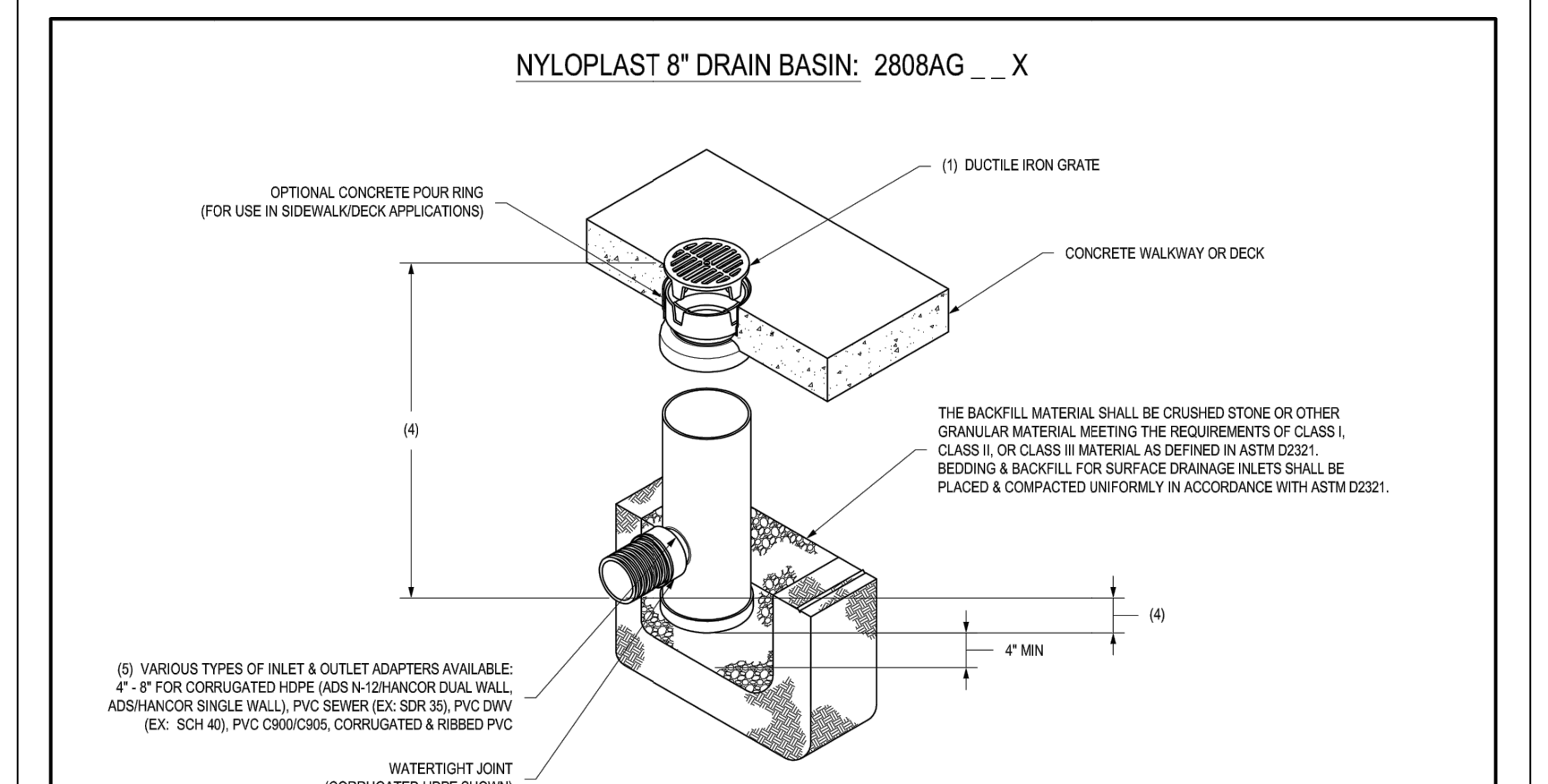
NOTES
MAKE GRADUAL TRANSITION FROM STANDARD CONCRETE CURB AND GUTTER TO CONCRETE SPILLWAY.
FLANGE OF WEARNESS JOINTS, NOT LESS THAN 1/8" NOR MORE THAN 1/4" IN WIDTH SHALL BE CUT IN THE PLASTIC CONCRETE, AFTER FLOATING TO A DEPTH OF NOT LESS THAN 1-1/2". SPACING SHALL BE AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
THE SPILLWAY ON SHOULDERS AND FORESLOPES WILL BE UNDERLAIN WITH GEOTEXTILE BLANKET FROM THE BACK SIDE OF CURB AND GUTTER TO THE FAR END OF THE SPILLWAY. WHEN USING SPILLWAYS IN OTHER AREAS SUCH AS BACKSLOPES, THE GEOTEXTILE BLANKET SHALL UNDERLAY THE FULL LENGTH OF THE SPILLWAY. THE GEOTEXTILE BLANKET SHALL HAVE A MINIMUM WIDTH EQUAL TO THE WIDTH OF THE SPILLWAY.
THE SPILLWAY SHALL RECEIVE A TRANSVERSE COURSE BROOM FINISH.
WHILE CONCRETE SPILLWAY IS SHOWN ON THE FORESLOPE, IT MAY BE USED ON THE BACKSLOPE AS CALLED FOR ON THE PLANS. CONCRETE SHOULDER GUTTER WOULD BE CORRESPONDINGLY OMITTED.



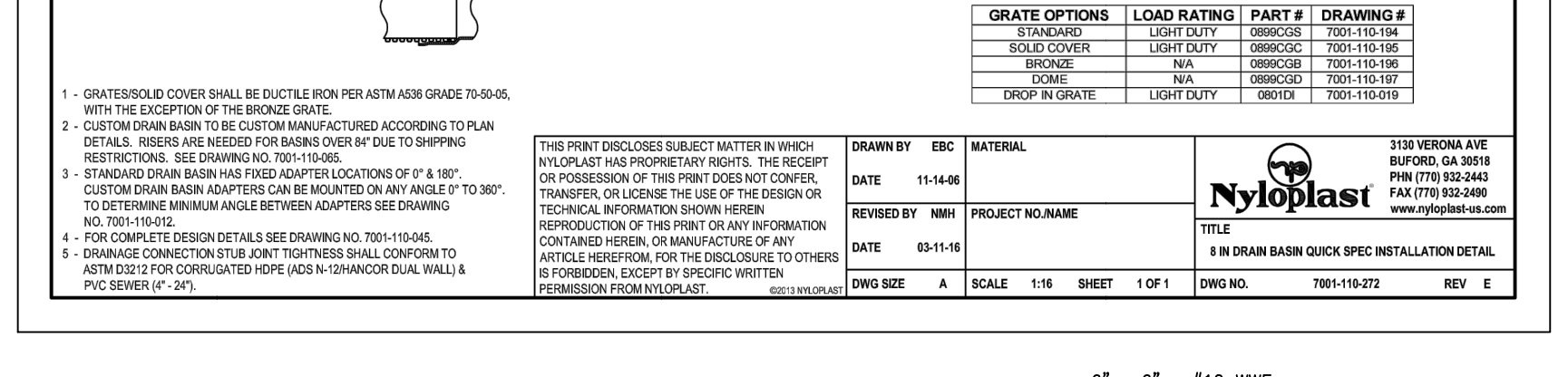
SEWER UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED
(REF. MDO DETAIL H-830)
NO SCALE



NYLOPLAST 12" DRAIN BASIN: 2812AG _X



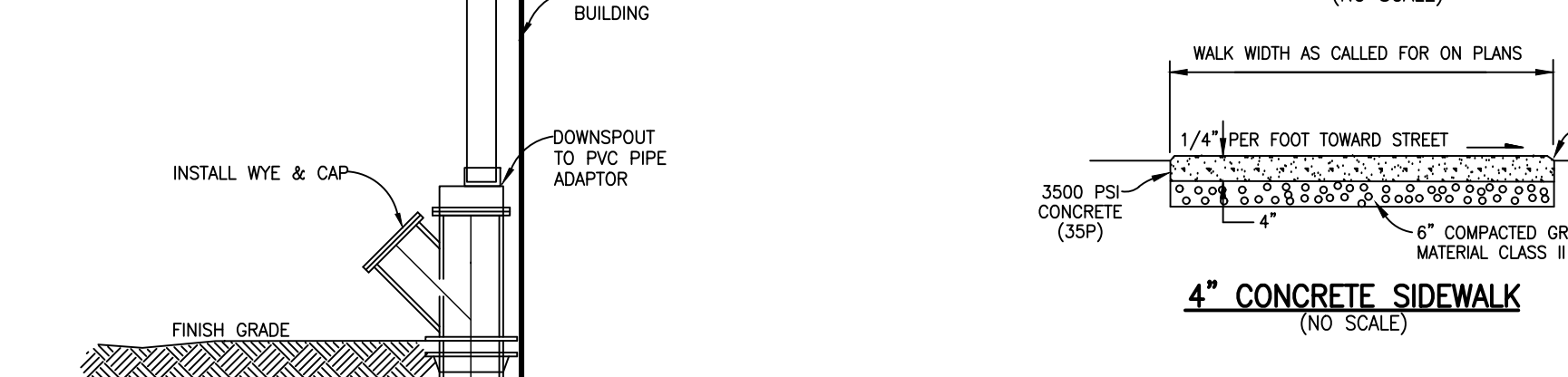
NYLOPLAST 8" DRAIN BASIN: 2808AG _X



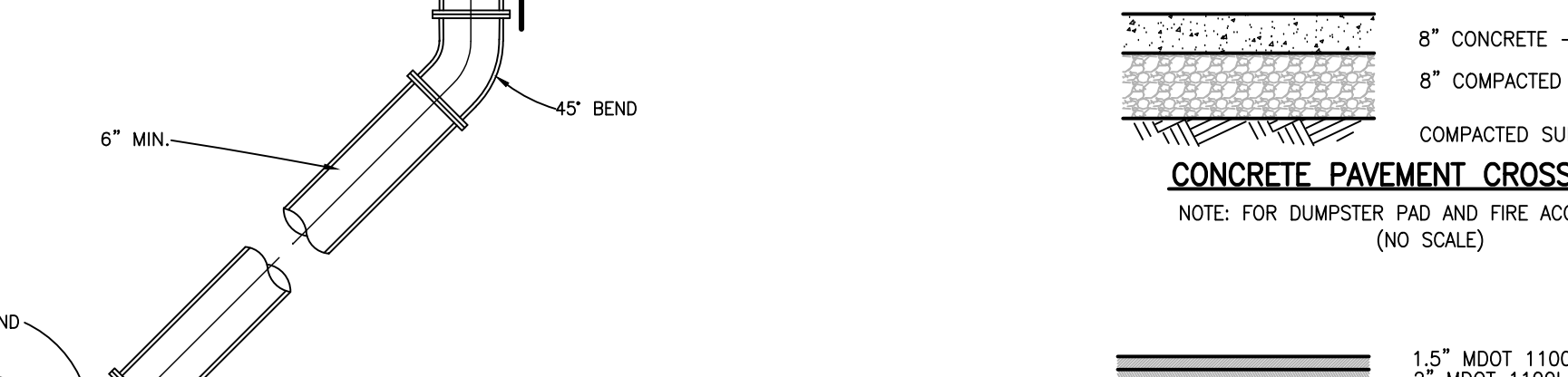
4" CONCRETE SIDEWALK
(NO SCALE)



INTEGRAL CONCRETE WALK / CURB DETAIL
(NO SCALE)



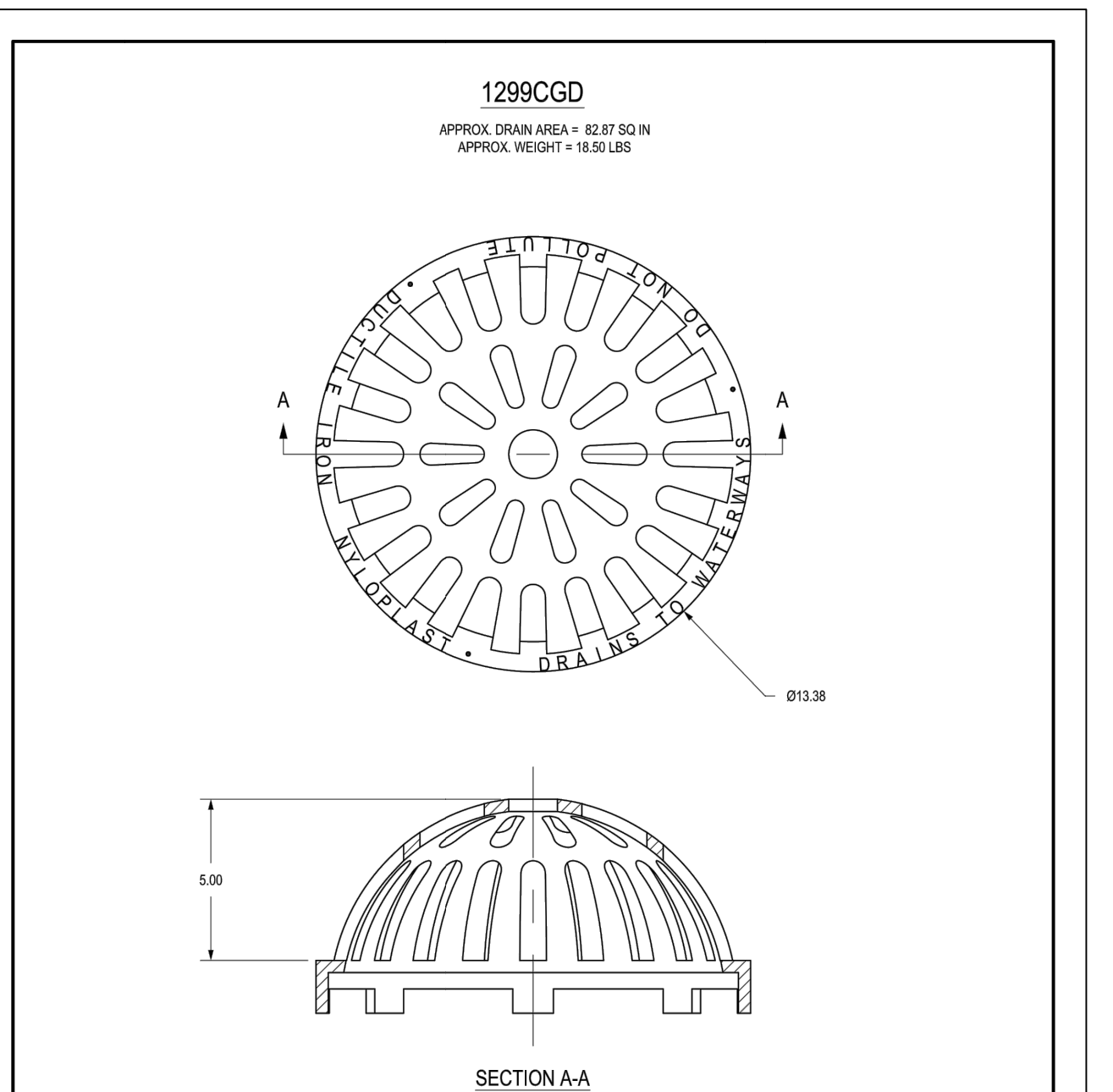
CONCRETE CURB & GUTTER TYPE F
(NO SCALE)



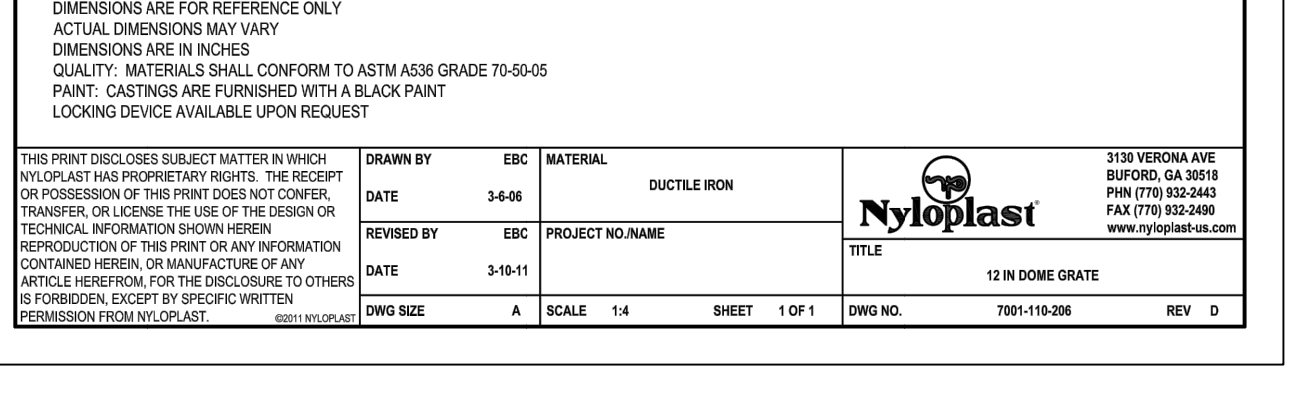
CONCRETE PAVEMENT CROSS SECTION
NOTE: FOR DUMPSTER PAD AND FIRE ACCESS SIDEWALK
(NO SCALE)



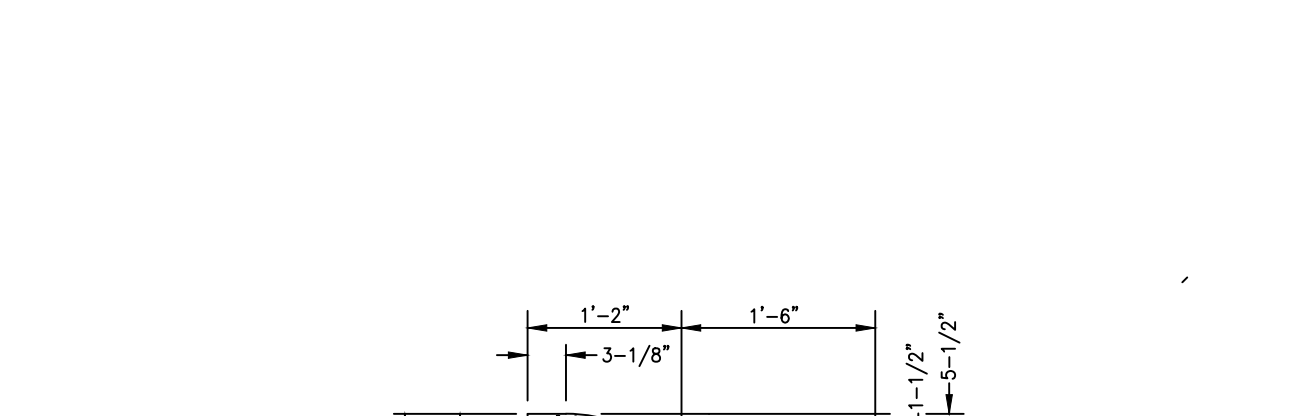
ASPHALT SECTION
(NO SCALE)



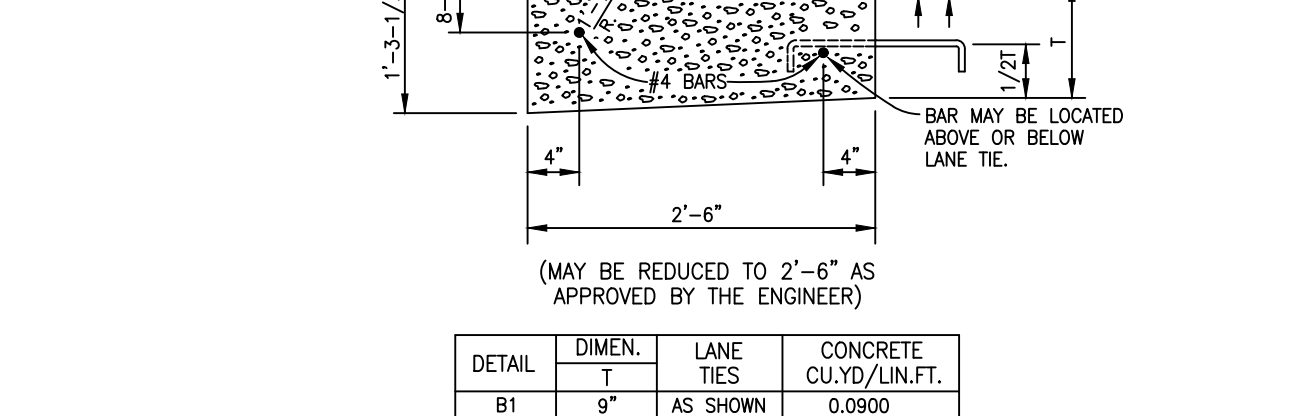
1299CGD
APPROX. DRAIN AREA = 82.87 SQ IN
APPROX. WEIGHT = 18.50 LBS



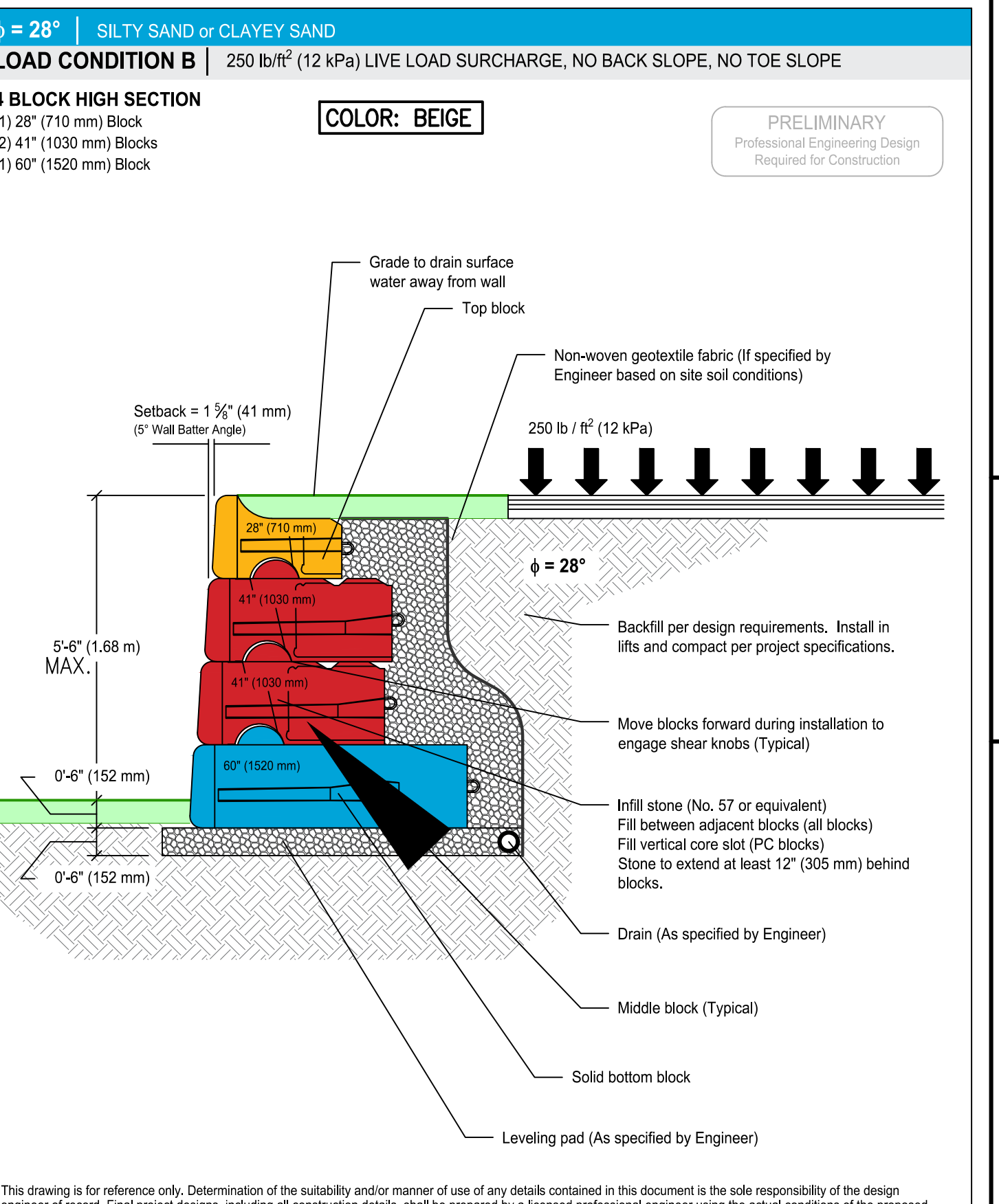
12 IN DOME GRATE
NO SCALE



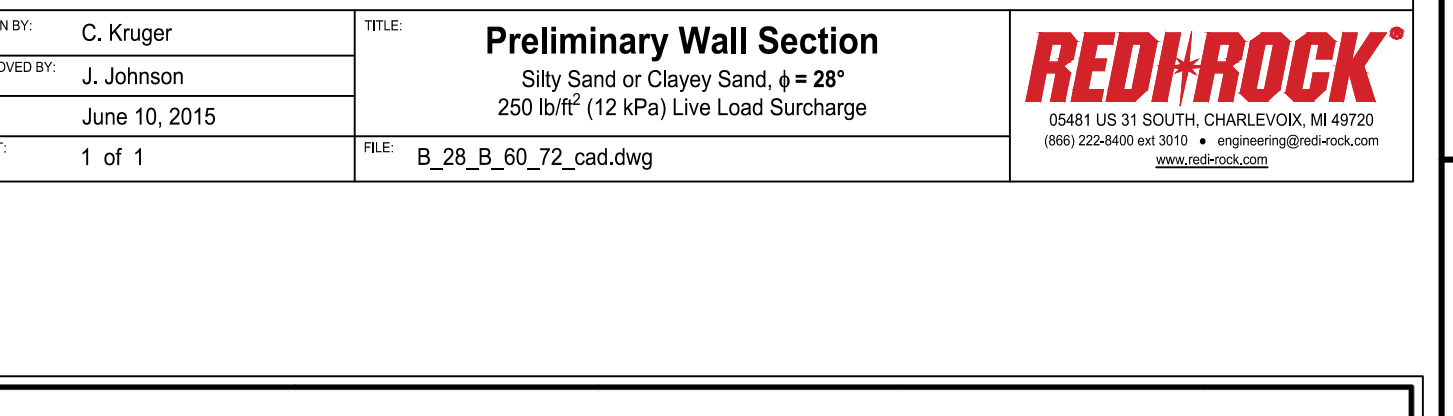
CONCRETE CURB & GUTTER
(NO SCALE)



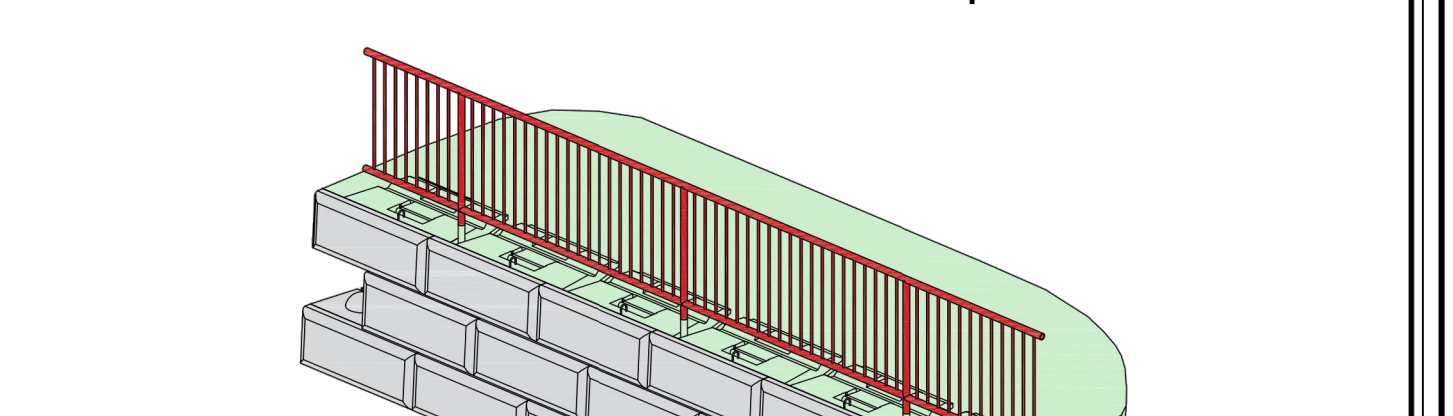
MODIFIED BARRIER (M.D.O.T. TYPE F4)
(NO SCALE)



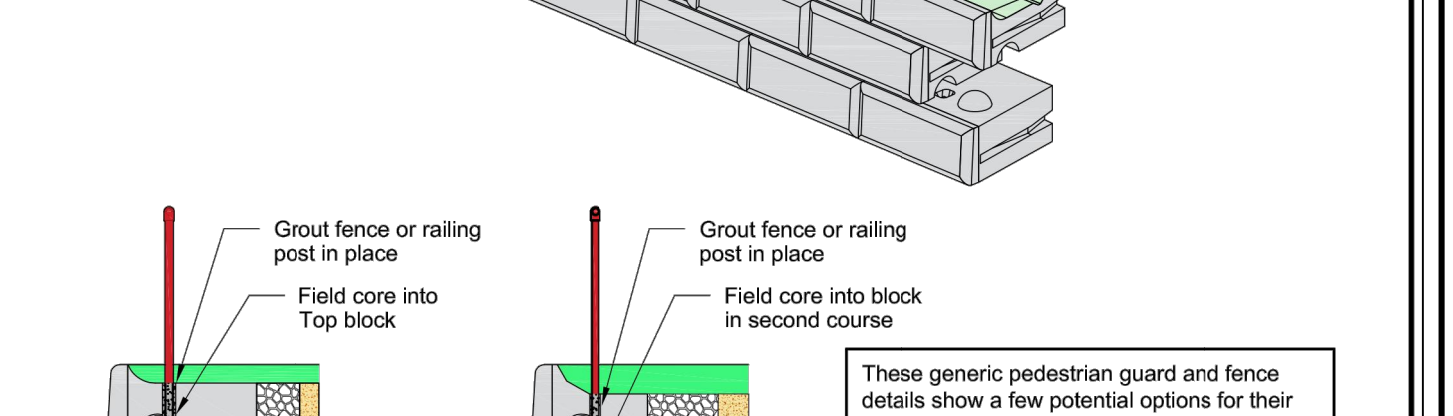
Preliminary Wall Section
Silty Sand or Clayey Sand, φ = 28°
250 lb/ft² (12 kPa) Live Load Surcharge



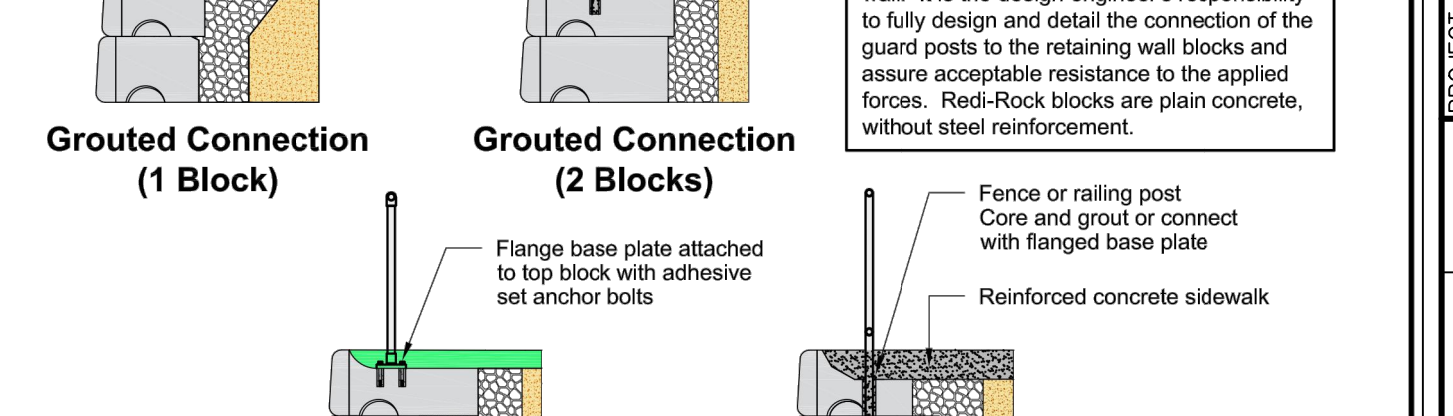
Fence or Pedestrian Guard Connection Options



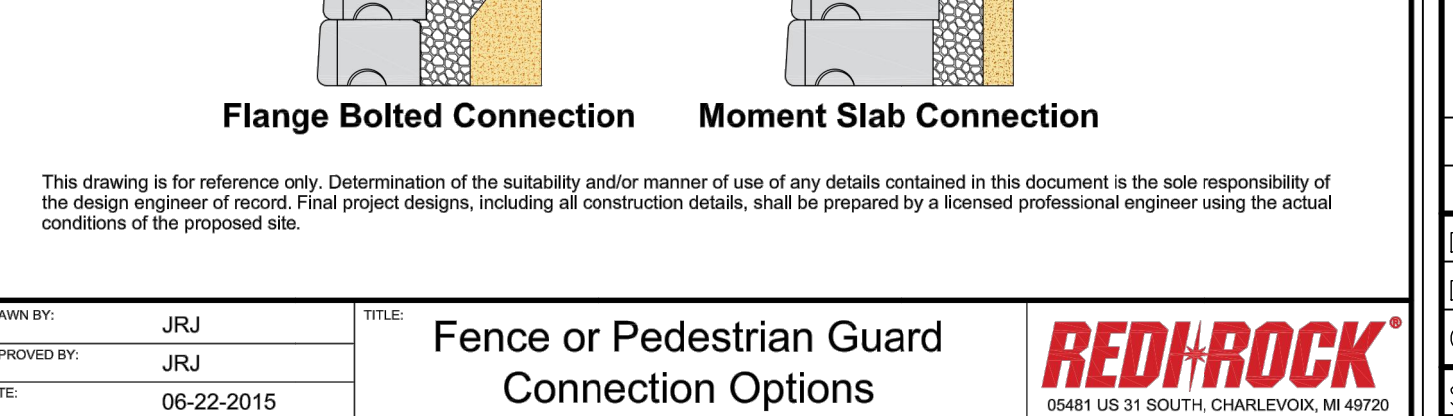
Grouted Connection (1 Block)



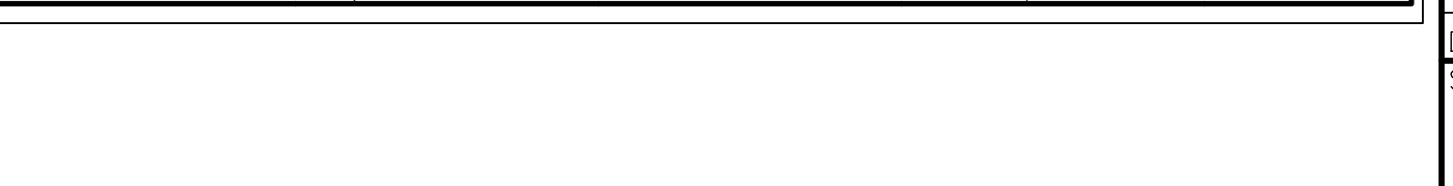
Grouted Connection (2 Blocks)



Flange Bolted Connection



Moment Slab Connection



Fence or Pedestrian Guard Connection Options

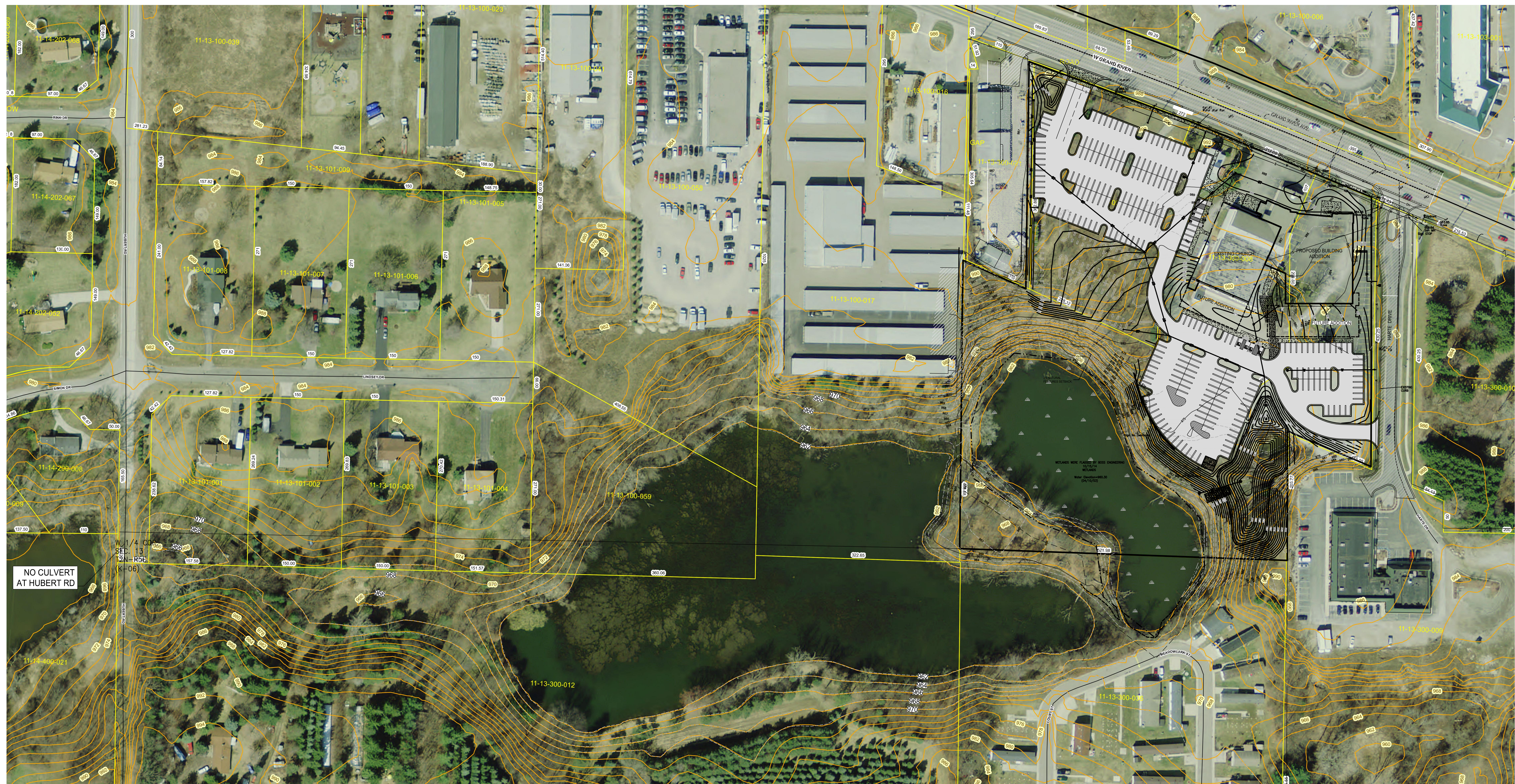
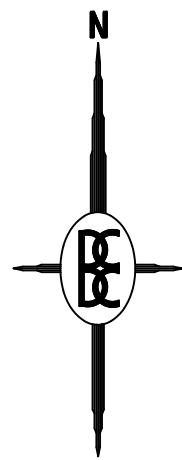
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COMMUNITY BIBLE CHURCH EXPANSION
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BRIGHTON, MI 48114
810-227-2255

CONSTRUCTION NOTES & DETAILS

NO.	DATE	BY	REVISION
1	11-20-18	ST	DESIGNED BY
2	10-24-18	ST	DRAWN BY
3		ST	CHECKED BY
4		ST	SCALE
5		ST	JOB NO. 14-047
6		ST	DATE 10/2/18
7		ST	SHEET NO. C8

REDI-ROCK
05481 US 31 SOUTH CHARLEVOIX, MI 49720
(866) 222-8400 ext 3010 • engineering@redi-rock.com
www.redi-rock.com



STORM WATER NARRATIVE
 PRE-DEVELOPMENT CONDITIONS:
 THERE ARE MINIMAL STORM STRUCTURES ON SITE. WATER ON THE EAST SIDE OF THE CHURCH DRAINS INTO A CATCH BASIN THAT FLOWS SOUTH TO A SMALL DETENTION POND AT THE SOUTHEAST PORTION OF THE SITE. WATER ON THE WEST SIDE OF THE EXISTING CHURCH BUILDING PRIMARILY SHEET FLOWS TO THE WETLANDS AT THE SOUTH PORTION OF THE SITE. THERE IS AN EXISTING CATCH BASIN STRUCTURE AT THE SOUTHEAST CORNER OF THE EXISTING GRAVEL PARKING LOT AT THE REAR OF THE BUILDING. THIS BASIN COLLECTS A SMALL PORTION OF STORM WATER FROM THE GRAVEL LOT. A MAJORITY OF THE SITE SHEET FLOWS FOR DIRECT RUNOFF TO THE WETLAND. THE WEST HALF OF THE SITE IS PARTIALLY WOODED AND WAS ORIGINALLY A RESIDENTIAL LOT. THE EAST HALF OF THE SITE IS CURRENTLY THE COMMUNITY BIBLE CHURCH FACILITY WITH PAVED PARKING AND GRAVEL PARKING.

PROPOSED CONDITIONS:
 A DETENTION BASIN AND FOREBAY ARE PROPOSED AT THE SOUTHEAST PORTION OF THE SITE AND ARE SIZED FOR THE ENTIRE SITE TO BE DEVELOPED, INCLUDING THE TWO FUTURE BUILDING EXPANSION AREAS AS WELL AS THE FUTURE PARKING LOT. THE PROPOSED PARKING LOT SOUTH OF THE BUILDING WILL SHEET FLOW TO THE EAST AND ENTER THE FOREBAY VIA A SPILLWAY. THERE ARE ADDITIONAL STORM STRUCTURES THAT GO TO THE WEST PORTION OF THE SITE AND TO THE GREENSPACE NORTH OF THE BUILDING. THE PROPOSED DETENTION BASIN IS PROPOSED TO OUTLET INTO THE WETLAND AT A RATE OF 0.20 CFS PER ACRE. WITH THE CURBED PARKING AREAS CONTAINING THE SITE RUNOFF, THE ONLY AREA THAT WILL DIRECT DISCHARGE TO THE WETLAND IS THE GRASSED/WOODED AREAS SOUTH OF THE PROPOSED PARKING LOTS. THIS COLLECTION OF STORMWATER COMPARED TO THE PRE-DEVELOPMENT CONDITIONS WILL REDUCE THE DISCHARGE RATE TO THE WETLAND SIGNIFICANTLY.

INCREMENTAL RISE ANALYSIS NARRATIVE
 THE ADDITIONAL DEVELOPMENT OF THE COMMUNITY BIBLE CHURCH SITE, CURRENT AND FUTURE ADDITIONS, WILL CAUSE INCREASE IN STORM WATER VOLUME GENERATED DUE TO THE INCREASE IN IMPERVIOUS SURFACES. THIS SITE DISCHARGES INTO A LARGE WETLAND SYSTEM AT THE SOUTH END OF THE SITE THAT EXTENDS WESTERLY ALL THE WAY TO HUBERT ROAD. THERE IS NO CULVERT CROSSING UNDER HUBERT ROAD TO CONNECT TO THE WETLAND SYSTEM ON THE WEST SIDE OF HUBERT ROAD. IT IS IMPORTANT TO ANALYZE BOTH THE FLOW AND VOLUME OF STORMWATER BEING DISCHARGED INTO THE WETLAND SYSTEM TO DETERMINE THE IMPACTS OF DEVELOPMENT. TR-55 WAS USED TO CALCULATE BOTH A PRE-DEVELOPMENT STORMWATER VOLUME AND FLOW AS WELL AS POST-DEVELOPMENT VOLUME.

DISCHARGE VOLUME
 THE PRE-DEVELOPMENT PEAK DISCHARGE TO THE WETLAND FROM A 100-YEAR STORM IS 23.27 CFS. THIS DOES NOT CONSIDER THE DETENTION BASIN THAT DOES COLLECT STORM WATER FROM 2 STORM STRUCTURES ON SITE. THIS WAS DISREGARDED AS THE EXISTING DETENTION BASIN IS SEVERELY UNDERSIZED AND HAS VIRTUALLY NO VOLUME. THE POST DEVELOPMENT VOLUME AS CALCULATED BY TR-55 IS 30.78 CFS. THIS FLOW RATE HOWEVER DOES NOT CONSIDER THE IMPLEMENTATION OF A PROPERLY SIZED 100-YR STORM DETENTION BASIN. THE POST-DEVELOPMENT FLOW DISCHARGE TO THE WETLAND PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER STANDARDS IS 0.20 CFS/ACRE. THE ACTUAL DISCHARGE RATE FROM THE OVERFLOW CONTROL STRUCTURE IN THE PROPOSED BASIN IS 1.12 CFS. THIS CONTROLLED DISCHARGE RATE IS SIGNIFICANTLY LESS THAN THE PRE-DEVELOPMENT DISCHARGE RATE DUE TO THE FACT THAT THE PRE-DEVELOPMENT CONDITION IS PRIMARILY DIRECT DISCHARGE.

IT SHALL BE NOTED THAT THE AREA SOUTH OF THE PROPOSED CONSTRUCTION LIMITS WAS NOT INCLUDED IN THIS ANALYSIS FOR BOTH VOLUME AND FLOW RATE AS THE CONDITIONS FOR SAID AREA WILL NOT CHANGE BETWEEN PRE-DEVELOPMENT AND POST-DEVELOPMENT CONDITIONS.

VOLUME
 TR-55 WAS UTILIZED TO CALCULATE PRE-DEVELOPMENT STORM WATER VOLUMES GENERATED BY A 100-YEAR STORM. THE PRE-DEVELOPMENT CONDITION HAS AN AREA OF 4.79 ACRES AND A CURVE NUMBER (CN) OF 85. THE LAND COVER FOR THE PRE-DEVELOPMENT CONDITION IS NEARLY HALF IMPERVIOUS SURFACE (ROOFS AND EXISTING PARKING LOTS AND HOUSE) AND THE OTHER HALF WOODED/GRASSED COVER. WITH A PRECIPITATION AMOUNT OF 5.36 INCHES FOR A 100-YEAR STORM, A PRE-DEVELOPMENT STORM WATER VOLUME OF 64,373 CFT IS GENERATED. FOR THE POST-DEVELOPMENT CONDITION, AN AREA OF 5.61 ACRES AND CURVE NUMBER OF 91 WAS USED. THE INCREASED AREA IN THE POST-DEVELOPMENT CONDITION IS DUE TO ADDITION AREA ALONG GRAND RIVER THAT IS NOW BEING COLLECTED INTO THE PROPOSED STORM WATER SYSTEM. THE HIGHER CURVE NUMBER IN THE POST-DEVELOPMENT CONDITION INDICATES ADDITIONAL IMPERVIOUS SURFACES DUE TO THE DEVELOPMENT. THIS POST-DEVELOPMENT CALCULATION CONSIDERS THE ULTIMATE DEVELOPMENT OF THIS SITE WHICH IS THE CURRENT PROPOSED PAVING AND EXPANSION AS WELL AS THE TWO FUTURE BUILDING EXPANSIONS AND THE FUTURE PARKING LOT. WITH THE SAME PRECIPITATION OF 5.36 INCHES IN A 100-YEAR STORM EVENT, A POST-DEVELOPMENT STORM WATER VOLUME GENERATED IS 88,222 CFT.

INCREMENTAL RISE
 THE INCREMENTAL RISE IN THE WETLAND SYSTEM IS DUE TO THE ADDITIONAL STORM WATER VOLUME GENERATED IN THE POST-DEVELOPMENT CONDITION VERSUS THE PRE-DEVELOPMENT CONDITION. THE ADDITIONAL STORM WATER GENERATED IS:

$$88,222 \text{ CFT} - 64,373 \text{ CFT} = 23,849 \text{ CFT}$$

EXISTING DATA POINTS AT THE PERIMETER OF THE WETLAND RANGE FROM 961.07 TO 964.35. BASED ON THE CONTOUR DATA, THE WETLAND ELEVATION IS MOST ACCURATELY JUST UNDER 962. ADDITIONAL CONTOUR DATA FURTHER WEST OF THE SITE WAS OBTAINED FROM THE LIVINGSTON COUNTY GIS OFFICE AND CAN BE SEEN IN THE IMAGE ABOVE. CONTOUR AREAS AND CONSEQUENTLY WETLAND STORAGE VOLUMES UP TO AN ELEVATION OF 968 WERE GENERATED. CERTAINLY THE WETLAND WATER ELEVATION FLUCTUATES PENDING THE SEASON, BUT FOR THE PURPOSE OF THIS ANALYSIS THE LARGEST INCREMENTAL RISE GENERATED BY THE DEVELOPMENT OF THIS SITE IS WHEN THE WETLAND ELEVATION IS LOW AND THE WETLAND AREAS ARE SMALLER. FOR THE INCREMENTAL RISE ANALYSIS A STARTING ELEVATION OF 962 WAS USED AS A BASELINE, WITH THE VOLUME DATA PROVIDED IN THE CHART ON THIS SHEET. THE ADDITIONAL 23,489 CFT WILL INCREASE THE WETLAND ELEVATION TO 962.06 WHICH IS AN INCREASE IN 0.06 FEET (0.76 INCHES). [EVEN AT SMALLER WETLAND AREAS, THE IMPACT OF ADDITIONAL STORM WATER ON THE WETLAND SYSTEM IS NEGLIGIBLE AS IT IS LESS THAN 1-INCH. IF THE WETLAND ELEVATION WERE ASSUMED TO BE EVEN HIGHER AS A BASELINE, THE INCREMENTAL RISE WOULD BE EVEN LESS YET AS THE WETLAND AREAS INCREASE AS ELEVATION INCREASES.]

SUMMARY
 IN SUMMARY, THE PROPOSED DEVELOPMENT OF THIS EXISTING SITE IMPROVES THE DISCHARGE OF STORM WATER TO THE WETLAND AS STORM WATER IS ROUTED THROUGH A 100-YEAR VOLUME DETENTION BASIN WITH A CONTROLLED OUTLET RATE. THE INCREASED VOLUME GENERATED BY THE DEVELOPMENT OF THIS SITE IS MINIMAL AND HAS A NEGLIGIBLE INCREMENTAL RISE IN WATER ELEVATION IN THE WETLAND. FINALLY, THE PROPOSED DEVELOPMENT INCLUDES THE CONSTRUCTION OF A SEDIMENT FOREBAY FOR IMPROVED WATER QUALITY.

WETLAND STORAGE VOLUME & INCREMENTAL RISE CALC

ELEV.	AREA (AC)	DEPTH (FT)	VOLUME (CFT)	TOTAL VOLUME (CFT)
968	537057	2	995,943	2,613,468
966	458886	2	855,743	1,817,525
964	408857	2	751,782	751,782
962	344925	0	0	0
VOLUME DIFFERENTIAL FROM DEVELOPMENT =			23849	CFT
ELEVATION OF WETLAND W/ ADDITIONAL VOLUME =			962.06	
INCREMENTAL RISE (FROM BASE OF 962) =			0.06 FT	
			0.76 INCHES	

TR-55 AREA SUMMARY

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
pre-dev	4.79	0.250	85	Outlet	
post-dev	5.61	0.250	91	Outlet	

TR-55 RAINFALL DATA

Livingston M2S3 County, Michigan						
Storm Data						
Rainfall Depth by Rainfall Return Period						
2-Yr	5-Yr	10-Yr	20-Yr	50-Yr	100-Yr	1-Yr
(in)	(in)	(in)	(in)	(in)	(in)	(in)
2.37	2.86	3.33	4.05	4.68	5.36	2.11

Storm Data Source: Livingston M2S3 County, MI (NRCS)
 Rainfall Distribution Type: Type II
 Dimensionless Unit Hydrograph: <standard>

TR-55 PEAK FLOW (100-YR STORM)

Livingston M2S3 County, Michigan	
Watershed Peak Table	
Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period (cfs)
pre-dev	23.27
post-dev	30.78 (DOES NOT CONSIDER CONTROLLED DISCHARGE FROM O.C.S. STRUCTURE)

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THIS PLAN IS NOT GUARANTEED. THE ENGINEER HAS CONDUCTED VISUAL SURVEYS AND PREPARED UTILITY CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION AND HAS NOT CONDUCTED ANY OTHER INVESTIGATIONS. THE LOCATION AND DEPTH OF UTILITIES AS SHOWN ON THIS PLAN IS BASED ON THE INFORMATION PROVIDED BY THE APPLICANT OR BY THE LOCATION OR DEPTH OFFERS SIGNIFICANTLY FROM THE PLANS.

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 www.missdig.com

BEBOSS
 Engineering
 Engineers Surveyors Planners Landscape Architects
 3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 800.246.6735 FAX 517.548.1670

PROJECT: COMMUNITY BIBLE CHURCH EXPANSION
 PREPARED FOR: COMMUNITY BIBLE CHURCH
 7372 GRAND RIVER AVENUE
 BRIGHTON, MI 48114
 810-227-2255

TITLE: DRAINAGE STUDY

DATE: 11-26-18
 PER: TWP & P.C.
 REVISION PER: 10-24-18

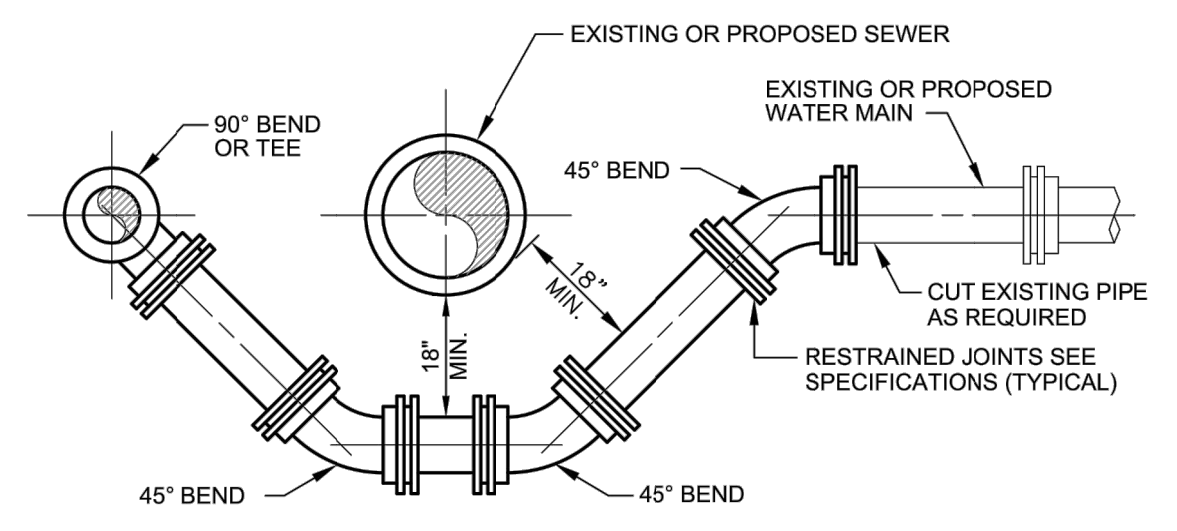
DESIGNED BY: ST
 DRAWN BY: ST
 CHECKED BY:
 SCALE: 1" = 80'
 JOB NO. 14-047
 DATE: 10/2/18
 SHEET NO. C10

PIPE RESTRAINT SCHEDULE

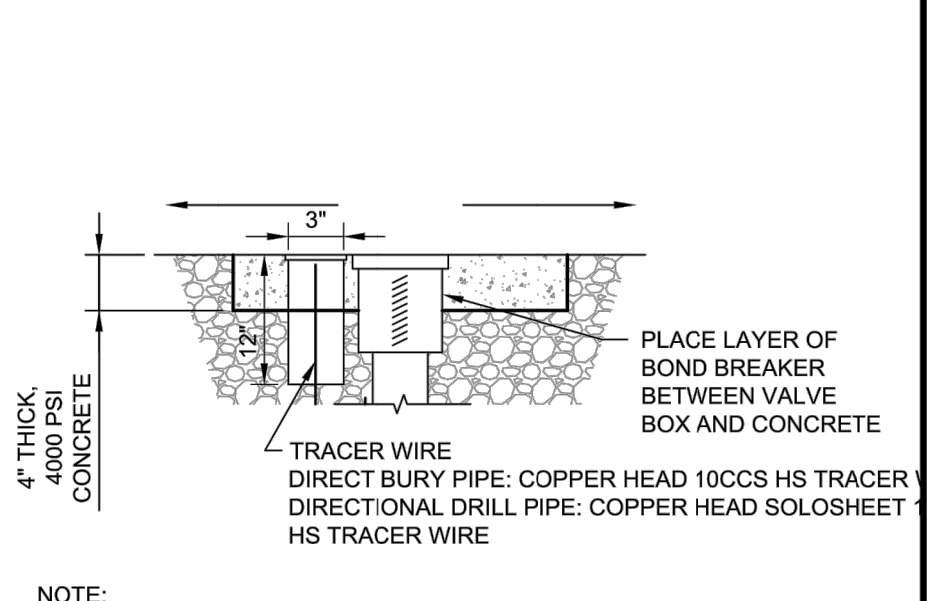
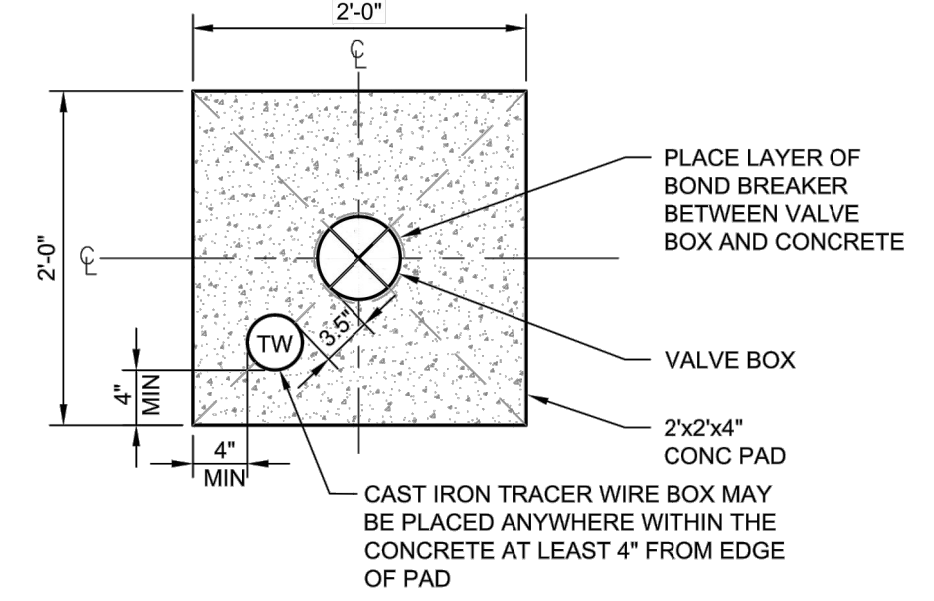
GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE

PIPE DIAMETER	TEES, 90° BENDS	45° BENDS	22-1/2° BENDS	11-1/4° BENDS	DEAD ENDS	REDUCERS (ONE SIZE REDUCTION)*	REDUCERS (TWO SIZE REDUCTION)*
4	13	5	3	1	40	--	--
6	19	8	4	2	58	31	--
8	24	10	5	2	75	30	70
12	34	14	7	3	107	57	116
16	43	18	9	4	139	59	137
20	52	22	10	5	169	59	134
24	61	25	12	6	199	60	132
30	73	30	15	7	242	85	168
36	84	35	17	8	281	84	168

- LENGTHS OF PIPE RESTRAINT ARE GIVEN IN FEET.
 - IF REQUIRED PIPE DIAMETER IS NOT LISTED IN THIS TABLE, THE NEXT LARGEST PIPE DIAMETER SHALL BE USED.
 - THIS TABLE IS BASED ON A TEST PRESSURE OF 180 PSI (OPERATING PRESSURE PLUS WATER HAMMER. FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY.
 - THE VALUES PROVIDED OF RESTRAINT LENGTH ARE IN EACH DIRECTION FROM THE POINT OF DEFLECTION OR TERMINATION EXCEPT FOR TEES, AT WHICH ONLY THE BRANCH IN THE DIRECTION OF THE STEM.
 - IF THE RODS ARE USED, USE FOUR RODS MINIMUM AND ADD 1/8-INCH TO BAR DIAMETER AS CORROSION ALLOWANCE.
- * SIZE REDUCTION IS BASED UPON THE PIPE DIAMETER SHOWN IN THIS TABLE.
- BASED UPON:
- | | |
|--------------------|-----------|
| INTERNAL PRESSURE: | 180 |
| PIPE DEPTH: | 5 |
| BEDDING CLASS: | TYPE 4 |
| SOIL TYPE: | GOOD SAND |
| SAFETY FACTOR: | 2 |

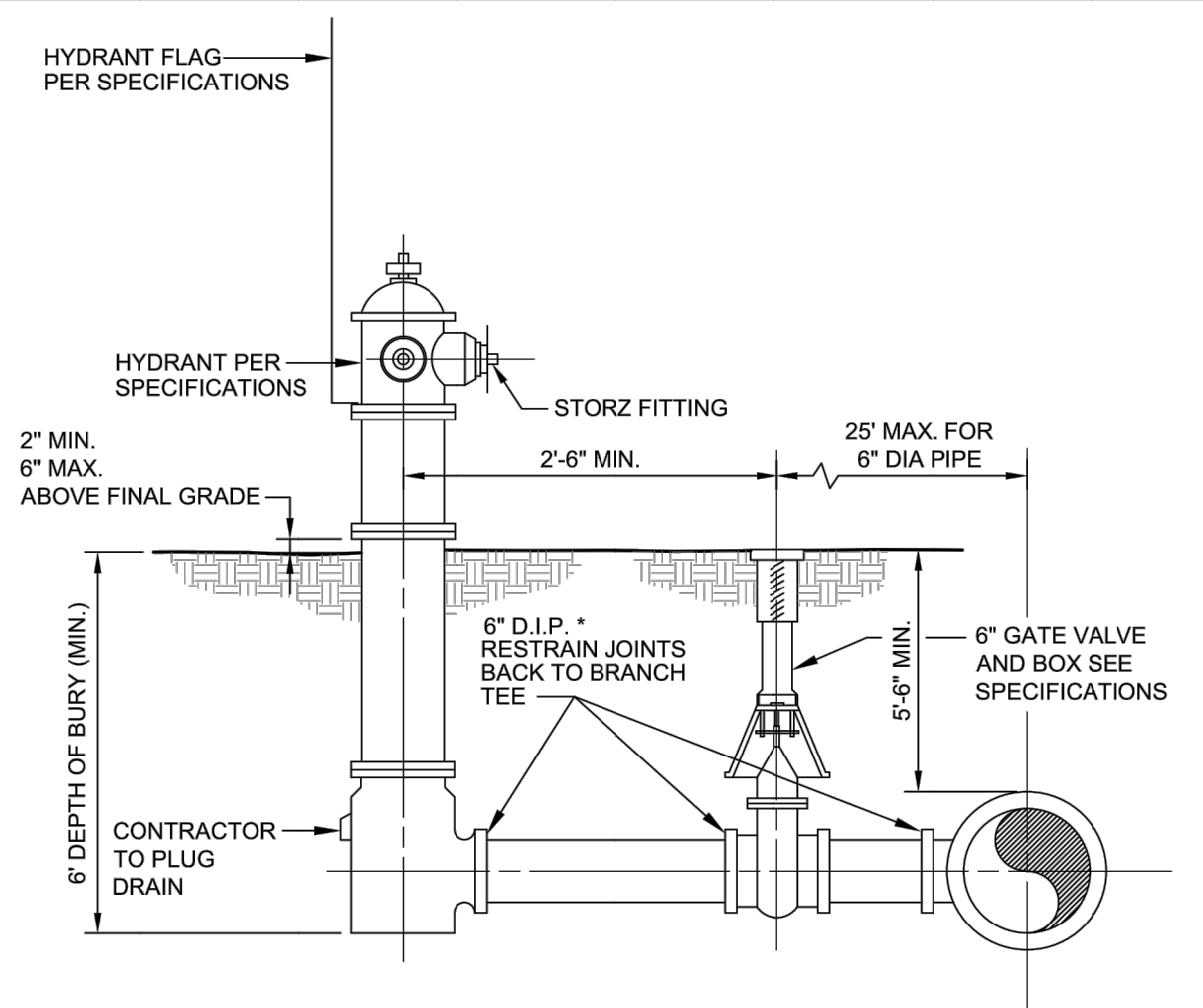


WATER MAIN UTILITY OFFSET

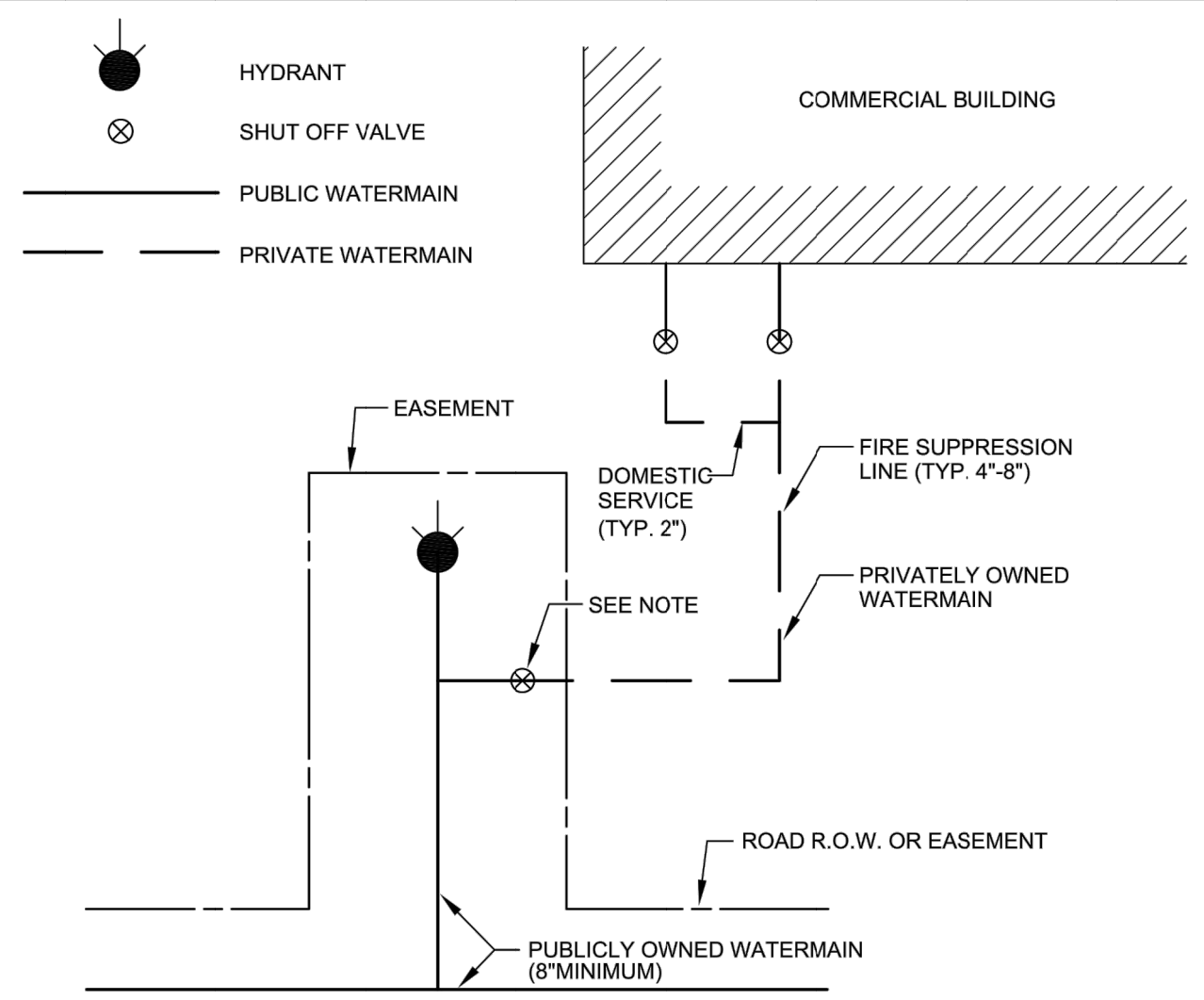


- NOTE: ALL BOXES & ADJOINING TW BOXES SHALL BE ENCASED IN A CONC. PAD UNLESS OTHERWISE DETERMINED BY MHOG.
- NOTE:
- TRACER WIRE BOXES LOCATED WITHOUT A VALVE BOX ONLY REQUIRE AN 18" X 18" CONCRETE PAD.
 - TRACER WIRE BOX SHALL HAVE A LOCKING LID W/STANDARD AWWA PENTAGON KEY.
 - TRACER WIRE BOX SHALL BE COPPERHEAD RB14"TP IN ASPHALT INSTALLATIONS AND CD14"TP FOR ALL OTHER INSTALLATIONS.

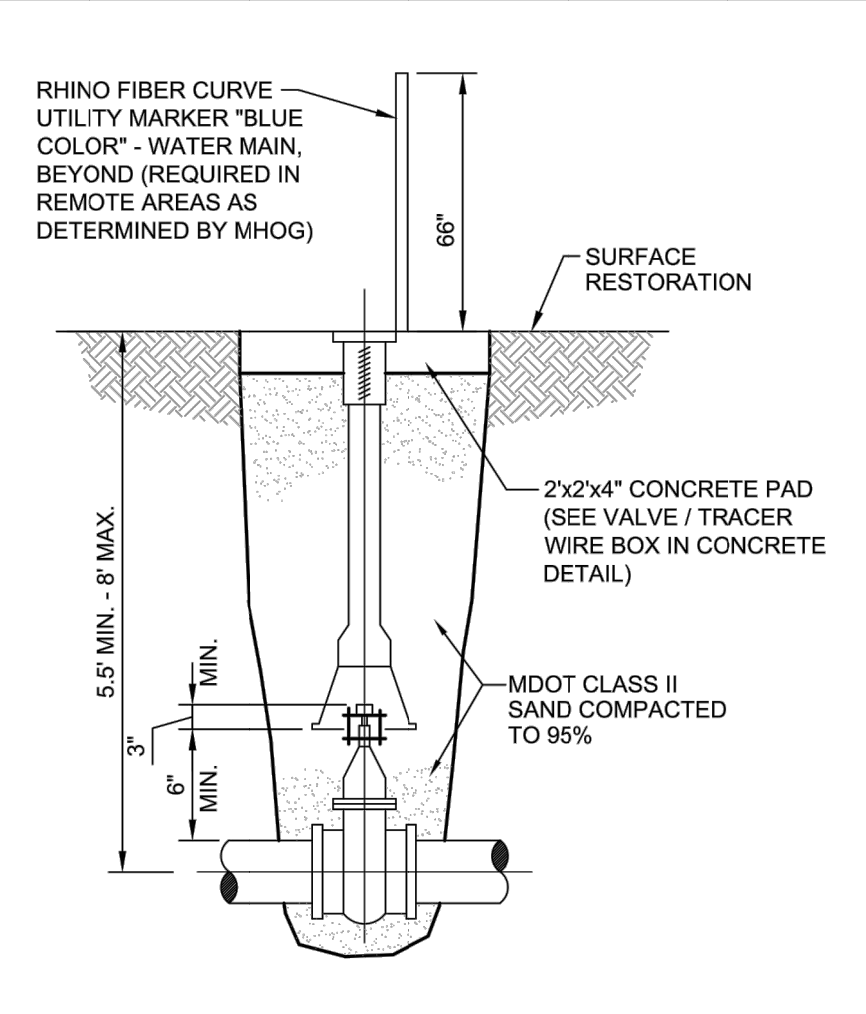
VALVE/TRACER WIRE BOX IN CONCRETE DETAIL



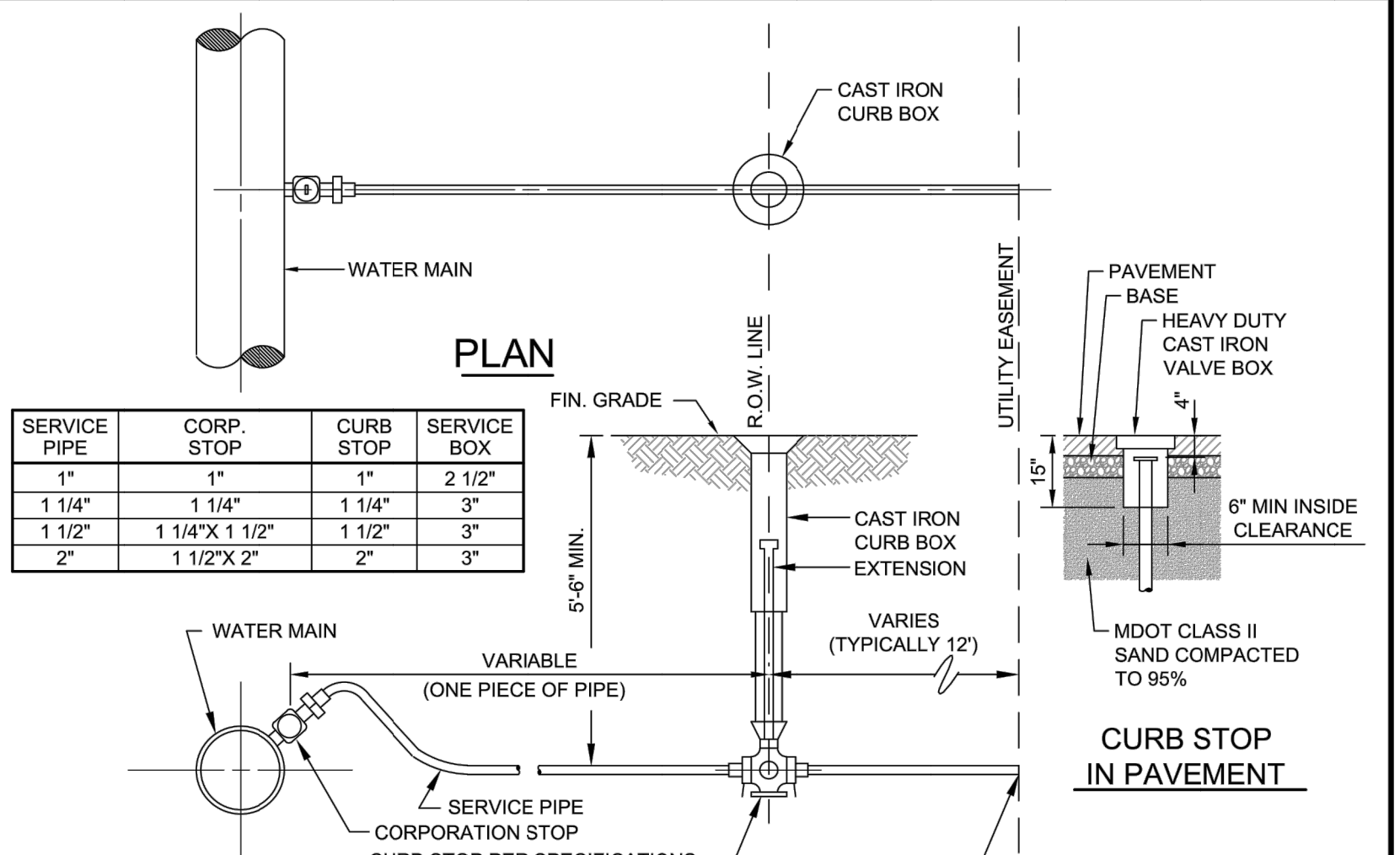
FIRE HYDRANT ASSEMBLY



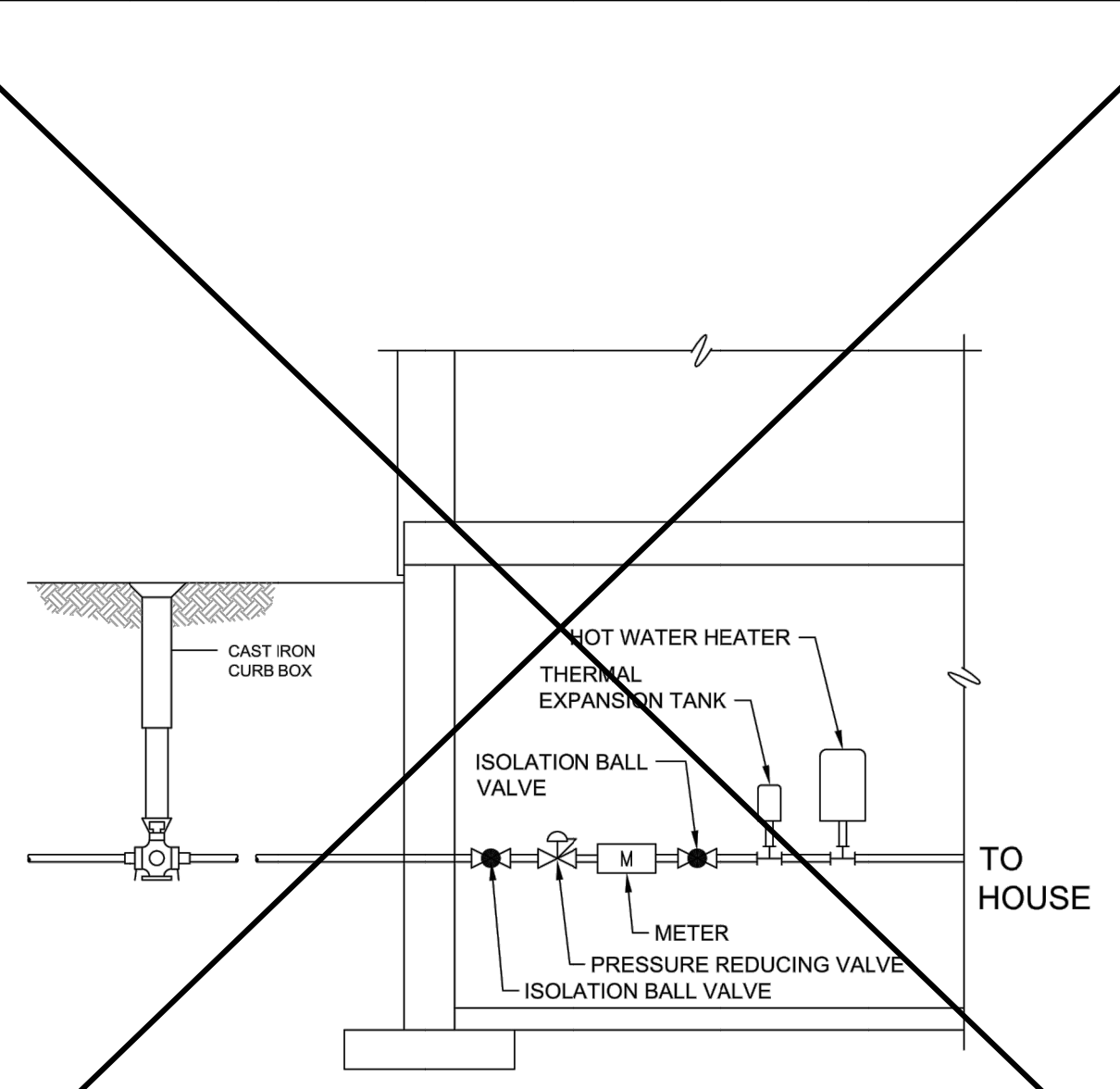
COMMERCIAL BUILDING WATER SERVICE LAYOUT



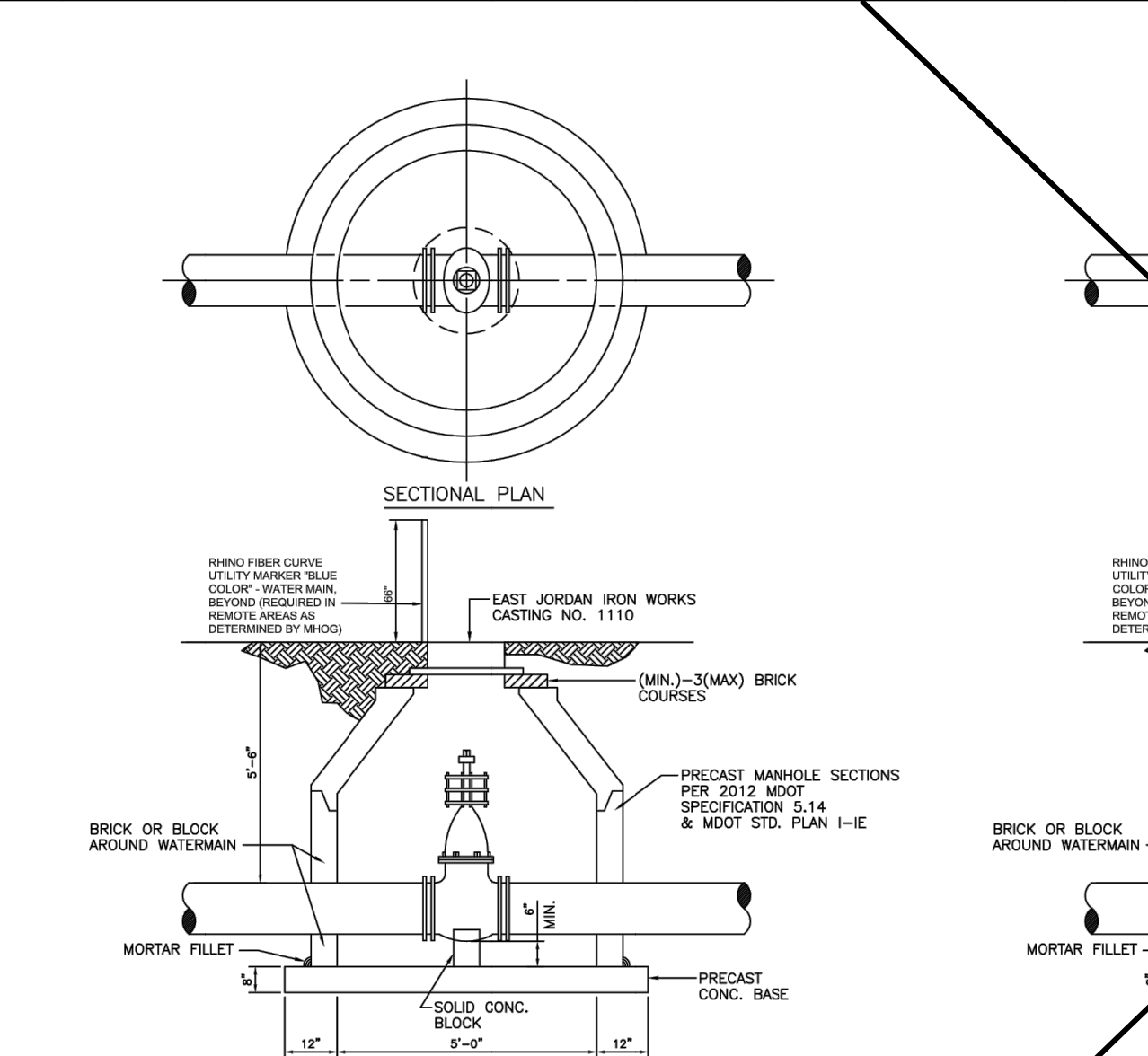
GATE VALVE AND BOX



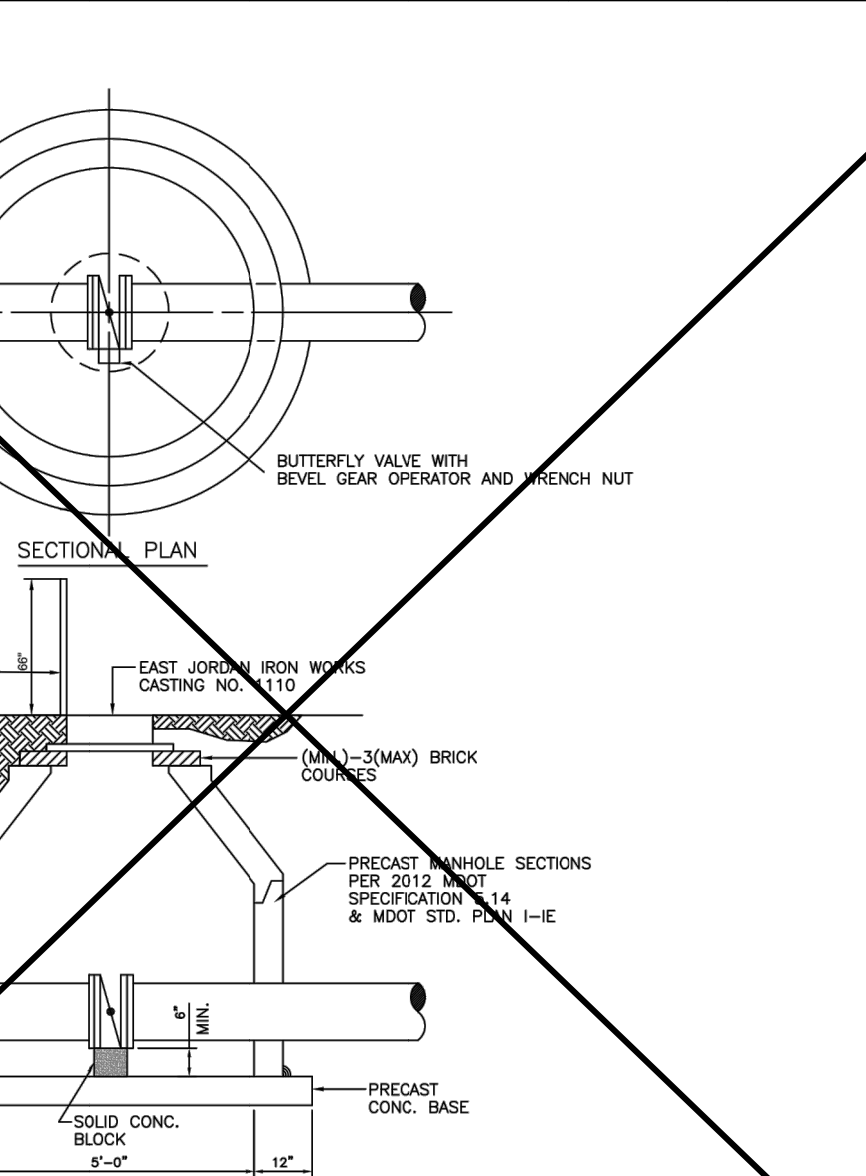
SECTION WATER SERVICE LATERAL



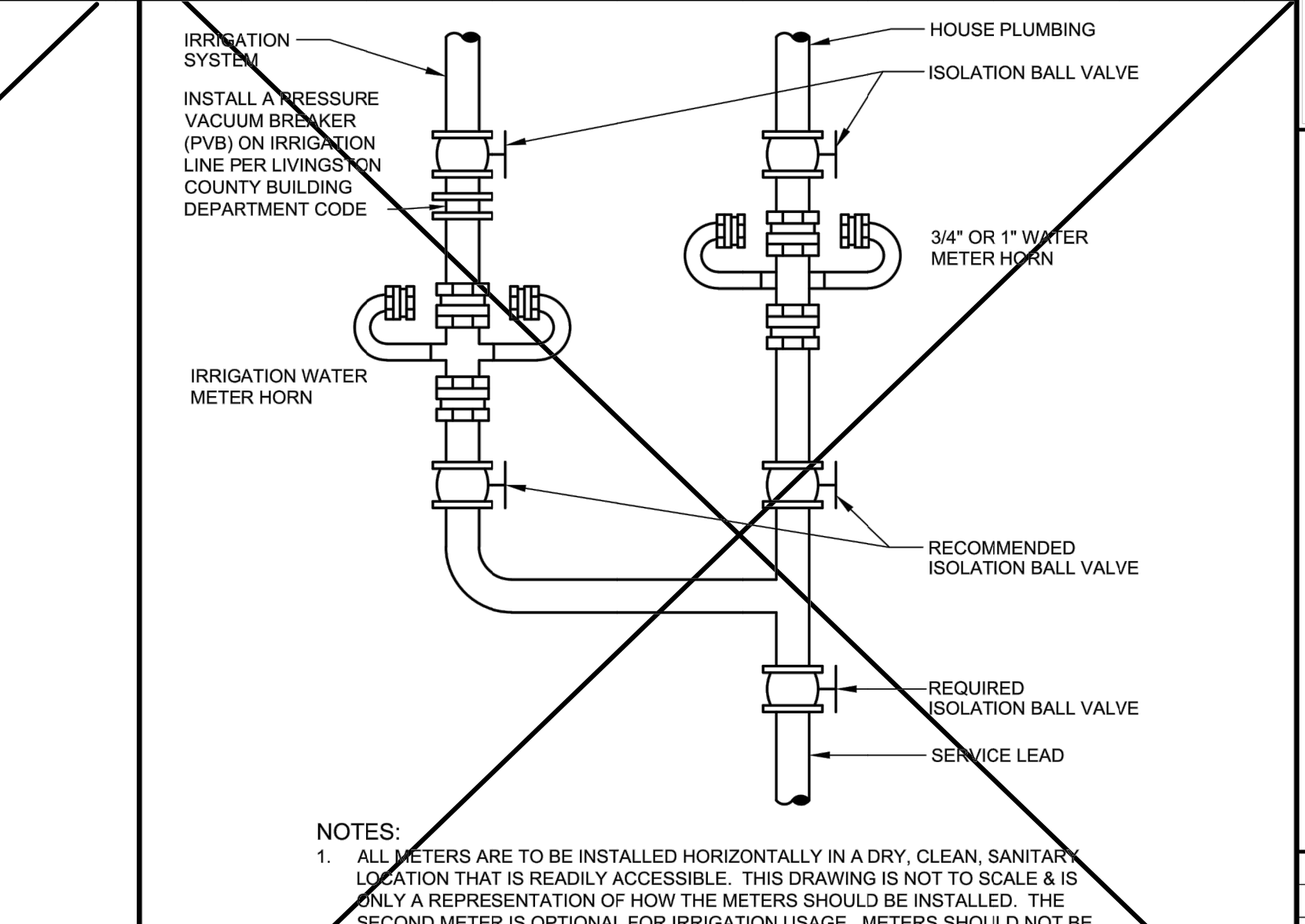
PRIVATE RESIDENCE PRESSURE REDUCING VALVE (PRV)



GATE VALVE AND WELL



BUTTERFLY VALVE AND WELL



- NOTES:
- ALL METERS ARE TO BE INSTALLED HORIZONTALLY IN A DRY, CLEAN, SANITARY LOCATION THAT IS READILY ACCESSIBLE. THIS DRAWING IS NOT TO SCALE & IS ONLY A REPRESENTATION OF HOW THE METERS SHOULD BE INSTALLED. THE SECOND METER IS OPTIONAL FOR IRRIGATION USAGE. METERS SHOULD NOT BE INSTALLED IN LINE (ONE RIGHT AFTER THE OTHER).
 - PROPERTIES DESIGNATED "HIGH HAZARD" PER THE MHOG CROSS CONNECTION RULES MANUAL WILL REQUIRE THE INSTALLATION OF A REDUCED PRESSURE ZONE (RPZ) BACK FLOW PREVENTION DEVICE.

TYPICAL METER HORN INSTALLATION



MARION HOWELL OCEOLA GENOA
Sewer and Water Authority

STANDARD DETAILS

Scale: NONE
Issued Date: JANUARY - 2014
Updated: MAY 2015
Updated: FEBRUARY 2016
Updated: APRIL 2016

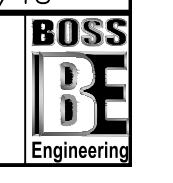
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COMMUNITY BIBLE CHURCH EXPANSION
COMMUNITY BIBLE CHURCH
7372 GRAND RIVER AVENUE
BRIGHTON, MI. 48114
810-227-2255

NO	BY	REVISION PER	DATE
1	ST	PER TWP & P.C.	11-26-18
2	ST	PER TWP REVIEW	10-24-18

DESIGNED BY: ST
DRAWN BY: ST
CHECKED BY:
SCALE: NTS
JOB NO. 14-047
DATE: 10/2/18
SHEET NO. C11



GENERAL NOTES

- ALL DIMENSIONS ARE TO FACE OF FINISHED SURFACE OR COLUMN CENTER LINE UNLESS NOTED OTHERWISE
- COORDINATE W/ MECH. & ELEC. DRAWINGS FOR ALL FLOOR/WALL/ROOF PENETRATIONS NOT SHOWN ON ARCHITECTURAL PLANS. COORDINATE WITH C.M.
- FIELD PAINT ALL MECHANICAL GRILLES & CABINETS TO MATCH ADJACENT SURFACES
- SITE DATUM: MAIN LEVEL FINISH FLOOR ASSUMED = 100'-0" ACTUAL = 100'-2"

KEY NOTES

- 1 3" GRAB BAR
- 2 4" GRAB BAR
- 3 1" VERTICAL GRAB BAR
- 4 TOILET PAPER DISPENSER
- 5 PAPER TOWEL DISPENSER
- 6 RECESSED PAPER TOWEL DISPENSER & DISPOSAL UNIT
- 7 FEMININE NAPKIN DISPOSAL
- 8 2x3 FRAMED MIRROR
- 9 FRAMELESS MIRROR - SEE ELEVATION FOR SIZE
- 10 URINAL SCREEN W/ CONT BRACKET
- 11 BABY CHANGER
- 12 COAT ROD & SHELF - MOUNT ROD @ 3'-4" AFF
- 13 BULKHEAD ABOVE - SEE REFLECTED CEILING PLAN
- 14 CANOPY ABOVE
- 15 FIRE EXTINGUISHER, w/ CABINET

INTERIOR WALL TYPES

- (B) 5/8" GYPSUM WALLBOARD
3 5/8" METAL STUDS @ 16" O.C.
3" ACOUSTICAL BLANKETS
5/8" GYPSUM WALLBOARD
6" STUDS @ B1
- (C) 5/8" GYPSUM WALLBOARD
3 5/8" METAL STUDS @ 16" O.C.
(ALL SHAFT WALLS & BULKHEADS)

- NOTES:**
- REFER TO STRUCTURAL DRAWINGS FOR CROSS BRACING LOCATIONS
 - GYPSUM WALLBOARD TO EXTEND DECK ABOVE CEILING UNLESS NOTED OTHERWISE
 - ALL EXPOSED CMU CORNERS TO BE BULLNose CORNERS
 - ALL WALLS TO BE EXTENDED TIGHT TO STRUCTURE ABOVE U.N.O.
 - ALL WOOD FRAMING & SHEATHING IN A IIB CONSTRUCTION IS REQUIRED TO BE NON-COMBUSTIBLE
 - PROVIDE DAMPERS AS REQUIRED IN ALL RATED ASSEMBLIES. COORDINATE WITH MECHANICAL CONTRACTOR.

Mark	Description	Date
	FOR BUDGET UPDATE	09/07/10
	FOR SITE PLAN APPROVAL	10/01/10

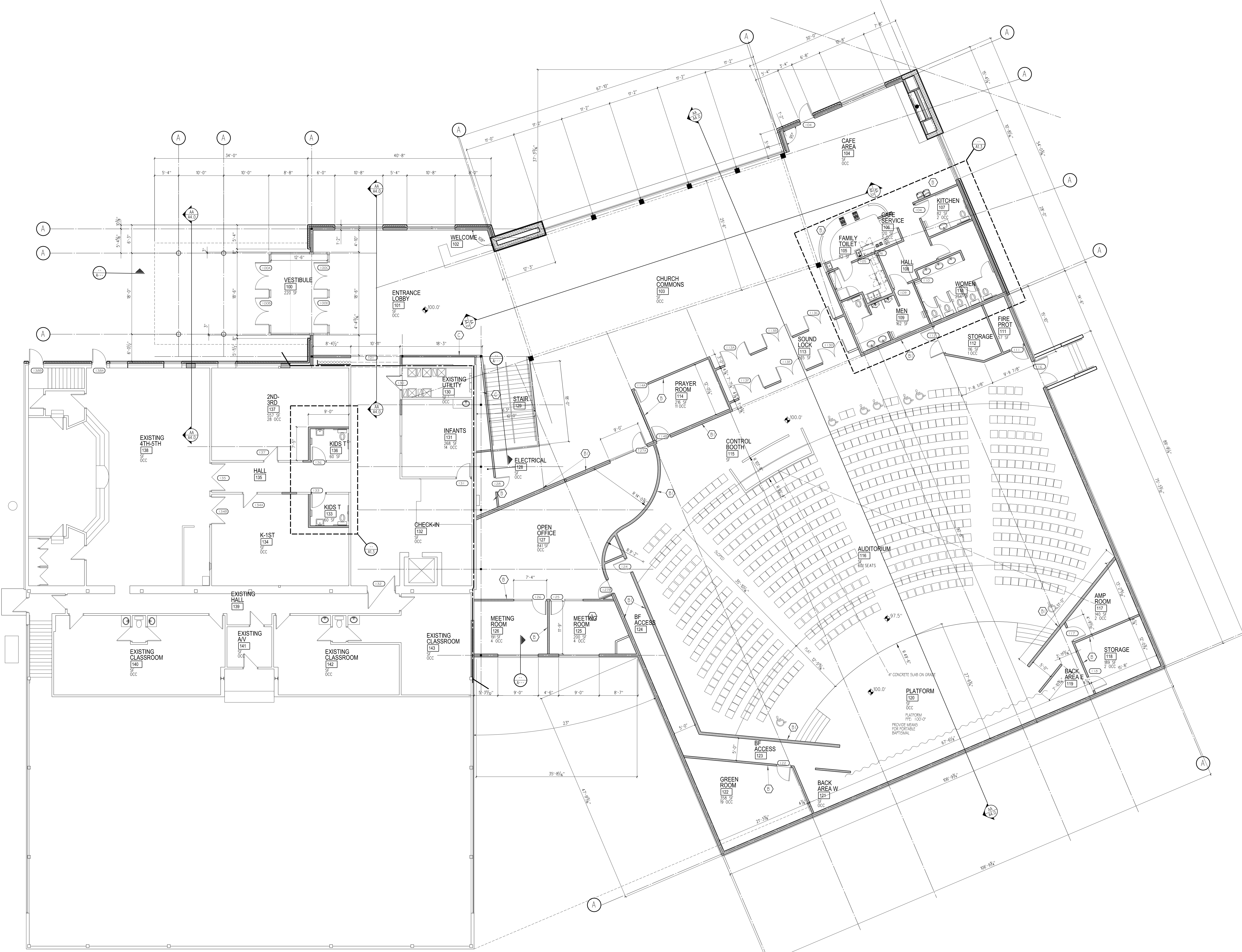
Building Design & Documentation © 2008-2010 Jeffrey Parker Architects Inc.



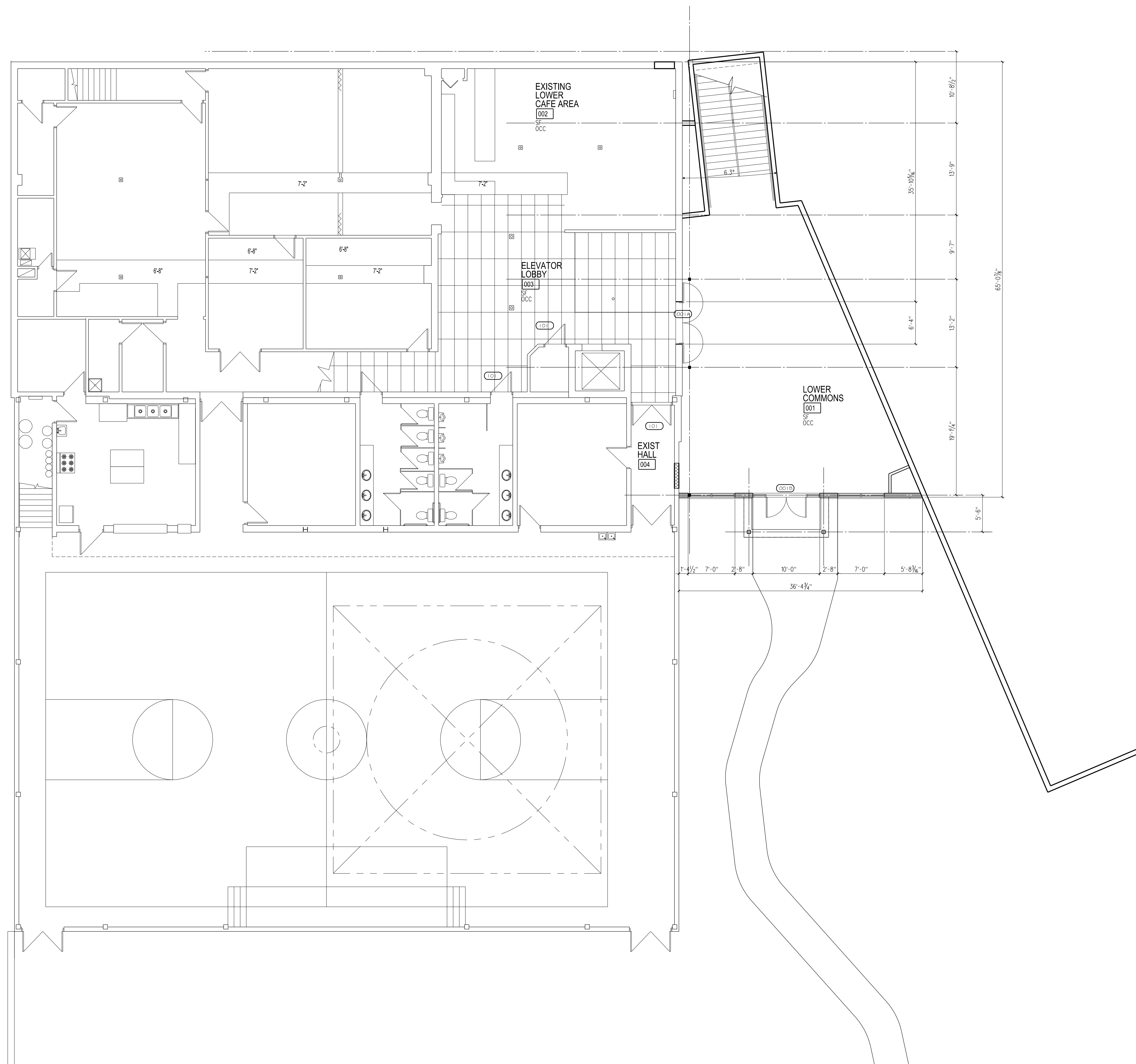
ARCHITECTURE PLANNING ENGINEERING
855 28th Street SE Phone: 616-241-0090
Grand Rapids MI 49508 Fax: 616-241-0098

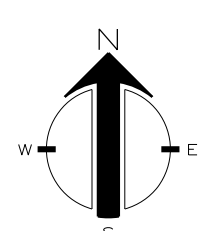
Addition & Renovations For:
Community Bible Church
Brighton, Michigan

Floor Plan	
Issued	Drawing No.
Project No. 17078	A1.0



Main Floor Plan
Scale: 1/8" = 1'-0"





Lower Floor Plan
 Scale: 1/8" = 1'-0"

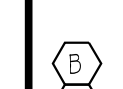
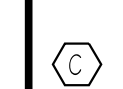
GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF FINISHED SURFACE OR COLUMN CENTER LINE UNLESS NOTED OTHERWISE
2. COORDINATE w/ MECH. & ELEC DRAWINGS FOR ALL FLOOR/WALL/ROOF PENETRATIONS NOT SHOWN ON ARCHITECTURAL PLANS. COORDINATE WITH C.M.
3. FIELD PAINT ALL MECHANICAL GRILLES & CABINETS TO MATCH ADJACENT SURFACES
4. SITE DATUM: MAIN LEVEL FINISH FLOOR ASSUMED = 100'-0" ACTUAL = XXX'-2"

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- 15 SEE REFLECTED CEILING PLAN
- 16 CANOPY ABOVE
- 17 FIRE EXTINGUISHER w/ CABINET

INTERIOR WALL TYPES

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 5/8" GYPSUM WALLBOARD
 3 5/8" METAL STUDS @ 16" O.C.
 3" ACOUSTICAL BLANKETS
 5/8" GYPSUM WALLBOARD
 6" STUDS @ B1
- 
 5/8" GYPSUM WALLBOARD
 3 5/8" METAL STUDS @ 16" O.C.
 (ALL SHAFT WALLS & BULKHEADS)

NOTES:

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6. PROVIDE DAMPERS AS REQUIRED IN ALL RATED ASSEMBLIES. COORDINATE WITH MECHANICAL CONTRACTOR.

Mark	Description	Date
	FOR BUDGET UPDATE	08/07/10
	FOR SITE PLAN APPROVAL	10/01/10

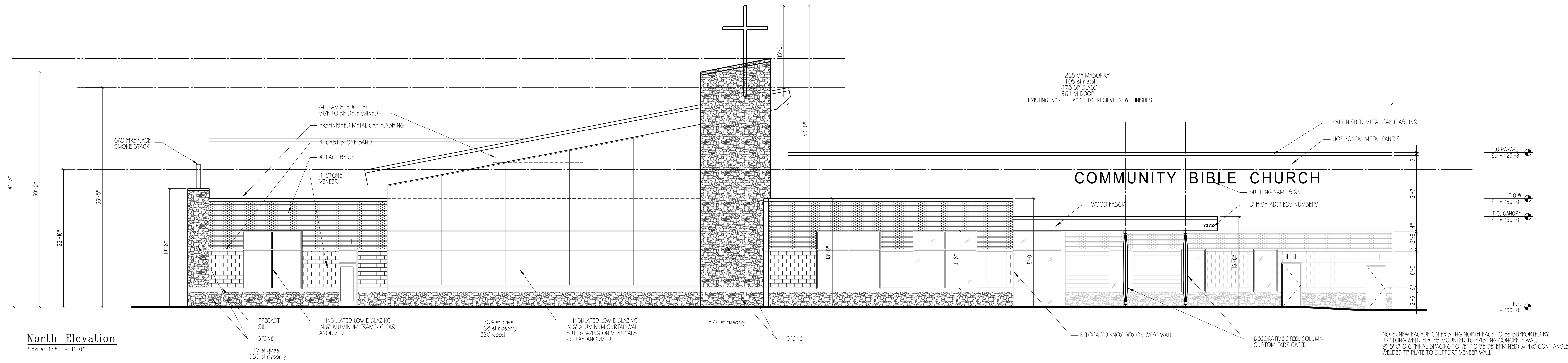
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 Grand Rapids MI 49508 Fax: 616-241-0098

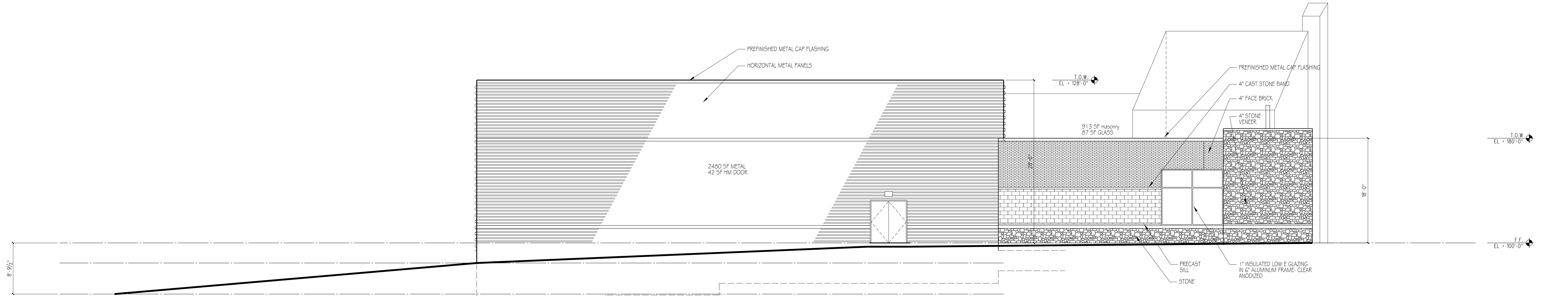
Addition & Renovations For:
Community Bible Church
 Brighton, Michigan

Lower Floor Plan	
Issued	Drawing No.
-	A1.1
Project No.	
17078	

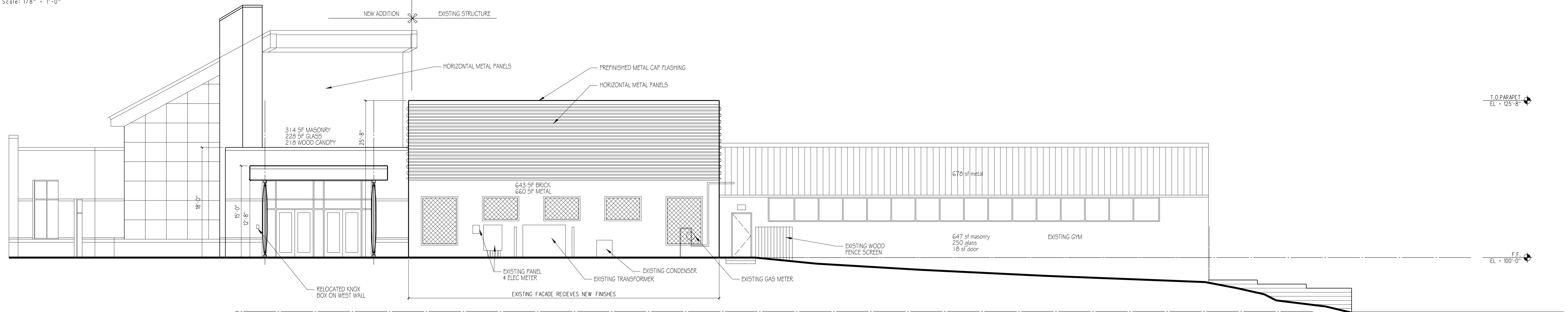


North Elevation
Scale: 1/8" = 1'-0"

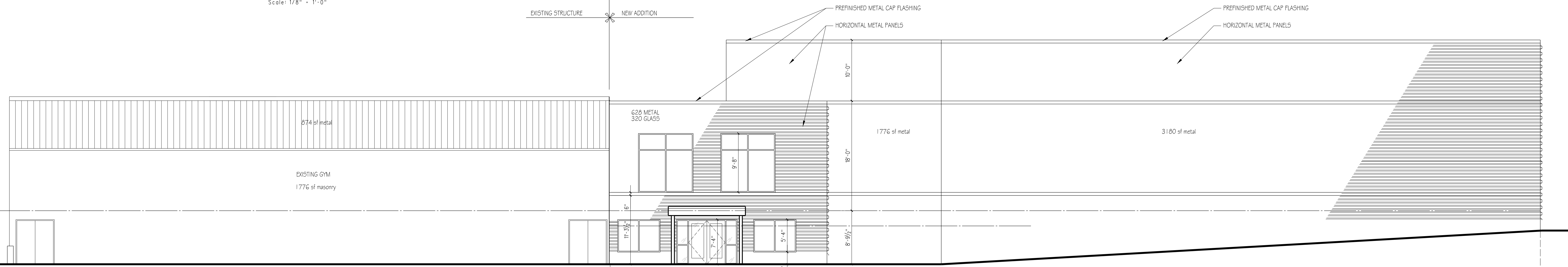
MATERIAL BREAKDOWN:
 MASONRY (BRICK, STONE, BLOCK)= 7,849 SF
 WOOD= 943 SF
 POURED IN PLACE CONCRETE= 445 SF
 METAL SIDING= 9,891 SF
 (5,584 SF IS FUTURE EXPANSION WALL)
 GLASS= 2,984 SF
 FM DOORS= 96 SF
 19,668 SF TOTAL W/O DOORS & WINDOWS
 METAL= 50.2%
 W/O SOUTH WALL 13,544 (31.8%)



East Elevation
Scale: 1/8" = 1'-0"



West Elevation
Scale: 1/8" = 1'-0"



South Elevation
Scale: 1/8" = 1'-0"

Work	Description	Date
	FOR SUGGESTION	09/07/18
	FOR SITE PLAN APPROVAL, revised	10/22/18

Building Design & Documentation © 2018-2020 Jeffrey Parker Architects Inc.



ARCHITECTURE PLANNING ENGINEERING
 856 28th Street SE
 Grand Rapids, MI 49508
 Phone: 616-241-0090
 Fax: 616-241-0098

Addition & Renovations For:
Community Bible Church
 Brighton, Michigan

Exterior Elevations

Issued	Drawing No.
Project No. 17078	A3.0 188

**CHARTER TOWNSHIP OF GENOA,
LIVINGSTON COUNTY, MICHIGAN**

**RESOLUTION REGARDING MARIHUANA FACILITIES
AUTHORIZED BY PA 281 OF 2016 AND MARIHUANA ESTABLISHMENTS AUTHORIZED BY THE
MICHIGAN REGULATION AND TAXATION OF MARIHUANA ACT, BALLOT PROPOSAL 18-1 OF 2018**

RESOLUTION NO. _____

DATED: _____, 20__

WHEREAS, Public Act 281 of 2016 (MCL 333.27101 et. seq.), as may be amended, authorizes the State of Michigan to license different types of facilities related to medical marihuana; and

WHEREAS, Section 205 of PA 281 of 2016 (MCL 333.27205) provides that “[a] marihuana facility shall not operate in a municipality unless the municipality has adopted an ordinance that authorizes that type of facility”; and

WHEREAS, Section 205 of PA 281 of 2016 further provides that “[a] municipality may adopt other ordinances relating to marihuana facilities within its jurisdiction, including zoning regulations...”, and

WHEREAS, Section 205 of PA 281 of 2016 requires a municipality to respond to the State of Michigan, Medical Marihuana Licensing Board, within 90 days after the municipality receives notification from the applicant that a license for one of the types of medical marihuana facilities authorized by PA 281 of 2016 has been applied for; and

WHEREAS, the Township Board of the Charter Township of Genoa, Livingston County, Michigan is cognizant of its authority to adopt an ordinance or ordinances to authorize the operation of one or more of the types of medical marihuana facilities authorized by PA 281 of 2016 but desires to not do so; and

WHEREAS, The Michigan Regulation and Taxation of Marihuana Act of 2018, has passed with the intent to adopt marihuana policies that enable taxing, controlling and legalizing marijuana similar to alcohol. Section 6 of the state legislation permits municipalities to completely prohibit or limit the number of marijuana establishments, as that term is defined in the Michigan Regulation and Taxation of Marihuana Act, Ballot Proposal 18-1 of 2018, as may be amended, within its boundaries; and

WHEREAS, The Michigan Regulation and Taxation of Marihuana Act of 2018, as may be amended, authorizes the State of Michigan to license different types of marihuana establishments; and

WHEREAS, The intent of this ordinance is to prohibit any and all marijuana facilities and establishments within the geographic boundaries of the Charter Township of Genoa pursuant to Section 205 of PA 281 of 2016 (MCL 333.27205) , as may be amended, and pursuant to section 6 of the Michigan Regulation and Taxation of Marihuana Act of 2018, as may be amended, and to the fullest extent allowed by law.

NOW THEREFORE it is hereby resolved as follows:

1. The Charter Township of Genoa, Livingston County, Michigan declines to adopt an ordinance authorizing any of the types of medical marihuana facilities within the Township authorized by PA 281 of 2016, as may be amended; and
2. As a result of the Township’s declination to adopt an ordinance authorizing any of the types of medical marihuana facilities authorized by PA 281 of 2016, as may be amended, a marihuana facility shall not operate in the Township; and

3. The Charter Township of Genoa, Livingston County, Michigan hereby prohibits all marihuana establishments within the boundaries of the Township pursuant to the Michigan Regulation and Taxation of Marihuana Act of 2018, as may be amended; and
4. As a result of the Township's adoption of an ordinance prohibiting any of the types of marihuana establishments authorized by the Michigan Regulation and Taxation of Marihuana Act of 2018, as may be amended, a marihuana establishment shall not operate in the Township; and
5. All resolutions in conflict herewith are repealed; and
6. This resolution is effective immediately upon adoption and shall remain in full force and effect until repealed by the Township Board.

CERTIFICATE

I hereby certify that the foregoing constitutes a true and complete copy of a resolution adopted at a regular meeting of the _____ Township Board held on _____, 20__ ; that the meeting was conducted and public notice of the meeting was given pursuant to and in compliance with the Michigan Open Meetings Act; that a quorum of the Board was present and voted in favor of the resolution; and that the minutes of the meeting will be or have been made available as required by the Open Meetings Act.

_____, Clerk
Township of _____
_____ County, Michigan

Board Correspondence



To Board 12/03/18

November 12, 2018

Ms. Polly Skolarus, Clerk
Township of Genoa
2911 Dorr Rd.
Brighton, MI 48116

RE: Important Information—Price Changes

Dear Ms. Skolarus:

All of us at Comcast are committed to delivering the entertainment and services our customers in Genoa rely on today, and the new experiences they will love in the future. As we continue to invest in our network, products and services, the cost of doing business rises. One of our largest costs, and one that continues to increase, is the fees we pay to programmers so that we can continue to offer the best in entertainment, news and sports. As a result, starting January 1, 2019, prices for certain services and fees will be increasing, including the Broadcast TV Fee and Regional Sports Fee. Please see the enclosed price list for more information.

Also, effective on January 1, 2019, Fuse will no longer be available on the channel line-up.

While some prices may increase, we continue to invest in technology to drive innovation. We are working hard to bring our customers great value every day and exciting new developments in the near future, including:

- Talk to the X1 Voice Remote to navigate content
- We offer the first talking TV guide for those with visual disabilities
- Netflix, YouTube, Pandora, and Sling TV and more apps are available on X1
- We continue to make customer interactions simpler with more all-digital tools as an alternative to visiting a store or calling.
- Speed upgrades allowing us to offer the fastest Internet speeds to the most homes in the country
- Control of home WiFi from anywhere, on any device, with xFi
- 19 million Xfinity WiFi hotspots available nationwide

We know you may have questions about these changes. If I can be of any further assistance, please contact me at 734-254-1557.

Sincerely,

Kyle V. Mazurek
Manager of External Affairs
Comcast, Heartland Region
41112 Concept Drive
Plymouth, MI 48170

Enclosure

Important Information Regarding Your Xfinity Services and Pricing

Effective January 1, 2019

Double Play Packages		
	Current	New
Internet Plus	\$79.95	\$82.95
Internet Plus Instant TV	\$79.95	\$82.95
Blast Plus	\$99.95	\$102.95
Xfinity Latino Double Play Packages		
	Current	New
Internet Plus Latino Double Play	\$79.95	\$82.95
Xfinity TV		
	Current	New
Broadcast TV Fee	\$5.75	\$6.50
Regional Sports Fee	\$6.75	\$8.25
Service to Additional TV with TV Adapter	\$5.99	\$6.99
Xfinity TV Equipment		
	Current	New
CableCARD	\$1.50	\$0.00
Installation		
	Current	New
Professional Installation	\$60.00	\$70.00
In-Home Service Visit	\$60.00	\$70.00
Reactivation		
	Current	New
Reactivation - Home	N/A	\$6.00
Xfinity Instant TV Additional Services		
	Current	New
Deportes	\$7.00	\$5.00
Xfinity Internet/Voice		
	Current	New
Internet/Voice Equipment Rental	\$11.00	\$13.00

To Board 12/03/18

Polly

To: Danielle Copus
Subject: RE: Internet Service

Danielle,

Internet service is not available through Comcast or ATT for nearly 40% of our township residents. My office has explored the creation of a special assessment district to accommodate all of our community but there is no Michigan Public Act that allows us to do so. According to our Comcast provider high speed internet runs about \$15,000.00 a mile and this is co-axle cable - meaning that it is added to the Edison poles. Just the hookup from Kellogg Road to your home was \$2.50 a foot more than five years ago. The first thing that would need to happen is that you would need to bring it from the last hookup on Kellogg to your home. After viewing your home on GPS, I am estimating that your cost would be in excess of \$10,000.00. This number is based upon other estimates from residents who live in the southwest section of our Township. Comcast will come to your home and give you an estimate if you ask. I will share your email with our township board at the next meeting and you are welcome to attend to express your concern. Our next meeting is Monday, Nov. 19th at 6:30 p.m. at the Township Hall.

Sincerely,
Polly Skolarus
Genoa township Clerk

-----Original Message-----

From: Danielle Copus [<mailto:daniellemcopus@gmail.com>]
Sent: Tuesday, November 13, 2018 7:51 PM
To: Polly
Subject: Internet Service

Hi Polly -

I reached out to the township through Facebook messenger regarding internet service at our house (1054 Kellogg Rd), and it was suggested I reach out to you.

We have made several attempts contacting various internet service providers, we had to ultimately go with Hughes Net satellite. It has been an awful experience, and negatively impacting our sons ability to do school work and my ability to work from home. I am wondering if you have any suggestions, or know of any internet expansions coming soon? Or if you know of any alternatives used by other area residents?

If you would prefer to discuss over the phone, please let me know - I am happy to do so.

Thank you!

Danielle
Sent from my iPhone

To Board 12/03
Redd 11/14/18

Cromaine District Library
Regular Board Meeting
Thursday, October 18, 2018

APPROVED

Members Present: Lewis, Naylor, Oemke, Sargent, Thompson
Members Absent: Cafmeyer, DeRosier
Staff Present: Ceci Marlow, Barbara Rentola, Beth Schrader, Janice Yaklin

- I. The meeting opened just before 7:00 pm with the viewing of the new video, "You Belong Here." Beth Schrader was introduced as the new Community Relations Manager as well.
- II. **Approval of agenda** Agenda Approval
Vice President Thompson moved to approve the agenda as amended to add a Discussion item VI. G. for the Finance Committee minutes and a Decision item VII.D. for the motion to adopt the Finance Committee minutes, seconded by Secretary Oemke. Passed unanimously.
- III. **Approval of Consent Calendar** Consent Calendar Approval
Vice President Thompson moved to approve the consent agenda as amended during the approval of the agenda, seconded by Member Naylor. Passed unanimously.
 - A. Approval of minutes, 9/20/2018
 - B. Acknowledge receipt of the September Financial Report and payment of September invoices totaling \$63,894.66 and payroll obligations totaling \$71,758.52.
 - C. Director's Report
 - D. Committee Reports

Community Relations	October 2
Finance	October 11
Personnel	No Meeting
Planning	October 10
- IV. **Call to the Public** had Janice Yaklin saying hello. Call to the Public
- V. **Director's Report Update – Update and Comments from the Community** Director's Update
The Director printed report was updated verbally with the following:
 - Since last reported (August) volunteers have given 473.25 hours; 257.75 by teen volunteers; 215.50 by adult volunteers.
 - Consumers Energy reports that they have replaced the bad part in the Library's new meter that has prevented readings and will send an up-to-date bill for gas shortly.
 - The Library Director is delighted, thrilled even, to report that the new firewall which was budgeted for this year will be installed early October 25. This has been blamed for the most recent problems staff has had internally using Google and which has impacted work flow and productivity. For example, when on deadline to complete the staff schedule which is a google sheets document, the repeated messages that google sheets was "working" (which meant it was not working) did

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not allow us to enter data. However, some managers might pull out their cell phones (which operate on data from towers and not through the Library's wireless) and could continue to work—but only on their own devices. At one point, pulling one of the Library's Wi-Fi hotspot into a meeting room so that managers could complete the staff schedule in a timely manner was considered. Glenn was able to tweak and tweek to keep the Library running on google most of the time. It is expected that the firewall is the culprit and this will resolve long-standing issues that we thought were also fixed by replacement of an outdated server.

The Livingston libraries had a repeat of the Costco "try us out for a day with your library card" deal that was able to be offered last spring in the works. Costco's regional management concluded that was too good a deal to offer. They are willing to have their staff come into the Library to sell Costco memberships, something done for staff in the past but not patrons. However, that is a slippery slope as many organizations, e.g., fitness centers, financial planners, etc., would like that captive audience. So the Cromaïne Library Director declined to participate in this new version of the deal.

The Friends fall quarterly meeting was held in the Youth Program Room, as the North Meeting Room had grown too small with 15 attending. (Community Room is taken by Community Sing which is the most appropriate acoustically place for it.) This time there were not as many in attendance, but the discussion around how to increase Friends membership was lively. The discussion was prompted by Kathleen Oemke's report of what she had learned at the Lansing area workshop she was to attend with Sandy. (Sandy's mom passed away so Sandy was unable to attend.) This coming week, October 21-27 is national Friends of the Library week. Staff who attended the Friends meeting brainstormed several ideas to spark active, not just paid, membership. Many of the ideas do require Friends members to be engaged in ways other than the routine, but necessary things they do now.

The sale and meeting dates for the Friends were also set in the meeting for 2019. There was discussion in a separate Friends' officers meeting about going down to two sales per year. While there are some benefits, the concerns outweighed the change for 2019. In that discussion, however, two changes were made to the sale hours: Thursday will close at 8:00 pm, instead of the library's closing at 9:00 pm and for a one-hour period of 12 to 1:00 pm on Sunday all remaining items in the sale room are free. "Shoppers" will need to bring their own bags and boxes. At 1:00 pm, the room will be closed to all but volunteers for packing up. It is hoped that the Free Day, which has been successful at the Brighton District Library Friends' sales, will reduce the amount of recycling required for unsaleable items.

In other Friends "action," the wish list for 2019 of \$11,000 mostly programming support was approved.

The Library will again sponsor the Community performance of the Messiah at the Hartland Music Hall. The programs will include an insert promoting the Second Sunday Concerts, Community Sings, and giving the schedule for the summer concert series.

Questions and Comments from the Trustees: Treasurer Doug Sargent asked what "evil privacy terms" meant in the Community Relations minutes. The Library Director replied that was a quote from a parent who, with other parents, is concerned that certain social media, especially Snap Chat, takes too much personal information from the young people using it.

Secretary Kathleen Oemke reported on several workshops she attended recently on behalf of the Library. These included a Report of the Livingston County Directors and Trustees meeting with a presentation on school-library partnership by Dr. Les Sharon; the Midwest Collaborative of Library Services Community Engagement Summit--a revisiting of Harwood concepts that Secretary Oemke and Trustee Kate DeRosier both attended; and the Friends of Libraries workshop on Effective Friends Groups. Secretary Oemke was happy to report that the Friends of Cromaine Library are doing the legal aspect of a 501(c) 3 and reporting correctly. She also asked that trustees consider volunteering at or baking for the Friends first-ever Pie Sale on November 21 from 9:30 am while supplies last. Whether to send a thank you note from the Board to the Friends was discussed and recommended.

Trustee Holly Naylor reported on her first attendance at the Michigan Library Association's Annual Conference. Secretary Oemke also shared more ideas for membership recruitment from the Friends of Cromaine meeting.

President Nancy Lewis informed the board that, as neither of the remaining two candidates who interviewed for trustee had petitioned to run on the ballot or had, as yet, signed up to be Write-in candidates on the ballot, she has registered as a write-in candidate. To vote for a write-in candidate, you must record the name as it was registered, in this case "Nancy Lewis."

VI. Discussion

A. Review first-quarter statistics

Vice President Thompson appreciated where the stats ended up compared to what was seen at first in the Planning Committee meeting. Treasurer Sargent believes that the memo explained it all well.

Review of first quarter statistics

B. Library Closing calendar for 2019

There was no discussion.

2019 closing calendar

C. Strategic Plan 2018-2022: Learn, Discover, Connect

The brochure is correct now--readable and attractive. Next month, the Library Director will begin reporting implementation tasks completed and underway.

Strategic Plan 2018-2022

D. Board education moment: Working Effectively with Friends

The Short Takes for Trustees video on Working with Friends was shown.

Board education moment

E. Policy Review: There were no suggested revisions to the policies under review.

- 1010 – Cooperation with Libraries & Other Organizations (Planning)
- 6001 – Fund Balance Policy (Finance)
- 6002 – Revenue Distribution & Fund Accounting (Finance)
- 6003 – Fixed Assets Capitalization (Finance)
- 6004 – Gifts to the Library (Finance)

Policy Review

F. Amendment to the FY 2018-2019 Improvement Fund: President Lewis noted that this is significantly less than what was projected. Library Director Marlow agreed--\$80,000 less and still a significant savings for the year that completed the construction project.

G. Finance Committee Minutes: President Lewis asked for more details on the added auditorium seating. As the proposal is still too preliminary, she agreed to wait for more progress on the proposal.

VII. Decision

A. Motion to Adopt Closing Calendar for 2019

President Lewis moved to approve the Closing Calendar for 2019 as presented, Treasurer Sargent seconded. APPROVED

Adopt 2019
Closing
Calendar

B. Resolution 2018-17, Amending the Improvement Fund Budget for FY 2018-2019

Secretary Oemke moved to approve Resolution 2018-17, Amending the Improvement Fund Budget for FY 2018-2019, Treasurer Sargent seconded. A roll call vote was taken for approval of the resolution Ayes: Lewis, Naylor, Oemke, Sargent, Thompson Nays: None APPROVED

Resolution
2018-17

VIII. Information

Upcoming meeting dates include:

Nov 6	Community Relations Committee, 10 am, Director's Office, no Member Naylor
Nov 1	Personnel Committee, 6:30 pm, Director's Office, no Secretary Oemke
Dec 12	Planning Committee, 1:00 am, Director's Office (No Nov Mtg)
Nov 8	Finance Committee, 10:00 am., Director's Office
Nov 15	Board of Trustees meeting, 7 pm, Village Community Room, no Treasurer Sargent or Vice President Thompson

Upcoming
Meeting Dates

IX. Agenda Items for Next Meeting

- A. Strategic Plan Review
- B. Board Education Moment

Agenda Items
for Next
Meeting

X. Call to the Public: Janice Yaklin replied with "Go Vote."

Public Call

XI. Motion by Vice President Thompson seconded by Secretary Oemke to adjourn at 8:12 pm.

Adjournment

KATHLEEN OEMKE, SECRETARY

Barbara Rentola, Recording Secretary
Cromaine District Library Board

Documents distributed to the Board for/at this meeting:

- 9/20/18 Proposed Minutes
- September 2018 Financial Reports & Checks Issued Totals
- September 2018 CDL Investment Performance Report
- Director's Report 10/18/18

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- CDL Statistics for September 2018 & updated CDL 4-year Circulation Graph
- Revised Statistics for August 2018
- Comments from the Community September 2018
- Community Relations Committee Minutes, 10/2/18
- Finance Committee Action/Decision List, 10/11/18
- Planning Committee Minutes, 10/10/18, w/1st quarter statistics & Policy 1010 attached
- 1st quarter statistics w/Director's memo attached
- 2019 Closing Calendar w/Director's memo attached
- Short Takes for Trustees: Working Effectively with Friends Handout
- 2018-2019 Adopted Improvement Fund Budget
- Resolution 2018-17, Amending the Improvement Fund Budget for FY 2018-2019 w/revised Improvement Fund Budget for FY 2018-2019 attached
- Director's Report to the Friends October 2018
- CDL Friends Wish List January 2018-2019
- Partners in Progress Special Meeting Agenda and Minutes, 10/4/18
- Strategic Plan Brochure Updated
- CDL Board of Trustees Directory October 2018
- Revised CDL Board of Trustees Bylaws
- Revised Policy 2010, Use of Library Services
- Stickers for reviewed policies 2020, 2030, 3020
- September 2018 *Board & Administrator*

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Genoa Township 2018 Project Status

<u>Project Name</u>	<u>Board Approval Date</u>	<u>Expected Completion Date</u>	<u>Project Completion Date</u>	<u>Notes</u>
Township Hall Restroom repairs	February 19, 2018	March 9, 2018	March 12, 2018	Completed ahead of schedule
BSA Planning/Zoning module installation	March 5, 2018	July 2, 2018	June 29, 2018	Completed
Township Network Consolidation	April 16, 2018	June 1, 2018	May 25, 2018	Completed ahead of schedule
Township Hall Lighting replacement	May 21, 2018	September 1, 2018	September 1, 2018	Completed
Township Sled Hill Light	September 17, 2018	December 1, 2018	ongoing	Installation begun 11/29/18
Township Gutter System Repairs	n/a	May 1, 2018	ongoing	Completed
Township Driveway light repairs	May 21, 2018	July 1, 2018	August 1, 2018	Completed, delayed due to manufacturing issues
Brighton Road sidewalk emergency repair	n/a	August 20, 2018	August 17, 2018	Completed
Sidewalk Installation - Grand River	n/a	December 15, 2018	ongoing	Bridge foundation construction has begun
Township Roads - Crack Sealing Project	n/a	October 1, 2018	October 1, 2018	Completed
Dorr Road Fire Station Roof Repair	October 15, 2018	November 9, 2018	November 5, 2018	Completed ahead of schedule