

GENOA CHARTER TOWNSHIP BOARD
Regular Meeting
September 21, 2020
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: Aug. 17, 2020

Approval of Regular Agenda:

3. Request for approval of a Bond Authorizing Resolution to refund and refinance the 2014 Series Capital Improvement Bonds for the Oak Pointe Sewer Project as requested by Utilities Director Greg Tatara.
4. Consideration of a recommendation for approval of an environmental impact assessment for proposed exterior building renovations and site improvements to the existing commercial building located at 2700 E. Grand River Avenue on the south side of Grand River, east of Chilson Road. The request is petitioned by Partlund Development, LLC.
 - A. Disposition of Environmental Impact Assessment (8-18-2020)
5. Consideration of a recommendation for approval of an environmental impact assessment for a previously approved project for a 4,661 sq. ft. addition for enclosed storage, located at 1275 Grand Oaks Drive, Brighton. The request is petitioned by Tadbad, LLC.
 - A. Disposition of Environmental Impact Assessment (7-28-2020)

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: September 21, 2020

TOWNSHIP GENERAL EXPENSES: Thru September 21, 2020	\$122,271.13
August 21, 2020 Bi Weekly Payroll	\$100,052.37
September 4, 2020 Bi Weekly Payroll	\$98,319.43
September 18, 2020 Bi Weekly Payroll	\$96,806.13
OPERATING EXPENSES: Thru September 21, 2020	\$1,143,151.92
TOTAL:	<u>\$1,560,600.98</u>

Check Date	Check	Vendor Name	Amount
Bank FNBCK CHECKING ACCOUNT			
08/12/2020	36190	COMCAST	717.09
08/12/2020	36191	COMCAST	637.20
08/12/2020	36192	EHIM, INC	6,345.43
08/12/2020	36193	GIFFELS WEBSTER	6,880.00
08/12/2020	36194	MICHIGAN ASSOC. OF PLANNING	185.00
08/13/2020	36195	RACHAEL ANN BECKER	100.00
08/13/2020	36196	MATTHEW D. MCCLANAHAN	100.00
08/13/2020	36197	H.J. MORTENSEN	100.00
08/13/2020	36198	WILLIAM ROGERS	100.00
08/13/2020	36199	TERRY CROFT	100.00
08/13/2020	36200	DEWEY E. THOMAS	100.00
08/17/2020	36201	BLUE CROSS & BLUE SHIELD OF MI	42,881.82
08/17/2020	36202	BRIGHTON ANALYTICAL LLC	65.00
08/17/2020	36203	TAMMY LINDBERG	15.89
08/17/2020	36204	MHOG WATER AUTHORITY	387.00
08/17/2020	36205	PFEFFER, HANNIFORD, PALKA	1,500.00
08/17/2020	36206	SHARON STONE	84.76
08/17/2020	36207	VERIZON WIRELESS	460.77
08/18/2020	36208	AMERICAN AQUA	145.86
08/18/2020	36209	CLEARY UNIVERSITY	1,431.16
08/18/2020	36210	DELTA DENTAL	3,720.34
08/18/2020	36211	DYKEMA GOSSETT, PLLC	2,002.50
08/18/2020	36212	LANDSCAPE DESIGN & ASSOCIATES LLC	1,762.50
08/18/2020	36213	US BANK EQUIPMENT FINANCE	2,498.38
08/18/2020	36214	WELLNESS IQ	147.60
08/20/2020	36215	ASG, LLC	1,000.00
08/20/2020	36216	ELECTION SOURCE	4,685.00
		Void Reason: NEW INVOICE WITH DIFFERENT AMOUNT	V
08/20/2020	36217	ETNA SUPPLY COMPANY	8,930.00
08/20/2020	36218	GENOA TOWNSHIP DPW FUND	1,497.91
08/20/2020	36219	MUTUAL OF OMAHA	2,088.59
08/20/2020	36220	SAFEBUILT STUDIO	1,008.00
08/21/2020	36221	ELECTION SOURCE	5,595.00
08/24/2020	36222	MICHAEL ARCHINAL	500.00
08/24/2020	36223	BOB BROOKS COMPUTER SALES, INC	108.75
08/24/2020	36224	COMCAST	252.83
08/24/2020	36225	WALMART COMMUNITY	11.04
08/24/2020	36226	FEDERAL EXPRESS	97.12
08/24/2020	36227	LIVINGSTON PRESS & ARGUS	1,050.00
08/26/2020	36228	CHASE CARD SERVICES	2,155.57
08/26/2020	36229	LCAA	30.00
08/26/2020	36230	NETWORK SERVICES GROUP, L.L.C.	450.00
08/31/2020	36231	CONSUMERS ENERGY	83.40
08/31/2020	36232	DTE ENERGY	24.33
08/31/2020	36233	LIVINGSTON COUNTY CLERK	4,296.19
08/31/2020	36234	MASTER MEDIA SUPPLY	564.56
08/31/2020	36235	JONI L. RISTO	43.09
09/02/2020	36236	PERFECT MAINTENANCE CLEANING	565.00
09/03/2020	36237	EVOLVING TECHNOLOGIES INC	1,065.00
09/03/2020	36238	MASTER MEDIA SUPPLY	139.04
09/03/2020	36239	TETRA TECH INC	1,618.00
09/03/2020	36240	WELLNESS IQ	147.60
09/08/2020	36241	BUSINESS IMAGING GROUP	148.19
09/08/2020	36242	CONTINENTAL LINEN SERVICE	79.15
09/08/2020	36243	DTE ENERGY	867.57
09/08/2020	36244	MARY KRENCICKI	27.99
09/08/2020	36245	MRRMA	11,988.06
09/08/2020	36246	MICHIGAN ASSOC. OF PLANNING	185.00
09/09/2020	36247	AMERICAN AQUA	65.00
09/09/2020	36248	COMCAST	637.20
09/09/2020	36249	COMCAST	717.09
09/09/2020	36250	COOPER'S TURF MANAGEMENT LLC	1,074.00
09/09/2020	36251	DTE ENERGY	202.05
09/09/2020	36252	DTE ENERGY	16.93
09/09/2020	36253	GORDON FOOD SERVICE	256.64
09/09/2020	36254	MICHIGAN OFFICE SOLUTIONS	160.94
09/10/2020	36255	JULIE FRANCIS	56.00

FNBCK TOTALS:

Total of 66 Checks:	126,956.13
Less 1 Void Checks:	4,685.00
Total of 65 Disbursements:	122,271.13

Check Register Report For Genoa Charter Township
 For Check Dates 08/21/2020 to 08/21/2020

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
08/21/2020	FNBCK	EFT483	FLEX SPENDING (TASC)	826.79	826.79	0.00	Open
08/21/2020	FNBCK	EFT484	INTERNAL REVENUE SERVICE	23,952.77	23,952.77	0.00	Open
08/21/2020	FNBCK	EFT485	PRINCIPAL FINANCIAL	3,331.00	3,331.00	0.00	Open
08/21/2020	FNBCK	EFT486	PRINCIPAL FINANCIAL	2,181.07	2,181.07	0.00	Open
Totals:				Number of Checks: 004	30,291.63	30,291.63	0.00
Total Physical Checks:						Dir. Dep.	
Total Check Stubs:				4		<u>69,760.74</u>	

\$ 100,052.37

Check Register Report For Genoa Charter Township
 For Check Dates 09/04/2020 to 09/04/2020

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
09/04/2020	FNBCK	EFT487	FLEX SPENDING (TASC)	826.79	826.79	0.00	Open
09/04/2020	FNBCK	EFT488	INTERNAL REVENUE SERVICE	23,431.78	23,431.78	0.00	Open
09/04/2020	FNBCK	EFT489	PRINCIPAL FINANCIAL	3,331.00	3,331.00	0.00	Open
09/04/2020	FNBCK	EFT490	PRINCIPAL FINANCIAL	2,181.07	2,181.07	0.00	Open
Totals:				Number of Checks: 004	29,770.64	29,770.64	0.00
Total Physical Checks:						Dir. Dep.	
Total Check Stubs:				4		<u>68,548.79</u>	
						\$98,319.43	

Check Register Report For Genoa Charter Township
For Check Dates 09/18/2020 to 09/18/2020

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
09/18/2020	FNBCK	13280	MCINTYRE, LINDA L	60.00	55.41	0.00	Open
09/18/2020	FNBCK	13281	WENNERBERG, VIRGINIA M	266.25	245.88	0.00	Open
09/18/2020	FNBCK	EFT491	FLEX SPENDING (TASC)	826.79	826.79	0.00	Open
09/18/2020	FNBCK	EFT492	INTERNAL REVENUE SERVICE	23,352.94	23,352.94	0.00	Open
09/18/2020	FNBCK	EFT493	PRINCIPAL FINANCIAL	3,331.00	3,331.00	0.00	Open
09/18/2020	FNBCK	EFT494	PRINCIPAL FINANCIAL	2,181.36	2,181.36	0.00	Open

Totals:		Number of Checks:	006	30,018.34	29,993.38	0.00	
	Total Physical Checks:		2		Dir. Dep.		
	Total Check Stubs:		4		<u>66,812.75</u>		

\$ 96,806.13

08/10/2020 04:26 PM
User: Angie
DB: Genoa Township

CHECK REGISTER FOR GENOA TOWNSHIP
CHECK NUMBERS 4966 - 5200

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Check Date	Check	Vendor Name	Amount
Bank 592FN OAK POINTE OPERATING FUND #592			
07/31/2020	4966	NEARMAP US INC	598.36
08/05/2020	4967	BRIGHTON ANALYTICAL LLC	185.00
08/05/2020	4968	DTE ENERGY	4,785.73
08/05/2020	4969	MHOG WATER AUTHORITY	45,019.83
08/07/2020	4970	AT&T LONG DISTANCE	77.06
08/07/2020	4971	DTE ENERGY	2,463.09
592FN TOTALS:			
Total of 6 Checks:			53,129.07
Less 0 Void Checks:			0.00
Total of 6 Disbursements:			53,129.07

08/10/2020 04:27 PM
User: Angie
DB: Genoa Township

CHECK REGISTER FOR GENOA TOWNSHIP
CHECK NUMBERS 3813 - 5200

Page: 1/1

Check Date	Check	Vendor Name	Amount
Bank 593FN LAKE EDGEWOOD OPERATING FUND #593			
08/06/2020	3813	BRIGHTON ANALYTICAL LLC	67.00
08/06/2020	3814	DTE ENERGY	413.63
593FN TOTALS:			
Total of 2 Checks:			480.63
Less 0 Void Checks:			0.00
Total of 2 Disbursements:			480.63

Request per Jim Mortenson

DPW/Pine Creek Checks
No A/P checks issued for this Board Packet
** BOARD Packet*
8/17/20

Check Date	Check	Vendor Name	Amount
Bank 503FN DPW-UTILITIES #503			
07/13/2020	5008	CHASE CARD SERVICES	1,171.80
07/13/2020	5009	SERRA SUPERIOR COLLISION CENTER	250.00
07/14/2020	5010	VERIZON WIRELESS	704.77
07/14/2020	5011	UNITED STATES POSTAL SERVICE	1,427.85
07/22/2020	5012	GENOA TOWNSHIP	400,000.00
07/22/2020	5013	WEX BANK	3,474.68
07/27/2020	5014	HOME DEPOT CREDIT SERVICES	2,355.28
08/11/2020	5015	TRACTOR SUPPLY CO.	471.83
08/11/2020	5016	WINDSTREAM	44.13
08/11/2020	5017	WEX BANK	3,714.20
08/12/2020	5018	PORT CITY COMMUNICATIONS, INC.	174.44
08/14/2020	5019	U.S. POSTMASTER	291.27
08/17/2020	5020	CHASE CARD SERVICES	3,707.16
08/17/2020	5021	VERIZON WIRELESS	704.79
08/19/2020	5022	ADVANCE AUTO PARTS	175.69
08/19/2020	5023	ADVANTAGE MARKETING	472.91
08/19/2020	5024	AUTO-LAB OF LIVINGSTON	51.03
08/19/2020	5025	BLACKBURN MFG. CO	926.19
08/19/2020	5026	GIFFELS WEBSTER	2,400.00
08/19/2020	5027	PFEFFER, HANNIFORD, PALKA	750.00
08/19/2020	5028	RANDY'S SERVICE STATION	764.44
08/19/2020	5029	RED WING BUSINESS ADVANTAGE ACCOUNT	1,273.98
08/19/2020	5030	TETRA TECH INC	6,003.00
08/19/2020	5031	HOWELL TRUE VALUE HARDWARE	4.98
08/19/2020	5032	USA BLUEBOOK	184.76
08/24/2020	5033	HOME DEPOT CREDIT SERVICES	2,884.96
08/26/2020	5034	GENOA OCEOLA SWR & WTR AUTHORI	44,605.00
08/26/2020	5035	LAKE EDGEWOOD	8,207.00
08/26/2020	5036	MHOG	69,516.00
08/26/2020	5037	OAK POINTE OPERATING S/W	13,790.00
08/26/2020	5038	OAK POINTE OPERATING S/W	16,429.00
08/26/2020	5039	GENOA TOWNSHIP	300,000.00
09/02/2020	5040	MWEA	207.00
09/02/2020	5041	STATE OF MICHIGAN	95.00
09/08/2020	5042	MMRMA	9,715.69
09/08/2020	5043	TRACTOR SUPPLY CO.	208.84
09/09/2020	5044	MWEA	280.00
09/09/2020	5045	PORT CITY COMMUNICATIONS, INC.	192.53
09/14/2020	5046	WINDSTREAM	45.53
09/14/2020	5047	WEX BANK	2,896.33

503FN TOTALS:

Total of 40 Checks:	900,572.06
Less 0 Void Checks:	0.00
Total of 40 Disbursements:	900,572.06

Check Date	Check	Vendor Name	Amount
Bank 592FN OAK POINTE OPERATING FUND #592			
08/14/2020	4972	BRIGHTON ANALYTICAL LLC	185.00
08/14/2020	4973	CONSUMERS ENERGY	81.86
08/21/2020	4974	ADVANCE AUTO PARTS	7.96
08/21/2020	4975	AT&T LONG DISTANCE	51.38
08/21/2020	4976	AT&T	206.05
08/21/2020	4977	BRIGHTON ANALYTICAL LLC	36.00
08/21/2020	4978	COOPER'S TURF MANAGEMENT LLC	508.00
08/21/2020	4979	CSM MECHANICAL, LLC	7,890.00
08/21/2020	4980	DUBOIS-COOPER	3,928.00
08/21/2020	4981	ETNA SUPPLY COMPANY	3,363.60
08/21/2020	4982	FERGUSON WATERWORKS #3386	1,950.82
08/21/2020	4983	GENOA TOWNSHIP D.P.W. FUND	59.82
08/21/2020	4984	GENOA TOWNSHIP D.P.W. FUND	19,795.22
08/21/2020	4985	GENOA TOWNSHIP D.P.W. FUND	23,224.65
08/21/2020	4986	GENOA TOWNSHIP D.P.W. FUND	216.77
08/21/2020	4987	GENOA OCEOLA SEWER AUTHORITY	761.95
08/21/2020	4988	HACH COMPANY	93.97 V
		Void Reason: MADE OUT FOR WRONG AMOUNT	
08/21/2020	4989	HAVILAND PRODUCTS COMPANY	4,947.07
08/21/2020	4990	HYDROCORP	225.00
08/21/2020	4991	LIVINGSTON PRESS & ARGUS	960.00
08/21/2020	4992	MGSE SECURITY LLC	7,542.00
08/21/2020	4993	MICHIGAN CAT	1,185.00
08/21/2020	4994	NORTHWEST PIPE & SUPPLY	875.21
08/21/2020	4995	TETRA TECH INC	12,559.09
08/21/2020	4996	TLS CONSTRUCTION	3,430.00
08/21/2020	4997	UIS SCADA	2,148.50
08/21/2020	4998	WATER SOLUTIONS UNLIMITED, INC	2,309.87
08/21/2020	4999	YORK REPAIR, INC	5,326.25
08/21/2020	5000	HACH COMPANY	83.97
08/26/2020	5001	CONSUMERS ENERGY	91.16
09/02/2020	5002	BRIGHTON ANALYTICAL LLC	185.00
09/03/2020	5003	GENOA TWP OAK POINTE SEWER BOND	106,192.91
09/04/2020	5004	DTE ENERGY	4,083.54
09/08/2020	5005	MMRMA	2,318.14
09/09/2020	5006	AT&T LONG DISTANCE	77.06
09/09/2020	5007	DTE ENERGY	1,974.36
09/09/2020	5008	DTE ENERGY	336.59
09/14/2020	5009	BRIGHTON ANALYTICAL LLC	185.00
592FN TOTALS:			
Total of 38 Checks:			219,396.77
Less 1 Void Checks:			93.97
Total of 37 Disbursements:			<u>219,302.80</u>

Check Date	Check	Vendor Name	Amount
Bank 593FN LAKE EDGEWOOD OPERATING FUND #593			
08/11/2020	3815	CONSUMERS ENERGY	81.86
08/11/2020	3816	DTE ENERGY	2,549.13
08/17/2020	3817	BRIGHTON ANALYTICAL LLC	134.00
08/20/2020	3818	COOPER'S TURF MANAGEMENT LLC	933.00
08/20/2020	3819	DTE ENERGY	1,074.12
08/20/2020	3820	GENOA TOWNSHIP D.P.W. FUND	12,012.15
08/20/2020	3821	MICHIGAN CAT	515.00
08/20/2020	3822	NORTHWEST PIPE & SUPPLY	33.34
08/20/2020	3823	TLS CONSTRUCTION	1,207.50
08/24/2020	3824	BRIGHTON ANALYTICAL LLC	67.00
08/24/2020	3825	CONSUMERS ENERGY	14.00
08/26/2020	3826	BRIGHTON ANALYTICAL LLC	1,064.00
09/02/2020	3827	BRIGHTON ANALYTICAL LLC	67.00
09/08/2020	3828	BRIGHTON ANALYTICAL LLC	67.00
09/08/2020	3829	MMRMA	711.61
09/09/2020	3830	CONSUMERS ENERGY	81.86
09/09/2020	3831	DTE ENERGY	2,597.49
09/14/2020	3832	BRIGHTON ANALYTICAL LLC	67.00

593FN TOTALS:

Total of 18 Checks:	23,277.06
Less 0 Void Checks:	0.00
Total of 18 Disbursements:	23,277.06

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

0**

0**

900,572.06+

219,302.8+

23,277.06+

003

1,143,151.920

003

1,143,151.92*



September 2020						
S	M	T	W	T	F	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10

New Balance
\$2,155.57
Minimum Payment Due
\$431.00
Payment Due Date
09/10/20

MAILED
 8-27-2020

Late Payment Warning: If we do not receive your minimum payment by the due date, you may have to pay a late fee, and existing and new balances may become subject to the Default APR.

Minimum Payment Warning: Enroll in Auto-Pay and avoid missing a payment. To enroll, go to www.chase.com

ACCOUNT SUMMARY

Account Number: [REDACTED]

Previous Balance	\$828.52
Payment Credits	-\$828.52
Purchases	+\$2,155.57
Cash Advances	\$0.00
Balance Transfers	\$0.00
Fees Charged	\$0.00
Interest Charged	\$0.00
New Balance	\$2,155.57
Opening/Closing Date	07/17/20 - 08/16/20
Credit Limit	\$20,000
Available Credit	\$17,844
Cash Access Line	\$4,000
Available for Cash	\$4,000
Past Due Amount	\$0.00
Balance over the Credit Limit	\$0.00

OK.

 8/24/2020

REPAIR & MAINT
 101-265-775-0000



ACCOUNT ACTIVITY

Date of Transaction	Merchant Name or Transaction Description	\$ Amount
07/30	Payment ThankYou Image Check	-828.52
07/23	LOWES #00779* HOWELL MI <i>Sprinklers + Hoses to keep New Landscape</i>	427.12 <i>Li</i>
08/11	AMZN Mktp US*MM6LH2F31 Amzn.com/bill WA <i>GOING PERMKE</i>	71.96
08/11	Amazon.com*MF21P3DZ2 Amzn.com/bill WA	658.00
08/13	DRI*AVG TECHNOLOGIES www.avg.com MN MICHAEL C ARCHINAL TRANSACTIONS THIS CYCLE (CARD 3223) \$1327.05 INCLUDING PAYMENTS RECEIVED	1,298.49 <i>AT</i>

2020 Totals Year-to-Date	
Total fees charged in 2020	\$0.00
Total interest charged in 2020	\$0.00

Year-to-date totals do not reflect any fee or interest refunds you may have received.

INTEREST CHARGES

Your Annual Percentage Rate (APR) is the annual interest rate on your account.

Balance Type	Annual Percentage Rate (APR)	Balance Subject To Interest Rate	Interest Charges
PURCHASES			
Purchases	13.24%(v)(d)	- 0 -	- 0 -
CASH ADVANCES			
Cash Advances	19.24%(v)(d)	- 0 -	- 0 -
BALANCE TRANSFERS			
Balance Transfer	13.24%(v)(d)	- 0 -	- 0 -

31 Days in Billing Period

- (v) = Variable Rate
- (d) = Daily Balance Method (including new transactions)
- (a) = Average Daily Balance Method (including new transactions)

Please see Information About Your Account section for the Calculation of Balance Subject to Interest Rate, Annual Renewal Notice, How to Avoid Interest on Purchases, and other important information, as applicable.



September 2020

S	M	T	W	T	F	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10

New Balance
\$3,707.16
 Minimum Payment Due
\$37.00
 Payment Due Date
09/01/20

INK CASH(SM) POINT SUMMARY

Previous points balance	32,258
+ 1 Point per \$1 earned on all purchases	3,708
+ 2Pts/\$1 gas stns, reints, c/c aply, hm impr	4,000
Total points available for redemption	39,966

You have reached the maximum point accumulation for this statement period for additional points on Net Purchases at restaurants, gas stations, office supply stores and home improvement stores. The amount of Net Purchases that can earn additional points each statement period is \$2,000 which equates to 4,000 additional points.

Late Payment Warning: If we do not receive your minimum payment by the due date, you may have to pay a late fee, and existing and new balances may become subject to the Default APR.

Minimum Payment Warning: Enroll in Auto-Pay and avoid missing a payment. To enroll, go to www.chase.com

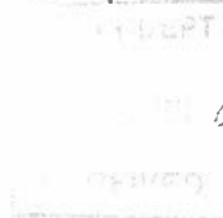
ACCOUNT SUMMARY

Account Number: [REDACTED]

Previous Balance	\$1,171.80
Payment, Credits	-\$1,171.80
Purchases	+\$3,707.16
Cash Advances	\$0.00
Balance Transfers	\$0.00
Fees Charged	\$0.00
Interest Charged	\$0.00
New Balance	\$3,707.16
Opening/Closing Date	07/08/20 - 08/07/20
Credit Limit	\$20,000
Available Credit	\$16,292
Cash Access Line	\$4,000
Available for Cash	\$4,000
Past Due Amount	\$0.00
Balance over the Credit Limit	\$0.00

MAILED
8-18-2020

ALL SYS - 503-000-084-c



ENTERED AUG 17 2020



ACCOUNT ACTIVITY

Date of Transaction	Merchant Name or Transaction Description	\$ Amount
07/17	KNOCK EM OUT PEST CONTROL 517-375-0911 MI <i>M Hole</i> ALEX CHIMPOURAS TRANSACTIONS THIS CYCLE (CARD 2501) \$450.00	450.00 ✓
07/07	VAL-MATIC VALVE & MANUFAC 630-941-7600 IL <i>6.0</i>	98.00 ✓
08/04	WALKER INDUSTRIALCOM 203-426-7700 CT <i>6.0</i> JAMES AULETTE TRANSACTIONS THIS CYCLE (CARD 7653) \$2418.99	2,320.99 ✓
08/02	AMZN Mktp US*MF4D04Z30 Amzn.com/bill WA <i>DPW prof dev.</i> KIMBERLY LANE TRANSACTIONS THIS CYCLE (CARD 4797) \$93.64	93.64 ✓
07/18	Payment ThankYou image Check	-1,171.80
07/07	THE HOME DEPOT 2751 HOWELL MI <i>M Hole</i>	12.64 -
07/10	AWWA.ORG 303-347-6197 CO <i>DPW prof dev.</i>	83.00 ✓
07/16	AAASERVICENETWORKINC 734-8780001 MI <i>M Hole</i>	583.00 ✓
08/04	RINGCENTRAL, INC 650-4724100 CA <i>Phone</i> GREG TATARA TRANSACTIONS THIS CYCLE (CARD 9747) \$427.27- INCLUDING PAYMENTS RECEIVED	65.89 -

2020 Totals Year-to-Date	
Total fees charged in 2020	\$0.00
Total interest charged in 2020	\$0.00

Year-to-date totals do not reflect any fee or interest refunds you may have received.

INTEREST CHARGES

Your Annual Percentage Rate (APR) is the annual interest rate on your account.

Balance Type	Annual Percentage Rate (APR)	Balance Subject To Interest Rate	Interest Charges
PURCHASES			
Purchases	13.24%(v)(d)	- 0 -	- 0 -
CASH ADVANCES			
Cash Advances	24.99%(v)(d)	- 0 -	- 0 -
BALANCE TRANSFERS			
Balance Transfer	13.24%(v)(d)	- 0 -	- 0 -

31 Days in Billing Period

- (v) = Variable Rate
- (d) = Daily Balance Method (including new transactions)
- (a) = Average Daily Balance Method (including new transactions)

Please see Information About Your Account section for the Calculation of Balance Subject to Interest Rate, Annual Renewal Notice, How to Avoid Interest on Purchases, and other important information, as applicable.

GENOA CHARTER TOWNSHIP BOARD
Regular Meeting
August 17, 2020

MINUTES

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

A Call to the Public was made with no response.

Approval of Consent Agenda:

Moved by Ledford and supported by Mortenson to approve all items listed under the Consent Agenda as requested with a copy of the utility check register to be included in the next board packet. The motion carried unanimously.

1. Payment of Bills.

2. Request to Approve Minutes: Aug. 3, 2020

Approval of Regular Agenda:

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

3. Request for approval of a revised and restated Wastewater Treatment and Water Service Agreement for Pine Creek between Genoa Charter Township and the City of Brighton as presented by Utilities Director Greg Tatara.

Moved by Ledford and supported by Mortenson to approve the agreement as requested, deleting reference to Genoa Charter Township as a General Law Township. The motion carried unanimously.

4. Request for approval of a cost sharing agreement between Genoa Township and the Livingston County Road Commission for Crooked Lake Road Engineering Services in an amount not to exceed \$68,380.

Moved by Lowe and supported by Hunt to approve the expenditure of \$68,380.00 as requested. The motion carried unanimously.

5. Consider approval of a budget amendment to Fund 261 for Crooked Lake Road Engineering by adding appropriation 261-477-831-000 for \$68,380.

Moved by Skolarus and supported by Hunt to approve the amendment to Fund 261 as requested. The motion carried unanimously.

6. Discussion regarding the basketball courts in the Township Park.

Moved by Skolarus and supported by Lowe to approve an amount not to exceed \$29,000.00 for the purchase of a chain link fence, four hoops and a backboard for the two basketball courts, with the understanding that the Manager will review other bids for the project. The motion carried unanimously.

Moved by Mortenson and supported by Hunt to adjourn the regular meeting of the Township Board at 7:07 p.m. The motion carried unanimously.



Paulette A. Skolarus, Clerk
Genoa Charter Township Board



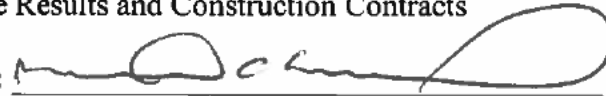
MEMO

TO: Honorable Members of the Genoa Charter Township Board

FROM: Greg Tatar, Utility Director

DATE: September 16, 2020

RE: Oak Pointe Wastewater Treatment Plant Consolidation Project
Bond Sale Results and Construction Contracts

MANAGER REVIEW: 

.....
In 2014, Genoa Charter Township issued and sold Capital Improvement Bonds which converted the Oak Pointe Waste Water Treatment Plant to an Equalization Station and construct a force main to pump the Oak Pointe Waste Water to the Genoa-Oceola WWTP for treatment and disposal. Recently, we were contacted by our Financial Advisor with an opportunity to refund this bond issue which will result in significant savings for the Oak Pointe Residents. Therefore, for consideration at tonight's Board Meeting is approval of a Bond Authorizing Resolution to Refund and Refinance the 2014 Series Capital Improvement Bonds for the Oak Pointe Sewer Project.

Presented as *Attachment 1* is the Bond Authorizing Resolution along with Appendices providing for the Form of the Bond and the Form of the Official Notice of Sale. This resolution provides the framework under which these bonds can be refinanced. At the current rates, it is estimated from the attached financial analysis in *Attachment 2*, the savings would be around 7.5% or approximately \$319,000 dollars. Lastly, provided in *Attachment 3*, is a schedule for the financing.

Based on the above explanation, we ask the Genoa Township Board to consider the following motions:

Moved by _____, supported by _____ to approve the Bond Authorizing Resolution for Capital Improvement Refunding Bonds (Oak Pointe Sewer System Project), Series 2020.

Attachment 1
Bond Authorizing Resolution

GENOA CHARTER TOWNSHIP

At a meeting of the Township Board (the "Township Board") of Genoa Charter Township, Livingston County, Michigan, (the "Township") held at the Township Hall on September 21, 2020, at _____ p.m., there were

PRESENT: _____

ABSENT: _____

The following preambles and resolution were offered by _____ and seconded by _____:

**Bond Authorizing Resolution
Capital Improvement Refunding Bonds (Oak Pointe Sewer System Project), Series 2020
(Limited Tax General Obligation) (Federally Taxable)**

WHEREAS, the Township issued and sold its Capital Improvement Bonds (Oak Pointe Sewer System Project), Series 2014 (Limited Tax General Obligation), in the aggregate principal amount of \$6,000,000 on August 7, 2014 (the "Prior Bonds"), pursuant to the Revised Municipal Finance Act, Act 34, Public Acts of Michigan, 2001, as amended ("Act 34"), to finance a portion of the costs of certain public improvements with respect the wastewater treatment system that services certain properties in the Township;

WHEREAS, the Township has determined, based upon the advice of its financial advisor, that it is advantageous to refund a portion of the Prior Bonds, the specific maturities of which will be determined based on market conditions at the time of the sale of the refunding bonds authorized by this Resolution (the "Bonds To Be Refunded"), through the issuance and sale by the Township of its capital improvement refunding bonds in an aggregate principal amount not to exceed \$4,800,000 (the "Bonds"), which are to be secured in the same manner as the Prior Bonds, including the limited tax general obligation pledge of the Township;

WHEREAS, it has been determined by the Township's financial advisor, based on current bond market conditions, that the net present value of the principal and interest to be paid on the Bonds, inclusive of the underwriter's fees and other costs of issuance, will be less than the net present value of the principal and interest to be paid on the Bonds To Be Refunded;

WHEREAS, the Bonds will be issued as limited tax general obligation bonds secured by a pledge of the Township's full faith and credit, subject to applicable constitutional, statutory and charter limitations;

WHEREAS, the Township will sell the Bonds by competitive sale, and will delegate to the Township's Authorized Officers (as defined below) the authority to determine the definitive terms of the Bonds, subject to the conditions and parameters set forth herein (the transactions described in this Resolution recitals relating to the refunding of the Bonds To Be Refunded are collectively referred to as the "Refunding").

NOW, THEREFORE, BE IT RESOLVED BY THE TOWNSHIP BOARD OF GENOA CHARTER TOWNSHIP AS FOLLOWS:

1. The Refunding. The Township Board hereby approves the Refunding. The Bonds To Be Refunded are not subject to redemption until November 1, 2022, and accordingly the Bonds will be classified as "Advance Refunding Bonds" and will be issued as federally taxable bonds. The specific maturities of the Prior Bonds that will be refunded and that will be the Bonds To Be Refunded will be designated by an Authorized Officer at the time of the sale of the Bonds, based on market conditions and advice from the Township's financial advisor. For purposes of this Bond Authorizing Resolution, the Supervisor, Clerk and Treasurer of the Township are each an "Authorized Officer." An Authorized Officer shall direct the transfer of a portion of the proceeds of the Bonds into the Refunding Escrow Fund (as defined below) in an amount necessary and appropriate to provide for the refunding of the Bonds To Be Refunded in accordance with the terms of the Escrow Agreement (as defined below).

2. Bond Details. The Township Board approves the issuance of the Bonds for the Refunding and the Bonds shall be issued pursuant to the terms of this Bond Authorizing Resolution and Act 34. The Bonds shall be issued in the principal sum of not to exceed \$4,800,000 and shall be issued for the purpose of refunding the Bonds To Be Refunded and paying the costs of issuance of the Bonds. The bonds shall be known as "Genoa Charter Township Capital Improvement Refunding Bonds (Oak Pointe Sewer System Project), Series 2020" and shall be dated as of the delivery date of the Bonds, or such other date as shall be designated, prior to the sale of the Bonds, by an Authorized Officer of the Township. The Bonds shall be fully-registered, both as to principal and interest, in any denominations determined by an Authorized Officer regardless of rate and maturity date. The Bonds shall mature on November 1 (or such other date as is determined by an Authorized Officer prior to the sale of the Bonds) of each year in the principal amounts determined by an Authorized Officer prior to the sale of the Bonds, provided that the final maturity date of the Bonds shall not be after November 1, 2036 and the aggregate principal amount of the Bonds shall not exceed \$4,800,000.

The Bonds shall not be sold unless the Refunding of the Bond To Be Refunded will yield a net present value savings of at least 3.0% of the par amount of the Bonds To Be Refunded, as determined by an Authorized Officer based on advice from the Township's financial advisor.

The Bonds shall be in substantially the form attached as Appendix A with such changes, additions or deletions as are not inconsistent with this Resolution.

3. Interest Payment and Date of Record. The Bonds shall bear interest payable on May 1 and November 1 of each year, beginning May 1, 2021 or on such other dates as may be determined by an Authorized Officer prior to the sale of the Bonds. Interest shall be paid by check mailed by first class mail to the registered owner of the Bonds as of the applicable date of record, provided,

however, that an Authorized Officer may agree with the Bond Registrar (the "Bond Registrar") on a different method of payment. If interest is paid differently, the Bond form attached as Appendix A and the Notice of Sale form attached as Appendix B shall be changed accordingly.

The date of record shall be the fifteenth day of the month immediately preceding the month in which such interest is payable.

4. Prior Redemption. The Bonds shall be subject to redemption prior to maturity at the Township's option as determined by an Authorized Officer and as set forth in the Official Notice of Sale for the Bonds.

5. Capitalized Interest. The Bonds shall not include any capitalized interest.

6. Paying Agent and Bond Registrar. The Bonds shall be registrable upon the books of U.S. Bank National Association, Detroit, Michigan, as paying agent and Bond Registrar, or such other bank as shall be designated by an Authorized Officer. The Bonds may be authenticated by the Bond Registrar if so ordered by an Authorized Officer.

7. Transfer or Exchange of Bonds. Any Bond shall be transferable on the bond register maintained with respect to the Bonds upon the surrender of the Bond together with an assignment executed by the registered owner or his or her duly authorized attorney in form satisfactory to the Bond Registrar. Upon receipt of a properly assigned Bond, the Bond Registrar shall authenticate and deliver a new Bond or Bonds in equal aggregate principal amount and like interest rate and maturity to the designated transferee or transferees.

Bonds may likewise be exchanged for one or more other bonds with the same interest rate and maturity in authorized denominations aggregating the same principal amount as the Bond or Bonds being exchanged. Such exchange shall be effected by surrender of the Bond to be exchanged to the Bond Registrar with written instructions signed by the registered owner of the Bond or his or her attorney in form satisfactory to the Bond Registrar. Upon receipt of a Bond with proper written instructions, the Bond Registrar shall authenticate and deliver a new Bond or Bonds to the registered owner of the Bond or his or her properly designated transferee or transferees or attorney.

The Bond Registrar may require payment by a bondholder of a sum sufficient to cover any tax or other governmental charge payable in connection with any such registration, transfer or exchange. The Bond Registrar is not required to honor any transfer or exchange of Bonds during the fifteen (15) days preceding an interest payment date.

8. Execution and Delivery. The Supervisor and the Clerk are hereby authorized and directed to execute the Bonds for and on behalf of the Township by manually executing the same or by causing their facsimile signatures to be affixed, provided in the latter instance the Bonds are thereafter authenticated by the Bond Registrar.

9. Security for Payment of the Bonds. The principal of and interest on the Bonds shall be payable from the same sources dedicated to the payment of the Prior Bonds, specifically revenue generated from the debt service charges paid by users of the Township's Oak Pointe wastewater system. In the event that the revenue from the debt service charges is not sufficient the Township

intends to use the reserve funds and/or the operation and maintenance funds from the Township's Oak Pointe wastewater system to pay the debt service on the Bonds. Additionally, the Township hereby pledges its limited tax full faith and credit as additional security for the payment of the principal of and interest on the Bonds. Pursuant to such pledge, should other revenue be insufficient to pay the principal of and interest on the Bonds, the Township shall pay the principal of and interest on the Bonds as a first budget obligation from its general funds, including the collection of any ad valorem taxes which the Township is authorized to levy, but any such levy shall be subject to applicable constitutional, charter and statutory tax rate limitations.

10. Bond Payment Fund. From the proceeds of the sale of the Bonds, there shall be set aside in a bond and interest redemption account (the "Bond Payment Fund") accrued interest, if any, received from the purchaser of the Bonds. No less than five (5) days prior to each principal and interest payment date, the Township shall deposit in the Bond Payment Fund sufficient monies to pay the interest payment and the principal payment, if any, coming due on such subsequent interest payment date. The Bond Payment Fund shall be held by the Township.

Moneys in the Bond Payment Fund may be continuously invested and reinvested in any legal investment for Township funds, which shall mature, or which shall be subject to redemption by the holder thereof not later than, the dates when moneys in the Bond Payment Fund will be required to pay the principal of and interest on the Bonds. Obligations purchased as an investment of moneys of the Bond Payment Fund shall be deemed at all times to be a part of such fund, and the interest accruing thereon and any profit realized from such investment shall be credited to such fund.

11. Refunding Escrow Fund and Verification Agent. The Township shall establish a Refunding Escrow Fund (the "Refunding Escrow Fund") into which shall be deposited proceeds from the sale of the Bonds, together with moneys to be transferred by the Township from the debt retirement fund for the Bonds To Be Refunded and any other legally available funds of the Township, if any, as determined by an Authorized Officer, in an aggregate amount sufficient, without reinvestment, to pay the principal, interest and redemption premiums (if any) on the Bonds To Be Refunded as they become due pursuant to maturity or the call for redemption pursuant to the plan of the Refunding. Such moneys shall be held as uninvested cash or invested in direct obligations of or obligations the principal of and interest on which are unconditionally guaranteed by the United States of America or other obligations the principal of and interest on which are fully secured by the foregoing, and shall be transferred in a timely manner to the paying agent for the Bonds To Be Refunded, to be applied to interest due on the Bonds To Be Refunded and to redemption of the Bonds To Be Refunded on the applicable redemption date. U.S. Bank National Association, Detroit, Michigan, is hereby appointed to serve as escrow agent for the foregoing purposes (the "Escrow Agent"). Each Authorized Officer is authorized to negotiate and to execute and deliver an Escrow Agreement (the "Escrow Agreement") with the Escrow Agent, consistent with the foregoing provisions. Each Authorized Officer is further authorized to select an independent verification agent to verify the sufficiency of the funds and investments in the Refunding Escrow Fund for the timely payment of the principal, interest and redemption premiums, if any, on the Bonds To Be Refunded. The Refunding Escrow Fund shall be dissolved upon the redemption of all Bonds To Be Refunded. The balance of the proceeds of the Bonds after establishment and funding of the Refunding Escrow Fund shall be used to pay the costs incidental to issuance of the Bonds and to the refunding of the Bonds To Be Refunded.

Following establishment of the Refunding Escrow Fund, amounts, if any, remaining in the debt retirement fund for the Bonds To Be Refunded and attributable to the Bonds To Be Refunded shall be transferred to the Bond Payment Fund for the Bonds or shall be transferred to the Refunding Escrow Fund.

12. Additional Bonds. Additional bonds of equal standing with the Bonds may be issued by the Township. Nothing in this Resolution shall prevent the issuance by the Township of bonds to finance other projects for the Township.

13. Mutilated, Lost, Stolen or Destroyed Bonds. In the event any Bond is mutilated, lost, stolen or destroyed, the Supervisor and the Clerk may, on behalf of the Township, execute and deliver, or order the Bond Registrar to authenticate and deliver, a new Bond having a number not then outstanding, of like date, maturity and denomination as that mutilated, lost, stolen or destroyed.

In the case of a mutilated Bond, a replacement Bond shall not be delivered unless and until such mutilated Bond is surrendered to the Bond Registrar. In the case of a lost, stolen or destroyed Bond a replacement Bond shall not be delivered unless and until the Township and the Bond Registrar shall have received such proof of ownership and loss and indemnity as they determine to be sufficient, which shall consist at least of (i) a lost instrument bond for principal and interest remaining unpaid on the lost, stolen or destroyed bond; (ii) an affidavit of the registered owner (or his or her attorney) setting forth ownership of the Bond lost, stolen or destroyed and the circumstances under which it was lost, stolen or destroyed; (iii) the agreement of the owner of the Bond (or his or her attorney) to fully indemnify the Township and the Bond Registrar against loss due to the lost, stolen or destroyed Bond and the issuance of any replacement Bond in connection therewith; and (iv) the agreement of the owner of the Bond (or his or her attorney) to pay all expenses of the Township and the Bond Registrar in connection with the replacement, including the transfer and exchange costs which otherwise would be paid by the Township.

14. Depositories. All of the banks located in the State of Michigan are hereby designated as permissible depositories of the moneys in the funds and accounts set forth in this Resolution. An Authorized Officer shall select the depository or depositories to be used from those banks authorized in this section.

15. Notice of Sale. Sealed bids for the purchase of the Bonds shall be accepted up to a time to later be determined by an Authorized Officer. The Official Notice of Sale shall be published once in accordance with law in The Bond Buyer, in substantially the form attached as Appendix B to this Resolution. Any Authorized Officer may make such modifications, changes and completions to the attached Official Notice of Sale, or cause it to be published in additional publications, as such Authorized Officer deems appropriate, provided such revisions are consistent with this Resolution.

16. Provisions for the Sale and Award of the Bonds. The Township shall sell the Bonds at a competitive sale in conformance with the Act, the laws of the State of Michigan and the rules and regulations of the Michigan Department of Treasury, provided that the weighted average interest rate on the Bonds shall not exceed three percent (3.0%), the net discount on the Bonds shall not exceed one percent (1%) and the net premium of the Bonds shall not exceed two percent (2.0%). Any Authorized Officer is authorized to award the sale of the Bonds to the bidder whose bid

produces the lowest interest cost to the Township, as determined by the Township's financial advisor.

17. Defeasance or Redemption of Bonds. If at any time,
- (a) the whole amount of the principal of and interest on all outstanding Bonds shall be paid, or
 - (b) (i) sufficient moneys, or Government Obligations (as defined in this section) not callable prior to maturity, the principal of and interest on which when due and payable will provide sufficient moneys to pay the whole amount of the principal of and premium, if any, and interest on all outstanding Bonds as and when due at maturity or upon redemption prior to maturity shall be deposited with and held by a trustee or an escrow agent for the purpose of paying the principal of and premium, if any, and interest on such Bonds as and when due, and (ii) in the case of redemption prior to maturity, all outstanding Bonds shall have been duly called for redemption (or irrevocable instructions to call such Bonds for redemption shall have been given).

Then, at the time of the payment referred to in clause (a) of this section or of the deposit referred to in clause (b) of this section, the Township shall be released from all further obligations under this resolution, and any moneys or other assets then held or pledged pursuant to this resolution for the purpose of paying the principal of and interest on the Bonds (other than the moneys deposited with and held by a trustee or an escrow agent as provided in clause (b) of this section) shall be released from the conditions of this resolution, paid over to the Township and considered excess proceeds of the Bonds. All moneys and Government Obligations so deposited and held shall be held in trust and applied only to the payment of the principal of and premium, if any, and interest on the Bonds at maturity or upon redemption prior to maturity, as the case may be, as provided in this section.

The trustee or escrow agent referred to in this section shall (a) be a bank or trust company permitted by law to offer and offering the required services, (b) be appointed by an Authorized Officer and (c) at the time of its appointment and so long as it is serving as such, have at least \$25,000,000 of capital and unimpaired surplus. The same bank or trust company may serve as trustee or escrow agent under this section and as Bond Registrar so long as it is otherwise eligible to serve in each such capacity.

As used in this section, the term "Government Obligations" means direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America.

18. Contract. The provisions of this Resolution shall constitute a contract between the Township and the holder or holders of the Bonds from time to time, and after the issuance of such Bonds, no change, variation or alternation to the provisions of this resolution may be made which would lessen the security for the Bonds. The provisions of this resolution shall be enforceable by appropriate proceedings taken by such Bondholder either at law or in equity.

19. Continuing Disclosure. Any Authorized Officer is hereby authorized to execute a Continuing Disclosure Undertaking with respect to the Bonds. The Bonds are hereby made subject to such Continuing Disclosure Undertaking and the Township agrees to abide by the provisions thereof so long as any of the Bonds are outstanding.

20. Preliminary Official Statement and Final Official Statement. Any Authorized Officer is hereby authorized to approve for distribution a Preliminary Official Statement for the Bonds and once the Bonds have been sold, any Authorized Officer is hereby authorized to execute an Official Statement with respect to the Bonds.

21. Additional Covenants. The Township covenants and agrees with the successive holders of the Bonds that so long as any maturities of the Bonds remain outstanding and unpaid as to either principal or interest:

(a) The Township will punctually perform all of its obligations and duties under this Resolution and will to extent applicable collect, segregate and apply such ad valorem taxes levied on all taxable property in the Township, subject to applicable constitutional and statutory tax rate limitations, in the manner required by the provisions of this Resolution.

(b) The Township will maintain and keep proper books of record and accounts relating to the operation of its portion of the Project.

22. Retention of Bond Counsel. The firm of Dykema Gossett PLLC, Lansing, Michigan, is hereby retained to act as bond counsel ("Bond Counsel") for the Township in connection with the issuance, sale and delivery of the Bonds.

23. Retention of Financial Advisor. PFM Financial Advisors LLC (the "Financial Advisor"), is hereby retained to act as financial advisor to the Township in connection with the sale and delivery of the Bonds.

24. Additional Actions by Authorized Officers. Each Authorized Officer is hereby authorized and directed on behalf of the Township to take any and all other actions, perform any and all acts and execute any and all documents that shall be required, necessary or desirable to implement this Resolution, to issue the Bonds and to refund the Bonds To Be Refunded, including without limitation, securing of ratings by bond rating agencies, purchasing securities for deposit into Refunding Escrow Fund, printing of the Bonds and the incurring and paying of reasonable fees, costs and expenses incidental to the foregoing and other costs of issuance of the Bonds.

25. Conflicting Resolutions. All resolutions and parts of resolutions in conflict with the foregoing are hereby rescinded.

26. Effective Date. This Resolution shall become effective immediately upon its adoption and shall be recorded in the minutes of the Township Board as soon as is practicable after its passage.

A roll call vote on the foregoing resolution was taken, the result of which is as follows:

Yes: _____

No: _____

THE RESOLUTION WAS DECLARED ADOPTED.

Certification

The undersigned, being the duly qualified and acting Clerk of Genoa Charter Township, Livingston County, Michigan, hereby certifies that (1) the foregoing is a true and complete copy of a resolution duly adopted by the Township Board at a regular meeting, at which meeting a quorum was present and remained throughout, (2) the original thereof is on file in the records in my office, (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.

Dated: September __, 2020

Genoa Charter Township Clerk

wastewater system to pay the debt service on the Bonds. Additionally, the Township has pledged its limited tax full faith and credit as additional security for the payment of the principal of and interest on the Bonds. Pursuant to such pledge, should other revenue be insufficient to pay the principal of and interest on the Bonds, the Township has agreed to pay the principal of and interest on the Bonds as a first budget obligation from its general funds, including the collection of any ad valorem taxes which the Township is authorized to levy, but any such levy shall be subject to applicable constitutional, charter and statutory tax rate limitations.

Principal installments of this Bond are subject to redemption prior to maturity at the Township's option as follows: Bonds maturing in the years 2021 to _____, inclusive, are not subject to optional redemption prior to maturity. Bonds maturing on or after November 1, _____ are subject to optional redemption, in whole or in part in such order as the Township shall determine, in integral multiples of \$5,000 on any date on or after _____ 1, _____ at par plus accrued interest to the redemption date. No premium will be paid for Bonds called for optional redemption.

With respect to partial redemptions, any portion of a bond outstanding in a denomination larger than the minimum authorized denomination may be redeemed provided such portion and the amount not being redeemed each constitutes an authorized denomination. If less than the entire principal amount of a bond is called for redemption, upon surrender of the bond to the Bond Registrar, the Bond Registrar shall authenticate and deliver to the registered owner a new Bond in the principal amount of the principal portion not being redeemed.

Notice of redemption shall be sent to the registered holder of each bond being redeemed by first class United States mail at least 30 days before the date fixed for redemption, which notice shall fix the date of record with respect to the redemption. Any defect in any notice of redemption shall not affect the validity of the redemption proceedings. Bonds so called for redemption shall not bear interest after the date fixed for redemption provided funds or sufficient government obligations then are on deposit with the Bond Registrar to redeem such bonds.

This Bond is transferable on the bond registration books of the Bond Registrar upon surrender of this Bond together with an assignment executed by the Registered Owner or his or her duly authorized attorney in form satisfactory to the Bond Registrar. Upon such transfer, one fully registered bond in the same aggregate principal amount and the same maturity and interest rate, will be issued to the designated transferee or transferees. The Bond Registrar shall not be required to honor any transfer of this Bond during the period from the applicable date of record preceding an interest payment date to such interest payment date.

For a complete statement of the funds from which and the conditions under which this Bond is payable and the general covenants and provisions pursuant to which this Bond is issued, reference is made to the Bond Authorizing Resolution adopted by the Township Board on September __, 2020, authorizing this series of Bonds.

It is hereby certified, recited and declared that all acts, conditions and things required to exist, happen and be performed precedent to and in connection with the issuance of this Bond and the other bonds of this series, existed, have happened and have been performed in due time, form and manner

as required by the Constitution and statutes of the State of Michigan, and that the total indebtedness of the Township, including this Bond, does not exceed any constitutional limitation.

IN WITNESS WHEREOF, the Township Board of Genoa Charter Township, Livingston County, Michigan, has caused this Bond to be executed in its name with the facsimile signatures of its Supervisor and its Clerk as of the Date of Issuance.

GENOA CHARTER TOWNSHIP

By: _____
Its: Supervisor

By: _____
Its: Clerk

CERTIFICATE OF AUTHENTICATION

This Bond is designated "Genoa Charter Township Capital Improvement Refunding Bond (Oak Pointe Sewer System Project), Series 2020."

_____, as
Bond Registrar and Authenticating Agent

By: _____
Its: Authorized Signer

ASSIGNMENT

For value received, the undersigned sells, assigns and hereunder and hereby irrevocably appoints attorney to transfer this Bond on the books kept for registration thereof with full power of substitution in the premises.

Dated: _____

Signature

NOTICE: The signature to this assignment must correspond with the name as it appears upon the face of this Bond in every particular.

Appendix B

Form of Official Notice of Sale

OFFICIAL NOTICE OF SALE

\$ _____ *

**GENOA CHARTER TOWNSHIP
CAPITAL IMPROVEMENT REFUNDING BONDS
(OAK POINTE SEWER SYSTEM PROJECT), SERIES 2020
(Limited Tax General Obligation) (Federally Taxable)**

ELECTRONIC BIDS: Bids for the purchase of the above-designated bonds (the “Bonds”) to be issued by Genoa Charter Township (the “Township”) will be received until __:00 a.m., Eastern Time, on October __, 2020.

Electronic bids may be submitted to the Municipal Advisory Council of Michigan at munibids@macmi.com. All such electronic bids must arrive before the time of sale and the bidder bears all risks of transmission failure.

Electronic bids will also be received on the same date and until the same time by Bidcomp/Parity as agent of the Township. Further information about Bidcomp/Parity, including any fee charged, may be obtained from Bidcomp/Parity, 1359 Broadway, Second Floor, New York, New York 10010, (212) 849-5021. IF ANY PROVISION OF THIS NOTICE OF SALE SHALL CONFLICT WITH INFORMATION PROVIDED BY BIDCOMP/PARITY, AS THE APPROVED PROVIDER OF ELECTRONIC BIDDING SERVICES, THIS NOTICE SHALL CONTROL.

Bidders may select one of the above methods to submit a bid but a bidder may not present a bid by more than one method.

The award of the Bonds will be made (or all bids will be rejected) by an Authorized Officer of the Township approximately one hour after the opening of the bids, on the day of the sale.

BOND DETAILS: The Bonds will be fully registered Bonds in any denomination of \$5,000 or any integral multiple thereof up to a single maturity, dated the date of delivery, numbered in order of authentication from 1 upwards, and will bear interest from their date payable on May 1, 2021, and semiannually thereafter.

The bonds will mature on the 1st day of November as follows:

<u>Year</u>	<u>Principal Amount</u>	<u>Year</u>	<u>Principal Amount</u>
2021		2029	\$
2022		2030	
2023		2031	
2024		2032	
2025		2033	
2026		2034	
2027		2035	
2028			

***ADJUSTMENT OF TOTAL PAR AMOUNT OF BONDS AND PRINCIPAL MATURITIES:** The Township reserves the right to adjust the aggregate principal amount of the Bonds after receipt of the bids and prior to final award, if necessary, so that the purchase price of the Bonds will provide an amount determined by the Township to be sufficient to provide for the refunding of the Bonds To Be Refunded (as defined below). The adjustments, if necessary, will be in increments of \$5,000 and may be made in any maturities. The purchase price will be adjusted proportionately to the increase or decrease in issue size, but the interest rates specified by the successful bidder for all maturities will not change. The successful bidder may not withdraw its bid as a result of any changes made within these limits.

***ADJUSTMENT TO PURCHASE PRICE:** Should any adjustment to the aggregate principal amount of the Bonds be made by the Township, the purchase price of the Bonds will be adjusted by the Township proportionally to the adjustment in principal amount of the Bonds. The adjusted purchase price will reflect changes in the dollar amount of the underwriter's discount and original issue discount/premium, if any, but will not change the per-bond underwriter's discount as calculated from the bid and initial reoffering prices.

TERM BOND OPTION: The initial purchaser of the Bonds may designate any one or more maturities as term bonds and the consecutive maturities which shall be aggregated in the term bonds. Any such designation must be made at the time of submitting the bid for the Bonds. The amounts of the maturities which are aggregated in a designated term bond shall be subject to mandatory redemption on November 1 of the years and in the amounts as set forth in the foregoing maturity schedule at a redemption price of par, plus accrued interest to the date of mandatory redemption.

OPTIONAL REDEMPTION: Bonds maturing in the years 2021 to _____, inclusive, shall not be subject to optional redemption prior to maturity. Bonds maturing on or after November 1, _____ are subject to optional redemption in whole or in part in such order as the Township shall determine, on any date on or after _____ 1, _____ at par plus accrued interest to the redemption date.

With respect to partial redemptions, any portion of a Bond outstanding in a denomination larger than the minimum authorized denomination may be redeemed provided such portion and the amount not being redeemed each constitutes an authorized denomination. If less than the entire principal amount of a Bond is called for redemption, upon surrender of the Bond to the Bond Registrar, the Bond Registrar shall authenticate and deliver to the registered owner a new Bond in the principal amount of the principal portion not being redeemed.

Notice of redemption shall be sent to the registered holder of each Bond being redeemed by first class United States mail at least 30 days before the date fixed for redemption, which notice shall fix the date of record with respect to the redemption. Any defect in any notice of redemption shall not affect the validity of the redemption proceedings. Bonds so called for redemption shall not bear interest after the date fixed for redemption provided funds or sufficient government obligations then are on deposit with the Bond Registrar to redeem such Bonds.

INTEREST RATE AND BIDDING DETAILS: The Bonds shall bear interest at a rate or rates not exceeding three percent (3.00%) per annum, to be fixed by the bids for the Bonds, expressed in multiples of 1/8 or 1/100 of 1%, or both. The interest on any one Bond shall be at one rate only, and all Bonds maturing in any one year must bear the same interest rate. No Bond may bear interest at a rate that is more than two and one-half (2.5) percentage points above the rate borne by any other Bond. No proposal for the purchase of less than all of the Bonds, or at a price less than 99.0% or more than 102.0% of their par value, will be considered.

BOND REGISTRAR AND DATE OF RECORD: U.S. Bank National Association, Detroit, Michigan, has been selected as Bond Registrar for the Bonds. The Bond Registrar will keep records of the registered holders of the Bonds, serve as transfer agent for the Bonds, authenticate the original and any re-issued Bonds and will pay interest by check or draft mailed to the registered holders of the Bonds as shown on the records of the Bond Registrar on the applicable date of record. The date of record for each interest payment shall be the 15th day of the month before such payment is due. Principal of the Bonds will be paid at maturity upon presentation and surrender thereof to the Bond Registrar. The Township may designate a new transfer agent by notice mailed to the registered holders of the Bonds not less than sixty (60) days prior to any change in transfer agent.

BOOK-ENTRY-ONLY: The Bonds will be issued in book-entry-only form as one fully registered bond per maturity and will be registered in the name of Cede & Co., as bondholder and nominee for The Depository Trust Company (“DTC”), New York, New York. DTC will act as securities depository for the Bonds. Purchase of the Bonds will be made in book-entry-only form, in the denomination of \$5,000 or any multiple thereof. Purchasers will not receive certificates representing their interest in Bonds purchased. It will be the responsibility of the purchaser to obtain DTC eligibility. Failure of the purchaser to obtain DTC eligibility shall not constitute cause for a failure or refusal by the purchaser to accept delivery of and pay for the Bonds.

PURPOSE AND SECURITY: The Bonds are being issued pursuant to Act No. 34, Public Acts of Michigan, 2001, as amended (the “Act”), for the purpose of refunding a portion of the Township’s outstanding Capital Improvement Bonds (Oak Pointe Sewer System Project), Series 2014 (Limited Tax General Obligation) issued on August 7, 2014 (the “Bonds To Be Refunded”) and paying the costs of issuance of the Bonds. The principal of and interest on the Bonds shall be payable from revenue generated from the debt service charges paid by users of the Township’s Oak Pointe wastewater system. In the event that the revenue from the debt service charges is not sufficient the Township intends to use the reserve funds and/or the operation and maintenance funds from the Township’s Oak Pointe wastewater system to pay the debt service on the Bonds. Additionally, the Township has pledged its limited tax full faith and credit as additional security for the payment of the principal of and interest on the Bonds. Pursuant to such pledge, should other revenue be insufficient to pay the principal of and interest on the Bonds, the Township has agreed to pay the principal of and interest on the Bonds as a first budget obligation from its general funds, including the collection of any ad valorem taxes which the Township is authorized to levy, but any such levy shall be subject to applicable constitutional, charter and statutory tax rate limitations. The rights and remedies of bondholders may be affected by bankruptcy, insolvency, fraudulent conveyance or other laws affecting creditors’ rights generally now existing or hereafter enacted, and by the application of general principles of equity, including those relating to equitable subordination.

AWARD OF BONDS: The Bonds will be awarded to the bidder whose bid produces the lowest true interest cost determined in the following manner: the lowest true interest cost will be the single interest rate (compounded on May 1, 2020, and semiannually thereafter) necessary to discount the debt service payments from their respective payment dates to the estimated date of delivery of the Bonds (October __, 2020), in an amount equal to the price bid, excluding accrued interest. Each bidder shall state in its bid the true interest cost to the Township, compounded in the manner specified above.

LEGAL OPINION: Bids shall be conditioned upon the approving opinion of Dykema Gossett PLLC, Lansing, Michigan ("Bond Counsel"), an original of which will be furnished without expense to the purchaser of the Bonds at the delivery thereof. The fees of Dykema Gossett PLLC for services rendered in connection with such approving opinion are expected to be paid from Bond proceeds. Except to the extent necessary to issue its approving opinion as to validity of the above Bonds, Bond Counsel has not been requested to examine or review and has not examined or reviewed any financial documents, statements or materials that have been or may be furnished in connection with the authorization, issuance or marketing of the Bonds, and accordingly will not express any opinion with respect to the accuracy or completeness of any such financial documents, statements or materials. In submitting a proposal for the Bonds, the bidder agrees to Dykema Gossett PLLC serving as bond counsel to the Township.

TAX MATTERS: In the opinion of Bond Counsel, interest on the Bonds is included in gross income for federal income tax purposes.

OFFICIAL STATEMENT: A copy of the Official Statement with respect to the Bonds (the "Official Statement") may be obtained by contacting PFM Financial Advisors LLC at the address and telephone number listed in the ADDITIONAL INFORMATION paragraph below. The Official Statement is in a form deemed final as of its date by the Township for purposes of SEC Rule 15c2-12, but is subject to revision, amendment and completion of a final Official Statement. The successful bidder shall supply to the Township, within twenty-four hours after the award of the Bonds, all pricing information and any underwriter identification determined by bond counsel to be necessary to complete the Official Statement.

The Township will furnish to the successful bidder, at no cost, 50 copies of the Official Statement within seven business days after the award of the Bonds. Additional copies will be supplied upon the bidder's agreement to pay to the Township the cost for those additional copies.

The Township shall deliver, at closing, an executed certificate to the effect that as of the date of delivery the information contained in the Official Statement, including revisions, amendments and completions as necessary, relating to the Township and the Bonds is true and correct in all material respects, and that such Official Statement does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

CONTINUING DISCLOSURE: As more fully described in the Official Statement, the Township has agreed in its Continuing Disclosure Undertaking to provide or cause to be provided, in accordance with the requirements of Rule 15c2-12 promulgated by the Securities and Exchange Commission, (i) on or prior to the 180th day after the end of the Township's fiscal year, certain annual financial information and operating data, including audited financial statements for the preceding fiscal year, generally consistent with the information contained or cross-referenced in the Official Statement relating to the Bonds, (ii) timely notice of the occurrence of certain material events with respect to the Bonds, and (iii) timely notice of a failure by such entity to provide the required annual financial information on or before the date specified in (i) above.

BOND INSURANCE AT PURCHASER'S OPTION: If the Bonds qualify for issuance of any policy of municipal bond insurance or commitment therefor at the option of the bidder/purchaser, the purchase of any such insurance policy or the issuance of any such commitment shall be at the sole option and expense of the purchaser of the Bonds. Any increased costs of issuance of the Bonds resulting from such purchase of insurance shall be paid by the purchaser. Failure of the municipal bond insurer to issue such policy after the Bonds have been awarded to the purchaser shall not constitute cause for failure or refusal by the purchaser to accept delivery of the Bonds from the Township.

CUSIP NUMBERS: CUSIP identification numbers will be printed on the Bonds at the Township's expense, but neither the failure to print the numbers nor any error with respect thereto shall constitute cause for refusal by the purchaser to accept delivery of the Bonds. The CUSIP Service Bureau charge for the assignment of numbers shall be the responsibility of and paid for by the purchaser of the Bonds.

DELIVERY OF BONDS: The Township will furnish Bonds ready for execution at its expense. Bonds will be delivered without expense to the purchaser through the services of DTC. The usual closing documents, including a certificate that no litigation is pending affecting the issuance of the Bonds, will be delivered at the time of delivery of the Bonds. Payment for the Bonds shall be made in Federal Reserve Funds. If the Bonds are not tendered for delivery by twelve o'clock noon, Eastern Time, on the 45th day following the date of sale, or the first business day thereafter if such 45th day is not a business day, the successful bidder may on that day, or any time thereafter until delivery of the Bonds, withdraw its proposal by serving notice of cancellation, in writing. Payment for the Bonds shall be made in Federal Reserve Funds. Accrued interest to the date of delivery of the Bonds shall be paid by the purchaser at the time of delivery.

BIDDER CERTIFICATION REGARDING NOT "IRAN-LINKED BUSINESS": By submitting a bid, the bidder shall be deemed to have certified that it is not an "Iran-Linked Business" as defined in Act 517, Michigan Public Acts of 2012, being MCL 129.311 et. seq.

ADDITIONAL INFORMATION: Additional information may be obtained from the Township's municipal advisor, PFM Financial Advisors LLC, 305 E. Eisenhower Parkway, Suite 112, Ann Arbor, Michigan 48108 (telephone (734/994-9700)).

THE TOWNSHIP RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS.

ENVELOPES containing the bids should be plainly marked "Proposal for Genoa Charter Township Capital Improvement Refunding Bonds (Oak Pointe Sewer System Project), Series 2020."

Genoa Charter Township

By: Robin Hunt, Treasurer

Attachment 2
Financial Analysis



REFUNDING SAVINGS BY SERIES

Genoa Charter Township
 Capital Improvement Refunding Bonds, Series 2020
 Limited Tax General Obligation
 Federally Taxable
 Maturity-by-Maturity Savings Analysis
 Preliminary - Subject to Change

Series	Total Par	Refunded Par	Refunding Par	Refunding Savings	Savings Percent
Capital Improvement Bonds, Series 2014	4,505,000	4,255,000	4,635,932.83	321,203.81	7.549%
	4,505,000	4,255,000	4,635,932.83	321,203.81	7.549%

Assumptions:

Delivery Date	11/19/2020
Issuance Expenses	2.000%
Refunding Series	2020_14
Escrow Size Based on	Lesser of yield or Current (SLG)
Interest accrued through delivery is	Funded by escrow
Savings Expressed as a Percent of	Par of refunded bonds



REFUNDING CANDIDATES

Genoa Charter Township
 Capital Improvement Refunding Bonds, Series 2020
 Limited Tax General Obligation
 Federally Taxable
 Maturity-by-Maturity Savings Analysis
 Preliminary - Subject to Change

Refunded Maturity	Coupon	Refunded Par	Call Date	Call Price	Escrow Rate	New Yield	Refunding Par	Savings	% Savings	Negative Arb	Negative Arb %	Savings Efficiency	Cum. % Savings	Selected for Refund
Capital Improvement Bonds, Series 2014														
11/01/2023	3.000%	250,000	11/01/2022	100.000	0.130%	0.560%	269,738.66	(1,541.78)	(0.617%)	2,155.57			(0.617%)	No
11/01/2024	3.000%	260,000	11/01/2022	100.000	0.130%	0.714%	280,528.21	2,969.61	1.142%	3,038.99	102.3%	49.4%	0.280%	Yes
11/01/2025	3.000%	270,000	11/01/2022	100.000	0.130%	0.864%	291,317.75	6,973.10	2.583%	3,959.26	56.8%	63.8%	1.077%	Yes
11/01/2026	3.000%	280,000	11/01/2022	100.000	0.130%	1.149%	302,107.30	8,035.92	2.870%	5,680.58	70.7%	58.6%	1.551%	Yes
11/01/2027	3.000%	290,000	11/01/2022	100.000	0.130%	1.259%	312,896.85	11,034.07	3.805%	6,509.92	59.0%	62.9%	2.035%	Yes
11/01/2028	3.000%	300,000	11/01/2022	100.000	0.130%	1.521%	323,686.39	9,867.88	3.289%	8,271.08	83.8%	54.4%	2.263%	Yes
11/01/2029	3.250%	315,000	11/01/2022	100.000	0.130%	1.621%	341,475.35	16,623.10	5.277%	9,325.48	56.1%	64.1%	2.746%	Yes
11/01/2030	3.250%	325,000	11/01/2022	100.000	0.130%	1.721%	352,315.84	18,473.09	5.684%	10,254.50	55.5%	64.3%	3.163%	Yes
11/01/2031	3.500%	335,000	11/01/2022	100.000	0.130%	1.871%	364,862.85	24,525.14	7.321%	11,580.09	47.2%	67.9%	3.694%	Yes
11/01/2032	4.000%	350,000	11/01/2022	100.000	0.130%	1.961%	384,765.85	41,626.29	11.893%	12,785.67	30.7%	76.5%	4.658%	Yes
11/01/2033	4.000%	365,000	11/01/2022	100.000	0.130%	2.071%	401,255.82	44,085.73	12.078%	14,116.07	32.0%	75.7%	5.469%	Yes
11/01/2034	4.000%	375,000	11/01/2022	100.000	0.130%	2.171%	412,249.13	45,663.20	12.177%	15,231.78	33.4%	75.0%	6.146%	Yes
11/01/2035	4.000%	390,000	11/01/2022	100.000	0.130%	2.271%	428,739.09	47,108.66	12.079%	16,597.36	35.2%	73.9%	6.710%	Yes
11/01/2036	4.000%	400,000	11/01/2022	100.000	0.130%	2.421%	439,732.40	44,218.02	11.055%	18,183.01	41.1%	70.9%	7.096%	Yes
		4,505,000					4,905,671.49	319,662.03		137,689.36				

Assumptions:

Delivery Date	11/19/2020
Issuance Expenses	2.000%
Refunding Series	2020_14
Escrow Size Based on	Lesser of yield or Current (SLG)
Interest accrued through delivery is	Funded by escrow
Savings Expressed as a Percent of	Par of refunded bonds

Notes

- * Negative Arbitrage % is equal to Negative Arbitrage divided by Individual Savings.
- ** Savings Efficiency is equal to Individual Savings divided by the sum of Negative Arbitrage and Individual Savings.

SAVINGS

Genoa Charter Township
 Capital Improvement Refunding Bonds, Series 2020
 Limited Tax General Obligation
 Federally Taxable
 Level Savings Structure
 Preliminary - Subject to Change

Date	Prior Debt Service	Refunding Debt Service	Savings	Annual Savings	Present Value to 11/19/2020 @ 1.8603989%
05/01/2021	74,862.50	34,704.52	40,157.98		39,824.73
11/01/2021	74,862.50	93,560.58	(18,698.08)	21,459.90	(18,372.02)
05/01/2022	74,862.50	38,426.65	36,435.85		35,470.53
11/01/2022	74,862.50	88,426.65	(13,564.15)	22,871.70	(13,083.09)
05/01/2023	74,862.50	38,292.40	36,570.10		34,948.02
11/01/2023	74,862.50	88,292.40	(13,429.90)	23,140.20	(12,715.93)
05/01/2024	74,862.50	38,152.40	36,710.10		34,438.15
11/01/2024	334,862.50	348,152.40	(13,289.90)	23,420.20	(12,352.50)
05/01/2025	70,962.50	37,045.70	33,916.80		31,233.94
11/01/2025	340,962.50	352,045.70	(11,083.20)	22,833.60	(10,112.44)
05/01/2026	66,912.50	35,684.90	31,227.60		28,229.83
11/01/2026	346,912.50	355,684.90	(8,772.40)	22,455.20	(7,857.18)
05/01/2027	62,712.50	33,846.50	28,866.00		25,616.16
11/01/2027	352,712.50	358,846.50	(6,134.00)	22,732.00	(5,393.24)
05/01/2028	58,362.50	31,800.63	26,561.87		23,138.96
11/01/2028	358,362.50	361,800.63	(3,438.13)	23,123.74	(2,967.47)
05/01/2029	53,862.50	29,290.98	24,571.52		21,012.36
11/01/2029	368,862.50	369,290.98	(428.48)	24,143.04	(363.04)
05/01/2030	48,743.75	26,535.28	22,208.47		18,643.15
11/01/2030	373,743.75	371,535.28	2,208.47	24,416.94	1,836.84
05/01/2031	43,462.50	23,566.55	19,895.95		16,395.44
11/01/2031	378,462.50	373,566.55	4,895.95	24,791.90	3,997.37
05/01/2032	37,600.00	20,292.30	17,307.70		14,000.88
11/01/2032	387,600.00	380,292.30	7,307.70	24,615.40	5,857.01
05/01/2033	30,600.00	16,762.50	13,837.50		10,988.32
11/01/2033	395,600.00	386,762.50	8,837.50	22,675.00	6,953.16
05/01/2034	23,300.00	12,931.15	10,368.85		8,082.81
11/01/2034	398,300.00	382,931.15	15,368.85	25,737.70	11,870.03
05/01/2035	15,800.00	8,914.80	6,885.20		5,268.73
11/01/2035	405,800.00	388,914.80	16,885.20	23,770.40	12,801.90
05/01/2036	8,000.00	4,599.90	3,400.10		2,554.10
11/01/2036	408,000.00	384,599.90	23,400.10	26,800.20	17,415.81
	5,894,537.50	5,515,550.38	378,987.12	378,987.12	327,361.31

Savings Summary

PV of savings from cash flow	327,361.31
Plus: Refunding funds on hand	3,877.14
Net PV Savings	331,238.45

SAVINGS

Genoa Charter Township
 Capital Improvement Refunding Bonds, Series 2020
 Limited Tax General Obligation
 Federally Taxable
 Accelerated Savings Structure
 Preliminary - Subject to Change

Date	Prior Debt Service	Refunding Debt Service	Savings	Annual Savings	Present Value to 11/19/2020 @ 1.8798575%
05/01/2021	74,862.50	35,939.97	38,922.53		38,596.18
11/01/2021	74,862.50	39,933.30	34,929.20	73,851.73	34,313.81
05/01/2022	74,862.50	39,933.30	34,929.20		33,994.29
11/01/2022	74,862.50	39,933.30	34,929.20	69,858.40	33,677.74
05/01/2023	74,862.50	39,933.30	34,929.20		33,364.14
11/01/2023	74,862.50	39,933.30	34,929.20	69,858.40	33,053.46
05/01/2024	74,862.50	39,933.30	34,929.20		32,745.68
11/01/2024	334,862.50	279,933.30	54,929.20	89,858.40	51,015.91
05/01/2025	70,962.50	39,076.50	31,886.00		29,338.60
11/01/2025	340,962.50	369,076.50	(28,114.00)	3,772.00	(25,627.07)
05/01/2026	66,912.50	37,650.90	29,261.60		26,424.78
11/01/2026	346,912.50	372,650.90	(25,738.40)	3,523.20	(23,026.71)
05/01/2027	62,712.50	35,726.33	26,986.17		23,918.21
11/01/2027	352,712.50	375,726.33	(23,013.83)	3,972.34	(20,207.53)
05/01/2028	58,362.50	33,586.03	24,776.47		21,552.66
11/01/2028	358,362.50	378,586.03	(20,223.53)	4,552.94	(17,428.31)
05/01/2029	53,862.50	30,962.30	22,900.20		19,551.26
11/01/2029	368,862.50	390,962.30	(22,099.80)	800.40	(18,692.21)
05/01/2030	48,743.75	28,044.50	20,699.25		17,344.59
11/01/2030	373,743.75	393,044.50	(19,300.75)	1,398.50	(16,022.14)
05/01/2031	43,462.50	24,903.68	18,558.82		15,262.79
11/01/2031	378,462.50	394,903.68	(16,441.18)	2,117.64	(13,395.33)
05/01/2032	37,600.00	21,442.33	16,157.67		13,041.76
11/01/2032	387,600.00	401,442.33	(13,842.33)	2,315.34	(11,068.88)
05/01/2033	30,600.00	17,716.43	12,883.57		10,206.28
11/01/2033	395,600.00	407,716.43	(12,116.43)	767.14	(9,509.18)
05/01/2034	23,300.00	13,677.98	9,622.02		7,481.21
11/01/2034	398,300.00	403,677.98	(5,377.98)	4,244.04	(4,142.49)
05/01/2035	15,800.00	9,444.53	6,355.47		4,849.84
11/01/2035	405,800.00	409,444.53	(3,644.53)	2,710.94	(2,755.23)
05/01/2036	8,000.00	4,902.53	3,097.47		2,319.85
11/01/2036	408,000.00	409,902.53	(1,902.53)	1,194.94	(1,411.63)
	5,894,537.50	5,559,741.15	334,796.35	334,796.35	318,766.30

Savings Summary

PV of savings from cash flow	318,766.30
Plus: Refunding funds on hand	3,877.14
Net PV Savings	322,643.44

Attachment 3
Draft Financing Timetable



DRAFT FINANCING TIMETABLE
Genoa Charter Township
County of Livingston, State of Michigan
Capital Improvement Refunding Bonds (Oak Pointe Sewer System Project), Series 2020
(Limited Tax General Obligation)
(Federally Taxable)

SEPTEMBER							OCTOBER							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5					1	2	3	1	2	3	4	5	6	7
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
27	28	29	30				25	26	27	28	29	30	31	29	30					

DATE	✓ ACTION REQUIRED	RESPONSIBLE PARTY
Tue, Sep 08, 2020	✓ PFM to provide Bond Counsel with Bond specifications	BC
Wed, Sep 16, 2020	✓ Bond Counsel provided Township with Draft Bond Authorizing Resolution for Board Meeting Packets	BC
Fri, Sep 18, 2020	PFM to request information for Preliminary Official Statement	PFM
Mon, Sep 21, 2020	Township Board of Trustees to approve bond authorizing resolution	Township
Mon, Sep 28, 2020	PFM to circulate draft Preliminary Official Statement ("POS") to working group for review/comment	PFM
Mon, Sep 28, 2020	Bond rating requested	PFM
Tue, Oct 06, 2020	Tentative Due diligence call on POS (Time: TBD)	All Parties
Thu, Oct 08, 2020	PFM to recirculate updated draft POS to working group for final review and provide updated draft POS to rating agency	PFM
Mon, Oct 12, 2020	<i>Indigenous Peoples Day - Bond Markets Closed</i>	
Week of October 5th or 12th	Rating Agency call	PFM / Township
Thu, Oct 15, 2020	POS published / distributed	PFM
Tue, Oct 20, 2020	Credit rating due	PFM / Township
Tue, Oct 20, 2020	Official Notice of Sale published	BC
Wed, Oct 28, 2020	Tentative Bond Sale and Award of Bonds (11:00 am)	All parties
Tue, Nov 03, 2020	Draft closing memo distributed	PFM
Wed, Nov 04, 2020	Print Final Official Statement	PFM
Fri, Nov 13, 2020	Final closing memo distributed	PFM
Tue, Nov 17, 2020	Tentative Bond closing - via phone/wire	All parties
November 2020	Security report filed with Department of Treasury	BC

Legend:

Township = Genoa Charter Township
 BC = Dykema Gossett PLLC (Bond Counsel)
 PFM = PFM Financial Advisor LLC (Financial Advisor)



MEMORANDUM

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

TO: Honorable Board of Trustees
FROM: Kelly VanMarter, Assistant Township Manager
DATE: September 16, 2020
RE: **Partlund Development – Building and Site Improvements**
2700 E. Grand River, Howell

MANAGER'S REVIEW: 

Attached please find the project file associated with building renovations and site improvements for an existing commercial building located at 2700 E. Grand River Avenue in Howell. This site is the former location of Tenpenny Furniture and is currently being renovated for commercial use as a multi-tenant building. This project was granted a land use permit for building renovations last year. Since that time, the scope of proposed improvements including a new deck area along the rear of the building and reconfiguration of the parking lot exceed what staff is authorized to approve thus requiring site plan review and approval.

Procedurally, the Planning Commission has review and approval authority over the site plan and the Township Board has final approval authority over the impact assessment. The Planning Commission approved the site plan and recommended approval of the impact assessment at their meeting held on Monday, September 14, 2020. In support of the Planning Commission's recommended conditions I offer the following motion for your consideration:

Moved by _____, support by _____ to approve the environmental impact assessment dated August 18, 2020 with the condition that all requirements of the Planning Commission motion in regard to both the site plan and the impact assessment be satisfied.

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

Sincerely,



Kelly VanMarter
Assistant Township Manager/Community Development Director

SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Sean W. Ledford

Tim James Mortensen

Debbie Croft

Christiana 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: Partlund Development LLC.

If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Partlund Development llc: 29205 Ryan Rd. Warren, MI 48092

SITE ADDRESS: 2700 E. Grand River Ave, Howell, MI 48843 PARCEL #(s): 11-06-200-102

APPLICANT PHONE: (248)318-7875 OWNER PHONE: (517)212-7976

OWNER EMAIL: matt@partykapc.com

LOCATION AND BRIEF DESCRIPTION OF SITE: On Grand River East of Chilson at the former Tenpenny

Furniture retail store. Existing building has painted CMU on the rear in obsolete condition.

The parking for public was limited to the front, with employee parking in the rear

and space available for loading. HVAC equipment was at ground level around the building.

BRIEF STATEMENT OF PROPOSED USE: Building has a permit for the facade to accommodate multiple tenants.

Site work will be done to increase public parking and landscaping on the sides and rear of the building.

Rear access will be added to reduce foot travel to the business use space.

THE FOLLOWING BUILDINGS ARE PROPOSED: No new buildings proposed.

Request is for the exterior renovation of the rear of the building to include a balcony

that extend to all suites and accessible from East, West, and South Parking lot.

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: Matt Partyka

ADDRESS: 29205 Ryan Rd., Warren, MI 48092

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

1.) Shaun Toole of Project Manager at stoole@napierskiconstruction.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: Matthew Partyka DATE: 7-14-2020
PRINT NAME: Matthew Partyka PHONE: 586-751-7100
ADDRESS: 29205 Ryan Road Warren MI 48092

Mr. Borden stated that nothing has changed since the original plan. He has reviewed the Township Ordinance to see if there were any changes that would affect this project and there were none.

Mr. Markstrom reviewed his letter dated September 9, 2020.

- The proposed site plan and gravel access drive will need to be approved by the Brighton Area Fire Authority and this approval should be provided to the Township prior to site plan approval.
- The proposed addition will increase the net impervious area on the site, but the existing on-site detention basins are shown to have adequate capacity. Additional spot elevations near the corner of the building, indicating positive drainage towards the existing detention basin should be added to the construction plan. This comment was on the January 2015 review letter also.

Vice-Chairman Rauch advised Mr. Dewitt that the concerns noted in the Fire Marshal's letter dated September 8, 2020 shall be addressed. Mr. Dewitt's architect has reviewed the letter and will be working with them to address their requirements. He added that there may be areas where the applicant and the Fire Marshal can compromise some of his comments in their letter.

The call to the public was made at 8:21 pm with no response.

Moved by Commissioner Mortensen, seconded by Commissioner McBain, to recommend to the Township Board approval of the Environmental Impact Assessment dated July 28, 2020 for Tadbak, LLC. **The motion carried unanimously.**

Moved by Commissioner Mortensen, seconded by Commissioner Dhaenens, to approve the Site Plan dated July 27, 2020 for Dewitt Radiology, subject to the following:

1. The applicant shall meet the requirements listed in the Township Engineer's letter dated September 9, 2020.
2. The applicant shall work with the Fire Marshal to address his concerns.

The motion carried unanimously.

OPEN PUBLIC HEARING #3 Review of a site plan and environmental impact assessment for proposed exterior building renovations and site improvements to the existing commercial building located at 200 E Grand River Avenue on the south side of Grand River, east of Chilson Road. The request is petitioned by Partlund Development, LLC.

- A. Recommendation of Environmental Impact Assessment (8-18-2020)
- B. Disposition of Site Plan (8-18-2020)

Mr. Shawn Toole, the project manager, Steve Baibak of Desine Inc, and Todd Ballou, the architect, was present.

Mr. Toole stated they are working on the former Tenpenny Furniture store at 2700 East Grand River and are requesting to increase the size of the rear parking lot.

Mr. Baibak stated this will be an improvement to the site. They would be increasing the permeable area of the greenspace, adding landscaping, and increasing the quality of the asphalt.

Mr. Borden reviewed his letter dated September 2, 2020.

- If the Commission considers favorable action on the site plan, it should be conditioned upon execution of the proposed land transfer between the subject site and the adjacent property to the east. Ms. VanMarter stated that this land transfer is pending at this time.
- The applicant is deficient in the side and rear parking lot setbacks. The Planning Commission may reduce side and rear parking setbacks given the use of shared drives and connected parking lots.
- The applicant must provide lot coverage calculation for both building and impervious surfaces.
- He would like the applicant to present building material samples or a color rendering to the Planning Commission.
- He agrees that the applicant is adding additional landscaping; however, the landscape plan is deficient in greenbelt, parking lot, and buffer zone plantings along both sides and the rear setback. He acknowledges the difficulty in adding plantings to the greenbelt area in the front of the site. The Planning Commission has discretion over the waiving of this requirement.
- Light fixture and pole details must be provided as part of a lighting plan.
- Maximum lighting intensities are exceeded along the east and rear property lines.
- The applicant must obtain a sign permit from the Township prior to installation of any new signage.

Mr. Baibak has sent photometric plan back to the lighting engineer and he is confident that they can meet the Ordinance requirements. They can add some additional landscaping, such as shrubs and trees in the area noted and he agrees that adding plantings to the front of the site would be difficult.

Mr. Markstrom reviewed his letter dated September 9, 2020.

- The Petitioner is proposing to discharge the onsite drainage to an existing retention pond on the parcel to the south. The petitioner has provided calculations to show that the proposed site improvements lower the amount of impervious surface on the site. A drainage easement should be obtained and provided to the Township as part of the site plan approval. The Petitioner should also obtain approval from the Livingston County Drain Commissioner. He noted that the Drain Commissioner is withholding approval until comments in their letter dated August 28, 2020 have been addressed.
- The revised site plan no longer proposes a fire suppression lead. The petitioner should verify this is correct.
- The proposed 8-inch water main will be public and should be shown in a 25-foot-wide water main easement.

- Once the site plan is approved, construction plans must be submitted to MHOG for review and permitting through EGLE.

Vice-Chairman Rauch asked the applicant if they have received the Fire Marshal's letter dated August 8, 2020. Mr. Baibak stated he has and they will be able to meet all of his requirements.

Vice-Chairman Rauch stated the Livingston County Drain Commissioner's letter was included in the review letters and these issues and concerns will have to be addressed.

Commissioner McCreary asked how many tenants will be allowed. Mr. Poole showed the site plan and colored renderings, showing that there are three addresses for the building; however, it is being built to accommodate up to eight tenants.

The call to the public was made at 8:56 pm with no response.

Moved by Commissioner Mortensen, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Environmental Impact Assessment dated August 18, 2020 for the building located at 2700 East Grand River. **The motion carried unanimously.**

Moved by Commissioner Mortensen, seconded by Commissioner Dhaenans, to approve the Site Plan dated August 18, 2020 for the building located at 2700 East Grand River, subject to the following:

- Execution and recording of a land transfer agreement between this site and the adjacent property to the east shall be prepared and submitted to the Township.
- The applicant will provide lot coverage calculations to Township Staff to ensure the building and lot face coverage are within the Township Ordinance.
- The building and colored renderings are acceptable and will become Township property.
- The landscape plan is deficient in various plantings and recognizing the difficulty of the site, the applicant will work with Township staff for appropriate plantings.
- The applicant will provide light fixture and pole details to Township Staff and demonstrate that lighting intensities will not exceed the Township Ordinance across the east and rear property lines.
- The requirements of the Township engineer's letter dated September 2, 2020 shall be met.
- The requirements of the Livingston County Drain Commissioner's letter dated August 28, 2020 shall be met.
- The requirements of the Brighton Area Fire Authority Fire Marshal's letter dated August 28, 2020 shall be met.

The motion carried unanimously.

September 2, 2020

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Partlund Development, LLC – Site Plan Review #2
Location:	2700 East Grand River Avenue – south side of Grand River, east of Chilson Road
Zoning:	GCD General Commercial District

Dear Commissioners:

At the Township’s request, we have reviewed the revised submittal from Partlund Development, LLC requesting site plan review/approval for exterior building renovations and site improvements to the existing commercial building at 2700 East Grand River Road (plans dated August 18, 2020).

A. Summary

1. If the Commission considers favorable action on the site plan, it should be conditioned upon execution of the proposed land transfer between the subject site and the adjacent property to the east.
2. The Commission may reduce side and rear parking setbacks given the use of shared drives and connected parking lots.
3. The applicant must provide lot coverage calculations (both building and impervious surfaces).
4. We request the applicant present building material and color samples (or a color rendering) to the Commission.
5. The landscape plan is deficient in greenbelt, parking lot, and buffer zone plantings.
6. Light fixture and pole details must be provided as part of a lighting plan.
7. Maximum lighting intensities are exceeded along the east side and rear property lines.
8. The applicant must obtain a sign permit from the Township prior to installation of any new signage.

B. Proposal/Process

The project entails an exterior renovation of the existing building, including a new deck area along the rear of the building.

Site improvements to the existing parking lot, landscaping, lighting, and waste receptacle/enclosure are also proposed.

Internally, the building be divided up for use by multiple office and/or commercial tenants. Since specific uses are not identified at this time, we encourage the applicant to review host of allowable uses in the GCD (Table 7.02 of the Township Zoning Ordinance).

If a future use is identified as a special land use, the applicant must go through the review process outlined in Article 19 of the Township Zoning Ordinance.

Procedurally, the Planning Commission has review and approval authority over the site plan, though the Township Board has the final approval authority over the Impact Assessment.



Aerial view of site and surroundings (looking south)

C. Site Plan Review

1. Dimensional Requirements. The project has been reviewed for compliance with the dimensional requirements of the GCD, as follows:

	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		
GCD	1	150	70	15	50	20 front 10 side/rear	35% building 75% impervious	35
Proposed	2.19	321	17	49 (E) 40 (W)	82	0 front 2 side (E) 16 (W) 5 rear	Not provided	23.3

The front yard building and parking lot setbacks are existing nonconforming conditions that are not being altered.

The east side and rear parking lot setbacks are newly created conditions; however, the Planning Commission may reduce or waive side and/or rear parking lot setbacks where a shared access driveway or connected parking lots are provided (Section 14.06.11).

Additionally, the applicant must provide lot coverage calculations to ensure strict compliance.

2. Building Materials and Design. The proposed building elevations include the use of brick, block, glass, and EIFS.

Material calculations are not provided; however, it is apparent that the majority of the building is faced with brick and there is only a limited amount of EIFS along the cornice/parapet line.

The overall design incorporates both vertical and horizontal elements, as well as numerous windows, to help break up the length of each façade.

In our opinion, the proposed façade renovations reflect a vast improvement from the previous combination of design and materials, though the Commission has final approval authority over the proposal.

We request the applicant present material and color samples (or a color rendering) to the Commission for their consideration.

- 3. Pedestrian Circulation.** As required by Section 12.05, the plan proposes an 8-foot wide concrete pathway within the Grand River Avenue right-of-way. The design includes barrier-free ramps at both driveways, as well as a pedestrian connection to the front of the building (with ramps and a crosswalk).

Sidewalks are also provided around the building, with those sections adjacent to the parking lot providing a 7-foot width to accommodate vehicle overhang.

- 4. Vehicular Circulation.** The proposal will utilize 2 existing shared driveway connections providing access to/from Grand River Avenue.

Internal circulation includes both one-way and two-way drive aisles. The front parking lot utilizes a one-way pattern (from west to east), while the remainder of the site provides for two-way circulation.

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

	Required	Proposed	Comments
Parking Spaces General retail (1 space/250 SF gross floor area)	90	90	In compliance
Barrier Free Spaces	4	4	In compliance
Dimensions Spaces (75 to 90-degree)	9' x 18'	9' x 16'	Depth is compliant given 2' overhang provided
Drive aisle width (one-way)	15'	16'	In compliance
Drive aisle width (two-way)	24'	26'	In compliance

The project also includes a large loading/unloading area at the rear of the site.

- 6. Landscaping.** The landscape plan (Sheet LA) 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 8 canopy trees	0' width 0 canopy trees	Width is an existing condition. Tree plantings would be in the r-o-w
Parking lot	9 canopy trees 900 SF landscaped area	2 canopy trees 1 evergreen tree 4 ornamental trees More than 900 SF	We suggest additional trees be provided in the SE portion of the site
Buffer zone "C" (south)	10' width 12 trees or 48 shrubs (or combination thereof)	5' width 1 existing tree	Due to limited space, we suggest required shrubs be provided
Buffer zone "C" (west)	10' width 10 trees or 40 shrubs (or combination thereof)	0' width 0 plantings	All but the south 15' contains a shared driveway
Buffer zone "C" (east)	10' width 10 trees or 40 shrubs (or combination thereof)	2' to 8' width 4 proposed trees	We suggest additional required trees or shrubs be provided

In accordance with Section 12.02.13, the Planning Commission may waive or modify landscaping requirements.

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	15' x 18' concrete pad	Requirement met
Enclosure	Must have lid 3-sided enclosure w/ gate Masonry walls 6' height	Lid must be provided 3 sides w/ gate across 4 th Brick to match building 6' height	Requirements met

8. **Exterior Lighting.** The submittal includes the required photometric plan; however, fixture and pole details still are not provided.

The plan complies with the maximum on-site intensity allowed by Ordinance; however, there are still several readings along the east side and rear property lines that exceed the 1.0 footcandle limit.

9. **Signs.** The submittal does not include details of proposed signage, though the nonconforming sign in the front yard will be removed as part of the project.

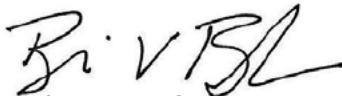
For the applicant's reference, the Township's sign regulations are contained in Article 16 of the Zoning Ordinance. The applicant should also be aware that a sign permit must be obtained prior to installation of any new signage.

10. **Impact Assessment.** The submittal includes a revised Impact Assessment dated August 18, 2020.

In summary, the Assessment notes that the project is not anticipated to adversely impact natural features, public services/utilities, or surrounding land uses.

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

Respectfully,
SAFE BUILT STUDIO



Brian V. Borden, AICP
 Planning Manager



September 9, 2020

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

**Re: Partlund Development
Conceptual Site Plan Review No. 2**

Dear Ms. Van Marter:

Tetra Tech conducted a second review of the proposed Partlund Development site plan last dated August 18, 2020. The plans and impact assessment were submitted by Desine Inc. on behalf of Partlund Development LLC. The site is a 2.19-acre parcel located at 2700 E. Grand River Avenue with an existing 20,000 square foot building. The petitioner is proposing to remove a portion of the existing building, remodel the building and install a new on-site storm sewer and parking lot.

After reviewing the site and impact assessment we offer the following:

SITE PLAN

1. The drive aisle to the west looks to be under a shared use with the parcel to the west. A shared use agreement between the two parcels should be provided to the Township for their records or a separation should be provided between the two drives.

DRAINAGE AND GRADING

1. The Petitioner is proposing to discharge the onsite drainage to an existing retention pond on the parcel to the south. The petitioner has provided calculations to show that the proposed site improvements lower the amount of impervious surface on the site. A drainage easement should be obtained and provided to the Township as part of the site plan approval. The Petitioner should also obtain approval from the Livingston County Drain Commissioner. Currently the Drain Commissioner is withholding approval until comments in their letter dated August 28, 2020 have been addressed.

WATER SERVICE

1. The revised site plan no longer proposes a fire suppression lead. The petitioner should verify this is correct.
2. The proposed 8-inch water main will be public and should be shown in a 25-foot-wide water main easement. Once the site plan is approved, construction plans must be submitted to MHOG for review and permitting through EGLE.

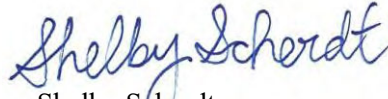
Ms. Kelly Van Marter
Re: Partlund Development Site Plan Review No. 2
September 9, 2020
Page 2

We recommend the petitioner revise the site plan to address the above comments prior to approval. Please call or email if you have any questions.

Sincerely,



Gary J. Markstrom, P.E.
Vice President



Shelby Scherdt
Project Engineer



BRIGHTON AREA FIRE AUTHORITY

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

August 28, 2020

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Partlund Development
2700 E. Grand River
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Authority has reviewed the above-mentioned site plan. The plans were received for review on August 19, 2020, and the drawings are dated August 18, 2020. The project is an existing 22,363 square foot mixed-use that is undergoing significant renovation and change of use to subdivide the building into a multi-tenant occupancy. The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

1. The building is proposed to be provided with an automatic sprinkler system in accordance with NFPA 13, *Standard for the Installation of Automatic Sprinkler Systems*. The following details are missing from the drawings

IFC 903

- A. The FDC is not shown, shall be located on the front of the building (Grand River) at the northeast corner of the building.
- B. The location, size, gate valves, and connection of the fire suppression lead shall be indicated on the utility site plan. The lead is shown on the architectural drawings (Sheet A4 & A5), however, it is shown as a 4-inch line. The size shall be increased to a 6-inch to comply with the township minimum standards and NFPA 13.
- C. The suppression lead is shown to be located approximately 32-feet inside the exterior wall of the building. The underground fire suppression lead is shown extending under the building in excess of the permitted 10-feet. The lead shall be relocated along the exterior wall and not extend beyond 10-feet into the structure. The location shall provide adequate access and room for system assembly.

NFPA 24 10.6.3

2. All utilities (gas meter, water meter/shutoffs, and electric service disconnects) shall be permanently labeled indicating the address and suite number serviced. Labeling shall be fade resistant and legible
3. The rear fire access drive shall be located between no less than 15-feet and 30-feet from the rear face of the building. With a minimum width of 26-feet wide, the building-side of the drive is marked as a fire lane. Additional sign locations may be required during inspections.

IFC 503.1 IFC D 103.6 IFC D 105.1

4. The location of the key boxes (Knox Box) shall be indicated on future submittals. A Knox Box shall



August 28, 2020

Page 2

Partlund Development

2700 E. Grand River.

Site Plan Review

be provided for each tenant space, adjacent to the front door of each space. This includes the central corridor. The Knox box will be located adjacent to the front door of the structure and installed on the latch side between 60-66" AFF.

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,

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

Rick Boisvert, FM, CFPS
Fire Marshal

cc: Amy Ruthig amy@genoa.org



Brian Jonckheere

Livingston County Drain Commissioner
2300 E. Grand River Ave., Ste. 105
Howell, MI 48843-7581
Phone: 517-546-0040 FAX: 517-545-9658
Website: www.livgov.com/drain Email: drain@livgov.com

August 28, 2020

Mr. Shaun Toole
Napierski Construction
274 S Hacker Rd
Brighton, MI 48114

Re: Partlund Development, LLC
Construction Plans
Northeast 1/4 of Section 8
Genoa Township

Dear Mr. Toole:

I received Construction Plans for the above referenced project on July 31, 2020. I note that this is the same site as was reviewed by in 2018 for the Volunteer's of America project. The submitted information has been reviewed for conformance with the L.C.D.C. "Procedures and Design Criteria for Stormwater Management Systems." Our comments on the proposed drainage design are as follows:

- 1.) Overall Drainage Concept - The 1.85 acre project site, located on the south side of Grand River Avenue approximately 1200 feet east of Chilson Road, was previously occupied by the Tenpenny Furniture Store. The currently proposed site improvements include the repaving of the existing parking lots around the building perimeter, the installation of an 8 foot wide concrete walk along the Grand River Avenue frontage, the installation of new parking lot islands on the south side of the building and the installation of concrete curbs around the parking lot perimeter. The site runoff

currently either sheet flows to the north into the Grand River Avenue Right-of-Way or to the south across the vacant portion of the adjacent Bob Maxey Ford site to an existing retention basin partially located within an easement on the Bob Maxey property. The runoff from proposed site improvements is to be collected by a proposed storm sewer system and routed to the offsite retention basin.

- 2.) Existing Conditions Plan - The property lines on Sheet EX should be labelled with their bearings and distances coinciding with those found in the Legal Description. It appears there is a typographical error within the Legal Description found on both the Cover Sheet and Sheet EX in the bearing for the 105.14 foot portion of the easterly property line. The following additional survey related items should also be addressed on the plans:
 - a.) The section corner ties for the parcel should be shown on Sheet EX, and the referenced section corner properly identified.
 - b.) Bench marks for the topographic survey information shown should be included on Sheet EX.
 - c.) The property line bearings shown on Sheet SP do not coincide with those found in the Legal Description on Sheet EX.
 - d.) The property area in acres, and/or square feet, should be noted on Sheet EX and Sheet SP.

- 3.) Stormwater Detention - No onsite stormwater detention currently exists or is being proposed as part of the site improvements. Previous discussions concerning proposed improvements on the adjacent Bob Maxey property revealed that the existing basin has experienced breaches and overflow along the west side of the basin. This may be in part due to the basin having insufficient volume capacity to meet the L.C.D.C. retention requirements based on its 20.60 acre tributary area. A petition under Chapter 3 of the Michigan Drain Code has since been filed to establish a viable outlet for the retention basin and that a Chapter 4 petition will be submitted in the next week.

During previous discussions, the owner of Bob Maxey Ford indicated some concern with the sheet flow coming off the site's existing parking areas. Given that the site runoff is now to be piped to the basin by the proposed storm sewers, I have no objection to allowing this site to continue to utilize the existing basin, provided that the following items are addressed:

- The petitioner reaches an agreement with Bob Maxey Ford regarding the stormwater discharge; and
 - Basin storage volume will be improved as part of the petitioned drain project such as to minimize future overflows to the southwest; and
 - The Partlund Development, LLC property will be part of the assessment district paying for the drainage & stormwater storage improvements.
- 4.) Storm Sewers - The proposed storm sewers have been designed to accommodate the runoff from a 10 year frequency storm. However, storm sewer profiles should be provided in the Construction Plans. These profiles should include complete drainage structure information, type of pipe, slope and backfill information, as well as all utility crossing information. Both the storm sewer plan and profile should show and identify a rip-rap apron at the discharge point into the existing retention basin.
- 5.) Site Grading - Offsite grading or a retaining wall will be required along the south property line, opposite the southeast building corner, where a fill of nearly four feet is proposed. Proposed contours should be shown around the parking lot perimeter to define the proposed grading limits. Any slopes steeper than 1V on 4H should be restored with topsoil, seed and staked mulch blankets (or sod) and so noted on the plans.
- 6.) Offsite Drainage Easement - A 20 foot minimum width easement should be provided for the proposed offsite storm sewer outlet. A stormwater retention/detention easement agreement should also be shown on the plans for the shared use of the existing retention basin.

Partlund Development, LLC
August 28, 2020
Page 4

I am withholding approval of the Construction Plans for the Partlund Development, LLC project until the above mentioned items have been addressed.

Very truly yours,



Kenneth E. Recker, II, P.E.
Chief Deputy Drain Commissioner

cc: Paul Lewsley, Environmental Engineers
Kelly VanMarter, Genoa Township
Gary Markstrom, TetraTech

PARTLUND DEVELOPMENT
Genoa Township, Michigan
Site Plan Application

IMPACT ASSESSMENT

Owner:

Partlund Development, L.L.C.
29205 Ryan Road
Warren, Michigan 48092

Prepared by:

DESINE INC.
2183 Pless Drive
Brighton, Michigan 48114

A. INTRODUCTION

This impact assessment has been prepared pursuant to Article 18 – SITE PLAN REVIEW of the Zoning Ordinance for the Township of Genoa, Livingston County, Michigan. This assessment addresses the impact of the proposed building additions and parking expansion on the surrounding community and the economic condition and social environment of the Township.

This Impact Assessment has been prepared under the direction of Wayne Perry, P.E., DESINE INC., 2183 Pless Drive, Brighton, Michigan 48114. Mr. Perry is a licensed Civil Engineer, providing professional engineering services in Livingston County since 1988 with experience in private and municipal development including projects within Genoa Township and Livingston County.

B. SITE LOCATION / DESCRIPTION

The site is comprised of a single parcel, containing 2.19 acres of property, bordered on the North by Grand River Avenue, Bob Maxey Ford on the East and South, and Eye Care One to the West, as shown on Figure 1. The parcel and all neighboring parcels are zoned General Commercial (GCD) district.

Adjacent uses include the retail optometrist, Eye Care One, immediately to the West and a new car dealership, Bob Maxey Ford to the East and South. The Bob Maxey Ford parcel bordering the subject parcel on the East is occupied by vehicle storage and along the South subject boundary the Bob Maxey Ford parcel is open space used for storm water drainage. Properties on the North Side of Grand River Avenue are retail and commercial usage.

The property currently contains an existing retail building, an existing out building, parking lot, and related improvements. The existing retail building was previously a furniture store with main sales floor, a basement, and high bay garage. The existing out building is a brick garage at the rear of the building. The existing out building will be demolished during the construction process. The existing parking lot is continuous with the parking lot for the neighboring Eye Care One to the West and shares an access drive with Bob Maxey Ford to the East. The Existing Conditions Plan provides a detailed overview of the existing site features.

The proposed development plan depicts site improvements to be constructed on the parcel. Improvements consist of remodeling the existing retail building with a new façade, interior, and rear deck. The existing floor space will also be divided up into multiple tenant spaces suitable for a wide variety of office and commercial uses. The site plan for the Partlund Development also includes a redesign of the parking area to provide a more organized parking area with more spaces than the existing parking area and better traffic flow at the front and rear of the structure. Included in the parking lot redesign is the installation of a new storm water collection and conveyance system, pole and building mounted exterior lighting, and new landscaping in green space areas surrounding the building and parking area.

Access to the property from is from Grand River Avenue via two shared approaches on the Easterly and Westerly property boundaries. The Westerly approach is shared with Eye Care One and the Easterly approach is shared with Bob Maxey Ford.

C. IMPACT ON NATURAL FEATURES

Natural features on the subject parcel are limited to grass along the Easterly property boundary and overhanging trees at the Southerly boundary. Existing topography of the parcel slopes from the Northwesterly property corner to the Southwesterly property boundary. The elevation of the property varies from an elevation of 973 at the front of the existing retail structure, to approximately 961 at the Southwesterly property boundary. Surface water drainage on the property generally flows to the Southwesterly.

Existing soils on the property are primarily Miami loam. These soils are generally moderately drained, moderately permeable loams. Soil classifications are prepared by the United States Department of Agriculture, Soil Conservation Service, and “Soil Survey of Livingston County”. The Soils Map, shown in Figure 3, shows the locations of specific soil types as classified.

The proposed construction and improvements will require filling and grading in the Southerly portion of the property to raise the proposed parking lot area to provide pavement slopes compliant with Township standards. Excavation will be required to construct the proposed storm water conveyance system along both sides and rear of the existing retail structure. Minimal excavation will be required to remove and replace the existing parking area on site.

The limits of disturbance for the project are the property boundaries and the right of way boundary with Grand River Avenue. Grading for this project will maintain the general character of the existing site. Development of this project will require earthwork to modify site grades with useable materials from the site, requiring the exporting of excess soil and importing of additional structural fill material. The proposed elevations and grading of the site mesh with the existing grades at the property lines.

Landscaping is proposed for the developed portion of the site to reduce the visual impact of the proposed project. All proposed landscaping areas are designed to bring the site more into compliance with Township standards within the constraints of available space on the subject parcel and have been designed to improve the aesthetics of the property. Within the developed portion of the site, areas not otherwise covered, shall have lawn or other vegetative surface cover established.

Surface drainage characteristics on the property will be affected by the renovation of the existing retail building and redesigned parking lot. Construction of the proposed improvements will reduce the impermeable area of the property resulting in a decrease in the surface water runoff generated. A storm water conveyance system has been designed to collect and control the surface water runoff from the parking area and building. The

ultimate outlet of stormwater has not been changed in this transition from sheet flow to concentrated flow.

The proposed changes and modifications to the surface drainage conditions will not significantly impact local aquifer characteristics or groundwater recharge capacity. All surface water runoff from the site will be directed into the open wooded area to the Southwest of the project area, keeping with the existing drainage path for runoff from the site. On site infiltration will be improved via the reduction of impermeable area on site and increased vegetation levels. The proposed storm water conveyance system will concentrate flow, but will not add any additional flow and will maintain the same outlet point. No significant impact to adjacent properties is anticipated from storm water runoff from the site.

Upland wildlife habitats on the property are minimal and consist of primarily field grass and overhanging tree branches along the Southwesterly property boundary. Wildlife supported in this area is generally smaller field animals and birds. Previous development and the existing use of the property, the adjoining developments and the proximity of Grand River, limits the existing upland habitat.

The project site does not currently support any significant wildlife habitat and the proposed construction will not have a significant impact on overall habitat quality. No significant adverse impact to natural features is anticipated due to the proposed re-development of this property.

D. IMPACT ON STORM WATER MANAGEMENT

Excavation and grading will be undertaken to construct the proposed stormwater conveyance system. The proposed parking lot is sloped to direct storm water flow into the storm water conveyance system. This system will discharge surface water runoff generated by development of the property to the open and wooded areas adjacent to the Southwesterly property boundary. Site grading will mesh with existing grades on adjoining properties. No adverse impact to adjoining properties is anticipated due to the construction and grading of the property.

Surface water runoff generated from all improved areas of the site will be collected by catch basins, conveyed through a storm sewer system, and discharged to the existing wooded and open areas to the Southwest of the subject parcel. Storm water will be calmed by the installation of rip rap at the outlet of the enclosed conveyance system.

Soil erosion and sedimentation are controlled by the Soil Erosion Control Act No. 347 of the Public Acts of 1972, as amended and is administered by the Livingston County Drain Commissioner. Silt fencing will be installed around a majority of the site during construction. The Contractor shall comply with all regulations including control during and after construction.

Impact on adjoining properties due to the construction of this site will be minimized by

implementing soil erosion control methods. No adverse impact to adjacent properties due to surface water runoff will be created as a result of the proposed improvements.

E. IMPACT ON SURROUNDING LAND USES

All neighboring parcels are zoned General Commercial (GCD) district. Directly East a car dealership is operating and directly West an eye care center is operating. Land along the North side of Grand River Avenue, zoned General Commercial (GCD), contains a mix of commercial and retail users, including a dentist office, a pet supplies store, and a gutter installation company.

The Genoa Township Future Land Use Plan designates this property for General Commercial uses. The surrounding property is also designated for General Commercial use

The proposed uses depicted on the development plan are consistent with existing development in the area and are generally consistent with the long-term planning within the Township.

The landscaping and architecture proposed will allow this site to be developed to compliment the surrounding properties. The impact of the improvements to the surrounding area has been minimized.

Ambient noise levels on and around the property are largely generated by Grand River vehicle traffic. Daily activities within the proposed building are not anticipated to create an increase in the sound level in the area.

All site lighting shall meet the requirements of the Genoa Township Zoning Ordinance. Proposed building mounted fixtures and pole mounted site lighting will be shielded and down directed on the site. General site lighting for other uses, excluding safety and emergency lighting, shall be energized between the times from dusk to 12:01 a.m. and from 5:00 a.m. to dawn.

The building façade along the building front (Northeast side) is the most visible portion of the structure from Grand River. The building front is designed to be the primary entry point for the majority of customers and employees to most tenants. The Southeast side of the building will be facade and not designed to function as an entrance or exit and has limited window space. The Northwest side of the building has a man door as well as an overhead door to a small interior garage bay for delivery purposes. The rear of the building (Southwest side) has additional entry points for employees and customers. The first floor of the building is accessible via exterior decking and the basement is accessible via exterior ground level sidewalk. Excluding the addition of the rear first floor decking, the entry and exit points remain consistent with the building prior to renovation.

The proposed use of the property does not create any significant emissions of smoke, airborne solids, odors, gases, vibrations, noise or glare discernable and substantially

annoying or injurious to person and/or property beyond the lot lines. No significant change in air pollution is anticipated.

The Contractor shall be responsible for initiating and maintaining adequate dust control measures during and after construction until the project site is fully stabilized and a vegetative cover established. Dust control measures used during construction may consist of site watering, mulching of completed areas, installation of windbreak fencing, and application of chemical dust control materials. The site will comply with the performance standards contained in Section 13.05 of the Township Zoning Ordinance.

F. IMPACT ON PUBLIC FACILITIES AND SERVICES

The Livingston County Sheriff and Michigan State Police will provide Police protection. Public safety services required to accommodate the proposed use are anticipated to be minor.

The Brighton Area Fire Department as a part of an existing governmental agreement will provide fire protection service. A fire hydrant currently exists at the Northeasterly property corner in the Grand River Avenue Right-of-way to provide adequate fire protection capabilities. A new fire hydrant is provided on site to serve the rear of the building. Six Knox Boxes will be located on the building; five at the Grand River Avenue frontage and one at the rear of the building. No significant increase in fire protection services are anticipated as a result of the proposed use.

The property is accessed from Grand River via two shared access drives providing adequate access for emergency vehicles. The drive aisle at the rear of the building will provide a complete access loop around the building.

The proposed uses will not create any direct adverse impact on the public schools.

G. IMPACT ON PUBLIC UTILITIES

The property is presently within municipal sewer and water districts and existing buildings are connected to the municipal utilities.

Water service to the building will be supplied via a new water lead connecting directly to the water main running adjacent to the Southerly side of Grand River Avenue. A fire suppression line is also provided from this main. Capacity is available within the existing water system to provide adequate service to this site.

Sanitary sewer is located along the Northwesterly property boundary, via an existing lead at the rear of the existing building. Capacity is available within the existing sanitary sewer system to provide adequate service for the site.

The site is currently serviced by electric, gas, phone and cable systems located along Grand River Avenue.

All solid wastes will be properly disposed of through a licensed disposal firm on a regular basis. A dumpster enclosure with screen walls is located at the Westerly corner of the subject parcel, at the rear of the building. The new dumpster pad and screening will replace the existing damaged and worn pad and screening at approximately the same location on the site. The enclosures will be constructed decorative CMU material, matching material used on the site and complimenting the adjacent architecture of the building.

Delivery services are generally limited to parcel trucks, such as UPS, and similar single axle vehicles. These delivery service providers use available parking and drop off areas during their deliveries. Large vehicles accessing the site will be capable of maneuvering on the proposed access drives around the building and will be able utilize overhead door and high bay garage as needed for deliveries.

H. STORAGE AND HANDLING OF ANY HAZARDOUS MATERIALS

The proposed uses within the building will not use, store, generate and/or discharge potentially polluting materials. Small quantities of material such as cleaning products and chemicals may be stored on-site.

I. TRAFFIC IMPACT STUDY

A traffic impact study for the development has not been performed for the site. The site will not generate a sufficient amount of trips to warrant a traffic study and will not significantly impact traffic flow around the site.

Pedestrian access to the property is provided by an existing sidewalk along Grand River. Sidewalks around the building will provide access to all entrances and exits to the building and all parking areas.

No adverse impact on pedestrian traffic in the area is anticipated as a result of developing the proposed project.

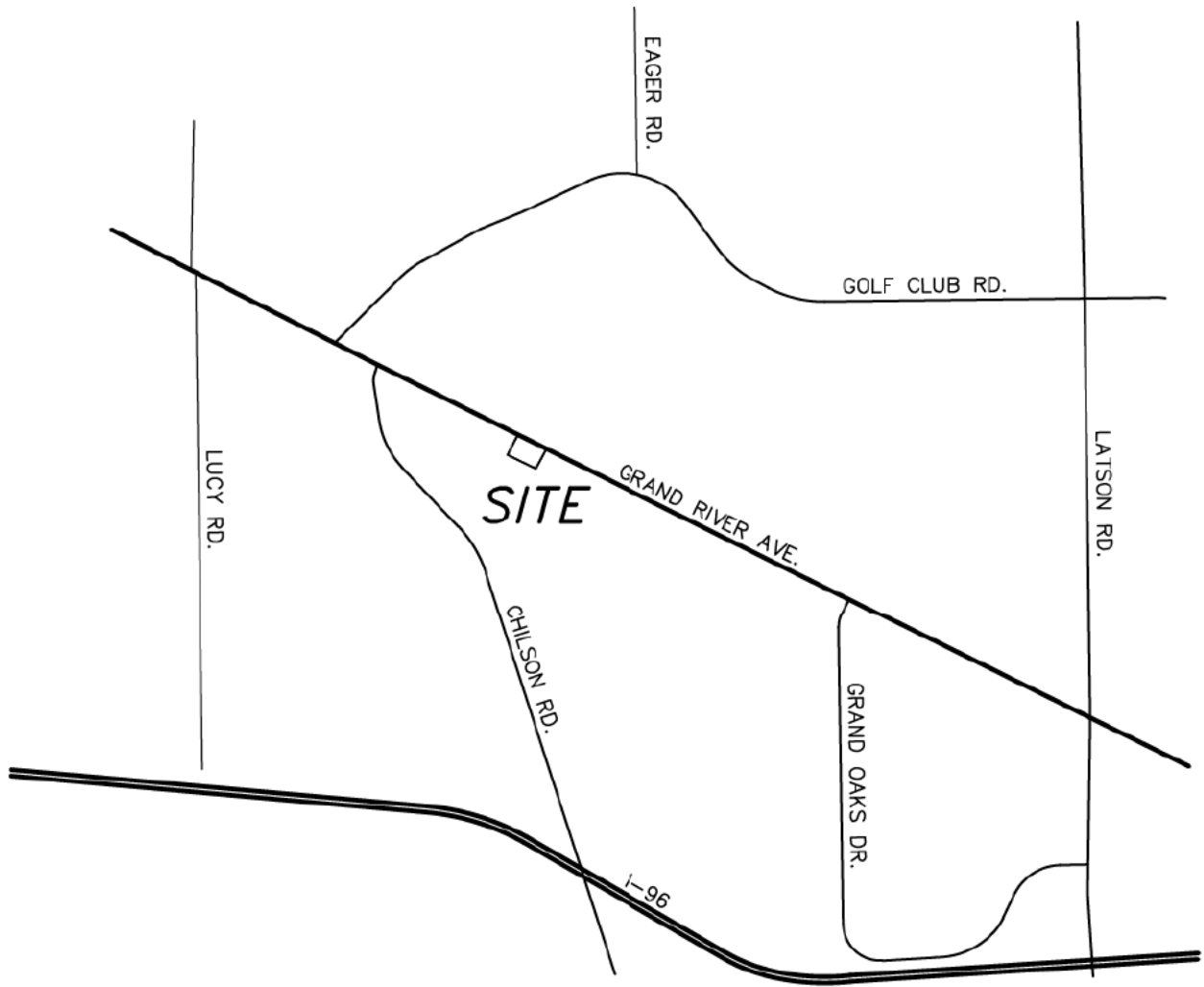
J. HISTORIC AND CULTURAL RESOURCES

The existing buildings on the property do not have any major historic significance on a local, regional or state level.

K. SPECIAL PROVISIONS

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

FIGURE 1



LOCATION MAP

FIGURE 2
PHOTO DEPICTING SITE IMPROVEMENTS
NOT TO SCALE

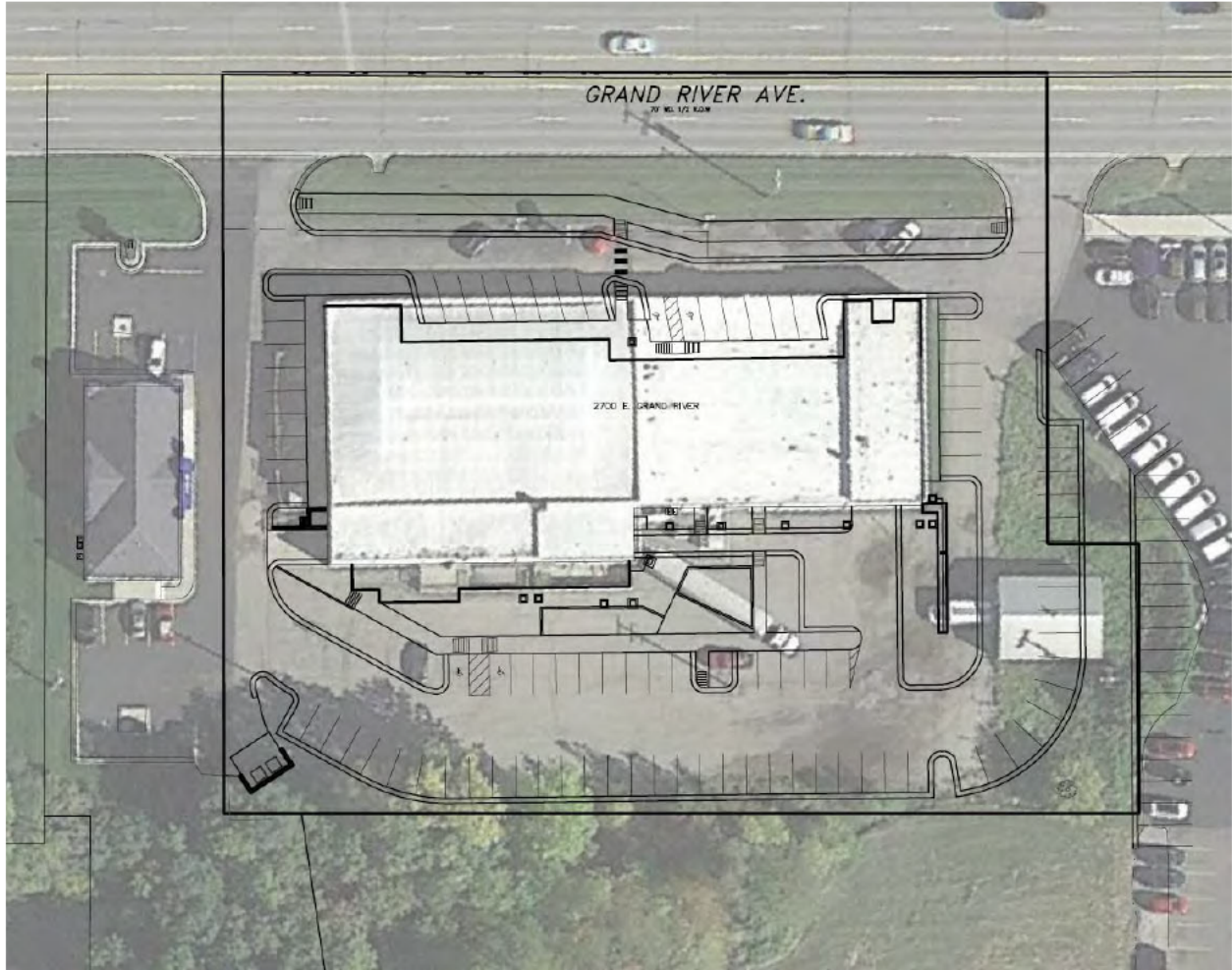
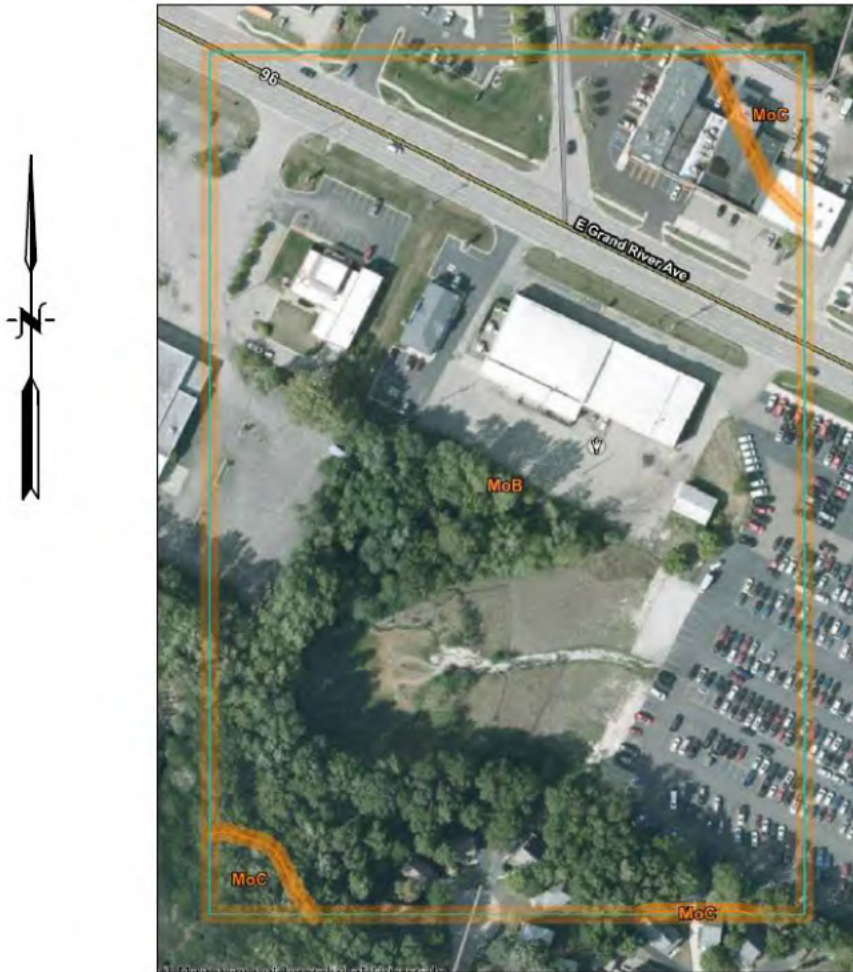


FIGURE 3
SOILS MAP
(NOT TO SCALE)



SOILS MAP

Map Unit Legend

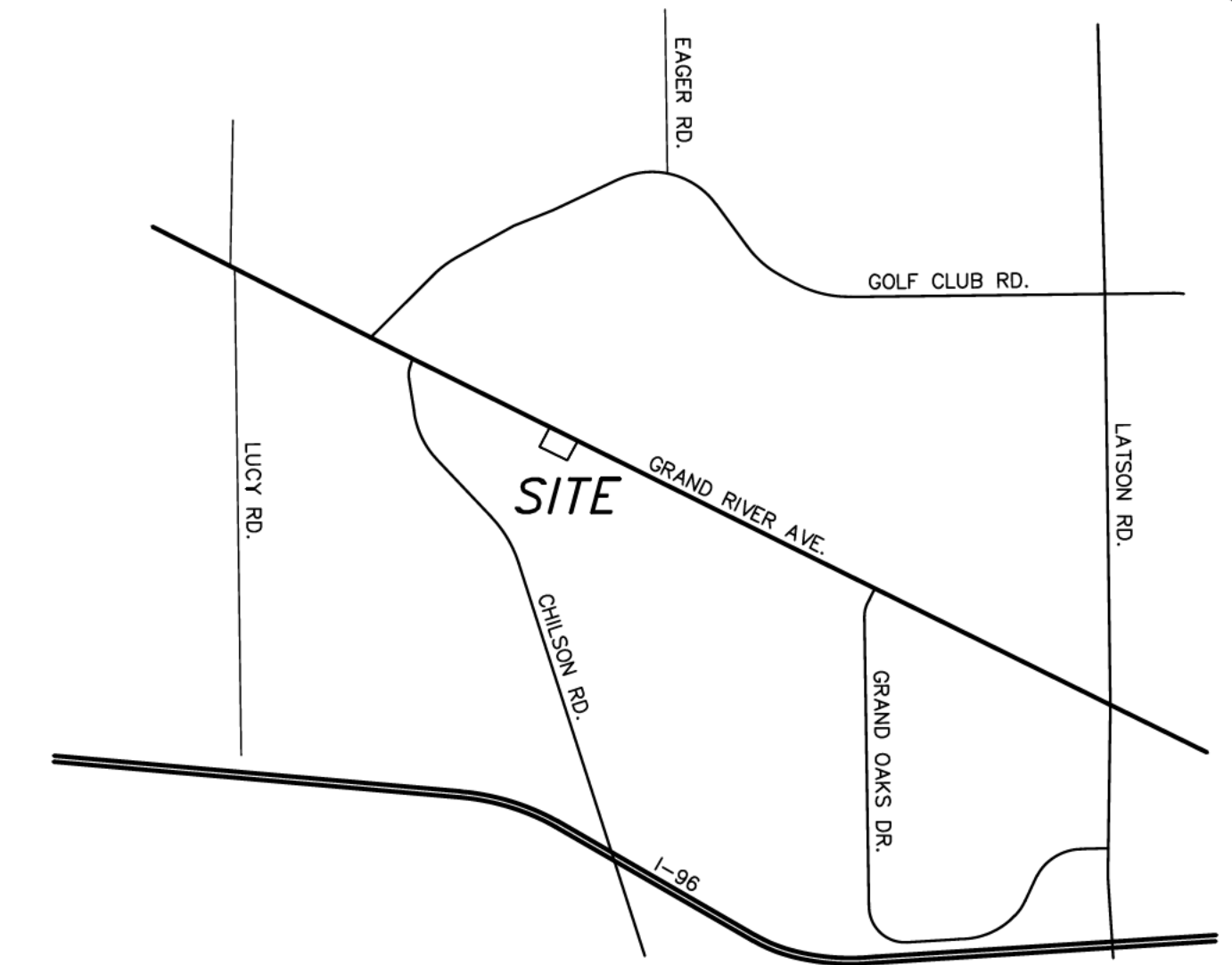
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MoB	Miami loam, 2 to 6 percent slopes	14.2	96.9%
MoC	Miami loam, 6 to 12 percent slopes	0.5	3.1%
Totals for Area of Interest		14.7	100.0%

SITE PLAN

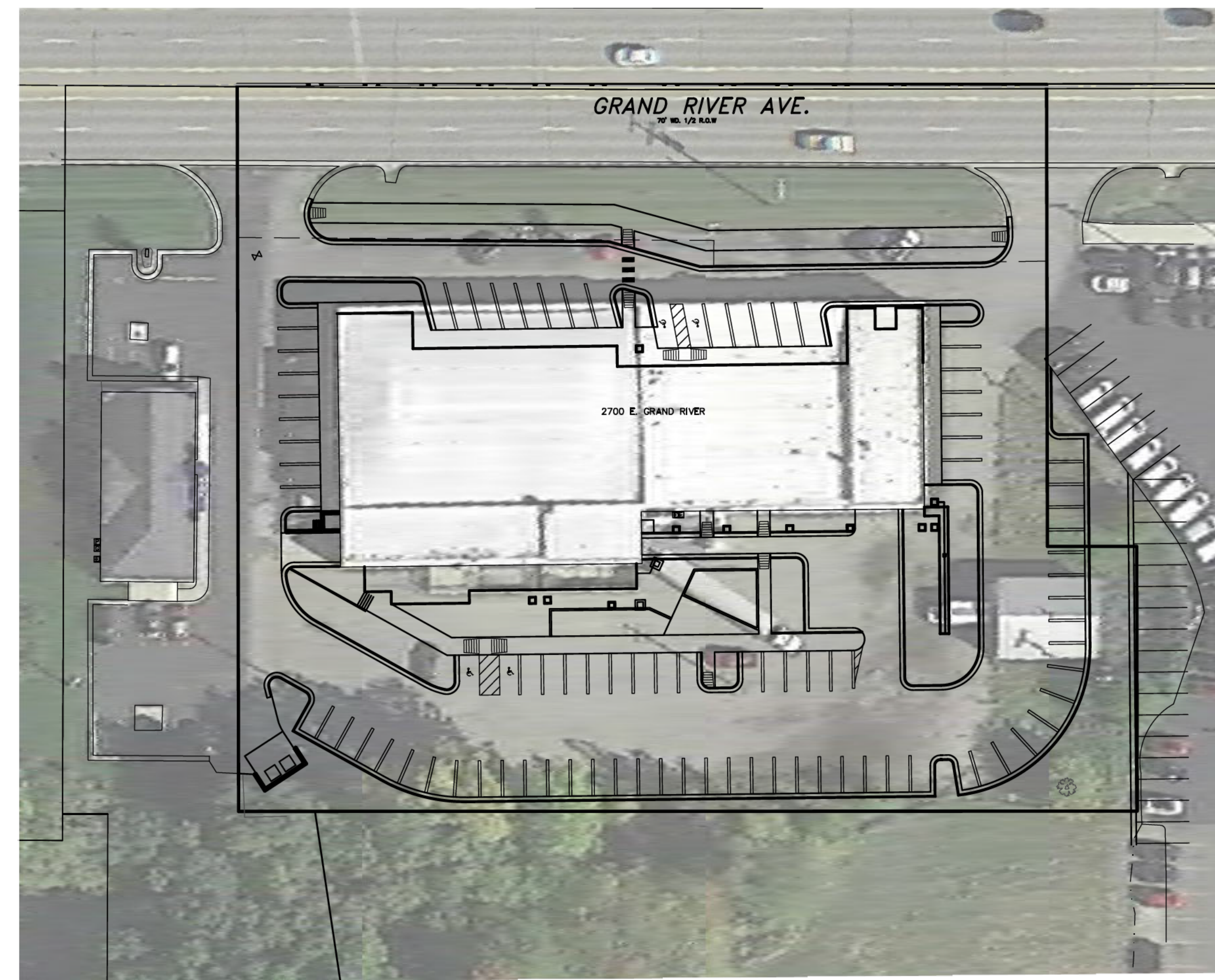
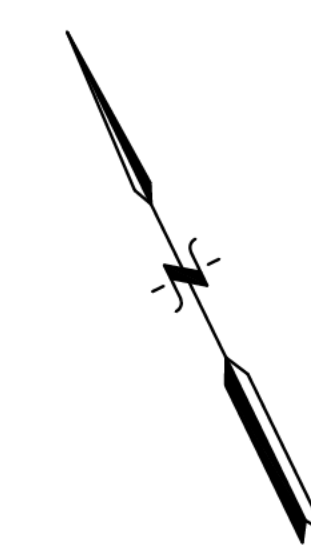
FOR

PARTLUND DEVELOPMENT

BEING PART OF THE NE 1/4, SECTION 6, T2N,R5E, GENOA TOWNSHIP, LIVINGSTON COUNTY
2700 E. GRAND RIVER, HOWELL, MICHIGAN



LOCATION MAP
SCALE: 1in. = 2000ft.



AERIAL PHOTOGRAPH
NOT TO SCALE

LEGAL DESCRIPTION

Reference: Quit Claim Deed as recorded in Document No. 2017R-027713, Livingston County Records

Situated in the Township of Genoa, County of Livingston and State of Michigan, and described as follows:

Part of the Northeast 1/4 of Section 6, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows:

Commencing at the East 1/4 Corner of said Section 6; thence N87°24'40"W 1616.81 feet along the East-West 1/4 line to a found iron rod; thence N01°33'53"E 796.77 feet to a found concrete monument; thence N50°06'45"W 531.00 feet to a found concrete monument; thence N29°52'49"E 570.00 feet (recorded N29°53'15"E 570.00 feet); thence N60°01'58"W 141.66 feet (recorded as N60°06'45"W) to the POINT OF BEGINNING of the land to be described, running thence S29°52'49"W 183.46 feet (said line passing through the centerline of a curb cut) to a set 1/2" iron rod; thence S60°01'58"E 35.46 feet to a set 1/2" iron rod; thence S79°52'49"W 105.14 feet to a set 1/2" iron rod; thence N60°01'58"W 356.85 feet (recorded as N60°06'45"W); thence N29°52'49"E 288.62 feet to the centerline of Grand River Ave.; thence S60°01'58"E 321.39 feet along the centerline of Grand River Av. (recorded as S60°06'45"E) to the Point of Beginning. Subject to the rights of the public over that portion thereof occupied by Grand River Avenue, also subject to and together with all easements and restrictions affecting title to the above described premises.

Tax ID No.: 4711-06-200-102
Also known as: 2700 E. Grand River Avenue, Howell, MI

NOTE: Legal description of record provided by client. Surveyor was not supplied with a Title Search at this time. Refer to the current policy for title insurance for proof of ownership and all encumbrances affecting title to the surveyed parcel.

SHEET INDEX

- EX EXISTING CONDITIONS & DEMOLITION PLAN
- SP SITE PLAN
- UT UTILITY PLAN
- GR GRADING PLAN
- SE1 SOIL EROSION CONTROL PLAN
- SE2 SOIL EROSION CONTROL NOTES & DETAILS
- LA LANDSCAPE PLAN
- RW1 RETAINING WALL PROFILE & SECTIONS
- RW2 RETAINING WALL DETAILS & CALCULATIONS
- FD EMERGENCY VEHICLE ROUTE
- DT1 SITE & PAVEMENT DETAILS
- DT2 SIGNAGE DETAILS
- DT3 STORM SEWER DETAILS

- PHOTOMETRIC PLAN

- ARCHITECTURAL PLANS

- MHOG DETAILS

OWNER / APPLICANT
PARTLUND DEVELOPMENT, LLC
29205 RYAN ROAD
WARREN, MICHIGAN 48092

ENGINEER / SURVEYOR
DESINE, INC.
2183 PLESS DRIVE
BRIGHTON, MICHIGAN 48114
810-227-9533

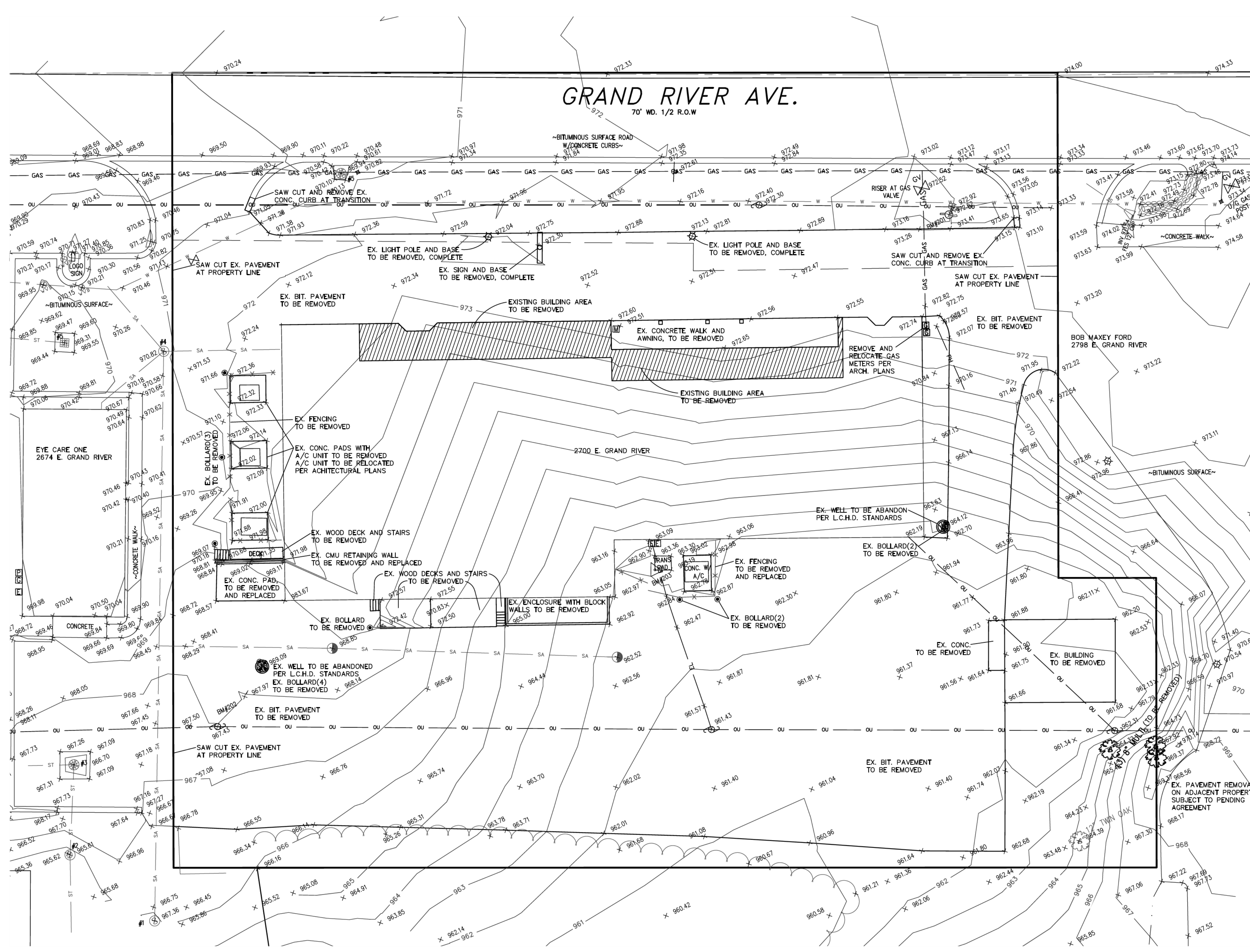
REVISED	SCALE: AS NOTED
JUNE 16, 2020	PROJECT No.: 183585
	DWG NAME: 3585 COV
	PRINT: AUG. 18, 2020

DEMOLITION NOTES:

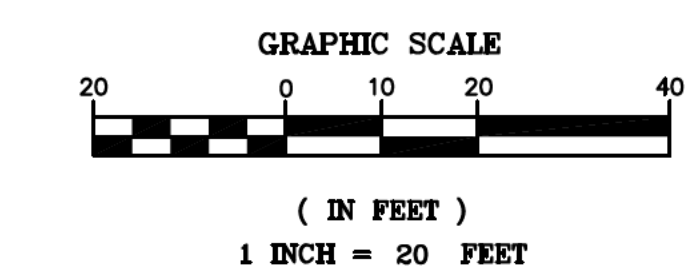
1. The demolition specifications of the Local Municipality are a part of this work. Refer to the General Notes on the project plans for additional requirements.
2. Contractor shall contact the 811 Underground Public Utility Locating System or other appropriate local underground utility locating Agency, a minimum of three (3) working days prior to performing demolition work. Existing utility information on the project plans may be from information disclosed to this firm by the Utility Companies, Local, County or State Agencies, and/or various other sources. No guarantee is given as to the completeness or accuracy thereof. Prior to construction, locations and depths of all existing utilities (in possible conflict with the proposed improvements) shall be verified in the field.
3. Contractor shall contact the appropriate Agencies to coordinate disconnect of the electric, gas, phone, cable and other public utilities as necessary prior to performing demolition work.
4. Contractor shall contact the appropriate Agencies to coordinate removal and/or relocation of any underground and/or overhead public utility lines as necessary prior to performing demolition work.
5. Contractor shall recycle and/or dispose of all demolition material and debris in accordance with the appropriate Local, County, State and Federal regulations.
6. All bituminous and concrete pavement to be removed shall be saw cut at the limits of removal to provide for a clean straight edge for future abutment.
7. All existing irrigation lines to be removed shall be terminated at the limits of demolition or as necessary to allow for construction of the proposed site improvements. Ends of pipe shall be capped and the location marked for future connection.
8. All existing water main and sanitary sewer to be removed shall be terminated at the limits of demolition or as indicated on the project plans. Temporary plugs shall be installed in the ends of pipe in accordance with the appropriate Agency and the locations of marked for future connection. Permanent plugs shall be installed in the ends of pipe and/or openings in terminating structures in accordance with the appropriate Agency. The Contractor shall record the location of all permanent bulkheads and provide the location information to the appropriate Agency.
9. All existing storm sewer to be removed shall be terminated at the limits of demolition or as indicated on the project plans. Temporary plugs shall be installed in the ends of pipe in accordance with the appropriate Agency and the locations of marked for future connection. Permanent bulkheads shall be installed in the ends of pipe and/or openings in terminating structures in accordance with the appropriate Agency. The Contractor shall record the location of all permanent bulkheads and provide the location information to the appropriate Agency.
10. All existing light sources to be removed shall have their power cables removed up to the power source or properly terminated for future connection at the limits of demolition or as necessary to allow for construction of the proposed site improvements. Removal and termination of power cables shall be performed in accordance with local electric codes.
11. All existing utility meters to be removed shall be properly removed to allow for reuse. Any existing utility meters that are not to be reused as a part of this project shall be returned to the appropriate Agency.
12. All trenches and/or excavations resulting from the demolition of underground utilities, building foundations, etc., that are located within the 1 on 1 influence zone of proposed structures, paved areas and/or other areas subject to vehicular traffic shall be backfilled with MDOT Class III granular material (or better) to the proposed subgrade elevation. Backfill shall be placed using the controlled density method (12" maximum lifts, compacted to 95% maximum unit weight, Modified Proctor).

EX. STRUCTURE INVENTORY

- SANITARY SEWER MANHOLE #1
NORTHWESTERLY RIM 967.33
NORTH 10" PVC 957.48
- STORM SEWER MANHOLE #2
NORTHWESTERLY RIM 955.62
NORTH 48" CPP (TUNNEL) 959.17
SOUTH 12" RCP (TOP) 951.57
NORTH NO ACCESS
- CATCH BASIN #3 (ROUND)
WESTERLY RIM 966.71
WEST-SOUTH 48" CPP 959.81
INVERT WAS FROM BOTTOM OF TUNNEL
- SANITARY SEWER MANHOLE #4
SOUTHWESTERLY RIM 970.84
SOUTH 10" PVC 956.09
NORTHWEST 10" PVC 956.04
SW-NE 6" PVC 956.61
- CATCH BASIN #5
WESTERLY RIM 959.33
EAST-WEST 48" CPP
INVERT WAS FROM BOTTOM OF TUNNEL
- YARD BASIN #6
SOUTHEASTERLY RIM 969.66
WEST 12" CMP 968.21
EAST 12" CMP 968.16



GRAND RIVER AVE.
70' WD. 1/2 R.O.W



- LEGEND**
- WELL / MONITOR WELL
 - BOLLARD
 - SIGN
 - LIGHT FIXTURE / DECORATIVE LIGHT
 - LIGHT BASE
 - UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
 - AIR CONDITIONER UNIT
 - UTILITY POLE W/GUY WIRE
 - OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
 - U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
 - EDGE OF WOODS / TREE DRIP LINE
 - DECIDUOUS TREE W/IDENTIFIER
 - CONIFEROUS TREE W/IDENTIFIER
 - FENCE (CHAIN LINK UNLESS OTHERWISE STATED)
 - GUARD RAIL
 - EDGE OF GRAVEL
 - CONCRETE CURB (UNLESS OTHERWISE STATED)
 - SANITARY SEWER MANHOLE W/IDENTIFIER
 - SANITARY SEWER PIPE
 - CLEAN OUT
 - STORM WATER MANHOLE W/IDENTIFIER
 - CATCH BASIN W/IDENTIFIER
 - STORM WATER DRAINAGE PIPE
 - HYDRANT
 - WATER SHUT OFF
 - WATER VALVE BOX
 - WATER MAIN
 - GAS MANHOLE
 - GAS SHUT OFF
 - U/G GAS
 - 1' CONTOUR
 - 5' CONTOUR

LEGAL DESCRIPTION

Reference: Galt Chain Deed as recorded in Document No. 20178-027713, Livingston County Records

Situated in the Township of Genoa, County of Livingston and State of Michigan, and described as follows:

Part of the Northeast 1/4 of Section 6, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows:

Commencing at the East 1/4 Corner of said Section 6; thence N87°24'40"W 1616.81 feet along the East-West 1/4 line to a found iron rod; thence N01°33'57"E 796.77 feet to a found concrete monument; thence N60°06'40"W 531.00 feet to a found concrete monument; thence N29°52'49"E 570.00 feet (recorded N29°53'15"E 570.00 feet); thence N60°01'58"W 143.66 feet (recorded as N60°06'45"W) to the POINT OF BEGINNING of the land to be described, namely thence S29°52'49"W 163.46 feet (old line passing through the centerline of a curb cut) to a set 1/2" iron rod; thence S07°00'57"E 35.46 feet to a set 1/2" iron rod; thence S79°52'49"W 105.14 feet to a set 1/2" iron rod; thence N60°01'58"W 356.85 feet (recorded as N60°06'40"W); thence N29°52'49"E 288.82 feet to the centerline of Grand River Ave.; thence S60°01'58"E 321.31 feet along the centerline of Grand River Ave. (recorded as S60°04'07"E) to the Point of Beginning. Subject to the rights of the public over that portion thereof occupied by Grand River Avenue, also subject to and together with all easements and restrictions affecting title to the above described premises.

Tax ID No.: 4711-06-200-102
Also known as: 2700 E. Grand River Avenue, Howell, MI

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CIVIL ENGINEERS
LAND SURVEYORS
2183 PLESS DRIVE
BRIGHTON, MICHIGAN 48114

DESIGN: JHG	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG	1	8-18-20	REVISED PER REVIEW COMMENTS			
CHECK: JMB						

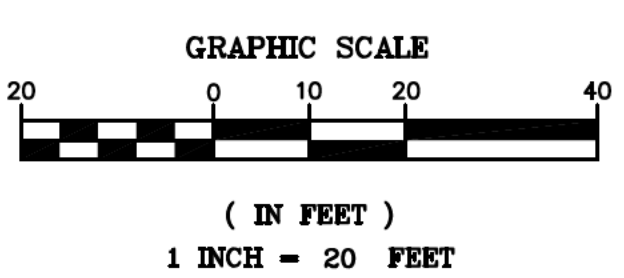
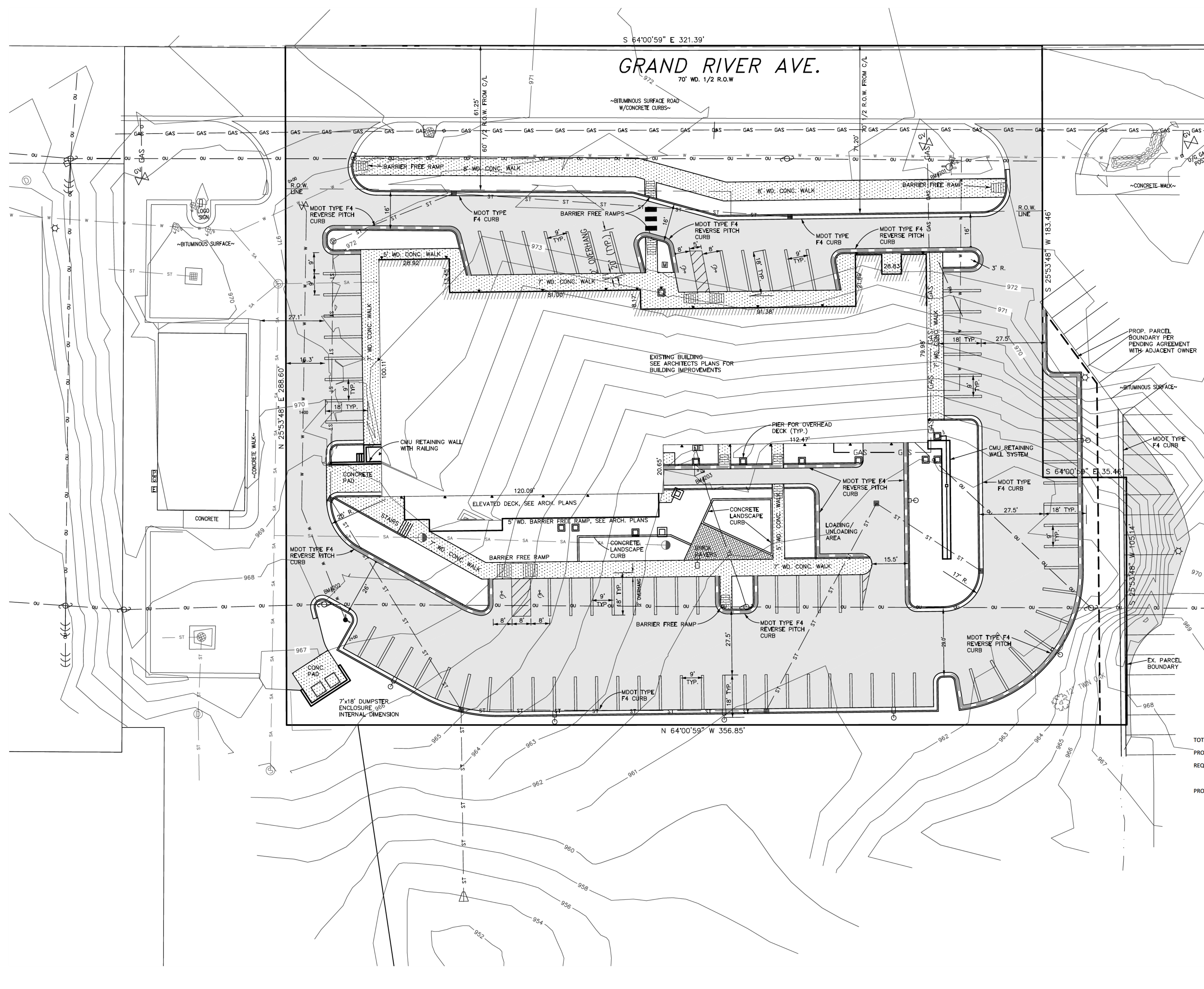
PARTLUND DEVELOPMENT
2700 E. GRAND RIVER

EXISTING CONDITIONS & DEMOLITION PLAN

CLIENT:
OSTLUND
A SERVICE COMPANY LLC
2731 E. GRAND RIVER
HOWELL, MICHIGAN 48843

SCALE: 1in. = 20ft.
PROJECT No.: 3585
DWG NAME: 3585 EX
ISSUED: AUG. 18, 2020

EX



- LEGEND**
- = WELL / MONITOR WELL
 - = SIGN
 - = LIGHT FIXTURE / DECORATIVE LIGHT
 - = LIGHT BASE
 - = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
 - = AIR CONDITIONER UNIT
 - = UTILITY POLE W/GUY WIRE
 - = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
 - = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
 - = DECIDUOUS TREE W/IDENTIFIER
 - = CONIFEROUS TREE W/IDENTIFIER
 - = FENCE (CHAIN LINK UNLESS OTHERWISE STATED)
 - = GUARD RAIL
 - = EDGE OF GRAVEL
 - = CONCRETE CURB (UNLESS OTHERWISE STATED)
 - = SANITARY SEWER MANHOLE W/IDENTIFIER
 - = SANITARY SEWER PIPE
 - = CLEAN OUT
 - = STORM WATER MANHOLE W/IDENTIFIER
 - = CATCH BASIN W/IDENTIFIER
 - = STORM WATER DRAINAGE PIPE
 - = HYDRANT
 - = WATER SHUT OFF
 - = WATER VALVE BOX
 - = WATER MAIN
 - = GAS MANHOLE
 - = GAS SHUT OFF
 - = U/G GAS
 - = 1' CONTOUR
 - = 5' CONTOUR
 - = PROP. CONCRETE
 - = PROP. BRICK PAVERS
 - = PROP. BITUMINOUS PAVEMENT

TOTAL GROSS FLOOR AREA: 22,363 S.F.
 PROPOSED USAGE: GENERAL RETAIL
 REQUIRED PARKING PER ARTICLE 14.04: ONE SPACE PER 250 S.F.
 22,363 S.F. / 250 S.F. = 89.5 (90 SPACES)
 PROPOSED PARKING SPACES: 90 SPACES

NOTE:
 OWNER SHALL PROVIDE PROOF OF
 EASEMENT FOR GRADING AND PAVEMENT
 ON ADJACENT PARCEL PRIOR TO
 BEGINNING WORK

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DESIGN INC
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 BRIGHTON, MICHIGAN 48114

DESIGN: JHG	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG	1	8-18-20	REVISED PER REVIEW COMMENTS			
CHECK: JMB						

PARTLUND DEVELOPMENT
 2700 E. GRAND RIVER

SITE PLAN

CLIENT:
 PARTLUND DEVELOPMENT, LLC
 29205 RYAN ROAD
 WARREN, MICHIGAN 48092

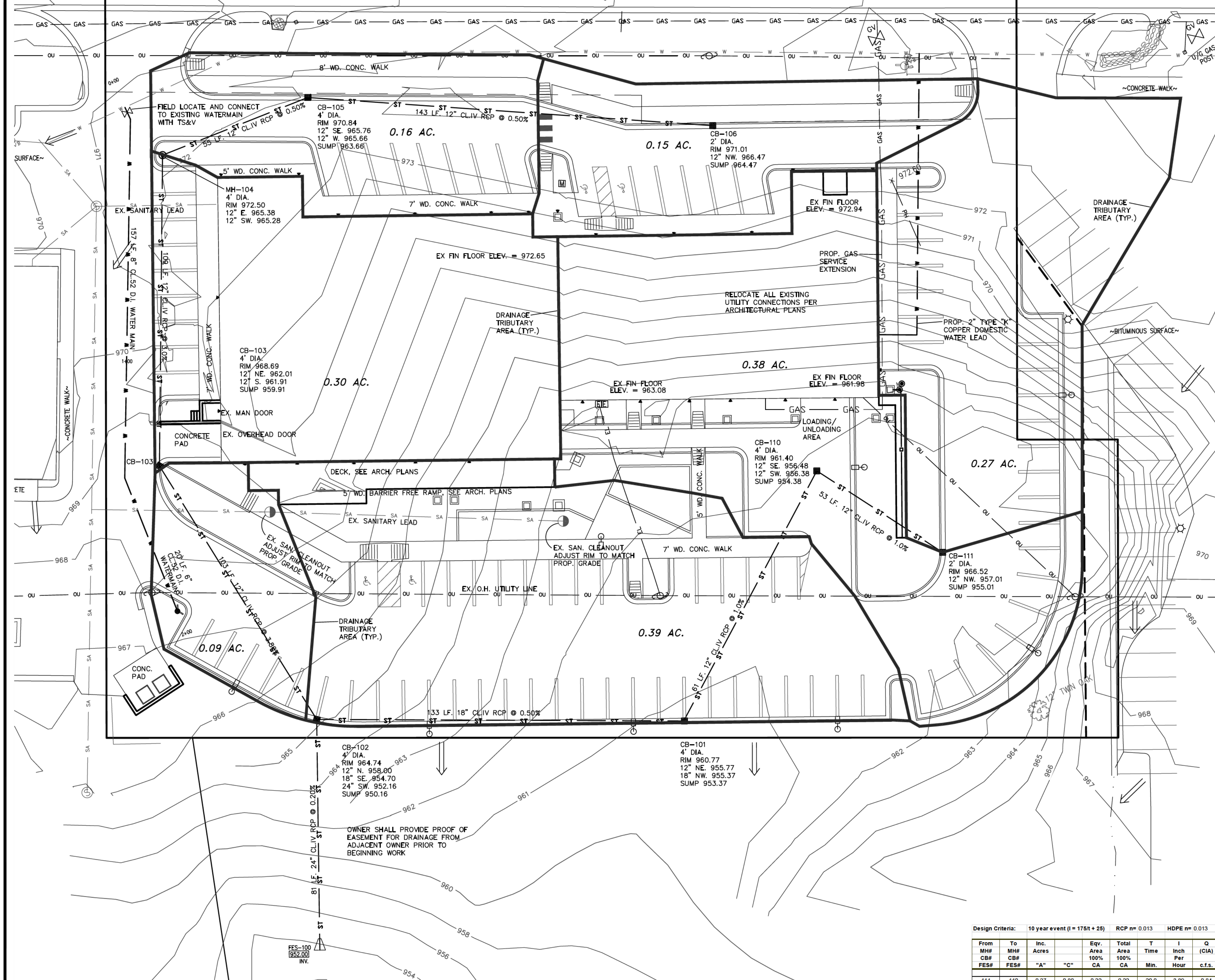
SCALE: 1in. = 20ft.
 PROJECT No.: 183585
 DWG NAME: 3585 SP
 ISSUED: AUG. 18, 2020

SP

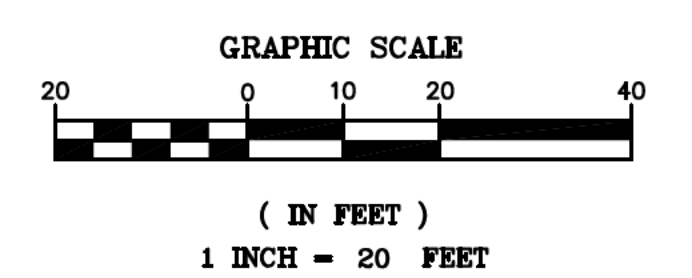
GRAND RIVER AVE.

70' WD. 1/2 R.O.W

~BITUMINOUS SURFACE ROAD
W/CONCRETE CURBS~

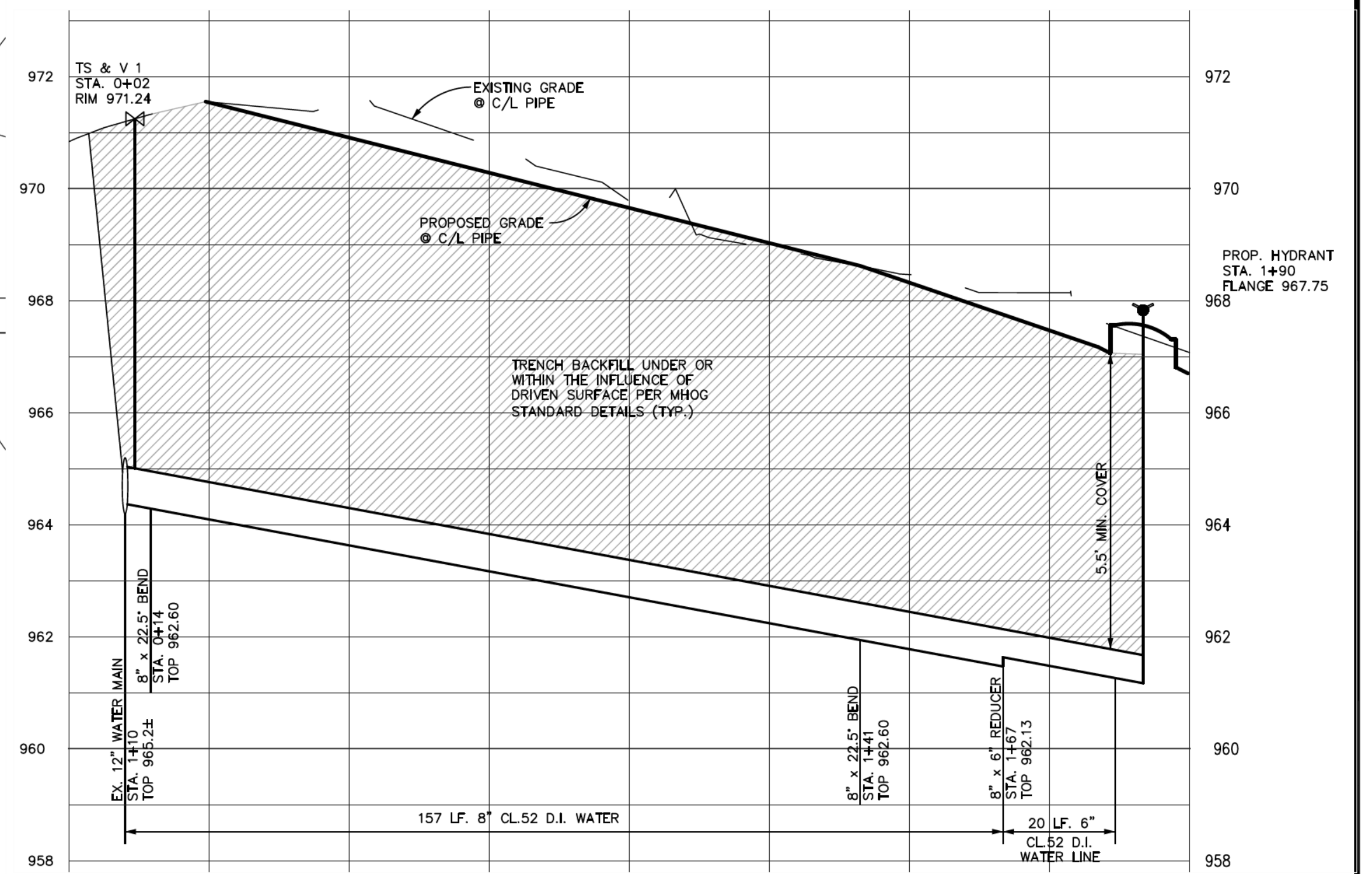


- ### LEGEND
- = WELL / MONITOR WELL
 - = BOLLARD
 - = SIGN
 - = LIGHT FIXTURE / DECORATIVE LIGHT
 - = LIGHT BASE
 - = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
 - = AIR CONDITIONER UNIT
 - = UTILITY POLE W/GUY WIRE
 - = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
 - = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
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 - = CONIFEROUS TREE W/IDENTIFIER
 - = FENCE (CHAIN LINK UNLESS OTHERWISE STATED)
 - = GUARD RAIL
 - = EDGE OF GRAVEL
 - = CONCRETE CURB (UNLESS OTHERWISE STATED)
 - = SANITARY SEWER MANHOLE W/IDENTIFIER
 - = SANITARY SEWER PIPE
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 - = CATCH BASIN W/IDENTIFIER
 - = STORM WATER DRAINAGE PIPE
 - = HYDRANT
 - = WATER SHUT OFF
 - = WATER VALVE BOX
 - = WATER MAIN
 - = GAS MANHOLE
 - = GAS SHUT OFF
 - = U/G GAS
 - = 1' CONTOUR
 - = 5' CONTOUR



WATER MAIN QUANTITIES

12"x8" TAPPING SLEEVE AND VALVE (TS&V)	1
8" CL 52 PIPE	157 LF.
8" x 22.5" BEND	2
8"x6" REDUCER	1
6" CL 52 PIPE	20 LF.
HYDRANT ASSEMBLY	1



HYDRANT LEAD PROFILE
SCALE: HORIZ. 1in. = 20ft.
VERT. 1in. = 2ft.

Design Criteria: 10 year event (I = 175t + 25) RCP = 0.015 HDPE = 0.013

From	To	Inc.	Area	Eqv.	Total	T	I	Q	Qa	Qt	Dia.	Slope	Slope	Length	Vel.	Time	Cap	H.G.	Ground Elev.	Invert Elev.		
MH#	MH#	CB#	Acres	Area	Area	Area	Inch	(CIA)	(Total	(Total	inch	%	%	ft.	ft/sec.	min.	pipe	Elev.	Upper	Lower		
CB#	CB#	FES#	"A"	"C"	CA	CA	Per	Hour	c.f.s.	c.f.s.	c.f.s.						c.f.s.	Upper	Lower	Upper	Lower	
111	110		0.27	0.80	0.22	0.22	20.0	3.89	0.84	0.84	12	1.00	0.06	53	4.54	0.2	3.56	957.50	966.52	961.40	957.01	956.48
110	101		0.38	0.79	0.30	0.52	20.2	3.87	2.00	2.00	12	1.00	0.31	61	4.54	0.2	3.56	956.96	961.40	960.77	956.38	955.77
101	102		0.39	0.85	0.33	0.85	20.4	3.85	3.27	3.27	18	0.50	0.10	133	4.20	0.5	7.43	956.33	960.77	964.74	955.37	954.70
106	105		0.15	0.80	0.12	0.12	20.0	3.89	0.47	0.47	12	0.50	0.02	143	3.21	0.7	2.52	966.78	971.01	970.84	966.47	965.76
105	104		0.16	0.78	0.12	0.24	20.7	3.83	0.94	0.94	12	0.50	0.07	55	3.21	0.3	2.52	966.42	970.84	972.50	965.66	965.38
104	103		0.30	0.89	0.27	0.51	21.0	3.80	1.95	1.95	12	3.00	0.30	109	7.86	0.2	6.17	965.28	972.50	968.59	965.28	962.01
103	102		0.09	0.75	0.07	0.58	21.3	3.78	2.19	2.19	12	3.00	0.38	103	8.84	0.2	6.94	961.91	968.69	964.74	961.91	958.00
102	100		0.00	0.00	0.00	1.43	21.3	3.78	5.40	5.40	24	0.20	0.06	81	3.22	0.4	10.12	954.05	964.74	952.00	952.16	952.00

SUBJECT AREA: 75,500 S.F.
PERMEABLE AREA PRE-DEVELOPMENT: 10,121 S.F.
PERMEABLE AREA POST-DEVELOPMENT: 10,960 S.F.
AN INCREASE IN PERMEABLE AREA OF 839 S.F. IS PROVIDED ON PROPOSED DEVELOPMENT AND REPRESENTS A REDUCTION IN TOTAL STORM WATER RUNOFF FROM THE SITE.

DESIGN: JHG	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG	1	8-18-20	REVISED PER REVIEW COMMENTS			
CHECK: JMB						

PARTLUND DEVELOPMENT 2700 E. GRAND RIVER

UTILITY PLAN

CLIENT: PARTLUND DEVELOPMENT, LLC
29205 RYAN ROAD
WARREN, MICHIGAN 48092

SCALE: 1in. = 20ft.
PROJECT No.: 183585
DWG NAME: 3585 UT
ISSUED: AUG. 18, 2020

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Know what's below.
Call before you dig.

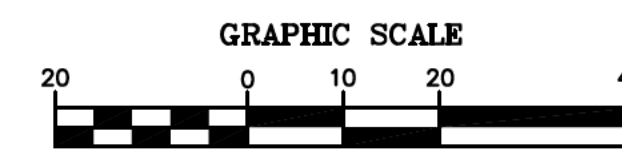
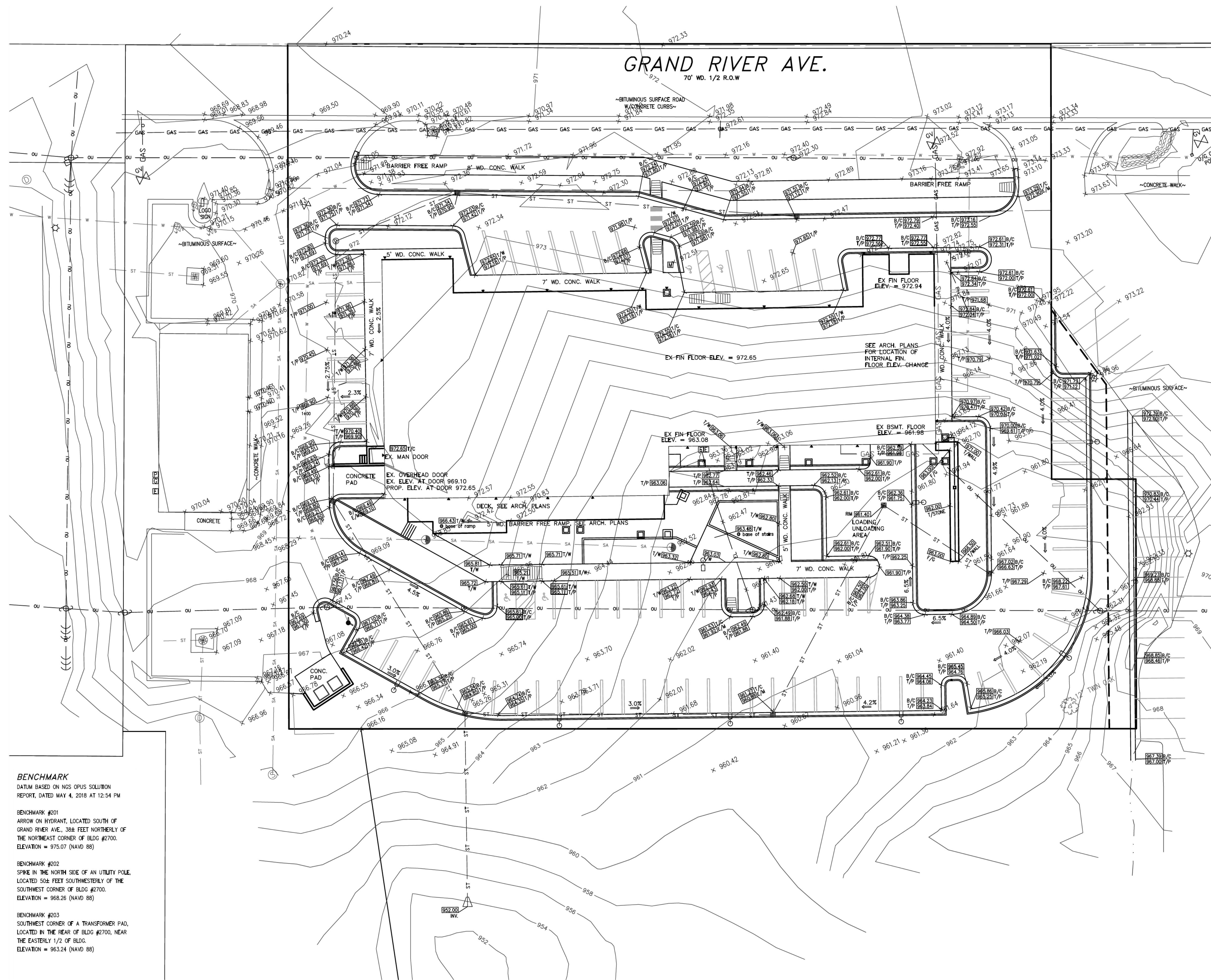
3 WORKING DAYS BEFORE YOU DIG
CALL 811 OR 1-800-482-7171 (TOLL FREE)
OR VISIT CALL811.COM

DESIGN INC
(810) 227-9533
CIVIL ENGINEERS
LAND SURVEYORS
2183 PLESS DRIVE
BRIGHTON, MICHIGAN 48114

UT

GRAND RIVER AVE.

70' WD. 1/2 R.O.W.



LEGEND

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- = HYDRANT
- = WATER SHUT OFF
- = WATER VALVE BOX
- = WATER MAIN
- = GAS MANHOLE
- = GAS SHUT OFF
- = U/C GAS
- = 1' CONTOUR
- = 5' CONTOUR

NOTE:
OWNER SHALL PROVIDE PROOF OF EASEMENT FOR DRAINAGE AND GRADING FROM ADJACENT OWNER PRIOR TO BEGINNING WORK.

BENCHMARK
DATUM BASED ON NGS OPUS SOLUTION REPORT, DATED MAY 4, 2018 AT 12:54 PM

BENCHMARK #201
ARROW ON HYDRANT, LOCATED SOUTH OF GRAND RIVER AVE., 38± FEET NORTHERLY OF THE NORTHEAST CORNER OF BLDG #2700. ELEVATION = 975.07 (NAVD 88)

BENCHMARK #202
SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED 50± FEET SOUTHWESTERLY OF THE SOUTHWEST CORNER OF BLDG #2700. ELEVATION = 968.26 (NAVD 88)

BENCHMARK #203
SOUTHWEST CORNER OF A TRANSFORMER PAD, LOCATED IN THE REAR OF BLDG #2700, NEAR THE EASTERLY 1/2 OF BLDG. ELEVATION = 963.24 (NAVD 88)

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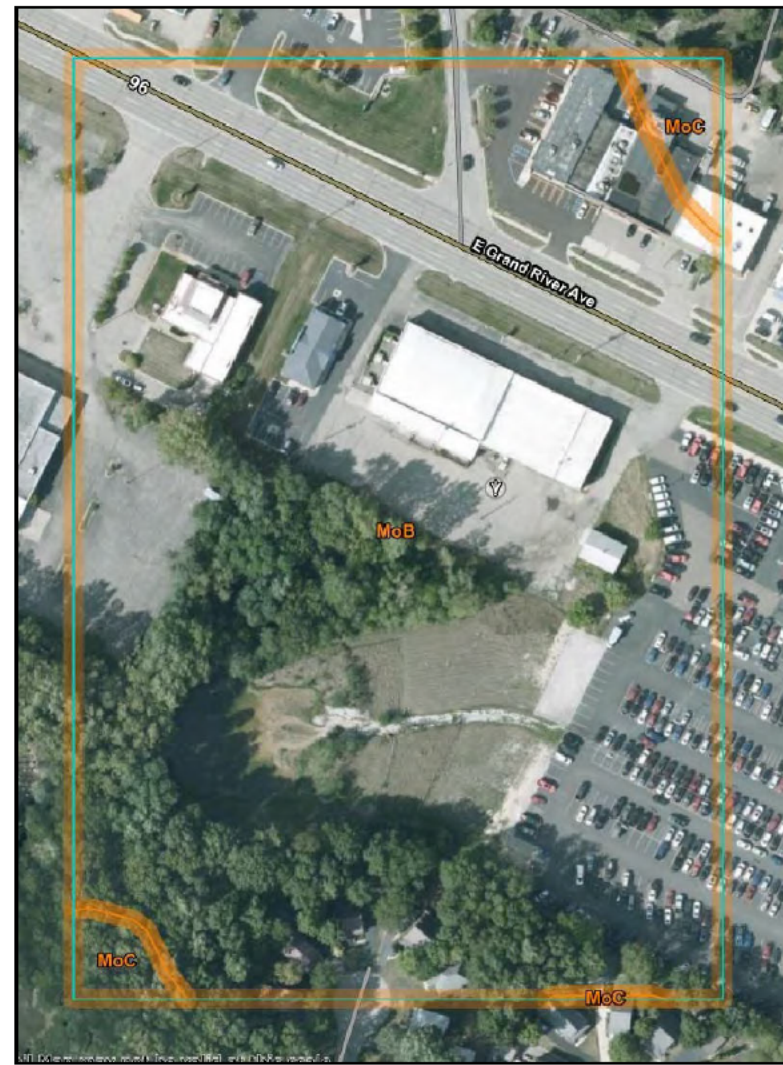
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LAND SURVEYORS
2183 PLESS DRIVE
BRIGHTON, MICHIGAN 48114

DESIGN: JHG	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG	1	8-18-20	REVISED PER REVIEW COMMENTS			
CHECK: JMB						

PARTLUND DEVELOPMENT
2700 E. GRAND RIVER

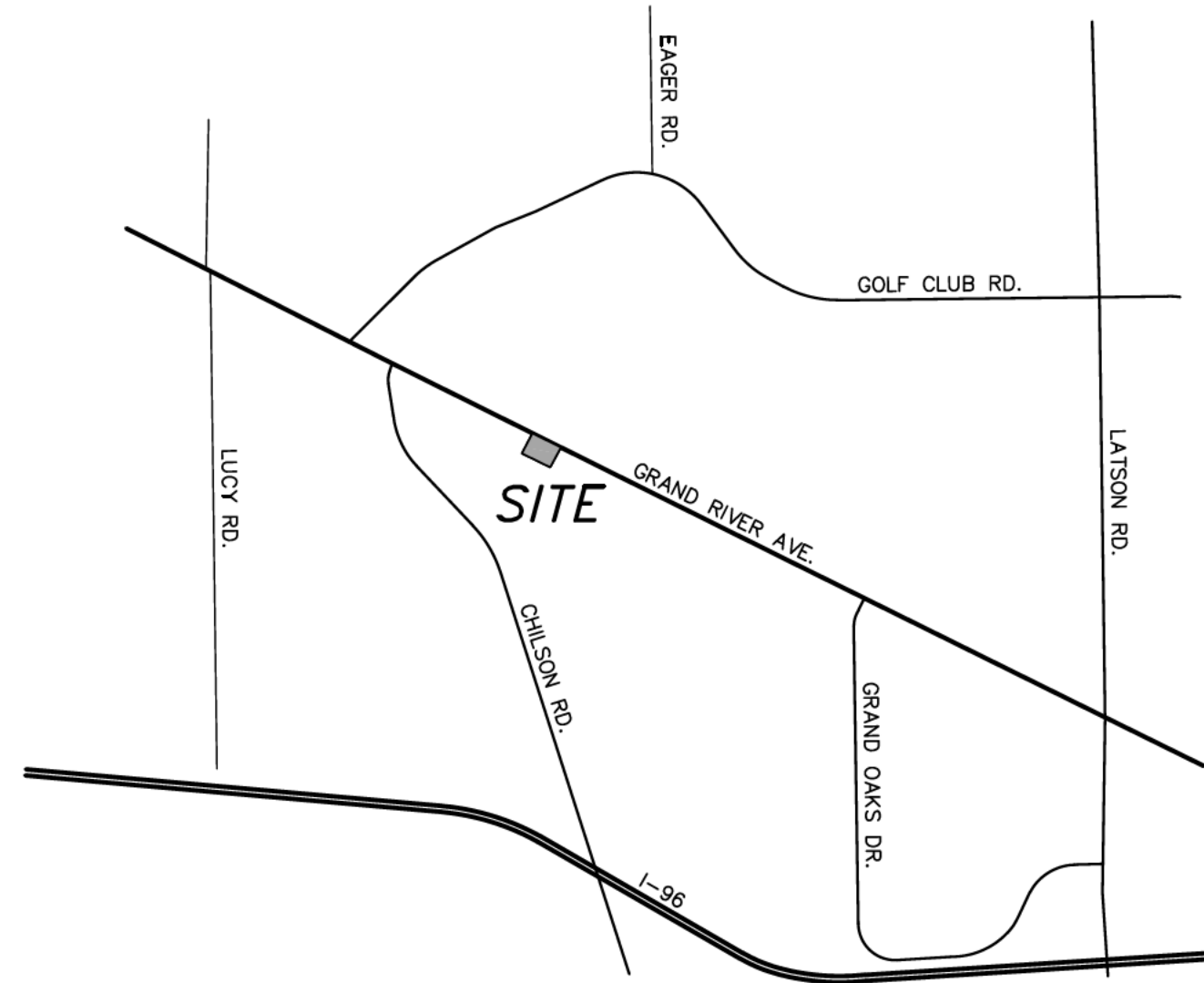
GRADING PLAN

CLIENT: PARTLUND DEVELOPMENT, LLC 29205 RYAN ROAD WARREN, MICHIGAN 48092	SCALE: 1in. = 20ft. PROJECT No.: 183585 DWG NAME: 3585 GR ISSUED: AUG. 18, 2020	GR
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SOILS MAP

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MAU	Woodsland Urban, 2 to 6 percent slopes	14.2	95.8%
MAC	Woodsland Urban, 6 to 12 percent slopes	0.5	3.1%
Totals for Areas of Interest		14.7	100.0%



LOCATION MAP
SCALE: 1in. = 2000ft.

TIME LINE of Construction Sequence

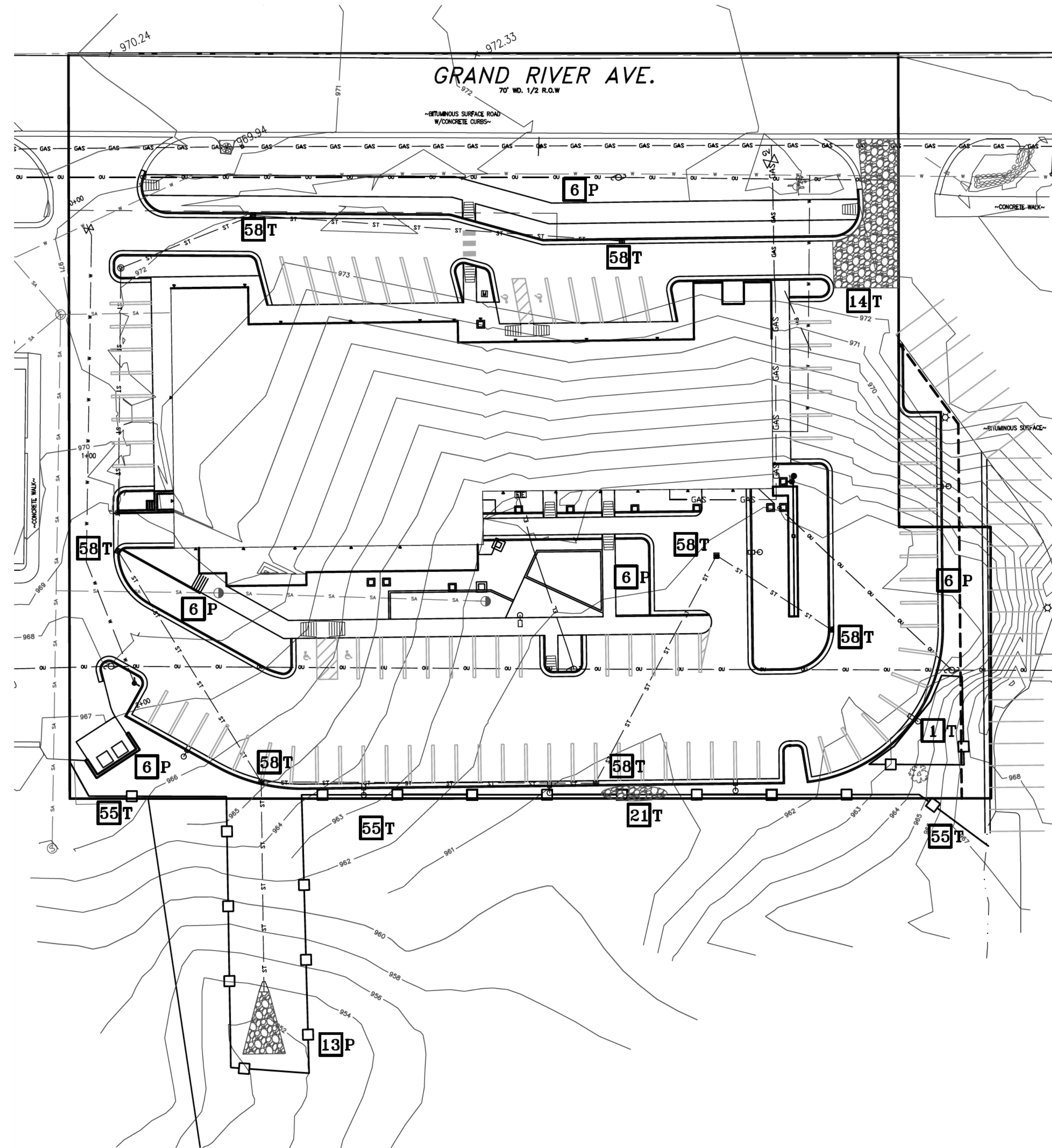
Item No. (see Above)	A	B	C	D	E	F	G	H	I
1.	█								
2.	█	█							
3.	█	█	█						
4.	█	█	█	█					
5.					█	█	█		
6.					█	█	█		
7.								█	█
8.									█

Explanation of Time Line: The first month when work commences is designated 'A' above, the second month is 'B', etc. It is assumed that work will halt due to weather at least three months a year, which may occur in between any of the months A through I. Thus the above Sequence represents an entire year.

AREA OF DISTURBANCE = 2.2 AC

SOIL EROSION CONTROL LEGEND

1		TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION STOCKPILE SHOULD BE TEMPORARILY SEEDED
6		FACILITATES ESTABLISHMENT OF VEGETATIVE COVER EFFECTIVE FOR DRAINAGEWAYS WITH LOW VELOCITY EASILY PLACED IN SMALL QUANTITIES BY INEXPERIENCED PERSONNEL SHOULD INCLUDE PREPARED TOPSOIL BED
13		USED WHERE VEGETATION IS NOT EASILY ESTABLISHED EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATION PERMITS RUNOFF TO INFILTRATE SOIL DISPATERS ENERGY FLOW AT SYSTEM OUTLETS
14		STABILIZES SOIL SURFACE, THUS MINIMIZING EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS
21		CONSTRUCTION OF GRAVEL OR STONE INTERCEPTS AND DIVERTS RUNOFF TO STABILIZED AREAS OR PREPARED DRAINAGE SYSTEM SLOWS RUNOFF AND COLLECTS SEDIMENT
55		USES GEOTEXTILE AND POSTS OR POLES MAY BE CONSTRUCTED OR PREPACKAGED EASY TO CONSTRUCT AND LOCATE AS NECESSARY
58		USES PREPACKAGED GEOTEXTILE SACKS FILTERS SEDIMENT FROM RUNOFF AT CATCH BASIN INLET EASY TO INSTALL AND MAINTAIN



GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FEET

LEGEND

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- WATER SHUT OFF
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- WATER MAIN
- GAS MANHOLE
- GAS SHUT OFF
- U/G GAS
- 1' CONTOUR
- 5' CONTOUR
- STONE RIP RAP

LEGAL DESCRIPTION

Reference: Quit Claim Deed as recorded in Document No. 2017R-027713, Livingston County Records

Situated in the Township of Genoa, County of Livingston and State of Michigan, and described as follows:

Part of the Northeast 1/4 of Section 6, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan, described as follows:

Commencing at the East 1/4 Corner of said Section 6; thence N87°24'40"W 1616.81 feet along the East-West 1/4 line to a found iron rod; thence N01°33'53"E 796.77 feet to a found concrete monument; thence N60°06'45"W 531.00 feet to a found concrete monument; thence N29°52'49"E 570.00 feet (recorded N29°53'15"E 570.00 feet); thence N60°01'58"W 141.66 feet (recorded as N60°06'45"W) to the POINT OF BEGINNING of the land to be described; running thence S29°52'49"W 183.46 feet (said line passing through the centerline of a curb cut) to a set 1/2" iron rod; thence S60°01'58"W 35.46 feet to a set 1/2" iron rod; thence S79°52'49"W 105.14 feet to a set 1/2" iron rod; thence N60°01'58"W 356.85 feet (recorded as N60°06'45"W); thence N29°52'49"E 288.62 feet to the centerline of Grand River Ave.; thence S60°01'58"E 321.39 feet along the centerline of Grand River Av. (recorded as S60°06'45"E) to the Point of Beginning. Subject to the rights of the public over that portion thereof occupied by Grand River Avenue, also subject to and together with all easements and restrictions affecting title to the above described premises.

Tax ID No.: 4711-06-200-102
Also known as: 2700 E. Grand River Avenue, Howell, MI

NOTE: Legal description of record provided by client. Surveyor was not supplied with a Title Search at this time. Refer to the current policy for title insurance for proof of ownership and all encumbrances affecting title to the surveyed parcel.

BENCHMARK

DATUM BASED ON NGS OPUS SOLUTION REPORT, DATED MAY 4, 2018 AT 12:54 PM

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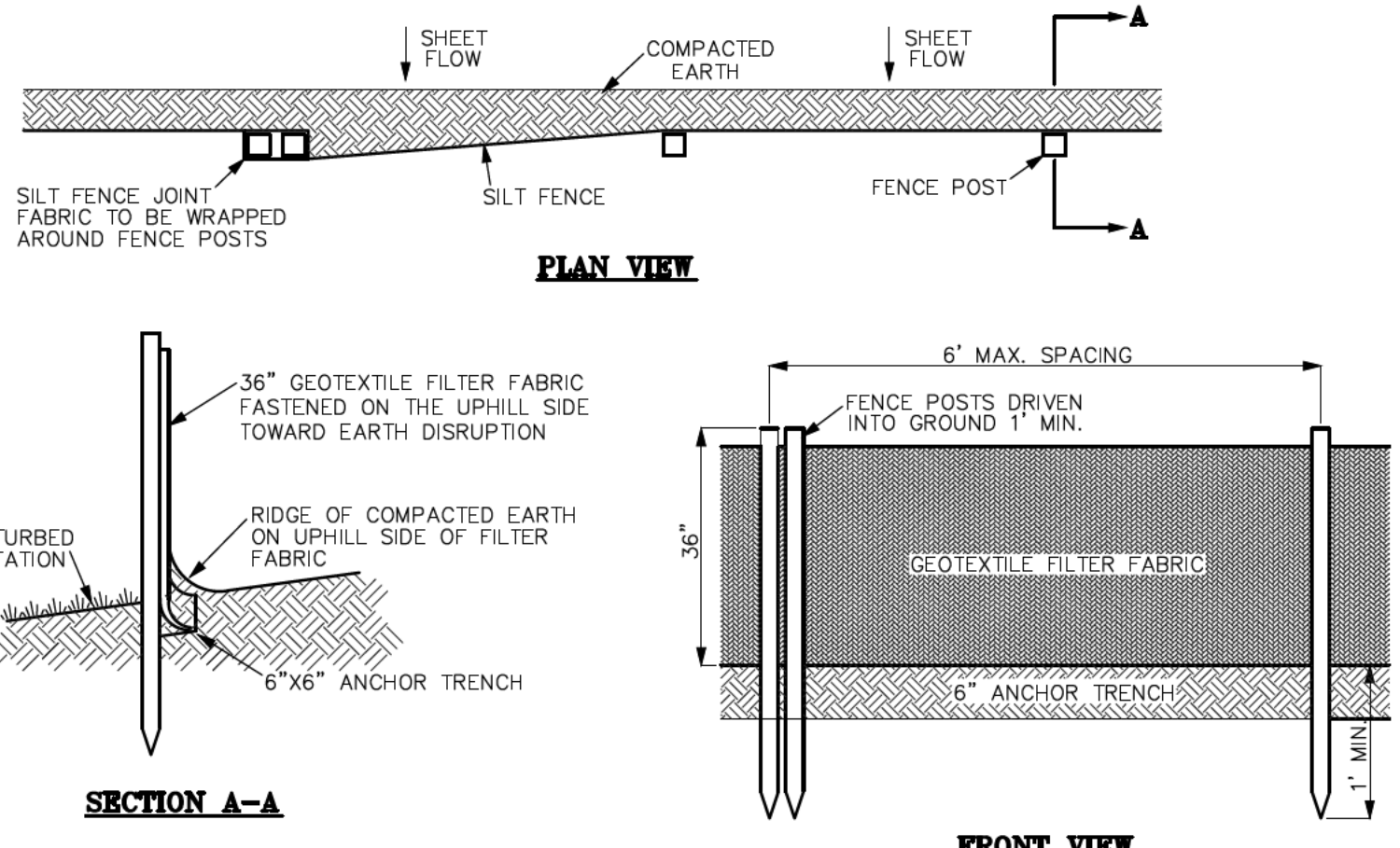
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PARTLUND DEVELOPMENT SOIL EROSION CONTROL PLAN
2700 E. GRAND RIVER

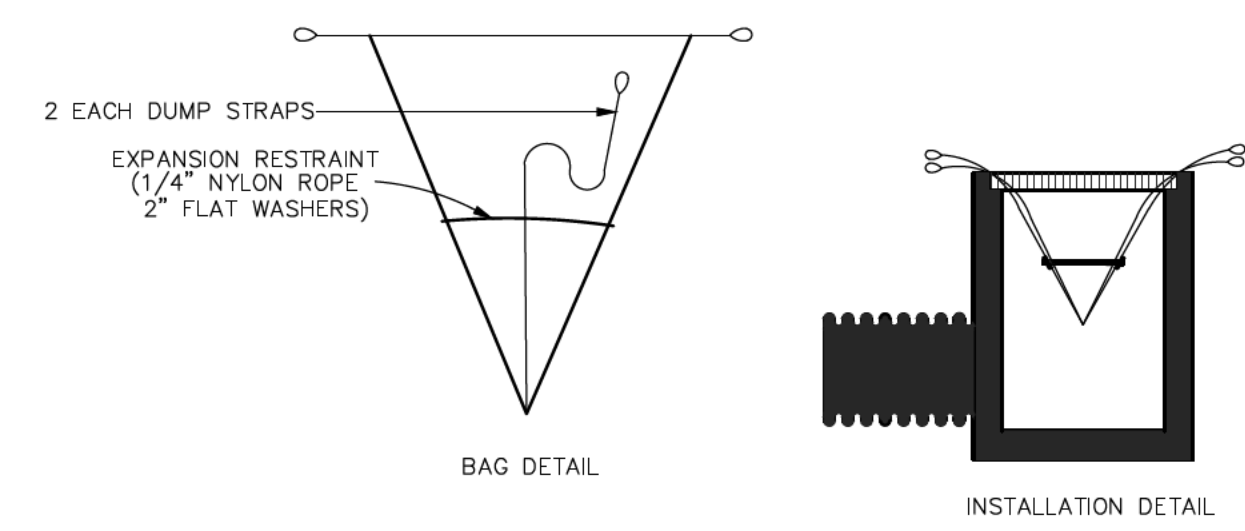
CLIENT:	SCALE: 1in. = 30ft.
PARTLUND DEVELOPMENT, LLC 29205 RYAN ROAD WARREN, MICHIGAN 48092	PROJECT No.: 183585
	DWG NAME: 3585 SE
	ISSUED: AUG. 18, 2020

SE1

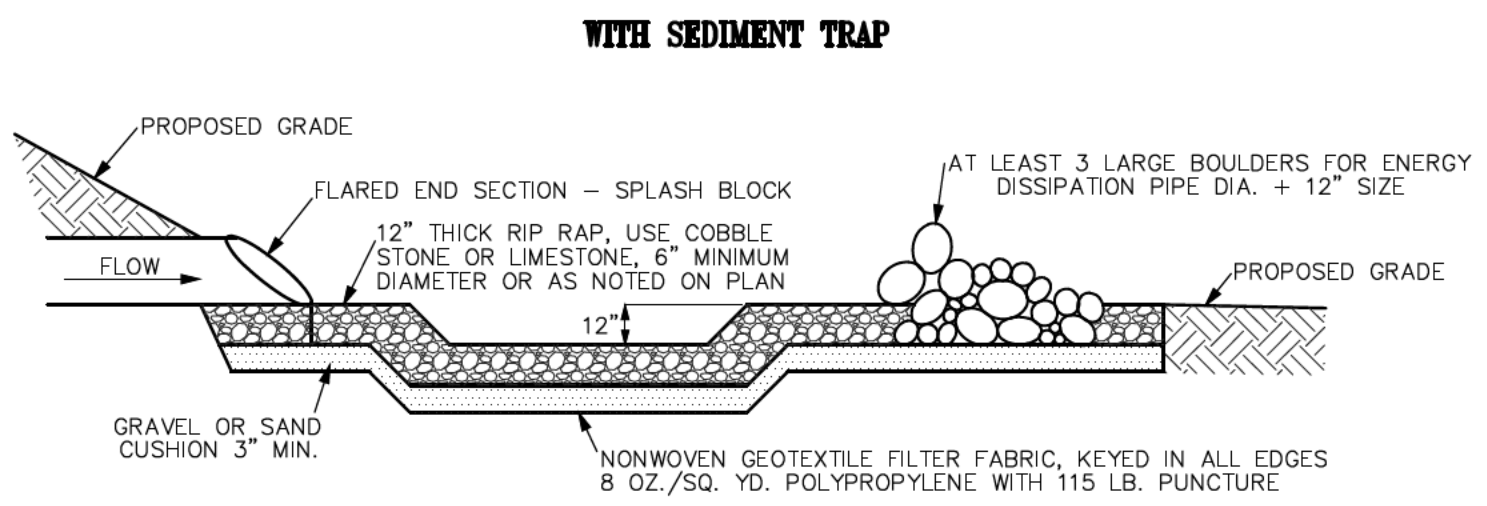


55 SILT FENCE
NOT TO SCALE

- NOTES:**
- REPAIR AND REPLACE SILT FENCE AS NEEDED, INCIDENTAL.
 - FIELD LOCATE SILT FENCE TO FOLLOW CONSTANT CONTOUR ELEVATIONS.
 - OVERLAP FENCES AT JOINTS.
 - INSTALL FILTER BERM AT LOW POINTS WHERE INDICATED ON PLANS.

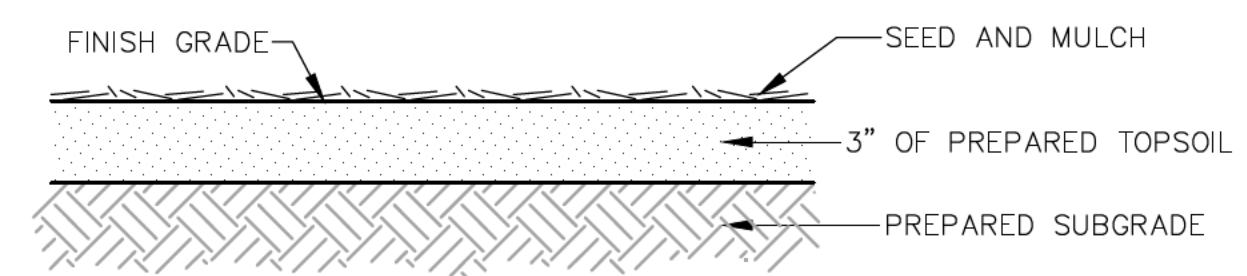


58 INLET SEDIMENT FILTER
NOT TO SCALE



13 RIP RAP CROSS SECTION
NOT TO SCALE

- NOTES:**
- GROUT RIP RAP WITH A 6" THICK CEMENT SLURRY FOR SLOPES STEEPER THAN 20%: 5 ON 1.
 - PROVIDE ANIMAL GUARDS ON ALL STORM SEWER 15" DIA. OR GREATER, INCIDENTAL TO FES PIPE.



SEEDING DETAIL
NOT TO SCALE

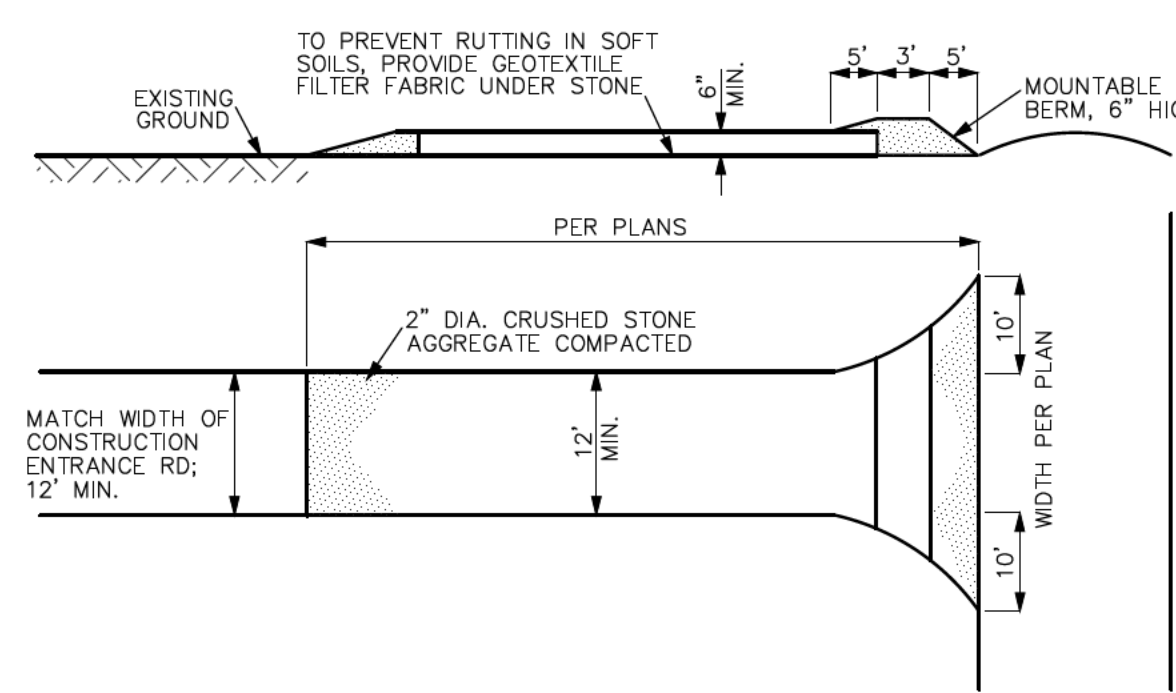
- Seed mixture shall consist of 10% - Kentucky Blue Grass, 20% - Perennial Ryegrass, 30% - Hard Fescue, 40% - Creeping Red Fescue. Seed shall be uniformly applied at a rate of 210 pounds per acre.
- Topsoil shall be a dark, organic, natural surface soil free of clay lumps, peat or muck, subsoil, noxious weeds or other foreign matter such as roots, sticks, rocks over 1/2" in diameter and not frozen or muddy. Material shall meet with approval of the Engineer.
- Straw mulching shall be a minimum depth of 3" applied at a rate of 1.5 to 2 tons per acre. All mulching must have a tie down, such as tackifier, net binding, etc.
- Fertilizer shall be evenly applied at a rate which will provide 150 pounds per acre of chemical fertilizer nutrients, in equal portions, (10-10-10), of Nitrogen, Phosphoric Acid and Potash.
- Hydroseeding is not acceptable for slopes exceeding 1%. In such cases, stabilization shall be done with seed and straw mulch with a tackifier.
- The earthen areas to receive topsoil shall be at the required grade and properly trimmed. Topsoil shall be spread on the prepared areas to a depth of 3 inches. After spreading, any large clods and lumps of topsoil shall be broken up and pulverized. Stones and rocks over 1/2" in diameter, roots, litter, and all foreign matter shall be raked up and disposed of by the contractor. Place topsoil only when it can be followed within a reasonable time by seeding operations.

SOIL EROSION CONTROL AND CONSTRUCTION SEQUENCE:

- Obtain all necessary Soil Erosion and Sedimentation Control related permits from the appropriate Local, County and/or State Agencies. Refer to the General Notes on the project plans for additional requirements.
- Prior to commencement of any earth disruption install Silt Fence and Mud Tracking Control Device(s) in accordance with the Soil Erosion and Sedimentation Control Plan.
- Strip and stockpile topsoil. Perform mass grading and land balancing. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan.
- Install proposed underground utilities (i.e. storm and sanitary sewer, water main, etc.) Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan.
- Construct building(s) if required on the project plans. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan.
- Construct roadways and/or parking areas. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan.
- Finish grade all disturbed areas outside of pavement. Perform final restoration, including placement of topsoil and establishment of vegetative growth outside of pavement.
- Following establishment of sufficient vegetative ground cover and receipt of approval from the Permitting Agency, remove all temporary Soil Erosion Control Measures, clean all storm sewer structures and repair all permanent Soil Erosion Control Measures.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

- The Soil Erosion and Sedimentation Control Specifications of the appropriate Local, County and/or State Agencies are a part of this work. Refer to the General Notes on the Project Plans for additional requirements.
 - The Soil Erosion and Sedimentation Control (SESC) Permit Holder shall be responsible for compliance with the SESC Permit requirements for the duration of the project and until receipt of final approval from the Permitting Agency. For any site with an earth disturbance area of 1 acre or greater, the SESC Permit Holder shall retain a Certified Storm Water Operator in accordance with the SESC Permit requirements. The Certified Storm Water Operator shall perform routine inspections of the site and the SESC measures and file inspection reports in accordance with the SESC permit requirements. For any site with an earth disturbance area of 5 acres or greater, the SESC Permit Holder shall file a National Pollutant Discharge Elimination System (NPDES) Notice of Coverage Form with the State DEQ prior to any earth disruption.
 - The Contractor shall install the appropriate Soil Erosion Control Measures in accordance with the Project Plans prior to massive earth disruption, including but not limited to, silt fence, mud tracking control mats and sediment filters on existing storm sewer structures. Denudation work may be necessary prior to installation of some soil erosion control measures. In such cases, postpone installation of affected soil erosion control measures until immediately following denudation work. Refer to the Project Plans and the Soil Erosion Control and Construction Sequence for additional requirements.
 - The Contractor shall schedule work so as to minimize the period of time that an area is exposed and disturbed. The Contractor shall observe the grading limits and limits of disturbance in accordance with the Project Plans. The Contractor shall maintain an undisturbed vegetative buffer around the work when shown on the Project Plans.
 - The Contractor shall install and maintain Soil Erosion Control Measures in accordance with the Project Plans during the appropriate phases of construction. The Project Plans show the minimum requirements for Soil Erosion Control Measures. The Contractor shall install additional Soil Erosion Control Measures as necessary due to site conditions and as directed by the Permitting Agency and/or Engineer. The Contractor shall perform routine inspection and maintenance of all Soil Erosion Control Measures to ensure compliance with the permit requirements and proper operation of the Soil Erosion Control Measures.
 - The Contractor shall strip and stockpile topsoil from all areas of proposed disturbance. Topsoil stockpiles shall be located in accordance with the Project Plans. Topsoil stockpiles shall be stabilized with straw during the non-growing season) to prevent wind and water erosion. A temporary diversion berm and/or silt fence shall encompass all earthen material stockpiles, including but not limited to topsoil, sand and gravel.
 - The Contractor shall install Soil Erosion Control Measures associated with the proposed storm sewer system during storm sewer construction. Inlet structure filters shall be installed immediately following completion of each storm inlet structure. Riprap shall be installed immediately following the installation of each flared end section with the following exception: Storm drain outlets that do NOT empty into a Retention, Detention or Sedimentation Basin shall have a temporary 3' wide x 10' long x 3' deep sump installed at the termination of the storm sewer. Upon completion of the stabilization work, the sump area shall be filled and riprap shall be installed in accordance with the Project Plans.
 - The Contractor shall install filter stone around the storm basin control structure(s) in accordance with the Project Plans immediately following installation of the control structure(s). The filter stone shall be monitored for sediment build up. The filter stone may need to be cleaned and/or replaced as site conditions require and as directed by the Permitting Agency and/or the Engineer.
 - All disturbed areas outside of paved areas shall be restored within 15 days of finish grading. Proposed vegetative areas shall be restored with a minimum of 3 inches of topsoil, then seeded and mulched, unless noted otherwise on the Project Plans. During the non-growing season, temporary stabilization shall be provided using straw matting or as directed by the Permitting Agency and/or the Engineer.
- Seeding, Fertilizer and Mulch Bare Ground Ratio:**
This information is provided as minimum guidance for acceptable application rates. Actual amounts depending on soil conditions and site topography shall be detailed on the construction plans.
Topsoil: 3 inches in depth
Grass Seed: 210 lbs. per acre
Fertilizer: 150 lbs. per acre
Straw Mulch: 3" in depth 1.5 to 2 tons per acre
(All mulch must have a tie down, such as tackifier, net binding, etc.)
Hydro-Seeding: Hydro-seeding is not acceptable for slopes exceeding 1%, in such cases, stabilization shall be done with seed and straw mulch with a tackifier.
- Following complete site restoration and stabilization, sediment shall be removed from all storm sewer structures, paved areas and storm basins. The SESC Permit Holder shall contact the Permitting Agency to request closure of the SESC Permit. For any site with an earth disturbance area of 5 acres or greater, the SESC Permit Holder shall file a NPDES Notice of Termination Form with the State DEQ.



14 MUD TRACKING CONTROL DEVICE
NOT TO SCALE

- NOTE:** WHEN ACCEPTABLE TO ENGINEER, CONTRACTOR MAY INSTALL STONE BELOW THE SUBGRADE ELEVATION; THUS STONE MAY BE LEFT IN PLACE BELOW PAVEMENT.

MAINTENANCE NOTES FOR SOIL EROSION CONTROL MEASURES:

The Construction Site and all Soil Erosion Control Measures shall be inspected periodically in accordance with the appropriate local municipality/authority and the MDEQ NPDES rules and regulations. At a MINIMUM, inspections shall be performed once a week and within 24 hours following a storm event resulting in 1" of rainfall or greater. Inspections shall be performed throughout the duration of the construction process and until the site is completely stabilized. Following construction, the owner (or its assignee) shall periodically inspect all permanent soil erosion control measures to ensure proper operation.

CATCH BASINS: Catch basins shall be inspected for accumulation of solids and sediment. Solids and sediment shall be removed from the catch basins by vacuum or adductor cleaning. Cleaning should be performed before the catch basin sumps are half full.

MUD TRACKING CONTROL DEVICE / CONSTRUCTION ACCESS: Mud tracking control devices shall be inspected for significant mud accumulation and to ensure the access is not eroding into public rights of way or drainage features. Add additional layers of stone or remove and replace stone each time the stone becomes covered with mud. All sediment dropped or eroded onto public rights of way shall be removed immediately. Sweeping of the public rights of way and/or paved access route shall be performed as necessary to maintain the access route free of sediment and debris.

RIPRAP: Inspect riprap immediately following the first rainfall event following installation of the riprap. Continue to perform inspections of the riprap at each periodic site inspection. Riprap shall be inspected to ensure erosion is not occurring within and/or around the riprap. The discharge point shall be inspected to ensure that concentrated flows are not causing erosion downstream. Displaced riprap shall be removed from downstream locations and the riprap beds shall be repaired or replaced. Significant sediment buildup shall be removed from riprap beds. Repair or replace failing or displaced riprap immediately. Address vegetation and/or erosion concerns as soon as weather permits.

SEEDING: Newly seeded areas shall be inspected until substantial vegetative growth is obtained. Seeded areas shall be inspected to ensure erosion is not occurring in the seeded area and vegetative growth is promoted. Eroded areas shall be finish graded as necessary to remove erosion channels or gulleys and new seed placed as soon as weather permits.

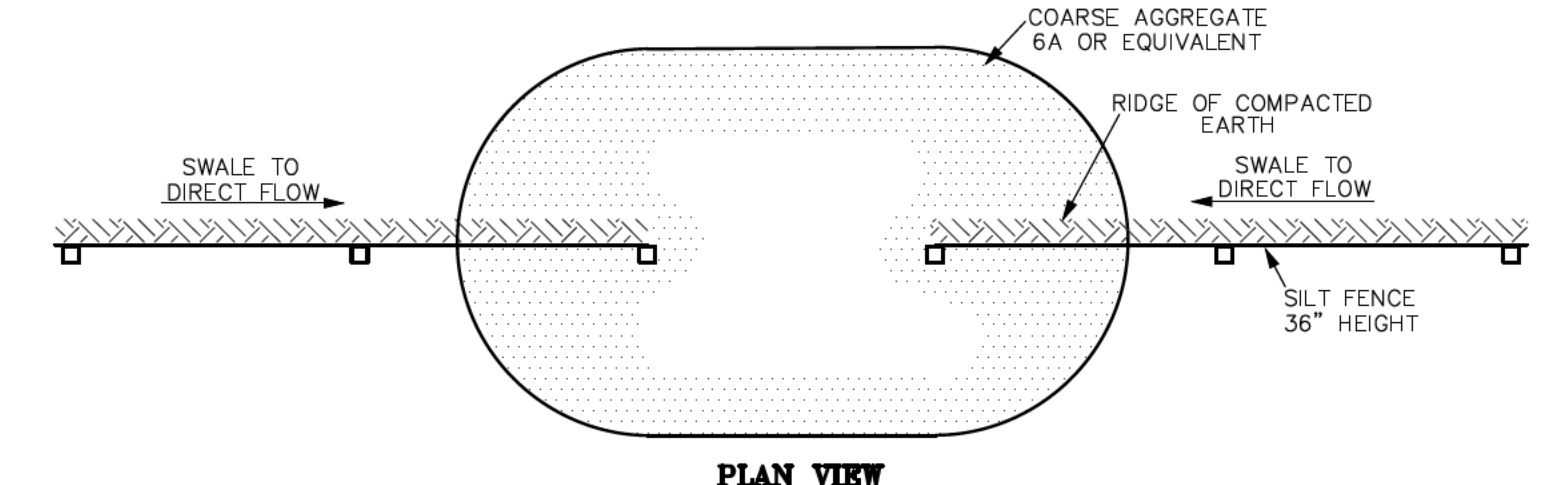
SILT FENCE: Silt fencing shall be inspected for soil accumulation/clogging, undercutting, overtopping and sagging. Soil accumulation shall be removed from the face of the silt fence each time it reaches half the height of the fence. Removed sediment shall be disposed of in a stable upland site or added to a spoils stockpile. When undercutting occurs, grade out areas of concentrated flow upstream of the silt fence to remove channels and/or gulleys and repair or replace silt fence ensuring proper trenching techniques are utilized. Silt fencing, which sags, falls over or is not staked in shall be repaired or replaced immediately. Silt fencing fabric, which decomposes or becomes ineffective, shall be removed and replaced with new fabric immediately. Silt fencing shall be removed once vegetation is well established and the up-slope area is fully stabilized.

SOD: Newly sodded areas shall be inspected to ensure sod is maturing. Sod shall be inspected for failure, erosion or damage. Slipping or eroding sod on steep slopes shall be immediately repaired or replaced and staked in place. Damaged or failed sod shall be immediately replaced.

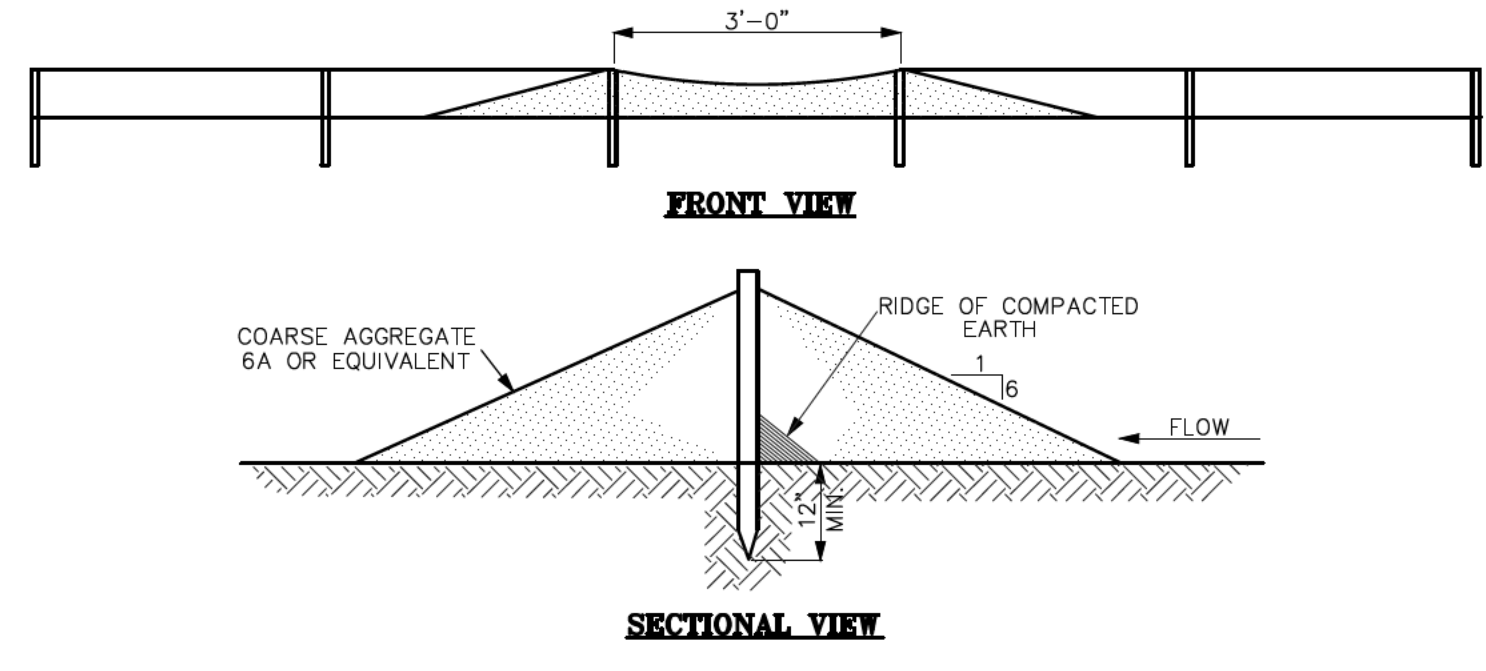
SPILLWAYS: Spillways shall be inspected to ensure that erosion is not occurring within and/or around the spillway. The discharge point shall be inspected to ensure that concentrated flows are not causing erosion downstream. Inspect the spillway for cracked concrete, uneven and/or excessive settling and proper function. Repair or replace failing spillways immediately. Address vegetation and/or erosion concerns as soon as weather permits.

STOCKPILES: Temporary and permanent topsoil and spoils stockpiles shall be seeded to promote vegetative growth. Stockpiles shall be inspected to ensure excessive erosion has not occurred. When mowoff or wind erosion is evident, reduce the side slopes of the stockpile or stabilize the stockpile with pieces of stacked sod laid perpendicular to the slope. When filter fencing is used around a stockpile, the fencing shall be inspected to ensure piping has not occurred under the fencing and to ensure the fencing has not collapsed due to soil slippage or access by construction equipment. Repair or replace damaged fencing immediately. Berms at the base of stockpiles, which become damaged, shall be replaced.

STORM STRUCTURE INLET FILTER: Inlet filters shall be inspected for sediment accumulation, clogging and damage. When stone is used in conjunction with inlet filter fabric, replace the stone each time it becomes clogged with sediment. Clean or replace the inlet filter fabric each time it becomes clogged with sediment. Reinstall or replace fallen filter fabrics immediately. Replace damaged filter fabrics immediately.



21 SILT FENCE WITH FILTER BERM DETAIL
NOT TO SCALE



SOIL EROSION CONTROL LEGEND

1	STRIPPING & STOCKPILING TOPSOIL	TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION STOCKPILE SHOULD BE TEMPORARILY SEEDDED
6	SEEDING WITH MULCH AND/OR MATTING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER. EFFECTIVE FOR DRAINAGeways WITH LOW VELOCITY. EASILY PLACED IN SMALL QUANTITIES BY INEXPERIENCED PERSONNEL. SHOULD INCLUDE PREPARED TOPSOIL BED.
13	RIPRAP, RUBBLE, CARBONS	USED WHERE VEGETATION IS NOT EASILY ESTABLISHED. EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATION PERMITS RUNOFF TO INFILTRATE SOIL. DISSIPATES ENERGY FLOW AT SYSTEM OUTLETS.
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THUS MINIMIZING EROSION. PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER. MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS.
21	FILTER BERM	CONSTRUCTION OF GRAVEL OR STONE. INTERCEPTS AND DIVERTS RUNOFF TO STABILIZED AREAS OR PREPARED DRAINAGE SYSTEM. SLOWS RUNOFF AND COLLECTS SEDIMENT.
55	GEOTEXTILE SILT FENCE	USES GEOTEXTILE AND POSTS OR POLES. MAY BE CONSTRUCTED OR PREPACKAGED. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.
58	INLET SEDIMENT FILTER	USES PREPACKAGED GEOTEXTILE SACKS. FILTERS SEDIMENT FROM RUNOFF AT CATCH BASIN INLET. EASY TO INSTALL AND MAINTAIN.



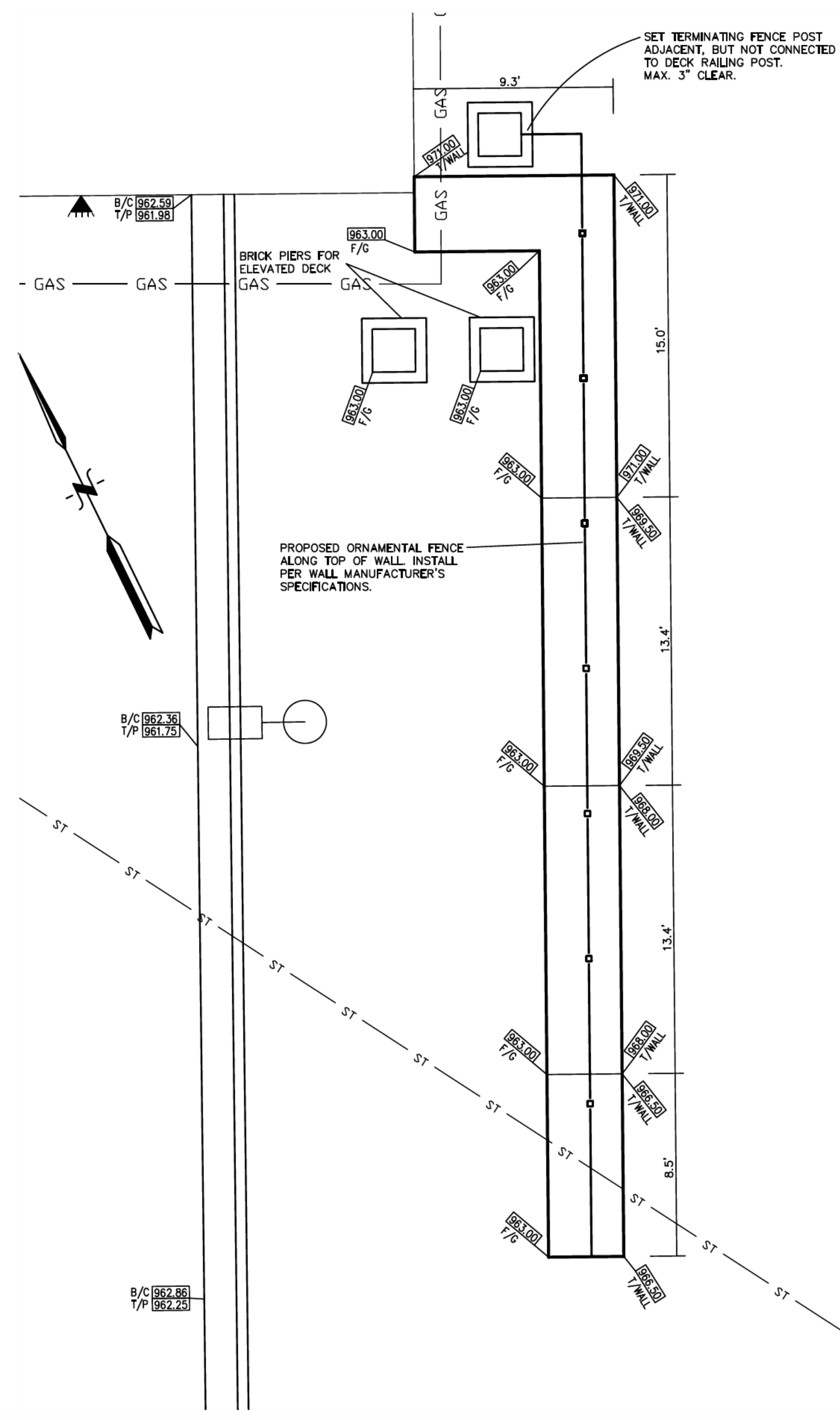
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DRAFT: JHG	1	8-18-20	REVISED PER REVIEW COMMENTS			
CHECK: JMB						

PARTLUND DEVELOPMENT
2700 E. GRAND RIVER

SOIL EROSION CONTROL
NOTES & DETAILS

CLIENT:	SCALE: AS NOTED
PARTLUND DEVELOPMENT, LLC 29205 RYAN ROAD WARREN, MICHIGAN 48092	PROJECT No.: 183585
	DWG NAME: 3585 SE
	ISSUED: AUG. 18, 2020

SE2

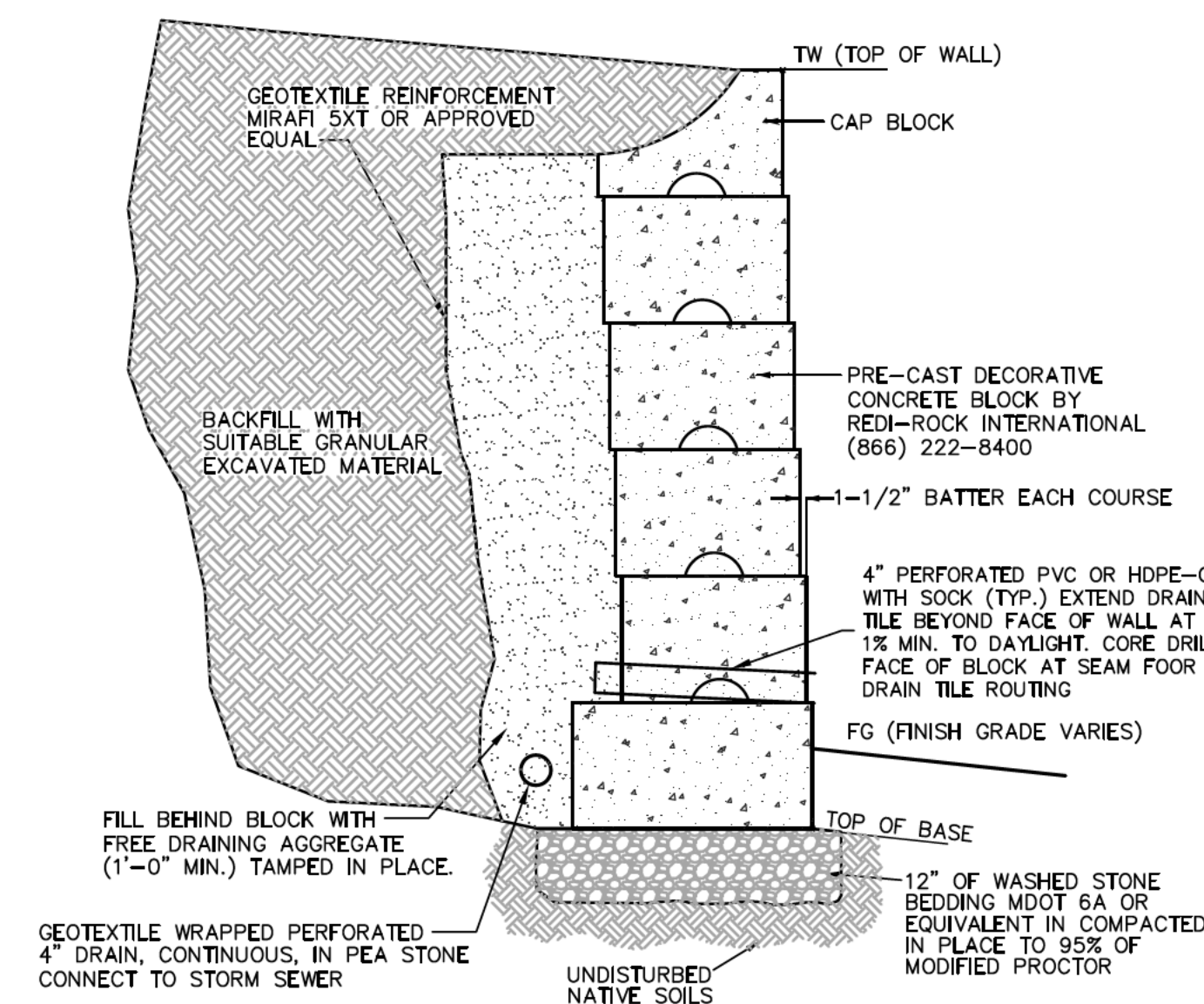


BENCHMARK
 DATUM BASED ON NGS OPUS SOLUTION REPORT, DATED MAY 4, 2018 AT 12:54 PM

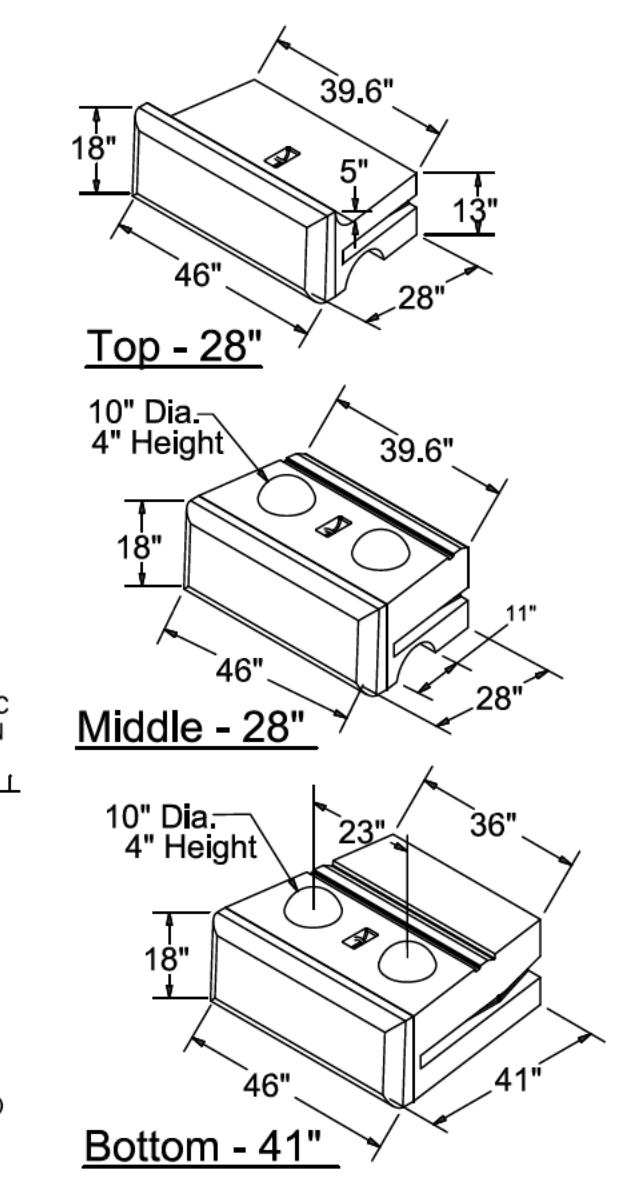
BENCHMARK #201
 ARROW ON HYDRANT, LOCATED SOUTH OF GRAND RIVER AVE., 38± FEET NORTHERLY OF THE NORTHEAST CORNER OF BLDG #2700.
 ELEVATION = 975.07 (NAVD 88)

BENCHMARK #202
 SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED 50± FEET SOUTHWESTERLY OF THE SOUTHWEST CORNER OF BLDG #2700.
 ELEVATION = 968.26 (NAVD 88)

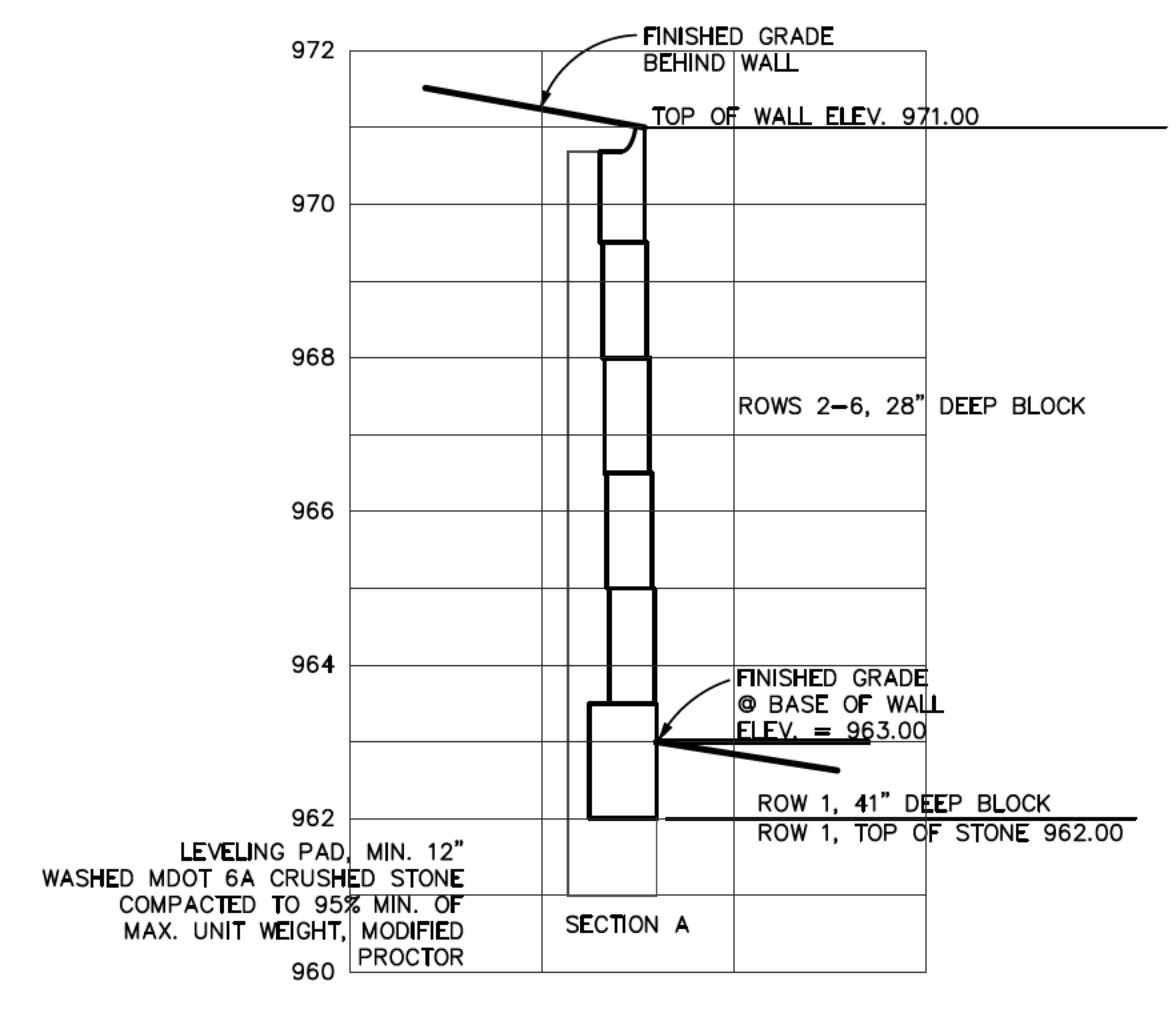
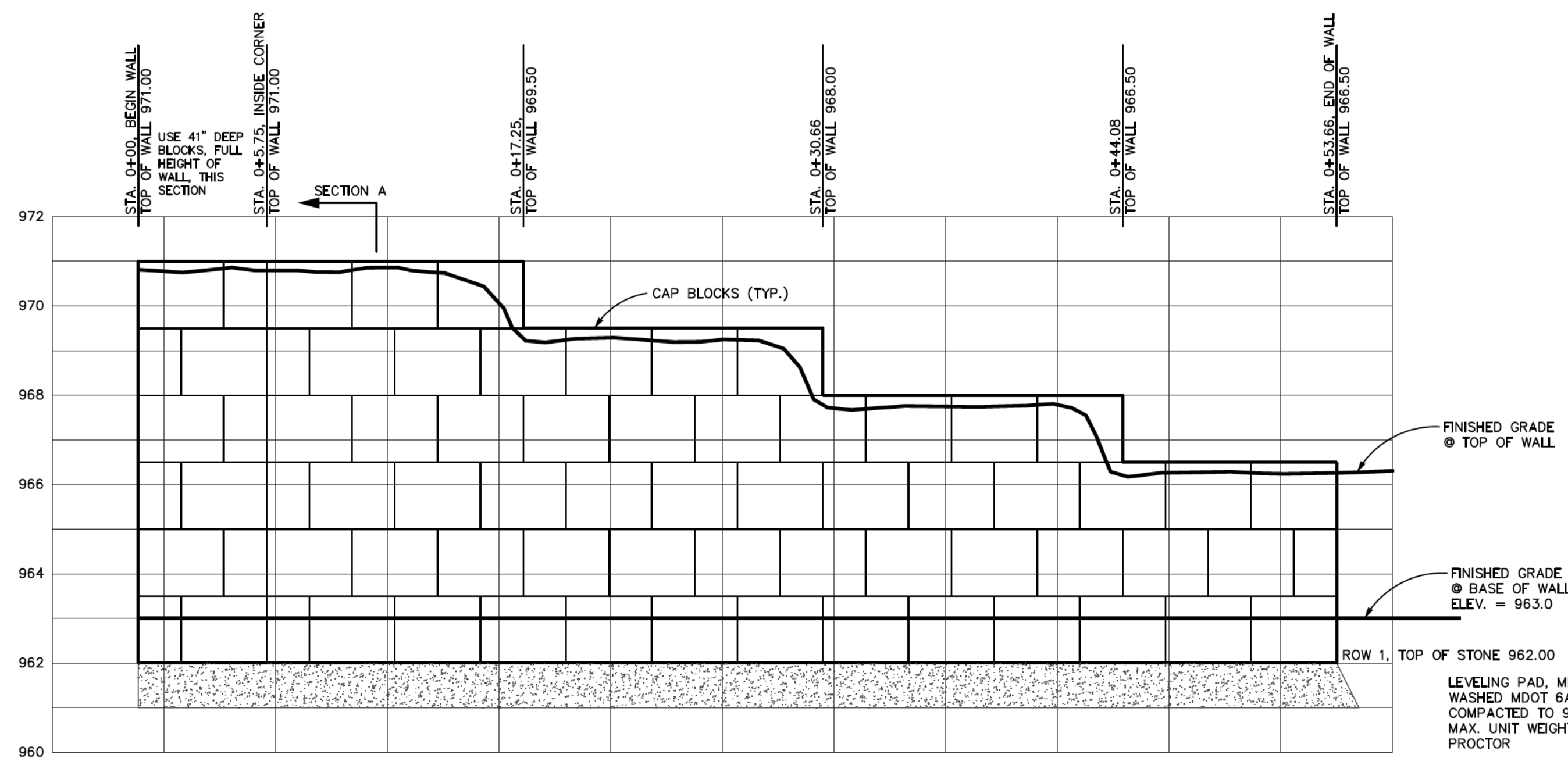
BENCHMARK #203
 SOUTHWEST CORNER OF A TRANSFORMER PAD, LOCATED IN THE REAR OF BLDG #2700, NEAR THE EASTERLY 1/2 OF BLDG.
 ELEVATION = 963.24 (NAVD 88)



RETAINING WALL CROSS-SECTION
 NOT TO SCALE



REDI-ROCK WALL DETAILS
 NOT TO SCALE



- SEGMENTAL RETAINING WALL NOTES**
- Wall Units
 - Wall units shall be Redi-Rock as produced by a licensed manufacturer.
 - Wall units shall meet or exceed Redi-Rock minimum specifications. All material used in the wall units, steps, and pavers must meet applicable ASTM and local requirements for exterior concrete. (ASTM Standard Specifications for Segmental Retaining Wall Units, concrete specifications ASTM C-94 & ACI 301-99 latest additions apply)
 - Exterior block dimensions shall be uniform and consistent. Maximum dimensional deviations shall be 0.50 inch or 2%, whichever is less, not including textured face.
 - Exposed face shall be finished as specified. Other surfaces to be smooth form type. Dime-size bug holes on the block face may be patched and/or shake-on color stain can be used to blend into the remainder of the block face.
 - Delivery, Storage and Handling
 - Contractor shall check the materials upon delivery to assure proper material has been received.
 - Contractor shall prevent excessive mud, wet cement and like materials from coming in contact with the SRW units.
 - Contractor shall protect the materials from damage. Damaged material shall not be incorporated in the project.
 - Leveling Pad and Free Draining Backfill
 - Leveling Pad shall be washed stone or compacted gravel. See construction drawings for specifications.
 - Free Draining Backfill material shall be granular, well draining sand or stone and shall be placed to a minimum of 1-foot of depth behind the back of the wall and shall extend vertically from the Leveling Pad to an elevation 4-inches below the top of the wall. See construction drawings for specifications.
 - Backfill material shall be in accordance with the construction drawings. Site excavated spoils may be used if approved unless otherwise specified on the construction drawings. Unsuitable soils with a P1-6, organic soils and frost susceptible soils shall not be used within a 1 to 1 influence area.
 - Non-woven geotextile cloth shall be placed between the Free Draining Backfill and retained soil when noted on the construction drawings.
 - Where additional fill is needed, Contractor shall submit sample and specifications to the Engineer for approval.
 - Drainage
 - Internal and external drainage shall be provided in accordance with the construction drawings.
 - Geogrid
 - Geogrid connection bar to be epoxy coated rebar, 1/2-inch in diameter cut 3-foot 4-inches long.
 - Geogrid fabric to be Mirafix Miragrid or equivalent. See construction drawings for specifications.
 - Geogrid fabric shall be installed in accordance with the construction drawings and the SRW unit manufacturer's specifications.
 - Excavation
 - Contractor shall excavate to the lines and grades shown on the construction drawings.
 - Foundation Soil Preparation
 - Native foundation soil shall be compacted to 95% of standard proctor or 90% of modified proctor prior to placement of the Leveling Pad material.
 - In-situ foundation soil shall be examined by the Testing Engineer to ensure that the actual foundation soil strength meets or exceeds assumed design strength. Soil not meeting required strength shall be removed and replaced as directed by the Testing Engineer.
 - Leveling Pad Placement
 - Leveling Pad shall be placed as shown on the construction drawings.
 - Leveling Pad shall be placed on undisturbed native soils or suitable replacement fill material as acceptable to the Engineer.
 - Leveling Pad shall be compacted to 95% of standard proctor or 90% of modified proctor to ensure a level, hard surface on which to place the first course of blocks. Pad shall be constructed to the proper elevation to ensure the final elevation shown on the plans. Well-graded sand may be used to smooth the top 1/2-inch on the Leveling Pad (when using gravel pad only).
 - Leveling Pad shall have a 6-inch minimum depth for walls under 8-feet in height and a 12-inch minimum depth for walls over 8-feet. See construction drawings for additional specifications. Pad dimensions shall extend beyond the blocks in all directions to a distance at least equal to the depth of the pad unless otherwise specified on the construction drawings.
 - For steps and pavers, a minimum of 1-inch to 1 1/2-inches of free draining sand shall be screeded smooth to act as a placement bed for the steps or pavers.
 - Unit Installation
 - The first course of wall units shall be placed on the prepared Leveling Pad with aesthetic surface facing out and the front edged tight together. All units shall be checked for level and alignment as they are placed.
 - Ensure that units are in full contact with Leveling Pad. Proper care shall be taken to develop straight lines and smooth curves on base course as per wall layout.
 - The backfill in front and back of entire base row shall be placed and compacted to firmly lock them in place. Check all units again for level and alignment. All excess material shall be swept from top of units.
 - Install next course of wall units on top of base row. Position blocks to be offset from seams of blocks below. Blocks shall be placed fully forward so knob and groove are engaged. Check each block for proper alignment and level. Backfill to 12-inch depth behind block with Free Draining Backfill Spread backfill in uniform lifts not exceeding 8-inches. Employ methods using lightweight compaction equipment that will not disrupt the stability or batter of the wall. Hand-operated plate compaction equipment shall be used around the block and within 3-feet of the wall to achieve consolidation. Compact backfill to 95% of standard proctor (ASTM D 698, AASHTO T-99) density within 2% of its optimum moisture content.
 - Install each subsequent course in like manner. Repeat procedure to the extent of wall height.
 - Allowable construction tolerance is 2-degrees vertically and 1-inch in 10-foot horizontally.
 - All walls shall be installed in accordance with local building codes and requirements.

For local dealer contact:
 Redi-Rock International
 05481 So. US-31
 Charlevoix, MI 49720
 1-866-222-8400 www.redi-rock.com <http://www.redi-rock.com>
 info@redi-rock.com

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DESIGN: JHG	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
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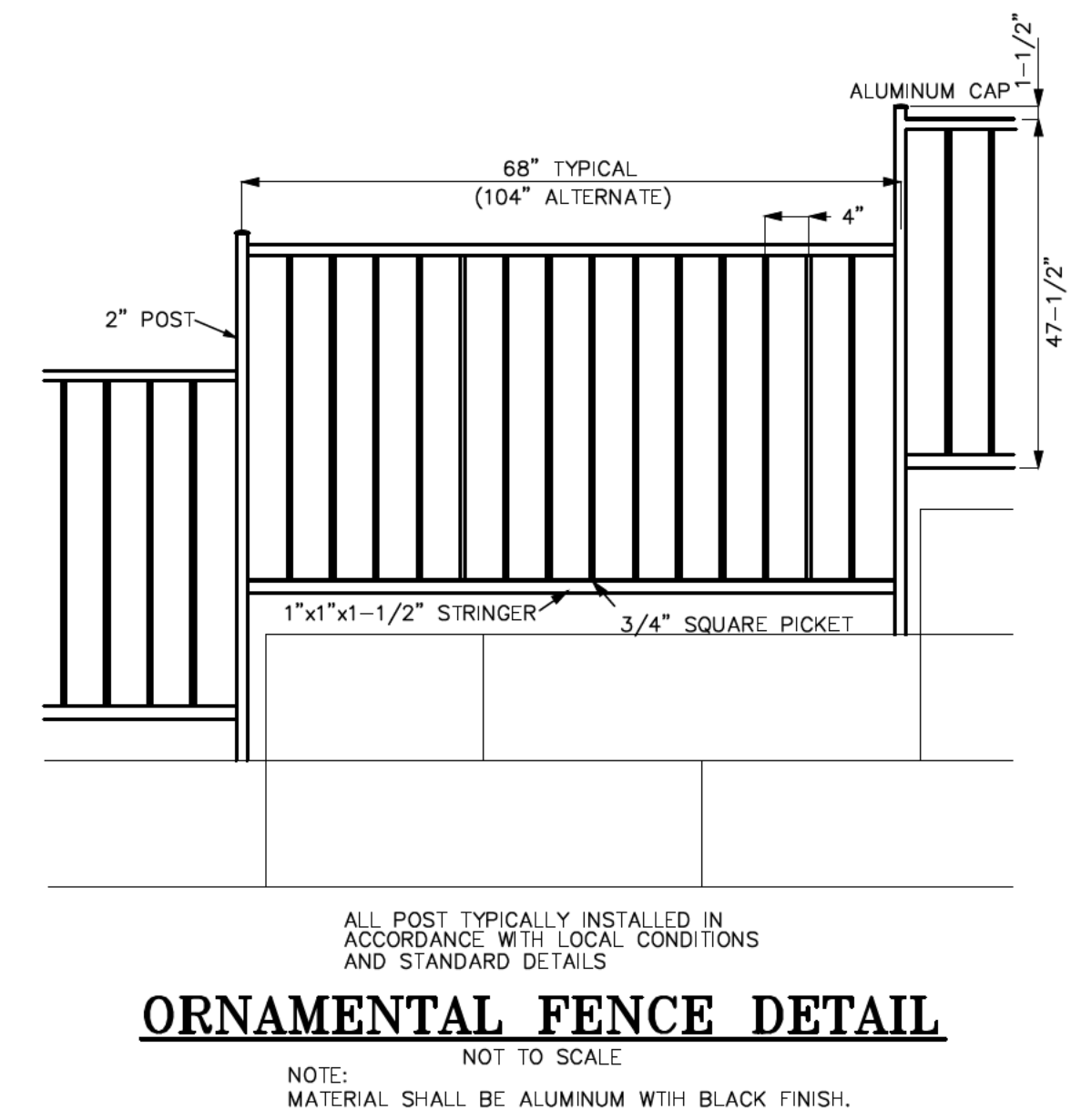
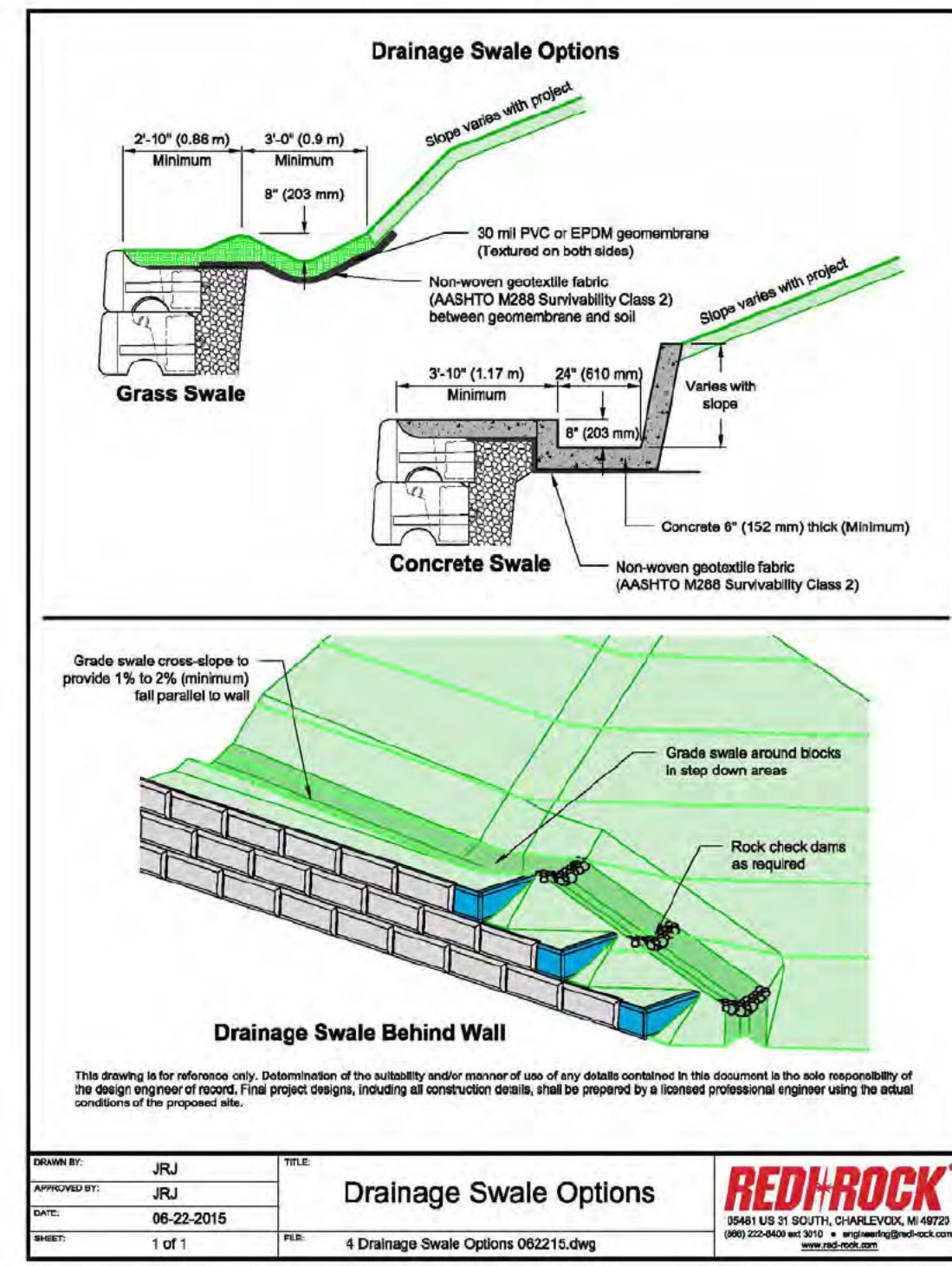
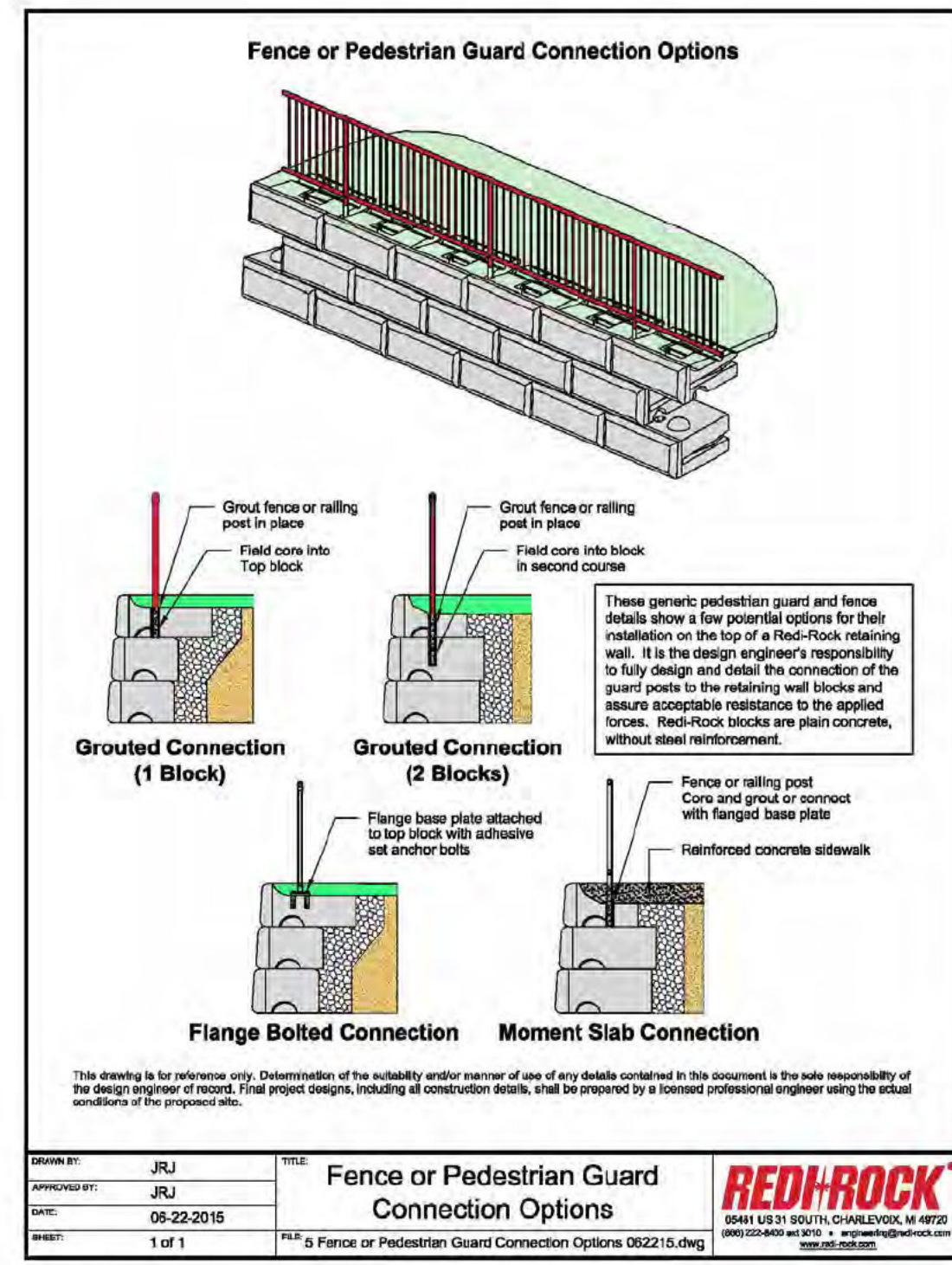
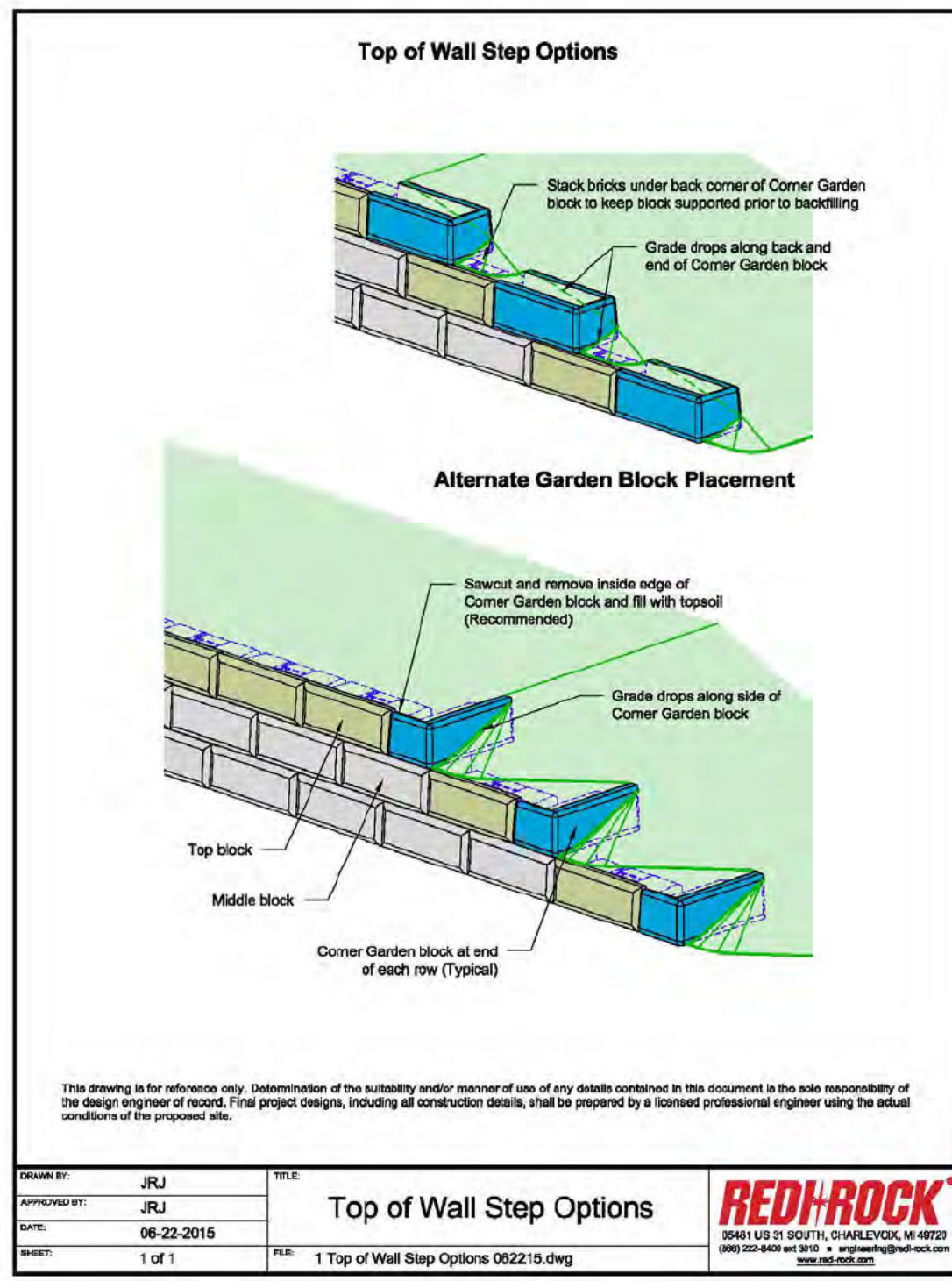
PARTLUND DEVELOPMENT
 2700 E. GRAND RIVER

RETAINING WALL PROFILE & SECTIONS

CLIENT: PARTLUND DEVELOPMENT, LLC
 29205 RYAN ROAD
 WARREN, MICHIGAN 48092

SCALE: AS NOTED
 PROJECT No.: 183585
 DWG NAME: 3585 WALL
 ISSUED: AUG. 18, 2020

RW1



Analysis of Redi Rock wall

Input data

Project: USA - Safety factor

Date: 5/16/2020

Settings: USA - Safety factor

Wall analysis: Active earth pressure calculation: Coulomb; Passive earth pressure calculation: Mazindrani (Rankine); Earthquake analysis: Mononobe-Okabe; Shape of earth wedge: Calculate as skew; Allowable eccentricity: 0.333; Internal stability: Standard - straight slip surface; Reduction coeff. of contact first block - base: 1.00; Verification methodology: Safety factors (ASD)

Safety factors

Permanent design situation	
Safety factor for overturning:	SF _o = 1.50 [-]
Safety factor for sliding resistance:	SF _s = 1.50 [-]
Safety factor for bearing capacity:	SF _b = 2.00 [-]
Safety factor for sliding along geo-reinforcement:	SF _{sl} = 1.50 [-]
Safety factor for geo-reinforcement strength:	SF _{st} = 1.50 [-]
Safety factor for pull out resistance of geo-reinf.:	SF _{po} = 1.50 [-]
Safety factor for connection strength:	SF _{con} = 1.50 [-]

Geometry

No. group	Description	Count	Setback s [ft]
1	Block 41	1	1.62
2	Block 28	4	1.62
3	Top block 28	1	

Base

Upper setback a₁ = 0.00 ft

Lower setback a₂ = 1.00 ft

Height h = 1.00 ft

Width b = 5.29 ft

Material

Soil creating foundation - Well graded gravel (GW), medium dense

Soil parameters

Well graded gravel (GW), medium dense

Unit weight: $\gamma = 100.0$ pcf

Stress-state: effective

Angle of internal friction: $\phi_{eff} = 38.50^\circ$

Cohesion of soil: $c_{eff} = 0.0$ psf

Angle of friction struc.-soil: $\delta = 36.00^\circ$

Soil parameters

Clayey sand (SC)

Unit weight: $\gamma = 100.0$ pcf

Stress-state: effective

Angle of internal friction: $\phi_{eff} = 38.50^\circ$

Cohesion of soil: $c_{eff} = 0.0$ psf

Angle of friction struc.-soil: $\delta = 30.00^\circ$

Saturated unit weight: $\gamma_{sat} = 133.0$ pcf

Poorly graded sand (SP), medium dense

Unit weight: $\gamma = 118.0$ pcf

Stress-state: effective

Angle of internal friction: $\phi_{eff} = 33.50^\circ$

Cohesion of soil: $c_{eff} = 0.0$ psf

Angle of friction struc.-soil: $\delta = 30.00^\circ$

Saturated unit weight: $\gamma_{sat} = 118.0$ pcf

Silty sand (SM)

Unit weight: $\gamma = 115.0$ pcf

Stress-state: effective

Angle of internal friction: $\phi_{eff} = 29.00^\circ$

Cohesion of soil: $c_{eff} = 10.0$ psf

Angle of friction struc.-soil: $\delta = 10.00^\circ$

Saturated unit weight: $\gamma_{sat} = 115.0$ pcf

Sand with trace of fines (S-F), medium dense

Unit weight: $\gamma = 112.0$ pcf

Stress-state: effective

Angle of internal friction: $\phi_{eff} = 29.50^\circ$

Cohesion of soil: $c_{eff} = 0.0$ psf

Angle of friction struc.-soil: $\delta = 25.00^\circ$

Saturated unit weight: $\gamma_{sat} = 112.0$ pcf

Geological profile and assigned soils

No.	Layer [ft]	Assigned soil	Pattern
1	10.00	Poorly graded sand (SP), medium dense	
2	-	Silty sand (SM)	

Input concentrated surcharges

No.	Surcharge	Action	Magnitude [lb]	Ord.x x [ft]	Length l [ft]	Width b [ft]	Depth z [ft]
1	Yes	change	4000.00	0.00	1.00	1.00	on terrain

Check for overturning stability

Resisting moment $M_{res} = 17368.5$ lb/ft

Overturning moment $M_{ovr} = 5019.5$ lb/ft

Safety factor = 3.46 > 1.50

Wall for overturning is **SATISFACTORY**

Check for slip

Resisting horizontal force $H_{res} = 3473.97$ lb/ft

Active horizontal force $H_{act} = 1441.46$ lb/ft

Safety factor = 2.41 > 1.50

Wall for slip is **SATISFACTORY**

Overall check - WALL is SATISFACTORY

Verification No. 1

Forces acting on construction

Name	F _{hor} [lb/ft]	App.Pt. z [ft]	F _{vert} [lb/ft]	App.Pt. x [ft]	Design coefficient
Weight - wall	0.0	-4.33	3140.6	2.80	1.000
FF resistance	-104.5	-0.67	0.2	0.50	1.000
Weight - earth wedge	0.0	-2.30	173.0	4.24	1.000
Weight - earth wedge	0.0	-9.79	88.7	3.00	1.000
Active pressure	1458.0	-3.15	1798.2	4.47	1.000
Construction Equipment	87.9	-5.56	47.9	3.78	1.000

Verification of complete wall

Check for overturning stability

Resisting moment $M_{res} = 17368.5$ lb/ft

Overturning moment $M_{ovr} = 5019.5$ lb/ft

Safety factor = 3.46 > 1.50

Wall for overturning is **SATISFACTORY**

Check for slip

Resisting horizontal force $H_{res} = 3473.97$ lb/ft

Active horizontal force $H_{act} = 1441.46$ lb/ft

Safety factor = 2.41 > 1.50

Wall for slip is **SATISFACTORY**

Overall check - WALL is SATISFACTORY

Dimensioning No. 1

Forces acting on construction

Name	F _{hor} [lb/ft]	App.Pt. z [ft]	F _{vert} [lb/ft]	App.Pt. x [ft]	Design coefficient
Weight - wall	0.0	-4.10	2615.6	1.59	1.000
Weight - earth wedge	0.0	-1.98	77.2	2.81	1.000
Weight - earth wedge	0.0	-8.79	88.7	2.00	1.000
Active pressure	1106.4	-2.88	1023.3	3.03	1.000
Construction Equipment	88.4	-4.56	46.8	2.77	1.000

Verification of block No. 1

Check for overturning stability

Resisting moment $M_{res} = 7779.5$ lb/ft

Overturning moment $M_{ovr} = 3586.7$ lb/ft

Safety factor = 2.17 > 1.50

Joint for overturning stability is **SATISFACTORY**

Check for slip

Resisting horizontal force $H_{res} = 3063.80$ lb/ft

Active horizontal force

$H_{act} = 1194.80$ lb/ft

Safety factor = 2.56 > 1.50

Joint for verification is **SATISFACTORY**

Bearing capacity of foundation soil

Design load acting at the center of footing bottom

No.	Moment [lb/ft]	Norm. force [lb/ft]	Shear Force [lb/ft]	Eccentricity [-]	Stress [psf]
1	1428.5	5248.60	1441.46	0.052	1115.4

Service load acting at the center of footing bottom

No.	Moment [lb/ft]	Norm. force [lb/ft]	Shear Force [lb/ft]
1	1428.5	5248.60	1441.46

Verification of foundation soil

Stress in the footing bottom: rectangle

Eccentricity verification

Max. eccentricity of normal force $e = 0.052$

Maximum allowable eccentricity $e_{all} = 0.333$

Eccentricity of the normal force is **SATISFACTORY**

Verification of bearing capacity

Max. stress at footing bottom $\sigma = 1115.4$ psf

Bearing capacity of foundation soil $R_u = 2400.0$ psf

Safety factor = 2.15 > 2.00

Bearing capacity of foundation soil is **SATISFACTORY**

Overall verification - bearing capacity of found. soil is SATISFACTORY

Slope stability analysis

Input data

Results (Stage of construction 1)

Analysis 1

Slope stability verification (Bishop)

Sum of active forces: $F_a = 4160.3$ lb/ft

Sum of passive forces: $F_p = 6782.6$ lb/ft

Sliding moment: $M_a = 41769.8$ lb/ft

Resisting moment: $M_p = 68096.8$ lb/ft

Factor of safety = 1.83 > 1.50

Slope stability **ACCEPTABLE**

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 Redi-Rock International | (231) 237-9500 ext.300 | engineering@red-rock.com | www.red-rock.com

DESIGN: JHG	REVISION #	DATE	REVISION-DESCRIPTION
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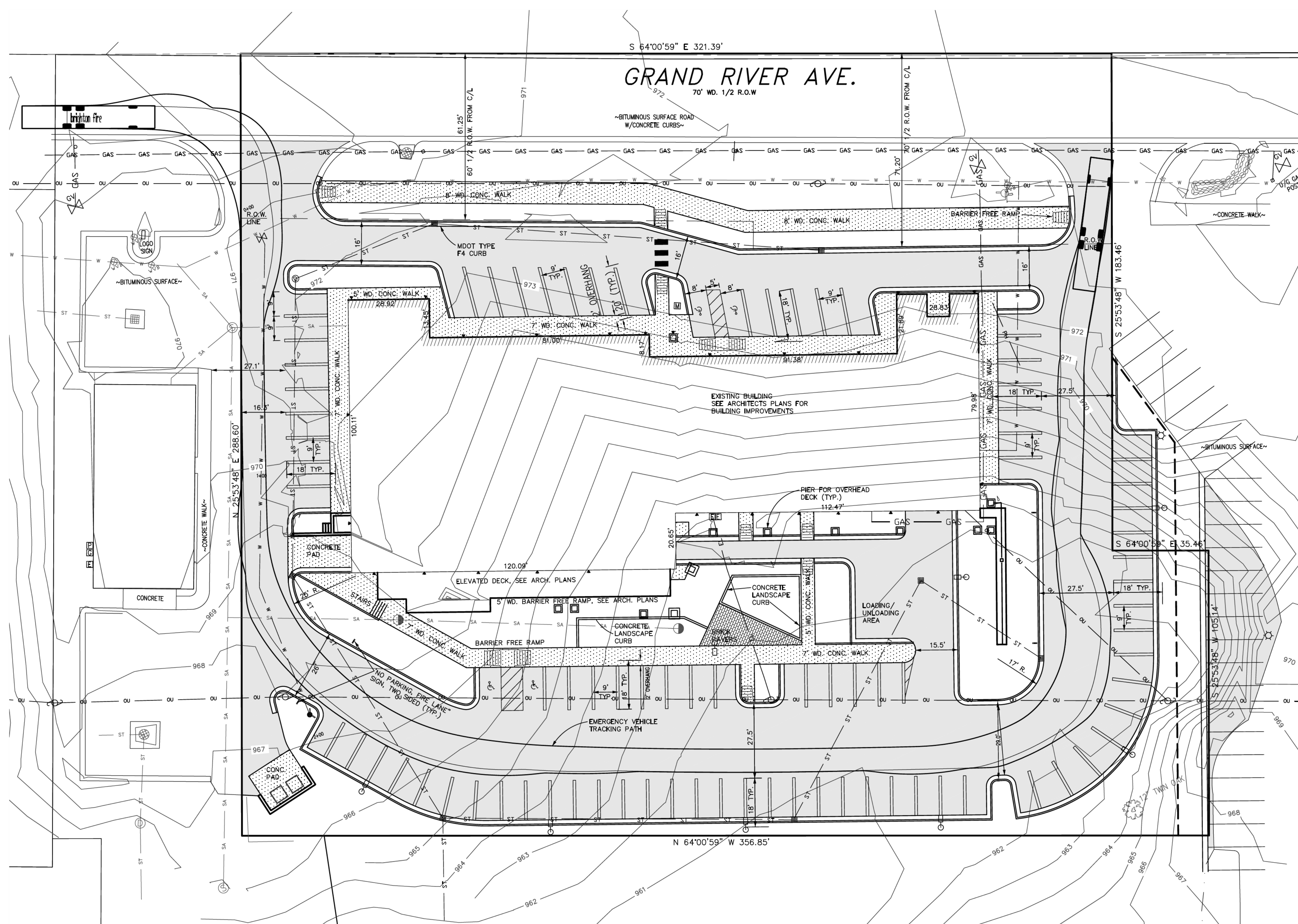
PARTLUND DEVELOPMENT
2700 E. GRAND RIVER

RETAINING WALL
NOTES & DETAILS

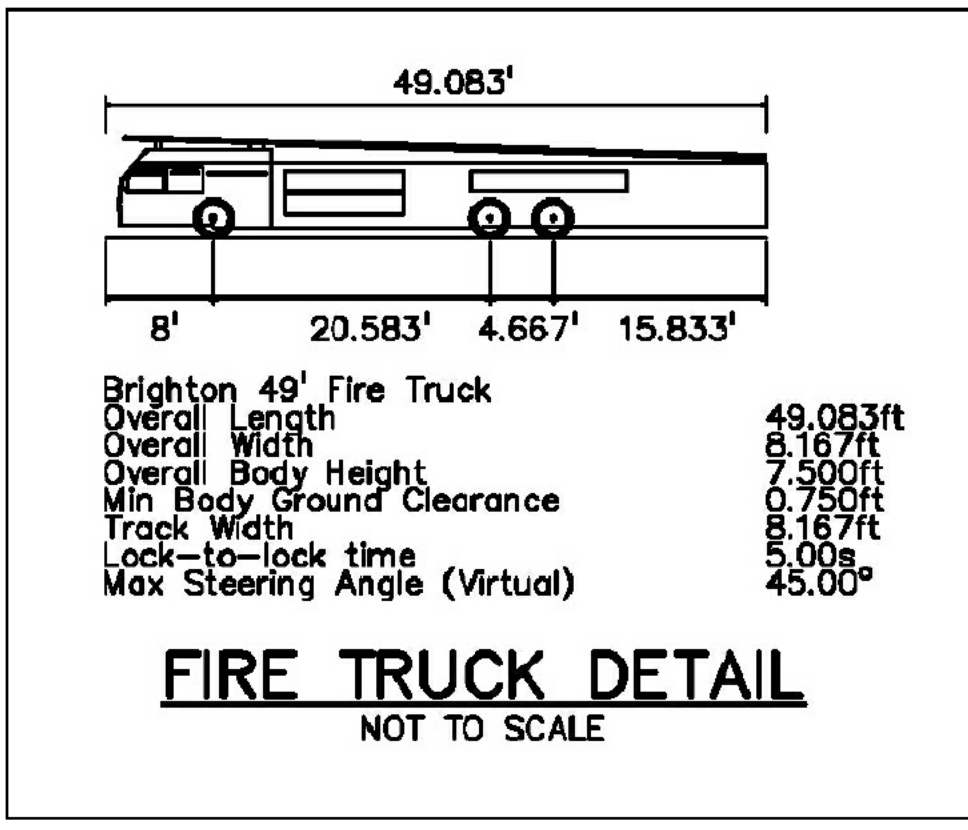
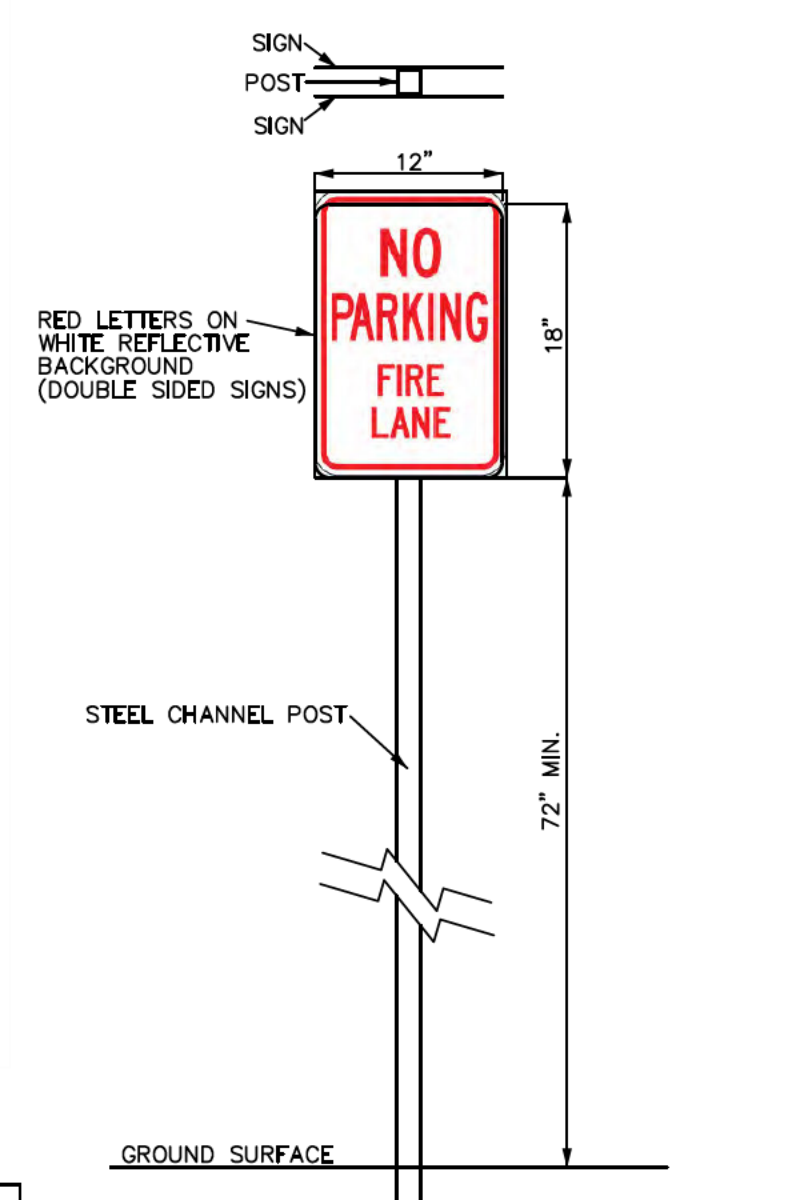
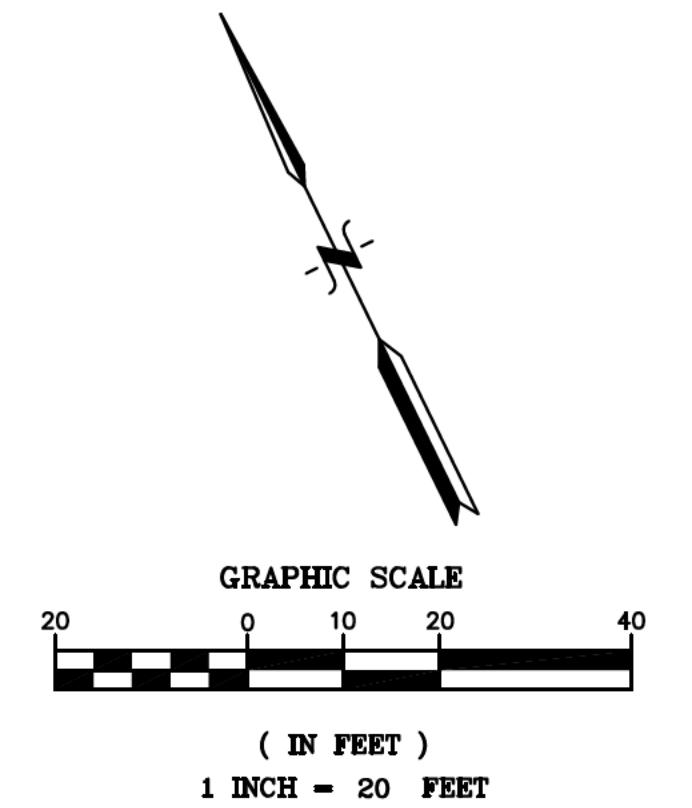
CLIENT:	SCALE: NONE
PARTLUND DEVELOPMENT, LLC 29205 RYAN ROAD WARREN, MICHIGAN 48092	PROJECT No.: 183585 DWG NAME: 3585 WALL
ISSUED:	AUG. 18, 2020



RW2



- LEGEND**
- ⊙ = WELL / MONITOR WELL
 - ⊠ = SIGN
 - ⊠ = LIGHT FIXTURE / DECORATIVE LIGHT
 - ⊠ = LIGHT BASE
 - ⊠ = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
 - ⊠ = AIR CONDITIONER UNIT
 - ⊠ = UTILITY POLE W/GUY WIRE
 - ⊠ = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
 - ⊠ = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
 - ⊠ = DECIDUOUS TREE W/IDENTIFIER
 - ⊠ = CONIFEROUS TREE W/IDENTIFIER
 - ⊠ = FENCE (CHAIN LINK UNLESS OTHERWISE STATED)
 - ⊠ = GUARD RAIL
 - ⊠ = EDGE OF GRAVEL
 - ⊠ = CONCRETE CURB (UNLESS OTHERWISE STATED)
 - ⊠ = SANITARY SEWER MANHOLE W/IDENTIFIER
 - ⊠ = SANITARY SEWER PIPE
 - ⊠ = CLEAN OUT
 - ⊠ = STORM WATER MANHOLE W/IDENTIFIER
 - ⊠ = CATCH BASIN W/IDENTIFIER
 - ⊠ = STORM WATER DRAINAGE PIPE
 - ⊠ = HYDRANT
 - ⊠ = WATER SHUT OFF
 - ⊠ = WATER VALVE BOX
 - ⊠ = WATER MAIN
 - ⊠ = GAS MANHOLE
 - ⊠ = GAS SHUT OFF
 - ⊠ = U/G GAS
 - ⊠ = 1' CONTOUR
 - ⊠ = 5' CONTOUR
 - ⊠ = PROP. CONCRETE
 - ⊠ = PROP. BRICK PAVERS
 - ⊠ = PROP. BITUMINOUS PAVEMENT



DESIGN: JHG	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

PARTLUND DEVELOPMENT
2700 E. GRAND RIVER

EMERGENCY VEHICLE ROUTE

CLIENT:
 PARTLUND DEVELOPMENT, LLC
 29205 RYAN ROAD
 WARREN, MICHIGAN 48092

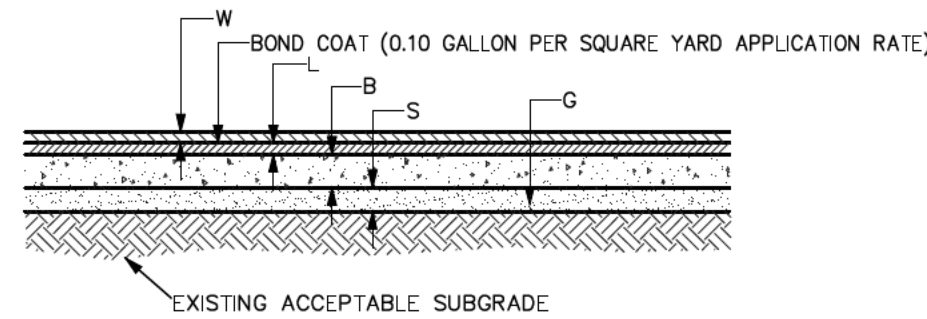
SCALE: 1in. = 20ft.
 PROJECT No.: 183585
 DWG NAME: 3585 FD
 ISSUED: AUG. 18, 2020

FD

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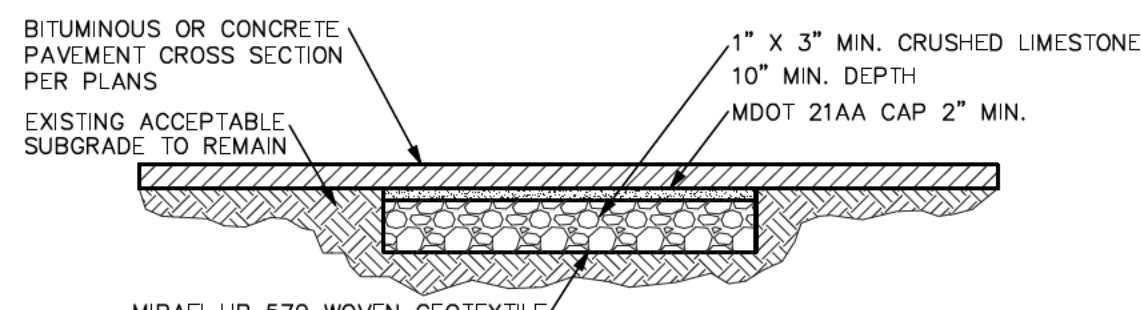
BITUMINOUS PAVEMENT CROSS SECTION
NOT TO SCALE

MINIMUM TOWNSHIP CROSS SECTION

KEY	DESCRIPTION	MATERIAL SPECIFICATION	MINIMUM COMPACTED THICKNESS
W	WEARING COURSE	MDOT 36A	1.5"
L	LEVELING COURSE	MDOT 13A	1.5"
B	AGGREGATE BASE	MDOT 22A	6"
S	GRANULAR SUBBASE	MDOT CLASS II	6"
G	GEOGRID	N/A	N/A

BITUMINOUS PAVEMENT NOTES:

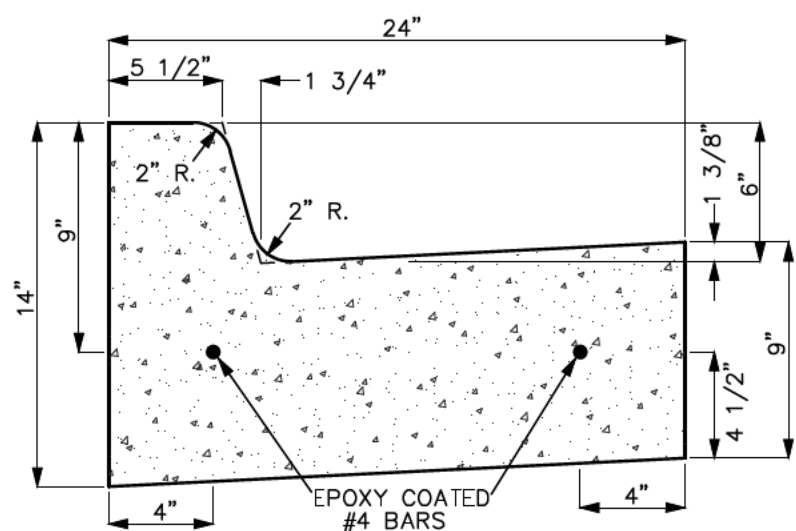
- The construction specifications of the appropriate Local Municipality are a part of this work. Refer to the General Notes, Road and/or Driveway and Parking Lot Construction Notes and Typical Road and/or Pavement Cross Section details on the project plans for additional requirements.
- Unsuitable soils found within the 1 on 1 influence zone of the roadway, such as muck, peat, topsoil, marl, silt or other unstable materials shall be excavated and replaced up to the proposed subgrade elevation with MDOT Class III granular material compacted to 95% maximum unit weight, modified proctor.
- Contractor shall proof roll prepared subgrade as directed by Engineer. Unacceptable areas of subgrade shall be undercut and replaced as directed by Engineer.
- Owner/Developer may delay placement of the bituminous wearing course outside of the public road right of way. Repair of the bituminous leveling course may be necessary due to any delay in placement of the bituminous wearing course. Substantial repair to the bituminous leveling course may be necessary if placement of the bituminous wearing course is delayed for more than 12 months after placement of the bituminous leveling course. The bituminous leveling course shall be repaired as directed by Engineer prior to placement of the bituminous wearing course.



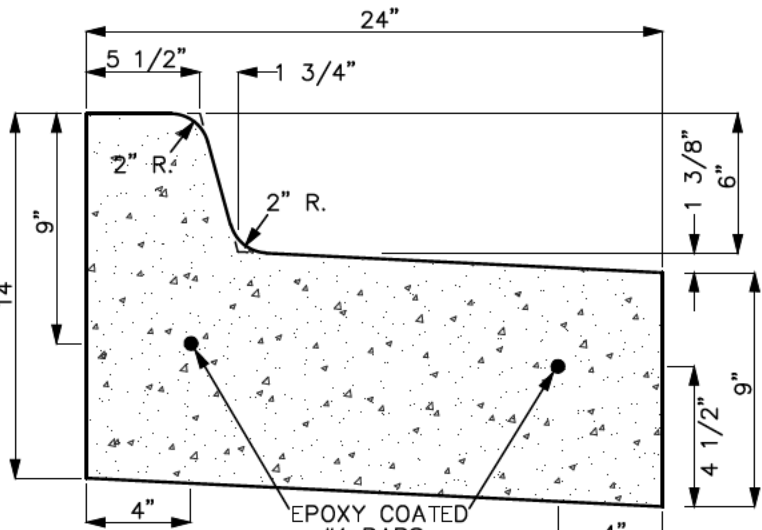
SUBGRADE UNDERCUT AND REPLACEMENT CROSS-SECTION
NOT TO SCALE

PAVEMENT SUBGRADE UNDERCUT NOTES:

- Areas of pavement subgrade that do not pass a proof roll inspection shall be undercut when directed by the Material Testing Engineer and/or Project Engineer. All undercut work shall be witnessed and field measured by the Material Testing Engineer and/or Project Engineer.
- Undercut areas shall be excavated to a depth of 12" below the proposed subgrade elevation using an Excavator or Backhoe with a Smooth Edged Ditching Bucket so as not to scarify the underlying soils. Undercut areas shall remain free of all construction traffic and equipment to avoid rutting and/or tracking of the underlying soils.
- Mirafi HP 570 Woven Geotextile Fabric (or approved equal) shall be placed over all undercut areas per the Manufacturer's specifications. Overlap all seams a minimum of 12" unless specified otherwise by the Manufacturer.
- Backfill the undercut areas with 1" x 3" minimum size crushed angular limestone up to the proposed subgrade elevation. Crushed concrete material shall NOT be substituted for crushed limestone material. The backfill material shall be spread with a Wide Track Dozer to minimize loading on the underlying soils. Static roll the backfill material with a large smooth drum roller.
- Construct the appropriate Bituminous or Concrete Pavement Cross Section over the undercut areas per the Project Plans.
- The General Contractor and/or Earthwork Subcontractor shall provide ALDI Inc with unit pricing to perform subgrade undercut work per square yard (SY) of undercut area. Undercut Unit Pricing SHALL include excavation, loading, hauling and offsite disposal of excess spoils, placement of geotextile fabric and backfill including all labor, equipment and materials necessary to complete pavement subgrade undercut work as specified on the Project Plans.



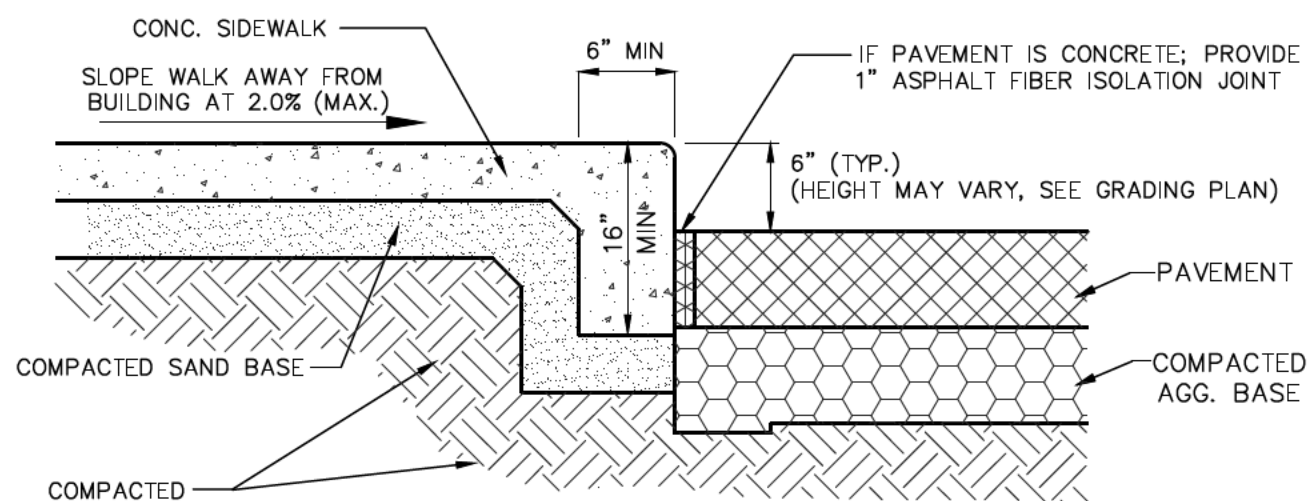
MDOT TYPE F4 CURB
NOT TO SCALE



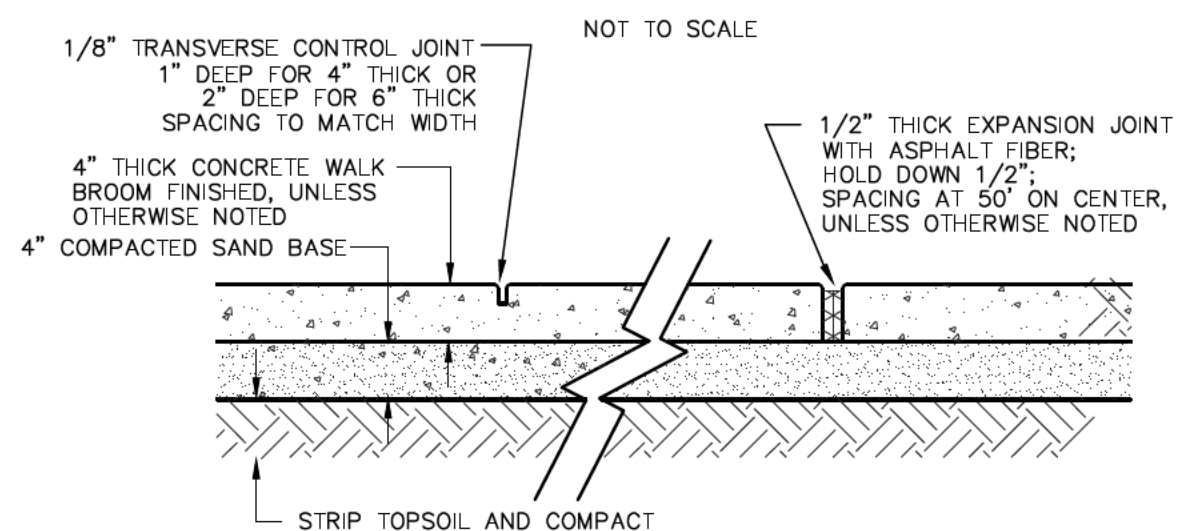
MDOT TYPE F4 CURB REVERSE PITCH
NOT TO SCALE

CONCRETE CURB NOTES:

- Refer to the project plans for the proposed locations of the specific curb types.
- The construction specifications of the appropriate Local Municipality are a part of this work. Refer to the General Notes and Curb Cross Section Details on the project plans for additional requirements.
- Extend the base and/or subbase material of the appropriate adjacent pavement cross-section horizontally to 1 foot behind the back of curb. Concrete curb shall be constructed on no less than 6" of combined depth of compacted base/subbase material.
- Concrete material shall meet or exceed the specification requirements of the appropriate Local Municipality. Unless specified otherwise by the Local Municipality, concrete material shall be air-entrained and shall have a minimum 28-day class design strength of 3500 psi. Contractor shall submit concrete mix design and aggregate mechanical analysis report to the Local Municipality and Engineer for review and approval prior to use.
- Install transverse contraction control joints in concrete curb with 1" minimum depth at 10' on center. Tool joints in fresh concrete or saw cut within 8 hours.
- Install transverse expansion control joints in concrete curb as follows: 400' maximum on center, at spring points of intersecting streets and within 10' on each side of catch basins. Transverse expansion control joints shall be 1" thick asphalt fiber joint filler matching entire curb cross section.
- Provide 0.5" asphalt fiber control joint between back of curb and all other concrete structures, such as concrete sidewalks and concrete driveways.
- Curb Contractor shall provide final adjustment of catch basin castings in curb line. Castings shall be tucked pointed to structure water tight with concrete or mortar inside and outside of casting.
- Install curb cuts for all existing and proposed sidewalks and pedestrian ramps in accordance with the American Disabilities Act and the Barrier Free Design requirements of the appropriate Local, County and/or State Agency. Refer to MDOT Standard Plan R-28, latest revision. Install curb cuts for all existing and proposed vehicular ramps and drives as noted on the project plans.



SIDEWALK WITH INTERGAL CURB & ISOLATION JOINT DETAIL



SIDEWALK CROSS SECTION
NOT TO SCALE

SIDEWALK CROSS SECTION NOTES:

- The construction specifications of the Local Municipality are a part of this work. Refer to the General Notes and the Sidewalk Cross Section Details on the Project Plans for additional requirements.
- Sidewalk widths may vary. See the Project Plans for the proposed sidewalk width at each location. Increase sidewalks to 6" minimum thickness at driveways and other areas exposed to vehicular traffic.
- The existing subgrade soils shall be prepared prior to placement of the granular subbase. Unsuitable soils found within the 1 on 1 influence zone of the proposed sidewalk areas, such as muck, peat, topsoil, marl, silt or other unstable materials shall be excavated and replaced with structural fill. Structural fill shall be MDOT Class II granular material placed in accordance with the General Notes on the Project Plans.
- The sidewalk compacted subbase material shall be MDOT CL II sand. No subbase material substitutions shall be permitted without prior written approval of the Project Engineer and receipt of the Owner's Authorization. The subbase shall be compacted to a minimum of 95% of the maximum unit weight, modified proctor.
- Concrete material shall meet or exceed the specification requirements of the appropriate Local Municipality. Unless specified otherwise by the Local Municipality, concrete material shall be air-entrained and shall have a minimum 28-day class design strength of 3500 psi. Contractor shall submit concrete mix design and aggregate mechanical analysis report to the Local Municipality and Engineer for review and approval prior to use.
- Install transverse contraction control joints in accordance with the Sidewalk Cross Section Detail. Space contraction control joints to match sidewalk width, but no greater than 10' on center. Tool joints in fresh concrete or saw cut within 8 hours.
- Install transverse expansion control joints in accordance with the Sidewalk Cross Section Detail. Space expansion control joints at 50 feet on center maximum. Transverse expansion control joints shall be 1/2" thick asphalt fiber joint filler matching entire sidewalk cross section.
- Provide 0.5" asphalt fiber control joint between concrete sidewalks and all other concrete structures, such as concrete building foundations, concrete curb and concrete driveways.
- Construct all Barrier Free Sidewalk Ramps in accordance with the American Disabilities Act and the Barrier Free Design Requirements of the appropriate Local, County or State Agency with jurisdiction over the project. Refer to MDOT Standard Plan R-28, latest revision.
- The Concrete Pavement shall not be exposed to vehicular traffic until the concrete has reached at least 75% of the design flexural strength.

GENERAL NOTES:

- Contractor shall perform the work in accordance with the requirements of the appropriate Local, County and State Agencies and all other Government and Regulatory Agencies with jurisdiction over the project. Contractor shall notify the appropriate Agencies in advance of each stage of work in accordance with each Agency's requirements.
- Contractor shall comply with all permit, insurance, licensing and inspection requirements associated with the work. Prior to construction, Contractor and Owner/Developer shall determine who is responsible for obtaining each required permit. Contractor shall verify that the each required permit has been obtained prior to commencement of the stage of work associated with the required permit(s).
- Contractor shall furnish liability insurance and property damage insurance to save harmless the Owner, Developer, Architect, Engineer, Surveyor and Government Agencies for any accident occurring during the construction period. Refer to the appropriate Local, County and State Agencies for additional requirements. Copies of insurance certifications shall be made available to the Owner/Developer.
- Contractor shall conduct and perform work in a safe and competent manner. Contractor shall perform all necessary measures to provide for traffic and pedestrian safety from the start of work and through substantial completion. Contractor shall determine procedures and provide safety equipment such as traffic controls, warning devices, temporary pavement markings and signs as needed. Contractor shall comply with the safety standards of the State Department of Labor, the occupational health standards of the State Department of Health and safety regulations of the appropriate Local, County, State and Federal Agencies. Refer to the safety specifications of the appropriate Regulatory Agencies. The Contractor shall designate a qualified employee with complete job site authority over the work and safety precautions; said designated employee shall be on site at all times during the work.
- Contractor shall coordinate scheduling of all work in the proper sequence, including work by Subcontractors. Additional costs due to improper planning by Contractor or work done out of sequence as determined by standard acceptable construction practices, shall be Contractor's responsibility.
- Contractor shall contact the 811 Public Underground Utility Locating System or other appropriate local underground utility locating Agency, a minimum of three (3) working days prior to construction. Existing utility information on the project plans may be from information disclosed to this firm by the Utility Companies, Local, County or State Agencies, and/or various other sources. No guarantee is given as to the completeness or accuracy thereof. Prior to construction, locations and depths of all existing utilities (in possible conflict with the proposed improvements) shall be verified in the field.
- Contractor shall coordinate scheduling a Pre-Construction Meeting with Engineer prior to commencement of work.
- The Local Municipality, County and/or State in which the project is located may require an Engineer's Certification of construction of the proposed site improvements. Contractor shall verify the certification requirements with Engineer prior to commencement of work. Contractor shall coordinate construction staking, testing, documentation submittal and observation with the appropriate Agency, Surveyor and/or Engineer as required for Engineer's Certification and Government Agency Acceptance. All materials used and work done shall meet or exceed the requirements of certification and acceptance, the contract documents and the material specifications noted on the project plans. Any materials used or work done that does not meet said requirements, contract documents and/or specifications shall be replaced and/or redone at Contractor's expense. The Owner/Developer may wait for test results, certifications and/or Agency reviews prior to accepting work.
- Engineer may provide subsurface soil evaluation results, if available, to Contractor upon request. Subsurface soil evaluation results, soils maps and/or any other documentation does NOT guarantee existing soil conditions or that sufficient, acceptable on-site granular material is available for use as structural fill, pipe bedding, pipe backfill, road subbase or use as any other granular material specified on the project plans. On-site granular material that meets or exceeds the material specifications noted on the project plans may be used as structural fill, pipe bedding, pipe backfill and/or road subbase material. On-site granular material shall be stockpiled and tested as acceptable to the appropriate Agency and/or Engineer prior to use.
- During the performance of their work, Contractor shall be solely responsible for determining soil conditions and appropriate construction methods based on the actual field conditions. Contractor shall furnish, install and maintain sheeting, shoring, bracing and/or other tools and equipment and/or construction techniques as needed for the safety and protection of the workers, pedestrians and vehicular traffic and for protection of adjacent structures and site improvements.
- Contractor shall install temporary and permanent soil erosion and sedimentation control devices at the appropriate stages of construction in accordance with the appropriate regulatory Agencies.
- Structural fill shall be placed as specified on the project plans and within the 1 on 1 influence zone of all structures, paved areas and other areas subject to vehicular traffic. Structural fill shall be placed using the controlled density method (12" maximum lifts, compacted to 95% maximum unit weight, modified proctor). Fill material shall meet or exceed the specifications noted on the project plans or as directed by Engineer when not specified on the project plans.
- All existing monuments, property corners, ground control and benchmarks shall be protected and preserved; and if disturbed by Contractor, shall be restored at Contractor's expense. Contractor shall notify Surveyor of any conflicts between existing monuments, property corners, ground control and/or benchmarks and the proposed site improvements.
- Contractor shall notify Owner/Developer and Engineer immediately upon encountering any field conditions, which are inconsistent with the project plans and/or specifications.
- When noted on the project plans for demolition and/or removal, Contractor shall remove existing structures, building and debris and recycle and/or dispose of in accordance with Local, County, State and Federal regulations.
- Contractor shall remove excess construction materials and debris from site and perform restoration in accordance with the project plans and specifications. Disposing of excess materials and debris shall be performed in accordance with Local, County, State and Federal regulations.
- Construction access to the site shall be located as acceptable to the Owner/Developer and to the appropriate Local, County and/or State Agency with jurisdiction over the road(s) providing access to the site. Construction access shall be maintained and cleaned in accordance with the appropriate Local, County and/or State Agencies and as directed by Owner/Developer and/or Engineer.
- Contractor shall take necessary precautions to protect all site improvements from heavy equipment and construction procedures. Damage resulting from Contractor actions shall be repaired at Contractor's expense.

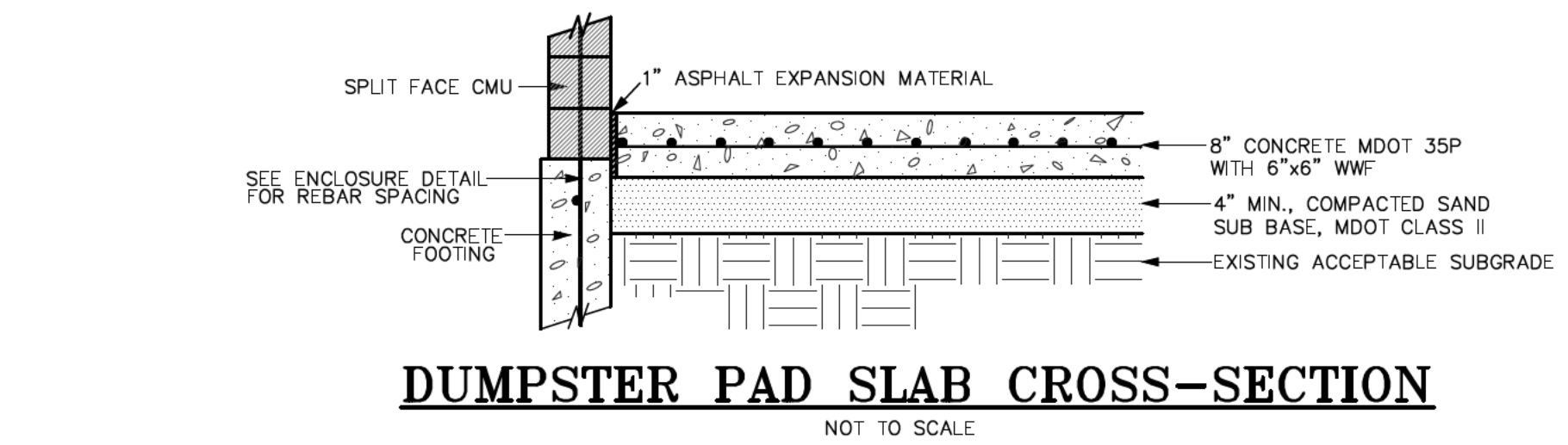
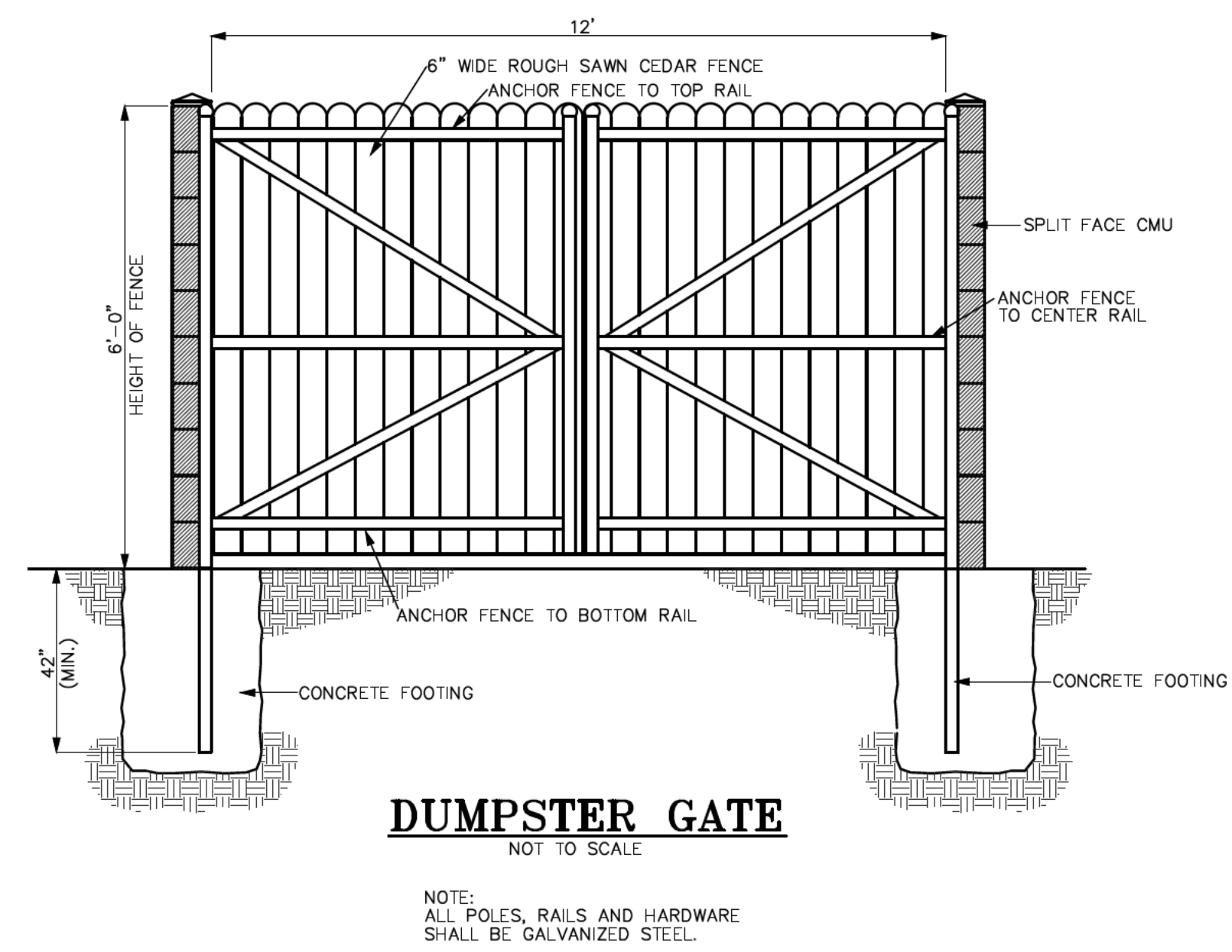
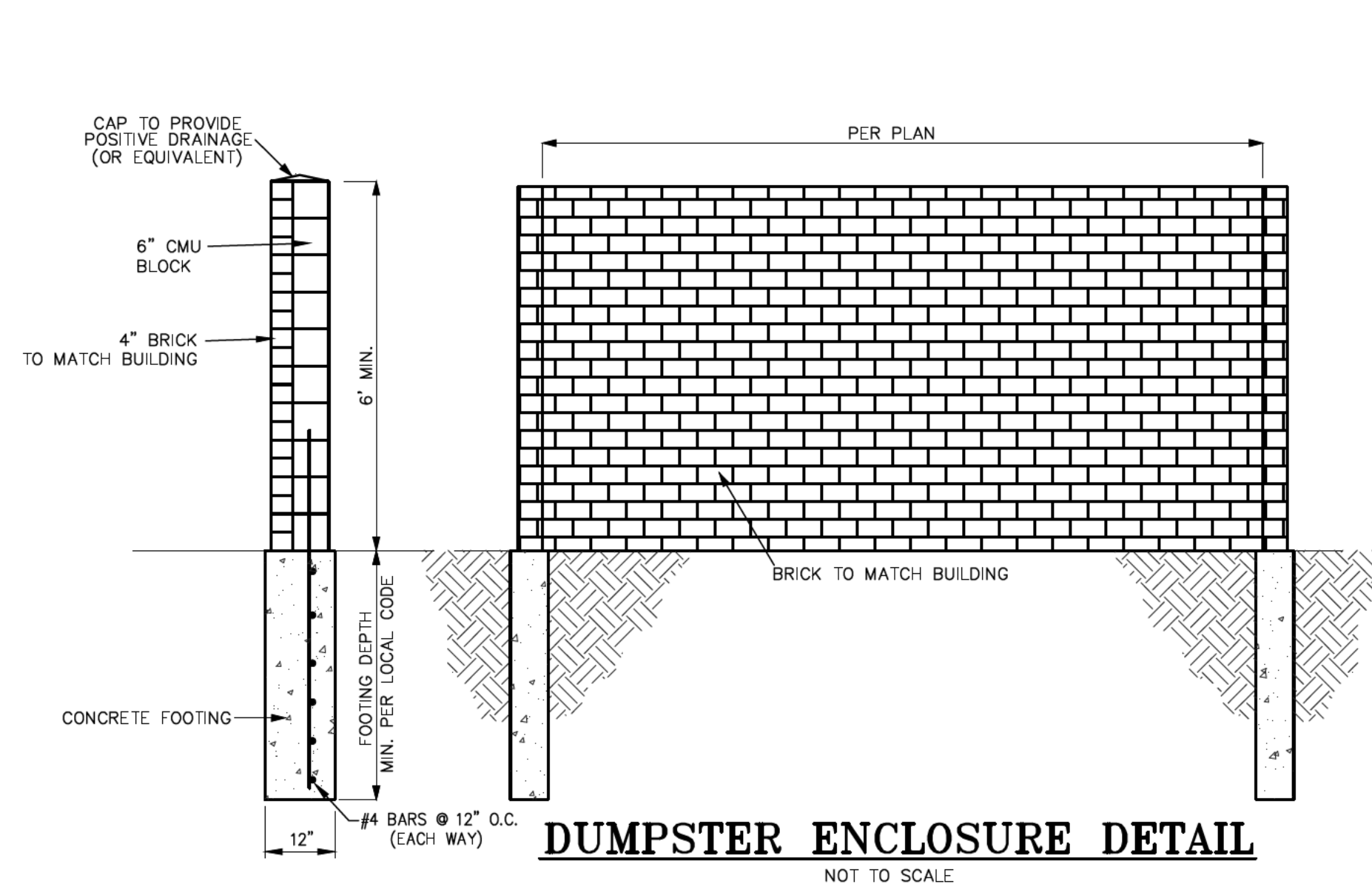
DESIGN:SVB	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

PARTLUND DEVELOPMENT
2700 E. GRAND RIVER

SITE & PAVEMENT
DETAILS

CLIENT:	SCALE: NO SCALE
PARTLUND DEVELOPMENT LLC 29205 RYAN ROAD WARREN, MICHIGAN 48092	PROJECT No.: 183585 DWG NAME: 3585 DT
	ISSUED: AUG. 18, 2020

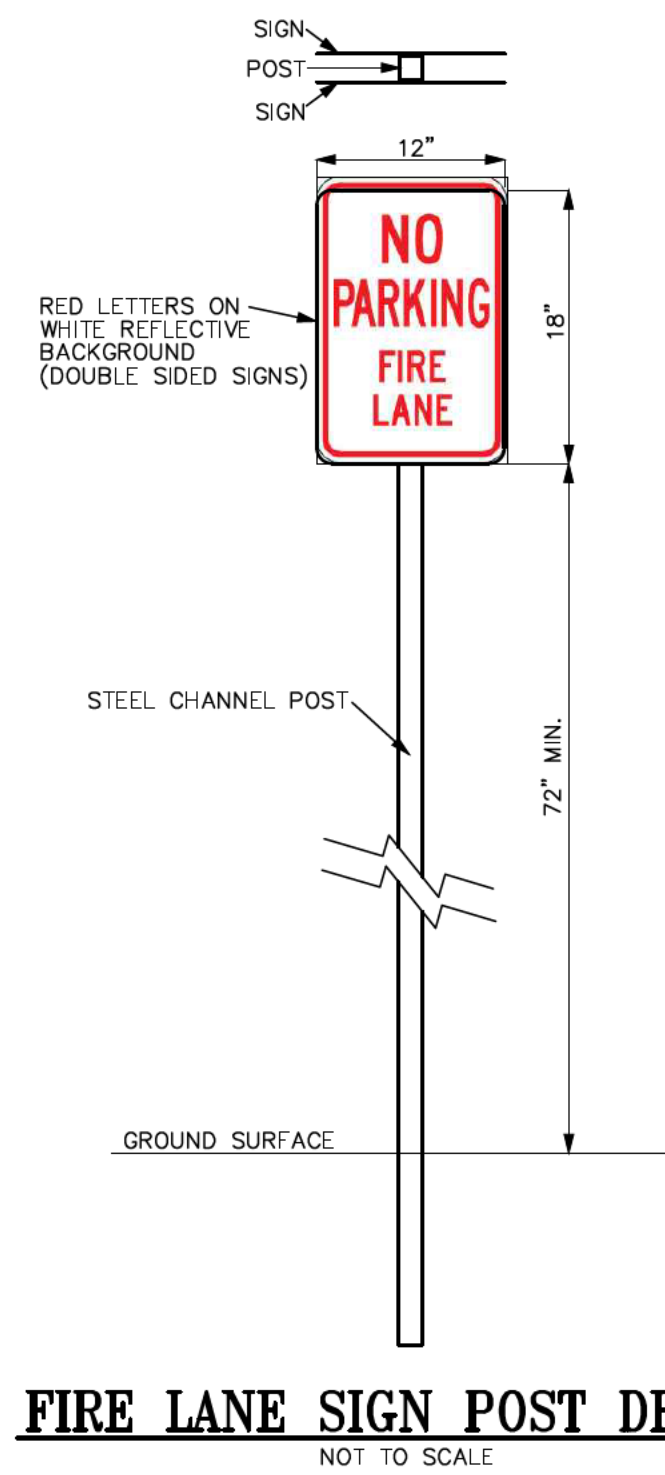
DT1



- PAVEMENT NOTES:**
1. UNSUITABLE SOILS, SUCH AS MUCK, PEAT, TOPSOIL, MARL, SILT OR OTHER UNSTABLE MATERIALS, SHALL BE UNDERCUT AND REPLACED WITH COMPACTED SAND SUBGRADE FILL, WHERE INCIDENTAL TO ROUGH GRADING.
 2. AREAS OF SUBGRADE FILL SHALL BE CONSTRUCTED USING 12" THICK LIFTS OF COMPACTED SAND, MDOT CLASS III OR EQUIVALENT ON-SITE MATERIAL, WHEN INSIDE ROAD INFLUENCE ZONE.

DUMPSTER GATE
NOT TO SCALE

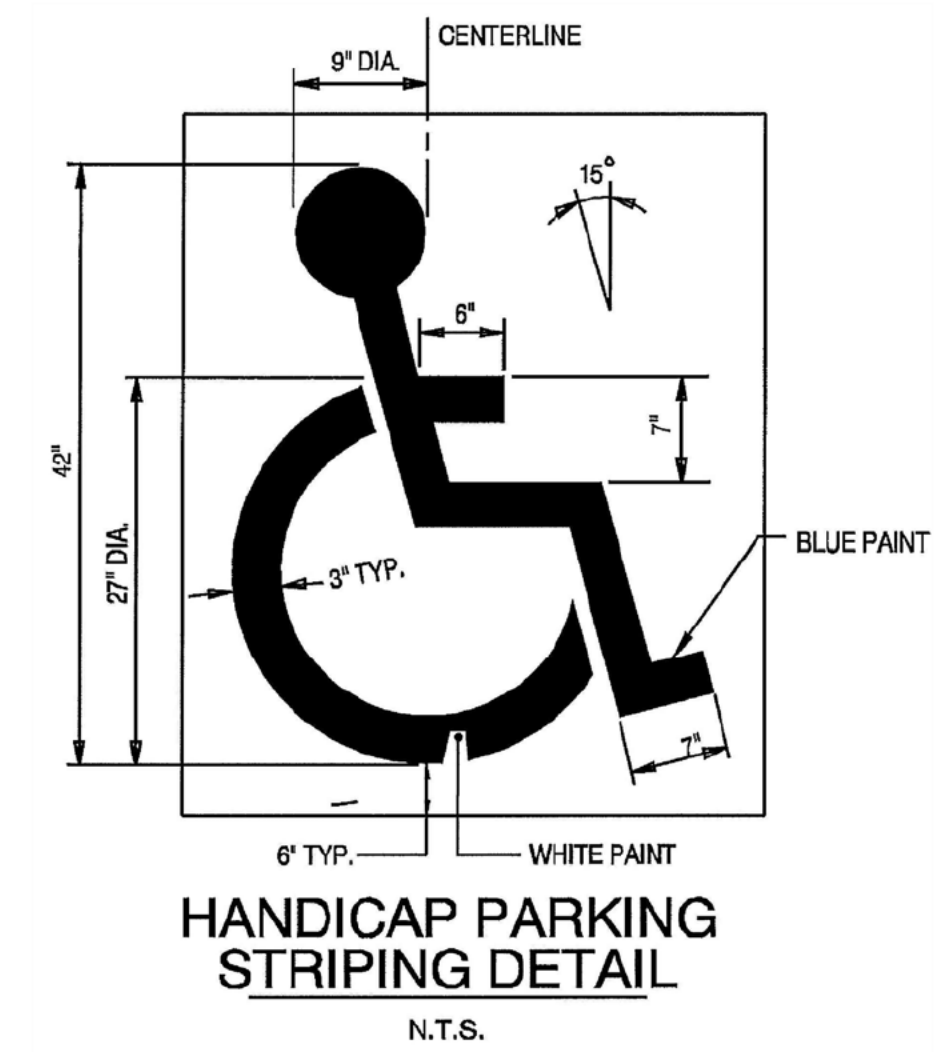
NOTE:
ALL POLES, RAILS AND HARDWARE
SHALL BE GALVANIZED STEEL.



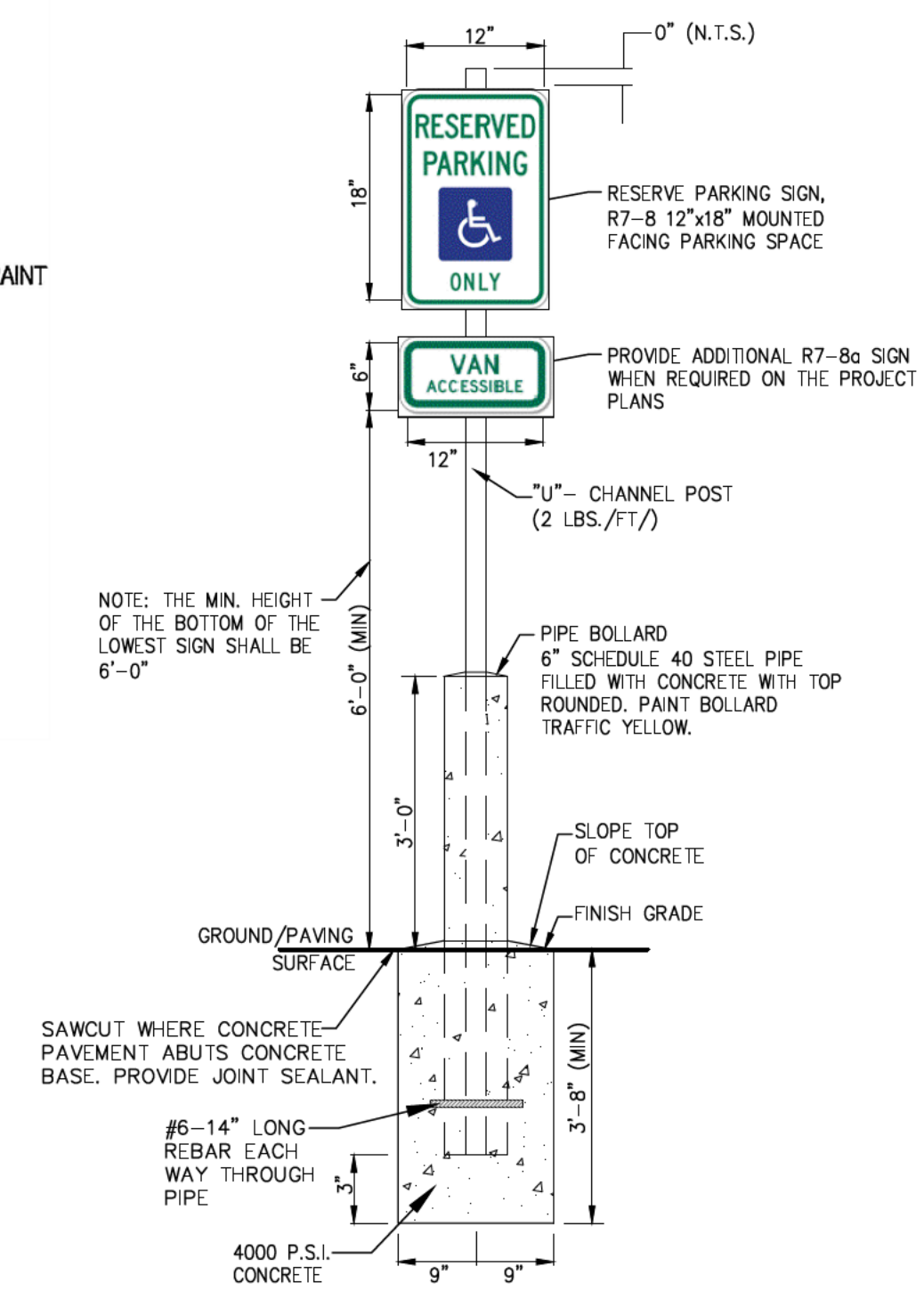
FIRE LANE SIGN POST DETAIL
NOT TO SCALE

SIGNAGE AND PAVEMENT MARKING NOTES:

1. Pavement markings shall be in accordance with the type, color, size and locations shown on the plans. If the information on the plans is not complete and the authority having jurisdiction does not have specific requirements, then use the following: Paint shall be supplied in accordance with AASHTO: M 248 latest addition. Colors shall be as follows: (YELLOW- parking stalls, loading zones, parking islands, no parking zones and fire lanes) (WHITE - stop bars, pedestrian crossings, lane demarcations, directional arrows and lettering) (BLUE - handicap parking stalls and symbols). Stripe widths shall be as follows: (4" - parking spaces, driveway lanes, barrier free loading zones and no parking zones) (12" - crosswalks) (24" - stop bars).
2. The pavement shall be clean and free of dirt, dust, moisture, oils and other foreign materials at time of marking application. Any old pavement markings shall be removed unless paints are compatible and overlay identically. The surface of the pavement prior to application shall be a minimum of 45 degrees F and rising unless the Manufacturer's recommendations are greater.
3. The signage shall be in accordance with the type, color, size and locations shown on the plans in accordance with AASHTO M268. The signage shall be provided in accordance with the Local Municipality and the Michigan Manual of Uniform Traffic Devices latest edition.
4. Posts, brackets and frames shall be steel per ASTM A-36, A-242, A-441, A-572, A588, Grade 50 and hot dip galvanized in accordance with ASTM A123. All cutting, drilling and/or other pole modifications shall be painted with galvanizing paint. All mounting hardware shall be stainless steel.
5. Sign post footings shall be a minimum of 3'-6" deep and 8" in diameter unless poor soils or frost conditions require greater depth and/or diameter. Sign posts shall be kept plumb, 6 inches off the bottom of footing excavation and centered as 3000-psi concrete is placed under and around the sign post. The overall sign and post system should be able to withstand 33 pounds per square foot. All signs located in paved areas or with less than 3 feet of clearance between the centerline of sign post and the back of curb and/or edge of pavement shall be installed in a pipe bollard. Pipe bollards shall be 6" diameter schedule 40 steel pipe. Pipe bollards shall be filled with concrete that is rounded at the top of the bollard. Bollards shall be painted traffic yellow. Increase the sign post footing diameter to 14" minimum for pipe bollards and embed the bollard into the concrete footing a minimum of 3 feet below proposed finish grade.
6. Signs shall not be mounted on posts until after concrete has cured for a minimum of seven days or 3/4 strength is achieved.
7. All barrier free striping and signage shall meet the Americans with Disabilities Act (ADA) requirements.
8. All Fire Lane signs shall have a Red Border and Red Letters on White Background. All Fire Lane signs shall be Reflective. Fire lane striping and signage shall meet the requirements of the Local Building Inspector and Fire Department.
9. "Mounting Height" shall be the minimum height of the bottom of the sign above finish grade. When signs are located downhill from the roadway, driveway and/or parking area, then the "Mounting Height" shall be the height of the bottom of the sign above the top of pavement finish grade at the nearest edge of pavement adjacent to the sign.
10. All Traffic Control and Fire Lane signs shall be installed at 3 feet behind the back of curb (and/or edge of pavement) to the centerline of the sign post unless noted otherwise on the project plans.
11. The Contractor(s) and/or Subcontractor(s) responsible for installation of the sign posts shall contact the 811 Public Underground Utility Locating System a minimum of three (3) working days prior to installation of the signposts. Install the sign posts in the locations specified on the project plans. When underground utilities conflict with the proposed sign post locations, field adjust the sign locations the minimum amount necessary to safely clear the underground utilities. Maintain a minimum of 2 feet of clearance between the edge of sign and the back of curb and/or edge of sidewalk.



HANDICAP PARKING STRIPING DETAIL
N.T.S.



BARRIER FREE PARKING SIGN DETAIL
NOT TO SCALE

SIGN SCHEDULE

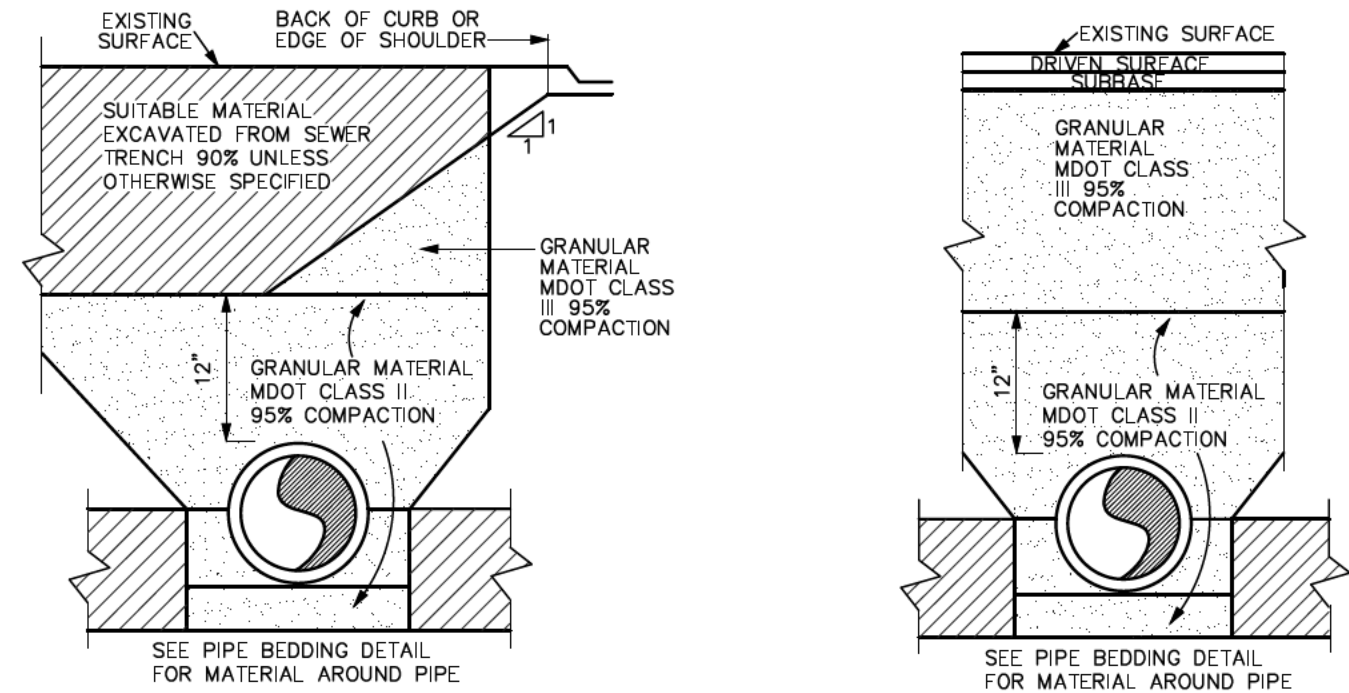
SIGN	KEY	SIZE (W x H)	TYPE OR MOUNT	MOUNTING HEIGHT	QUANTITY
	R7-8	12' x 18'	POST MOUNTED	7'-6"	5
			BUILDING MOUNTED	7'-6"	0
	R7-8a	12' x 6'	POST MOUNTED	7'-0"	4
	FIRE LANE	12' x 18'	POST MOUNTED	6'-0"	8

DESIGN:SVB	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

PARTLUND DEVELOPMENT
2700 E. GRAND RIVER

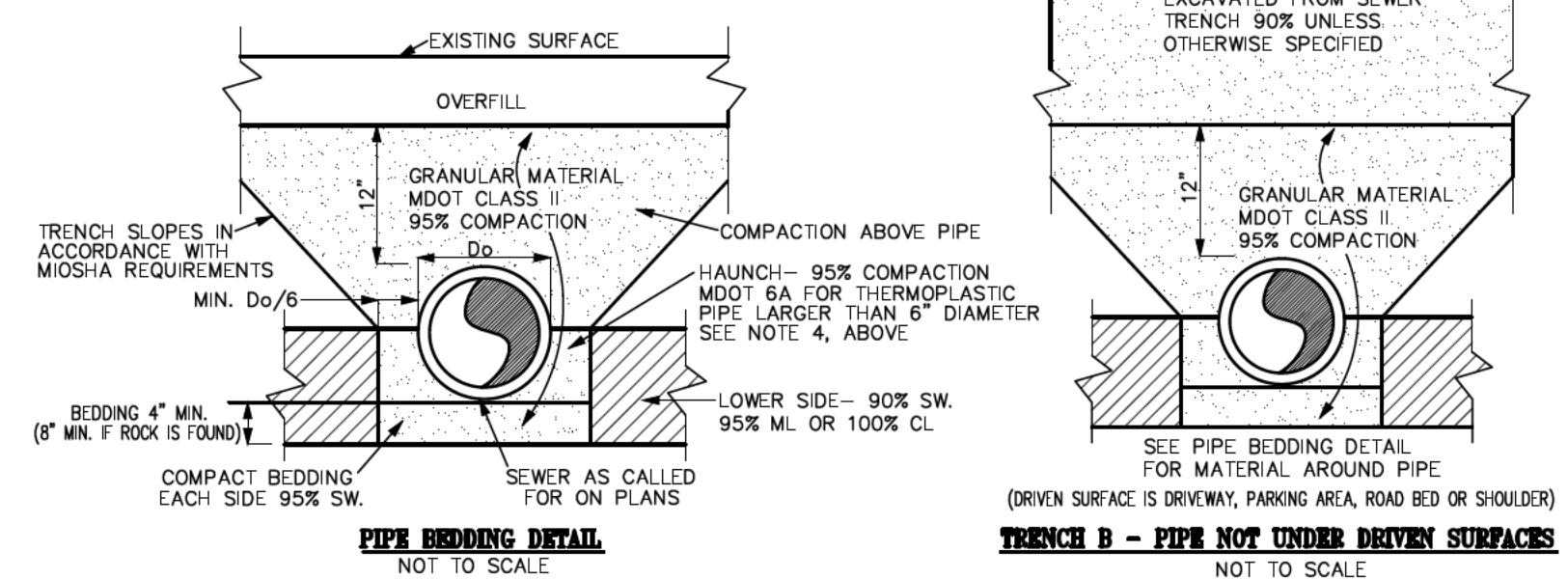
SIGNAGE DETAILS

CLIENT: PARTLUND DEVELOPMENT LLC 29205 RYAN ROAD WARREN, MICHIGAN 48092	SCALE: AS NOTED PROJECT No.: 9183450 DWG NAME: 3450 DT ISSUED: AUG. 18, 2020	DT2
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TRENCH A - PIPE UNDER OR WITHIN INFLUENCE OF DRIVEN SURFACE
NOT TO SCALE

- NOTES:
- COMPACTION PRESENTED AS STANDARD PROCTOR VALUES.
 - SOIL TYPES AASHTO DESIG.
 - GRAVEL SANDY (SW) A1, A3
 - SANDY SILTY (ML) A2, A4
 - SILTY CLAY (CL) A5, A6, A7
 - SOIL IN HAUNCH AND LOWER SIDE ZONES OUTSIDE OF D_o/6 FROM SPRING LINE SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS THE SOIL IN THE OVERFILL ZONE.
 - MATERIALS AROUND THERMO. PLASTIC PIPE WITH DIAMETER 6 INCHES SHALL PASS 0.5 INCH SIEVE. MATERIALS AROUND OTHER PIPES SHALL PASS 1.5 INCH SIEVE.



TRENCH B - PIPE NOT UNDER DRIVEN SURFACES
NOT TO SCALE

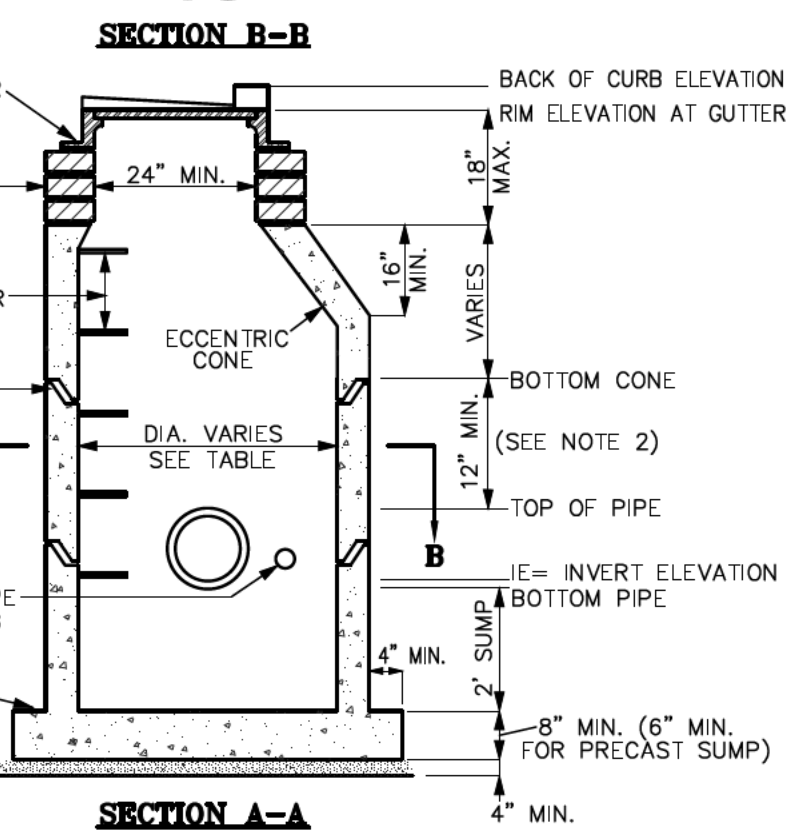
TRENCH DETAILS
NOT TO SCALE

PIPE SIZE	MIN. CATCH BASIN DIA.
12"-24"	4'-0" MIN.
24"-36"	5'-0" MIN.
42"-48"	6'-0" MIN.

(SEE NOTE 1)

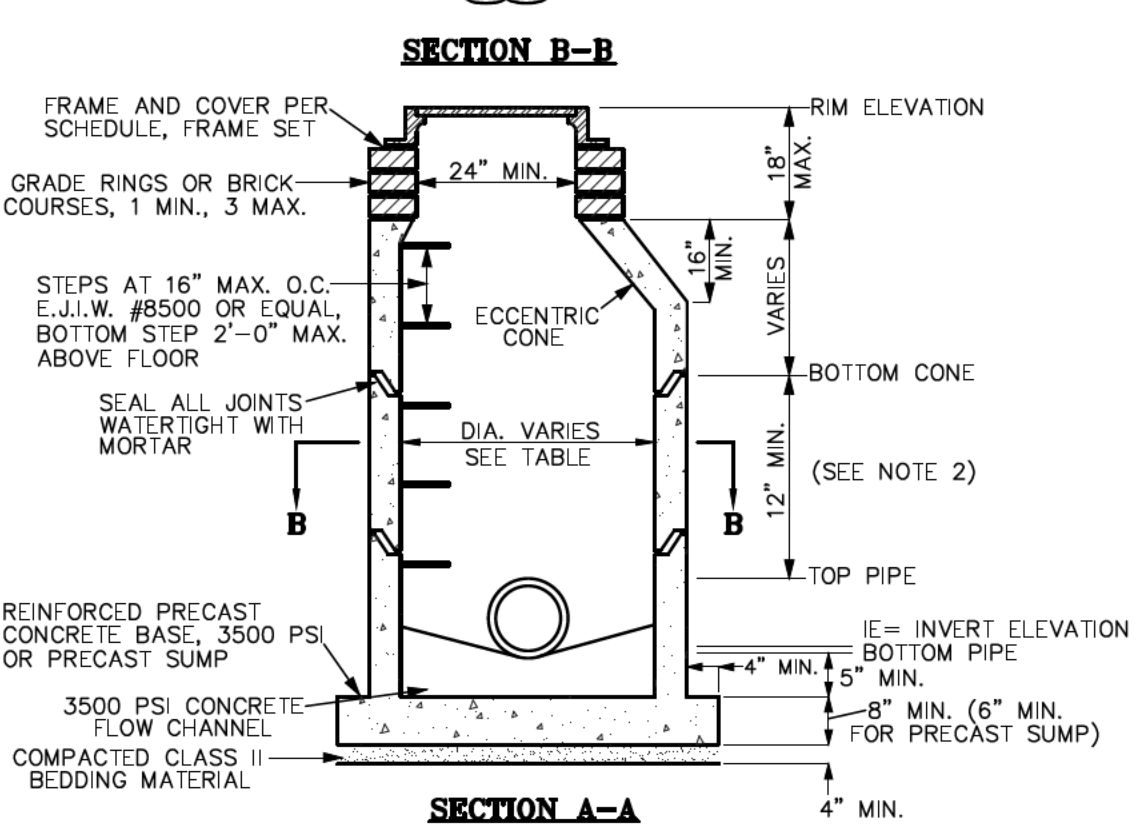
PIPE SIZE	MIN. MANHOLE DIA.
12"-24"	4'-0" MIN.
24"-36"	5'-0" MIN.
42"-48"	6'-0" MIN.

(SEE NOTE 1)



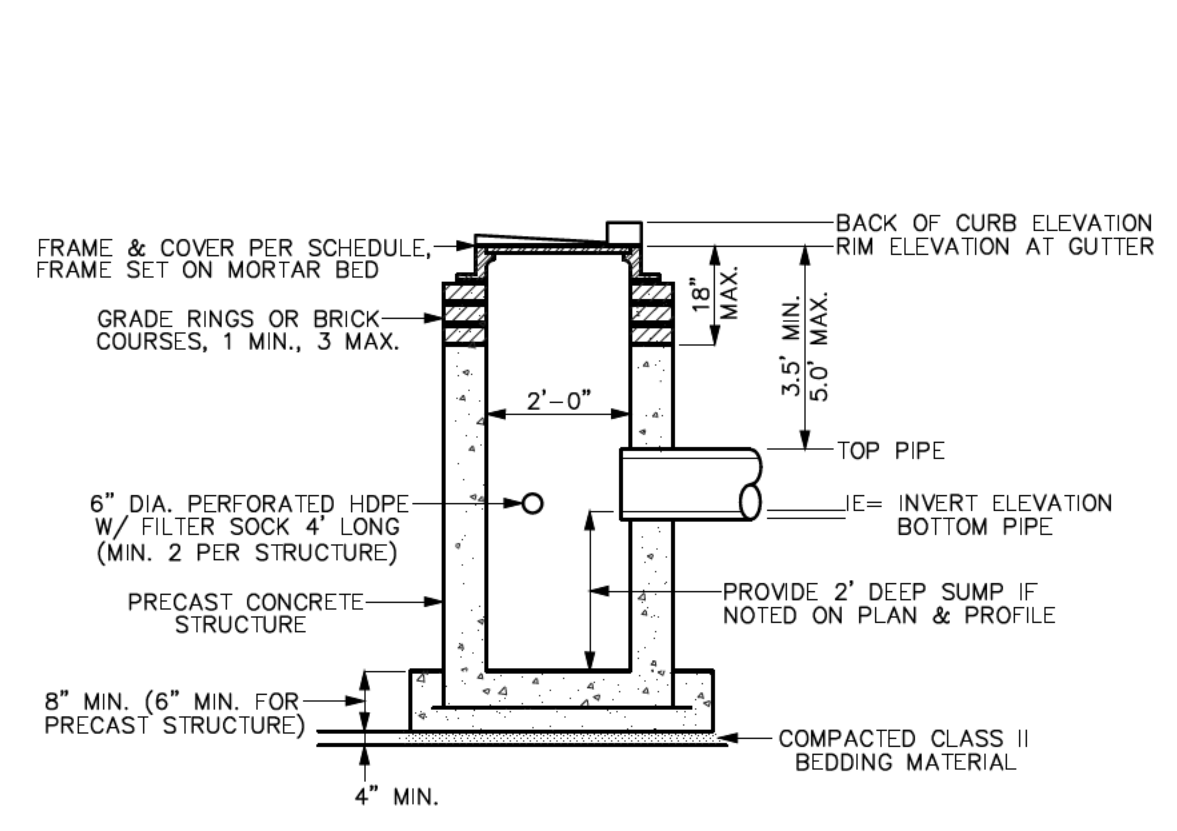
STORM STRUCTURE "A" STANDARD CATCH BASIN
NOT TO SCALE

- NOTES:
- FURNISH LARGER STRUCTURE DIAMETER AS NEEDED TO MAINTAIN 6" MIN CLEAR BETWEEN PIPE OPENINGS.
 - FURNISH LOW PROFILE STRUCTURE ONLY WHEN NECESSARY TO MAINTAIN PROPER CLEARANCE ABOVE PIPES.



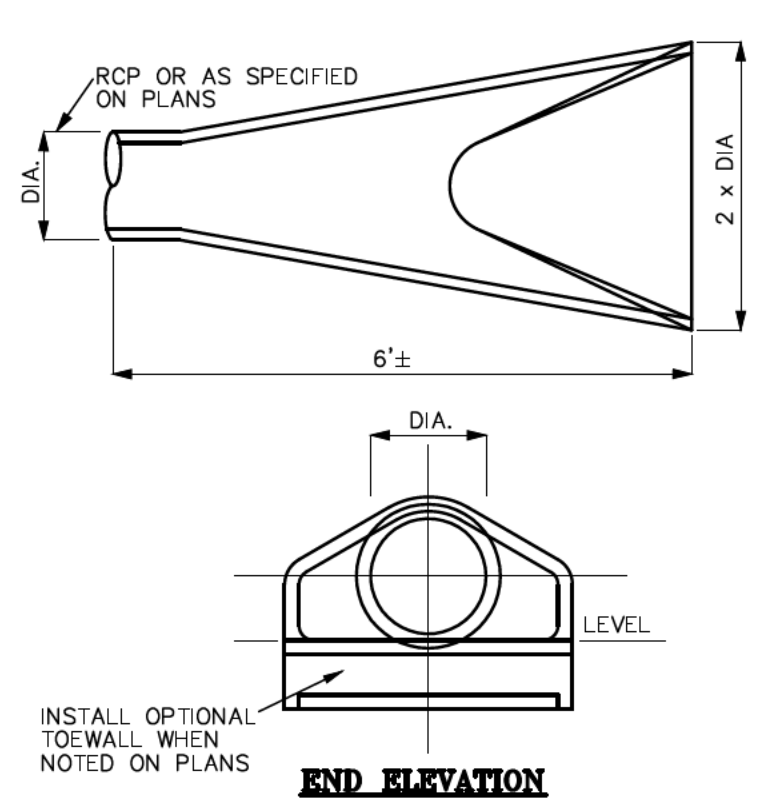
STORM STRUCTURE "B" STANDARD MANHOLE
NOT TO SCALE

- NOTES:
- FURNISH LARGER STRUCTURE DIAMETER AS NEEDED TO MAINTAIN 6" MIN CLEAR BETWEEN PIPE OPENINGS.
 - FURNISH LOW PROFILE STRUCTURE ONLY WHEN NECESSARY TO MAINTAIN PROPER CLEARANCE ABOVE PIPES.



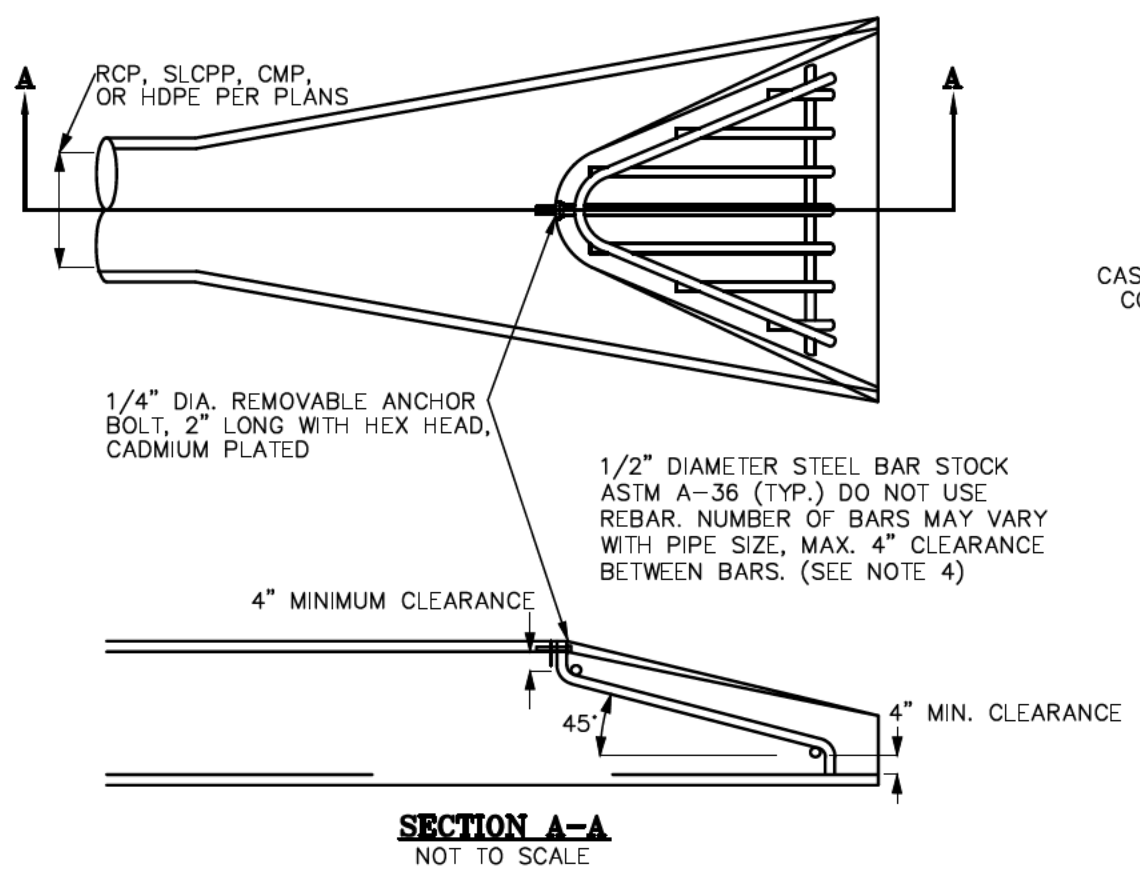
STORM STRUCTURE "C" 2' DIAMETER CATCH BASIN
NOT TO SCALE

- NOTES:
- FURNISH LARGER STRUCTURE DIAMETER AS NEEDED TO MAINTAIN 6" MIN CLEAR BETWEEN PIPE OPENINGS.
 - FURNISH LOW PROFILE STRUCTURE ONLY WHEN NECESSARY TO MAINTAIN PROPER CLEARANCE ABOVE PIPES.



FLARED END SECTION
NOT TO SCALE

- NOTES:
- RCP FLARED END SECTION SHOWN. PROVIDE SIMILAR FLARED END SECTION FOR CMP, SLOPP OR HDPE PIPE.
 - PROVIDE RIP-RAP PER RIP-RAP DETAILS FOR ALL OUTLET FLARED END SECTIONS.
 - INSTALL FLARED END SECTION WITH INVERT ELEVATION LEVEL AS VIEWED FROM END.



ANIMAL GUARD
NOT TO SCALE

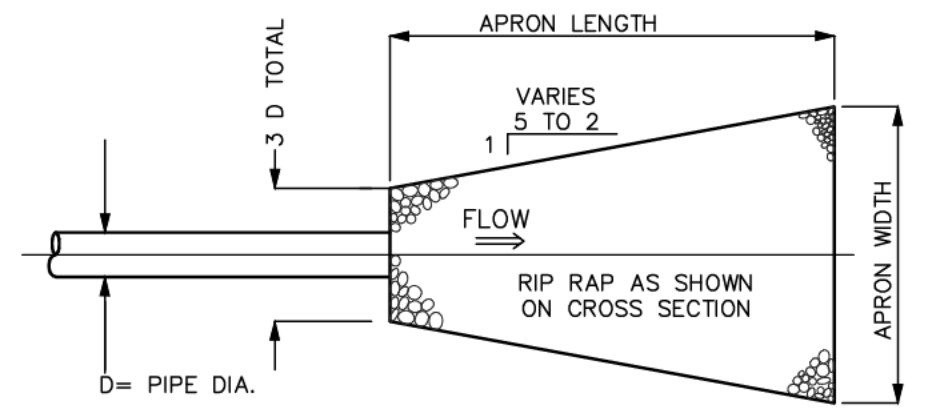
- NOTES:
- ANIMAL GUARD REQUIRED ON ALL FLARED END SECTIONS OF 15" DIAMETER PIPE OR GREATER.
 - CONTRACTOR MAY SUBSTITUTE ALTERNATE GRATING LAYOUT AS APPROVED BY OWNER/ENGINEER/AGENCY PRIOR TO INSTALLATION.
 - DETAIL SHOWN FOR RCP FLARED END SECTION. PROVIDE SIMILAR ANIMAL GUARD FOR FLARED END SECTIONS ON CMP, HDPE, AND SLOPP.
 - WELD ALL CONNECTIONS FULL STRENGTH PER AMERICAN WELDING SOCIETY STANDARDS.

MIN. RIP RAP DIMENSIONS

PIPE DIAMETER (inch)	APRON LENGTH (feet)	(2) ALTERNATE APRON WIDTH (feet)	
		(1)	(2)
12	12	8	16
15	15	10	20
18	18	12	24
21	21	14	28
24	24	16	32
30	30	20	40
36	36	24	48
42	42	28	56

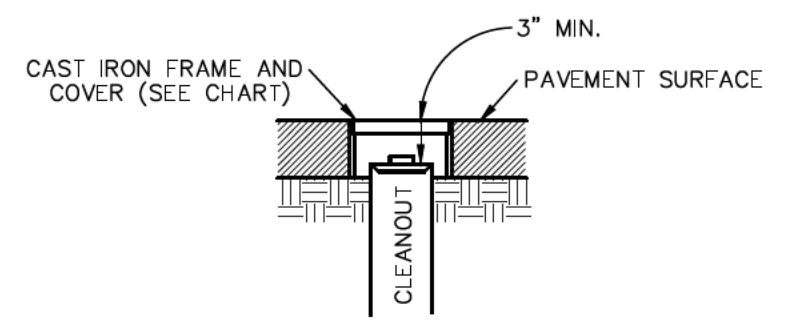
UNLESS SHOWN OTHERWISE ON PLANS. MAY BE VARIED TO MATCH NATURAL FEATURES; IE WHEN MEETING EX. DITCH, APRON WIDTH TO MATCH CHANNEL BOTTOM EXTENDING UP SIDES TO A DEPTH OF 1/2 PIPE DIA.

- (1) APRON WIDTH FOR USE IN DITCHES AND SWALES
(2) APRON WIDTH FOR USE IN FLAT AREAS WHERE SHEET FLOW DESIRED

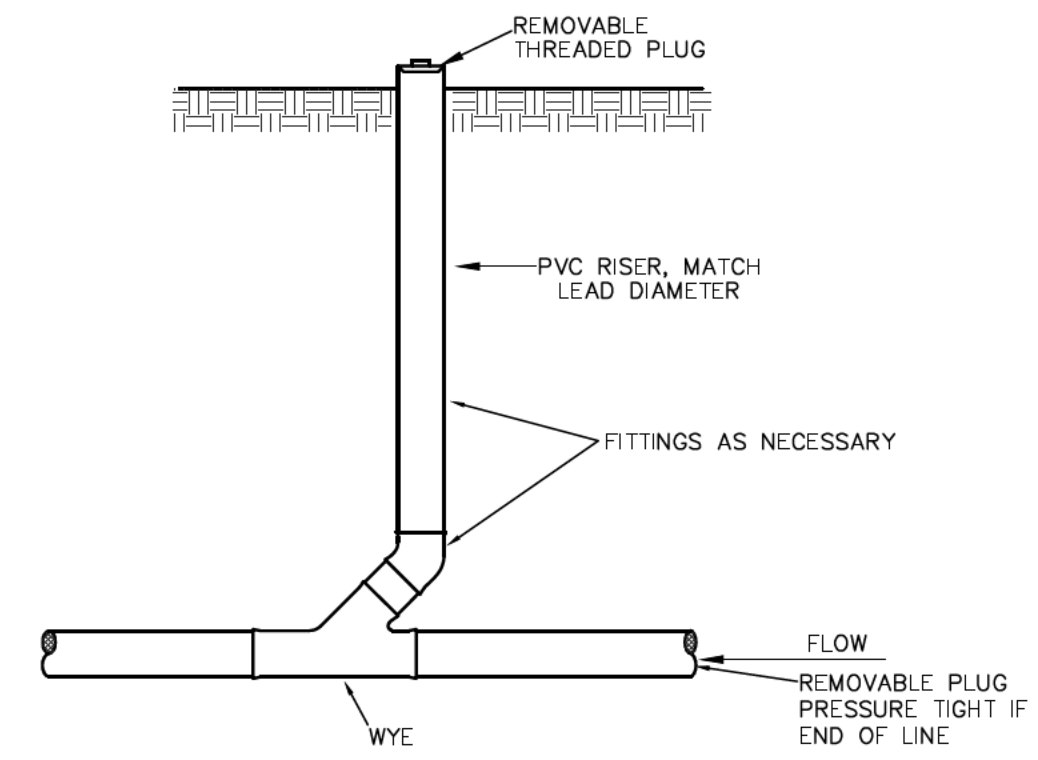


RIP RAP PLAN
NOT TO SCALE

CLEANOUT DIA.	FRAME AND COVER
4"-8"	EJW 1578Z-A
10"-18"	EJW 1040Z-A-STORM



CLEANOUT IN PAVED AREA
NOT TO SCALE



STANDARD CLEANOUT FOR ROOF DRAIN
NOT TO SCALE

STORM SEWER NOTES:

- The storm sewer and stormwater management specifications of the Local Municipality are a part of this work. Refer to the General Notes on the project plans for additional information and requirements.
- Storm sewer work shall include clearing of vegetation and tree stumps, stripping and stockpiling of topsoil for reuse, excavation of pipe trench, placement of pipe bedding, placement of pipe and structures including castings, connection to existing structures, tuck pointing of structures, backfill of pipe trench, compaction of backfill, finish grading to provide positive drainage to structures, adjustment of castings to match finish grade, topsoil placement, seed & mulch, site cleanup and restoration, and other storm sewer related work as shown on the project plans and specifications.
- Existing and proposed grades shown in profile view, when provided on the project plans, may be in relation to the centerline of road or item other than the centerline of pipe. The pipe lengths and grades shown in profile view on the project plans may not be to scale.
- RCP when shown on the project plans shall be reinforced concrete pipe and shall conform to the specifications for reinforced concrete pipe per ASTM C76. RCP pipe joints shall be bell-and-spigot with rubber gaskets conforming to ASTM C433. Non-gasketed joints shall only be utilized when authorized by the Owner, Engineer AND Municipality. Non-gasketed joints of pipe having a diameter of 30 inches or greater shall be tuck-pointed on the inside with cement mortar after the backfill process is complete. Install reinforced concrete end sections incidental to work. Saw cut pipes to length as needed. When pipe class is not shown on the project plans, provide the following: Pipe cover to proposed grade: 0 to 4 feet Class V
 - 4.1 to 10 feet Class III*
 - 10.1 to 18 feet Class IV
 - 18.1 feet and greater Class V
 - * Use Class IV under paved surfaces
- CMP when shown on the project plans shall be corrugated metal pipe and shall conform to the specifications for corrugated metal pipe per ASTM Designation M36. CMP shall be 16-gauge steel minimum for 24 inch diameter or smaller and 14-gauge steel minimum for 30 inch diameter or greater. Install galvanized steel end sections and connection bands, incidental to work. Connection bands for CMP pipe joints located under paved surfaces shall be gasketed couplers. Saw cut pipes to length as needed.
- HDPE - Type S when shown on the project plans shall be high density polyethylene pipe with a smooth interior and shall conform to the specifications for high density polyethylene pipe per AASHTO Designation M252 Type S for pipes of 3" to 10" diameter and per AASHTO Designation M294 Type S for pipes of 12" to 60" diameter. HDPE - Type S pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477. Tamp backfill at spring line of HDPE - Type S pipe. Install high density polyethylene end sections incidental to work. Saw cut pipes to length as needed.
- HDPE - Type C when shown on the project plans shall be high density polyethylene pipe with a corrugated interior and shall conform to the specifications for high density polyethylene pipe per AASHTO Designation M252 for pipes of 3" to 10" diameter and per AASHTO Designation M294 for pipes of 12" to 60" diameter. HDPE - Type C pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477. Tamp backfill at spring line of HDPE - Type C pipe. Install high density polyethylene end sections incidental to work. Saw cut pipes to length as needed.
- CPVC when shown on the project plans shall be corrugated polyvinyl chloride pipe and shall conform to the specifications for corrugated polyvinyl chloride pipe per ASTM F794 and F949. CPVC pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477 or solvent welded type conforming to ASTM D2564. Tamp backfill at spring line of PVC pipe. Saw cut pipes to length as needed.
- PVC when shown on the project plans shall be polyvinyl chloride pipe and shall conform to the specifications for polyvinyl chloride pipe per ASTM D2751, maximum SDR of 26. PVC pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477 or solvent welded type conforming to ASTM D2564. Tamp backfill at spring line of PVC pipe. Saw cut pipes to length as needed.
- Concrete storm structures shall be pre-cast and shall conform to the specification of pre-cast concrete structures per ASTM C478. Joints of concrete storm structure sections shall be bell-and-spigot with rubber gaskets conforming to ASTM C433. Brick, concrete block or cast in place storm structures may be substituted for pre-cast storm structures ONLY when authorized by the Owner, Engineer AND Municipality; refer to MDOT standard plan R-1, latest revision. All pipe openings in pre-cast structures shall be factory installed and shall include a rubber boot resilient pipe to manhole connector conforming to ASTM C1478-07. All clamps, bands and hardware shall be stainless steel or other non-corrosive material. Provide the appropriate adapter(s) as necessary for corrugated pipe. Pipe to storm structure connections shall be performed in accordance with the rubber boot connector manufacturer's recommendations. All temporary openings and seams in storm structures shall be tuck-pointed watertight with cement mortar. Refer to MDOT standard plan R-2, latest revision, for alternate on-line storm structure details when pipe exceeds 42 inch diameter.
- Tap existing structures as acceptable to the Engineer and Municipality, incidental to work. All temporary openings in storm structures shall be tuck-pointed watertight with cement mortar.
- Backfill all storm sewer in accordance with the Pipe Trench details provided on the project plans. Provide pipe bedding that meets or exceeds both the specifications of the Pipe Trench details on the project plans and the recommendation of the pipe manufacturer, incidental to work.
- When edge drains and/or under drains are shown on the project plans, connection to storm structures is incidental to work. During storm sewer construction, install first 10 linear feet of edge drain and/or under drain from the storm structures in each specified direction and install temporary cap at end. Complete installation of edge drain following preparation of the subgrade when under paved surface or following finish grade when not under paved surface.
- Install removable plugs in storm sewer stubs as acceptable to Engineer and Municipality, incidental to work. Mark the end of all storm sewer stubs with a 2" x 4" wooden stake extending a minimum of 12" above finish grade, incidental to work.
- Storm structure castings shall be coated with water based asphaltic paint by the manufacturer. Seams and temporary openings between storm structures and castings shall be tuck-pointed water tight with cement mortar. Coordinate correct curb box / hood / "T" back as needed to match curb profile. See casting schedule on project plans for additional requirements.
- Provide 3.5' minimum cover from the top of pipe of all roof drain pipes to the proposed finish grade when site conditions allow. When pipe cover is less than 3.5', install 2" thick by 24" wide Styrofoam insulation centered over the top of pipe at 12" above top of pipe or as required by the Local Municipality.

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BRIGHTON, MICHIGAN 48114

DESIGN:SVB	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

PARTLUND DEVELOPMENT
2700 E. GRAD RIVER

STORM SEWER DETAILS

CLIENT:	SCALE:	NO SCALE
PARTLUND DEVELOPMENT LLC 29205 RYAN ROAD WARREN, MICHIGAN 48092	PROJECT No.:	183585
	DWG NAME:	3585 DT
	ISSUED:	AUG. 18, 2020

DT3

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LMF	Lum. Lumens	Lum. Watts	Part Number
	12	X-4M-2L	SINGLE	0.960	2490	19	XSPW-B-WM-4ME-2L-40K-_-_-P
	8	X-3M-2L	SINGLE	0.960	2490	19	XSPW-B-WM-3ME-2L-40K-_-_-P
	7	K4	SINGLE	1.010	16959	130	OSQ-A-NM-4ME-K-40K-_-_-R + OSQ-DA_
	1	K2	SINGLE	1.010	16959	130	OSQ-A-NM-2ME-K-40K-_-_-R + OSQ-DA_
	8	C-WM	SINGLE	1.000	N.A.	22	C-WM-A-WLCY-6L-40K-_-
	3	C-CP-B	SINGLE	1.000	N.A.	27	C-CP-B-SQ-3L-40K-_-

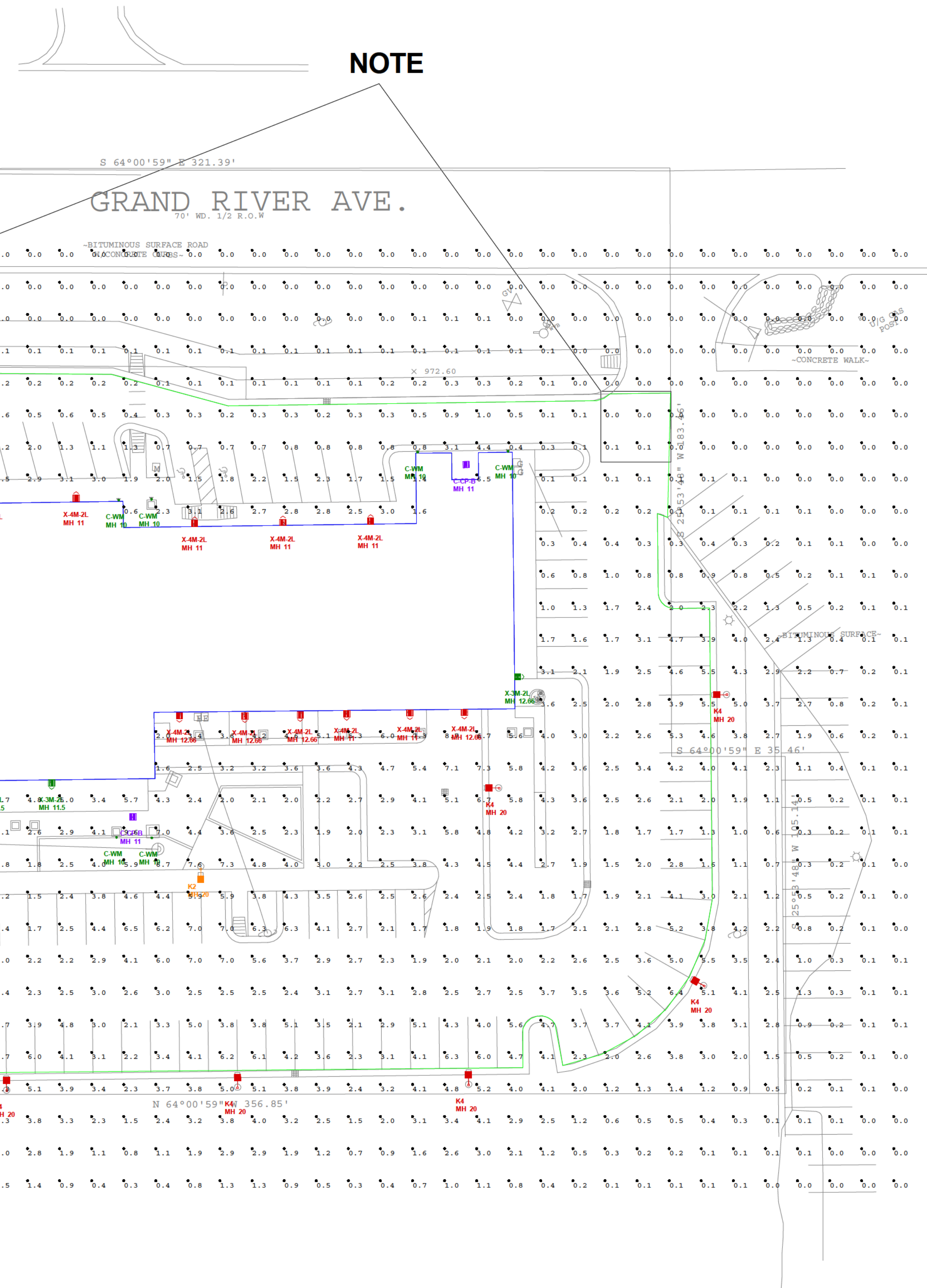
Calculation Summary (Footcandles calculated using predicted lumen values @ 50K hrs of operation)						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Fc	1.44	9.6	0.0	N.A.	N.A.
Paved Area	Fc	2.51	9.6	0.0	N.A.	N.A.

Pole Schedule
 (8) SSS-4-11-17-CW-BS-1D-C-__ (17' X 4" X 11ga STEEL SQUARE POLE)

Proposed poles meet 140MPH sustained winds.

Additional Equipment:
 (8) OSQ-DA_ Direct Arm Mount

*** CUSTOMER TO VERIFY ORDERING INFORMATION AND CATALOGUE NUMBER PRIOR TO PLACING ORDER ***



Paved Area

Illuminance (Fc)
Average = 2.51
Maximum = 9.6
Minimum = 0.0
Avg/Min Ratio = N.A.
Max/Min Ratio = N.A.

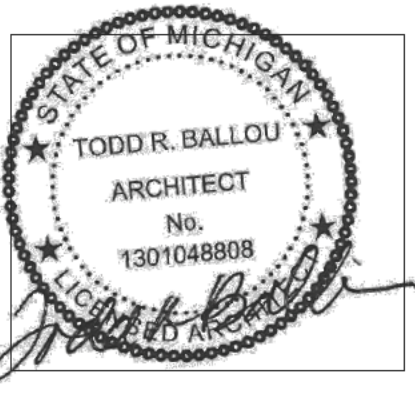
GAS METERS	18 AUG 2020
BUILDING PERMIT	22 JUN 2020
REVIEW & BIDS	21 MAY 2020
80% CONST. DOCS	4 MAR 2020
DOORS & WINDOWS	16 FEB 2020
STEEL	30 JAN 2020
REVIEW	7 JAN 2020

focus / design
Todd Ballou, Registered Architect
www.focusdesign.us
focusdesign@comcast.net
3300 Berry Rd, Ypsilanti, MI 48198

PROJECT:
PARTLUND DEVELOPMENT
2700 E. GRAND RIVER
GENOA TOWNSHIP, MI

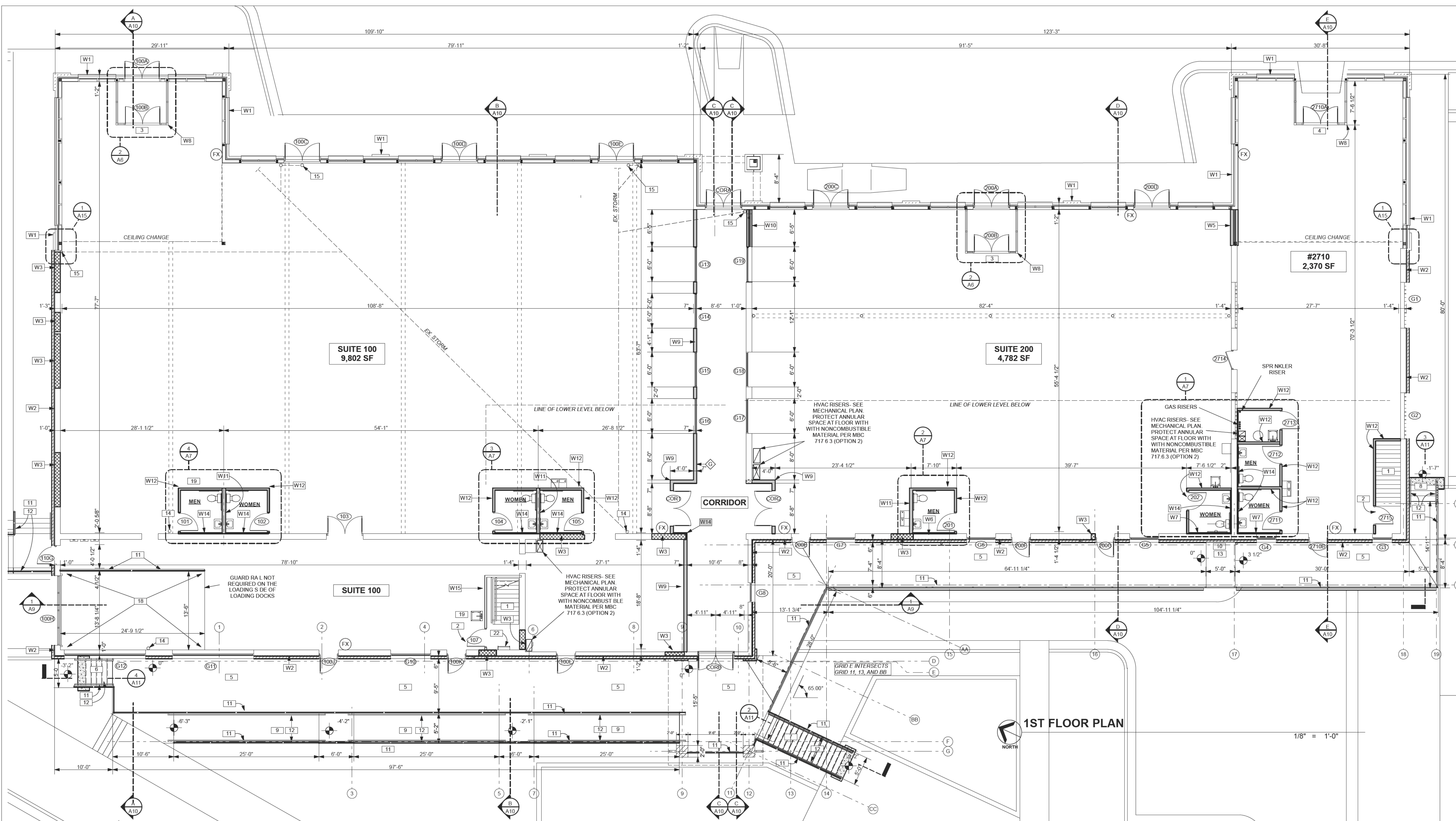
TITLE:
1ST FLOOR PLAN

JOB NO:
1835



SHEET NO.

A4



1ST FLOOR PLAN

WALL TYPES:

- W1 EXISTING FRONT WALL
1" MASONRY VENEER WITH MASONRY TIES @ 16" o.c. WITH 2" AIR GAP OVER 1 1/2" CONTINUOUS RIGID INSULATION (R-7.5) OVER AIR INFILTRATION WRAP ON 5/8" GYPSUM SHEATHING ON 6" METAL STUDS WITH 5 1/2" FIBERGLASS INSULATION (R-19) AND 1/2" GYPSUM BOARD INTERIOR (RECENTLY BUILT UNDER A SEPARATE PERMIT)
- W2 BRICK VENEER ADDED TO CMU WALL
BRICK VENEER WITH 1" AIR GAP OVER 1" RIGID INSULATION OVER LIQUID WEATHER BARRIER ON EX. CMU WALL
- W3 CONCRETE BLOCK INFILL OF EX. CONCRETE BLOCK WALL OPENINGS. MATCH THICKNESS OF EXISTING WALL
- W4 NEW SPLIT-FACED CMU WALL WITH #5 VERT REBAR AT 32" o.c. AND HORIZONTAL JOINT REINFORCING @ 16" o.c. VERTICALLY. USE PLAIN BLOCK AT AREAS NOT VISIBLE FROM THE EXTERIOR (LOWER LEVEL)

WALL TYPES:

- W5 NEW SPLIT-FACED CMU PIER WITH #4 VERT @ 32" o.c. AND HORIZONTAL COLUMN TIES AT 16" o.c. (LOWER LEVEL)
- W6 EXISTING EXTERIOR FURRING. NEW 5/8" GYPSUM BOARD ON EXISTING FURRING CHANNELS @ 16" o.c. WITH 1 1/2" RIGID INSULATION (R-7.5)
- W7 NEW EXTERIOR FURRING. 5/8" GYPSUM BOARD ON 1 1/2" METAL FURRING CHANNELS @ 16" o.c. WITH 1 1/2" RIGID INSULATION (R-7.5)
- W8 VESTIBULE WALL. 4 1/2" ALUMINUM STOREFRONT SYSTEM
- W9 1-HR FIRE RATED CORRIDOR WALL
EXTENDS FROM FLOOR SLAB TO UNDERSIDE OF EXISTING ROOF DECK. ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED PARALLEL OR AT RIGHT ANGLES TO EACH SIDE OF 3 5/8" STEEL STUDS @ 24" o.c. WITH 1" TYPE S DRYWALL SCREWS @ o.c. AT VERTICAL JOINTS AND 12" o.c. AT FLOOR AND CEILING RUNNERS AND INTERMEDIATE STUDS. JOINTS STAGGERED 24" ON OPPOSITE SIDES. ULC DESIGN W415

WALL TYPES:

- W10 1-HR FIRE RATED INFILL
CONSTRUCTION EQUIVALENT TO W9, US NG TWO STUD WALLS MATCHING THICKNESS OF EXISTING WALL. 5/8" TYPE X GYPSUM ON EXTERIOR FACES ONLY
- W11 NEW FULL HEIGHT PARTITION WALL
5/8" TYPE X GYPSUM BOARD ON EACH SIDE OF 6" METAL STUDS @ 16" o.c. EXTEND TO UNDERSIDE OF ROOF DECK. PROVIDE BLOCKING AS NEEDED FOR GRAB BARS AND OTHER FIXTURES. INTENDED AS POTENTIAL 1-HR RATED TENANT SEPARATION WALL FOR FUTURE TENANTS
- W12 NEW 8'-0" PARTITION WALL
5/8" GYPSUM BOARD ON EACH SIDE OF 3 5/8" METAL STUDS @ 16" o.c. TO 8 FT HIGH. PROVIDE BLOCKING AS NEEDED FOR GRAB BARS AND OTHER FIXTURES
- W13 INTERIOR STUD WALL INFILL (NOT USED)
CONSTRUCTION SIMILAR TO W9. US NG TWO ROWS OF STUDS AND 1/2" GYPSUM BOARD ON EXTERIOR FACES ONLY

WALL TYPES:

- W14 NEW FURRING ON INTERIOR CONCRETE BLOCK WALLS
5/8" GYPSUM BOARD ON 1 1/2" METAL FURRING TO CEILING AT 8'-0"
 - W15 NEW DRYWALL ON EXISTING STUDS
5/8" GYPSUM BOARD ON BOTH SIDES OF EXISTING STUDS
- FLOORING:**
SEALED CONCRETE FLOOR IN ALL AREAS.
4" VINYL BASE TYPICAL
- FX MINIMUM 2A PORTABLE FIRE EXTINGUISHER (MBC 906.1) M/N TWO LOCATED IN EACH SUITE ON MAIN LEVEL. ONE LOCATED IN EACH SUITE ON LOWER LEVEL (11 LOCATIONS PROPOSED)

FLOOR PLAN NOTES:

- 1 EXISTING STAIR NOT REQUIRED FOR EGRESS
- 2 NOT AN EXIT SIGN ON EXTERIOR SIDE OF EXISTING DOOR
- 3 PROPOSED VESTIBULE LOCATED AT MAIN ENTRANCES OF SPACES OVER 3,000SF. CEILING AT 8'-0". ALUMINUM STOREFRONT CONSTRUCTION, SEE DETAIL SHEET A6
- 4 EXISTING ALUMINUM STOREFRONT EXTERIOR WALL IS NOT A VESTIBULE. DOOR IS INSET TO ACCOMMODATE CURB LOCATED CLOSE TO BUILDING
- 5 WALKABLE VINYL MEMBRANE BY DURADEK ON CONCRETE DECK OVER STEEL STRUCTURE
- 6 WEST EXTERIOR STAIR
PRE-FABRICATED STEEL STAIR APPROX. 3'-2" RISE, @R@ 6.33", 11" TREADS

STAIR & RAMP NOTES:

- 7 MAIN EXTERIOR STAIR
PRE-FABRICATED STEEL STAIR APPROX. 9'-2" RISE, 16R@ 6.78", 11" TREADS
- 8 EAST EXTERIOR STAIR
PRE-FABRICATED STEEL STAIR APPROX. 1'-10" RISE, 4R@ 5.63", 11" TREADS
- 9 EXTERIOR RAMP APPROX. RISE OF 75' DIVIDED INTO (3) 25FT RUNS @ MAX SLOPE 1:12
- 10 DECK RAMP TO #2710, APPROX. RISE OF 3 1/2" @ MAX SLOPE 1:12
- 11 42" HIGH GUARDRAIL REQUIRED
- 12 36" HIGH HANDRAIL ON BOTH SIDES OF STAIR OR RAMP
- 13 HANDRAILS ARE NOT REQUIRED AT RAMPS LESS THAN 6" RISE

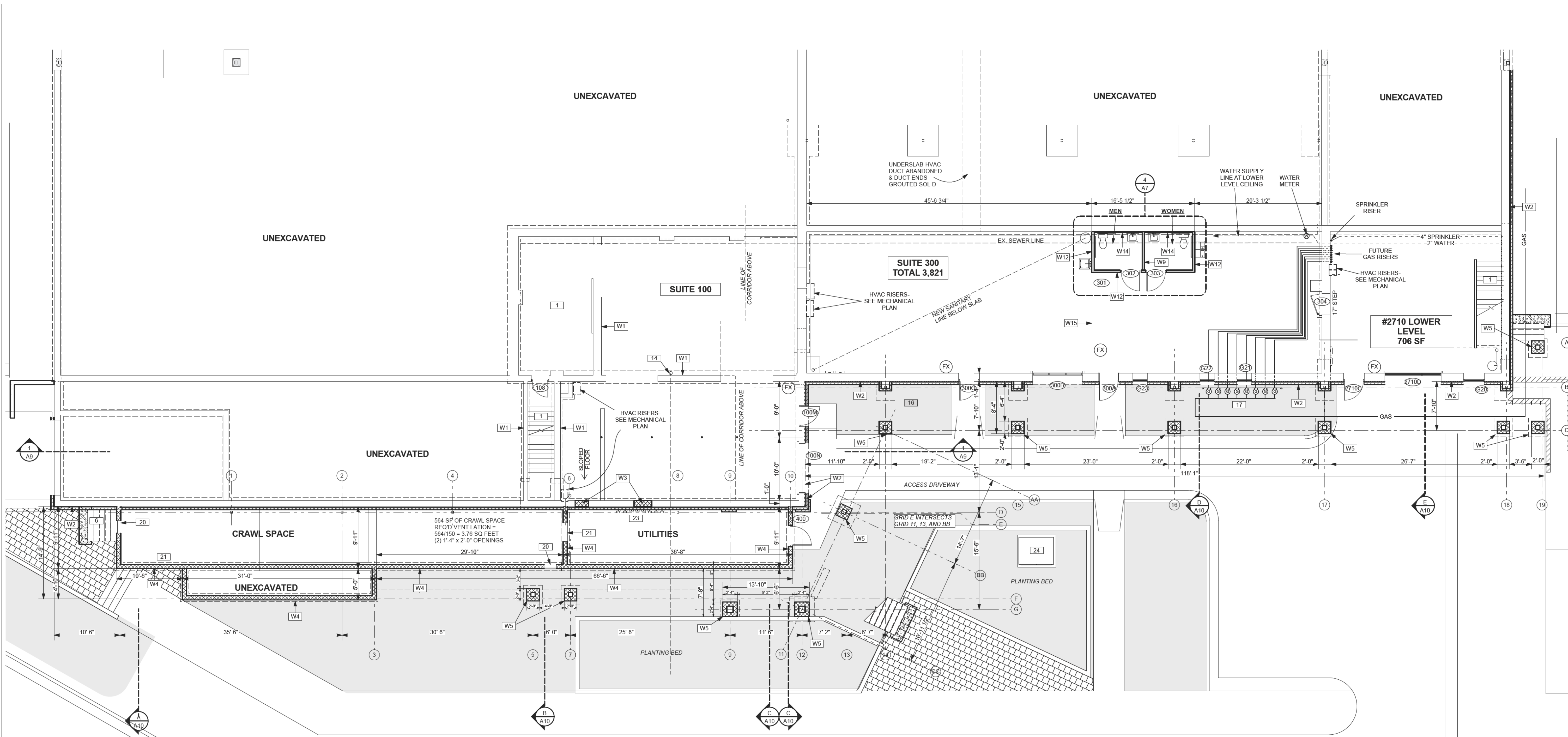
FLOOR PLAN NOTES:

- 14 EX. ROOF DRAIN
- 15 PROPOSED ROOF DRAIN TO STORM SYSTEM
- 16 EXISTING ELECTRICAL TRANSFORMER ON CONC. PAD. FIELD VERIFY LOCATION
- 17 NEW GAS METER LOCATION LOWER LEVEL. SOUTH WALL BETWEEN GRIDS 16 & 17. ONE GAS METER INSTALLED INITIALLY, WITH SPACE FOR FUTURE TENANTS
- 18 EX. LOADING DOCK LEVEL 3'-8" BELOW MAIN FLOOR
- 19 NEW SERVICE SINK AT EX. SINK LOCATION
- 20 1'-4" TALL x 2'-0" W DE CRAWL SPACE VENT WITH LOUVERED COVER (2 LOCATIONS)
- 21 CRAWL SPACE ACCESS DOOR MIN 18" x 24" WITH COVER PANEL OR DOOR
- 22 18" WIDE, 10 FT TALL FIXED LADDER TO ROOF HATCH, MODEL WLF50111 BY TRI-ARC OR EQUIVALENT. SEE SHEET E1 FOR ROOF HATCH
- 23 NEW ELECTRICAL METER BANK
- 24 NEW ELECTRICAL TRANSFORMER LOCATION

AREAS & OCCUPANT LOADS

	GROSS (A)	USE GROUP B 100 GROSS PER OCCUPANT
SUITE 100	9,802 SF	98
SUITE 100 LOWER LEVEL	1,823 SF	18
CORR. DOOR	880 SF	9
SUITE 200	4,782 SF	48
#2710	2,370 SF	24
#2710 LOWER LEVEL	706 SF	7
SUITE 300	1,998 SF	20
TOTAL GROSS AREA	22,363 SF	224

(22,725 SF INCLUDING FRONT & REAR OVERHANGING ROOFS)



LOWER LEVEL PLAN

1/8" = 1'-0"

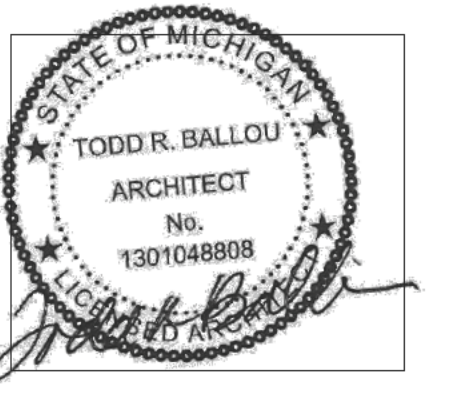
GAS METERS 18 AUG 2020
 BUILDING PERMIT 22 JUN 2020
 REVIEW & B DS 21 MAY 2020
 REVIEW & B DS 5 MAY 2020
 80% CONST DOCS 4 MAR 2020
 DOORS & WINDOWS 16 FEB 2020
 STEEL 30 JAN 2020
 REVIEW 7 JAN 2020

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 3300 Berry Rd, Ypsilanti, MI 48198

PROJECT:
PARTLUND DEVELOPMENT
 2700 E. GRAND RIVER
 GENOA TOWNSHIP, MI

TITLE:
LOWER LEVEL PLAN

JOB NO:
1835



SHEET NO.

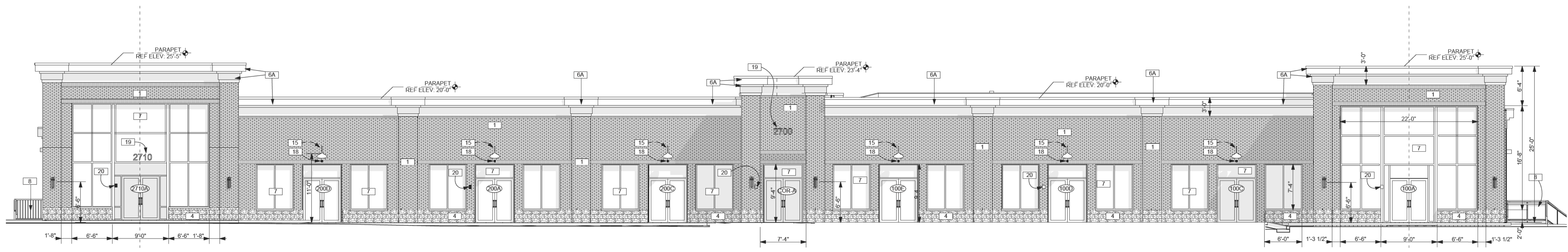
A5

WALL TYPES:	WALL TYPES:	WALL TYPES:	WALL TYPES:
<p>W1 EXISTING FRONT WALL 4" MASONRY VENEER WITH MASONRY TIES @ 16" o.c. WITH 2" AIR GAP OVER 1 1/2" CONTINUOUS RIGID INSULATION (R-7.5) OVER AIR INFILTRATION WRAP ON 5/8" GYPSUM SHEATHING ON 6" METAL STUDS WITH 5 1/2" FIBERGLASS INSULATION (R-19) AND 1/2" GYPSUM BOARD INTERIOR (RECENTLY BUILT UNDER A SEPARATE PERMIT)</p> <p>W2 BRICK VENEER ADDED TO CMU WALL BRICK VENEER WITH 1" AIR GAP OVER 1" RIGID INSULATION OVER LIQUID WEATHER BARRIER ON EX. CMU WALL</p> <p>W3 CONCRETE BLOCK INFILL OF EX. CONCRETE BLOCK WALL OPENING. MATCH THICKNESS OF EXISTING WALL</p> <p>W4 NEW SPLIT-FACED CMU WALL WITH #5 VERT REBAR AT 32" o.c. AND HORIZONTAL 30 MT REINFORCING @ 16" o.c. VERTICALLY. USE PLAN BLOCK AT AREAS NOT VISIBLE FROM THE EXTERIOR. (LOWER LEVEL)</p>	<p>W5 NEW SPLIT-FACED CMU PIER WITH #4 VERT @ 32" o.c. AND HORIZONTAL COLUMN TIES AT 16" o.c. (LOWER LEVEL)</p> <p>W6 EXISTING EXTERIOR FURRING. NEW 5/8" GYPSUM BOARD ON EXISTING FURRING CHANNELS @ 16" o.c. WITH 1 1/2" RIGID INSULATION. (R-7.5)</p> <p>W7 NEW EXTERIOR FURRING. 5/8" GYPSUM BOARD ON 1 1/2" METAL FURRING CHANNELS @ 16" o.c. WITH 1 1/2" RIGID INSULATION. (R-7.5)</p> <p>W8 VESTIBULE WALL. 4 1/2" ALUMINUM STOREFRONT SYSTEM</p> <p>W9 1-HR FIRE RATED CORRIDOR WALL. EXTENDS FROM FLOOR SLAB TO UNDERSIDE OF EXISTING ROOF DECK. ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED PARALLEL OR AT RIGHT ANGLES TO EACH SIDE OF 3 5/8" STEEL STUDS @ 24" o.c. WITH 1" TYPE S DRYWALL SCREWS 8" o.c. AT VERTICAL JOINTS AND 12" o.c. AT FLOOR AND CEILING RUNNERS AND INTERMEDIATE STUDS. JOINTS STAGGERED 24" ON OPPOSITE SIDES. ULC DESIGN W415</p>	<p>W10 1-HR FIRE RATED INFILL. CONSTRUCTION EQUIVALENT TO W9 USING TWO STUD WALLS MATCHING THICKNESS OF EXISTING WALL. 5/8" TYPE X GYPSUM ON EXTERIOR FACES ONLY</p> <p>W11 NEW FULL HEIGHT PARTITION WALL. 5/8" TYPE X GYPSUM BOARD ON EACH SIDE OF 6" METAL STUDS @ 16" o.c. EXTEND TO UNDERSIDE OF ROOF DECK. PROVIDE BLOCKING AS NEEDED FOR GRAB BARS AND OTHER FIXTURES. INTENDED AS POTENTIAL 1-HR RATED TENANT SEPARATION WALL FOR FUTURE TENANTS</p> <p>W12 NEW 5/8" PARTITION WALL. 5/8" GYPSUM BOARD ON EACH SIDE OF 3 5/8" METAL STUDS @ 16" o.c. TO 8 FT HIGH. PROVIDE BLOCKING AS NEEDED FOR GRAB BARS AND OTHER FIXTURES</p> <p>W13 INTERIOR STUD WALL INFILL (NOT USED). CONSTRUCTION SIMILAR TO W9, USING TWO ROWS OF STUDS AND 1/2" GYPSUM BOARD ON EXTERIOR FACES ONLY</p>	<p>W14 NEW FURRING ON INTERIOR CONCRETE BLOCK WALLS. 5/8" GYPSUM BOARD ON 1 1/2" METAL FURRING TO CEILING AT 8'-0"</p> <p>W15 NEW DRYWALL ON EXISTING STUDS. 5/8" GYPSUM BOARD ON BOTH SIDES OF EXISTING STUDS</p> <p>FLOORING: SEALED CONCRETE FLOOR IN ALL AREAS. 4" VINYLS TYPICAL</p> <p>FX M N MUM 2A PORTABLE FIRE EXTINGUISHER (MBC 906 1) MIN. TWO LOCATED IN EACH SUITE ON MAIN LEVEL. ONE LOCATED IN EACH SPACE ON LOWER LEVEL. (11 LOCATIONS PROPOSED)</p>

FLOOR PLAN NOTES:	STAIR & RAMP NOTES:	FLOOR PLAN NOTES:
<p>1 EXISTING STAIR NOT REQUIRED FOR EGRESS</p> <p>2 "NOT AN EXIT" SIGN ON EXTERIOR SIDE OF EXISTING DOOR</p> <p>3 PROPOSED VESTIBULE LOCATED AT MAIN ENTRANCES OF SPACES OVER 3,000SF. CEILING AT 8'-0". ALUMINUM STOREFRONT CONSTRUCTION. SEE DETAIL SHEET A6</p> <p>4 EXISTING ALUMINUM STOREFRONT EXTERIOR WALL IS NOT A VESTIBULE. DOOR IS INSET TO ACCOMMODATE CURB LOCATED CLOSE TO BUILDING</p> <p>5 WALKABLE VINYLS MEMBRANE BY DURADEK ON CONCRETE DECK OVER STEEL STRUCTURE</p> <p>6 WEST EXTERIOR STAIR. PRE-FABRICATED STEEL STAIR APPROX. 3'-2" RISE, 6R @ 6.33", 11" TREADS</p>	<p>7 MAIN EXTERIOR STAIR. PRE-FABRICATED STEEL STAIR APPROX. 9'-2" RISE, 16R @ 6.78", 11" TREADS</p> <p>8 EAST EXTERIOR STAIR. PRE-FABRICATED STEEL STAIR APPROX. 1'-10" RISE, 4R @ 5.63", 11" TREADS</p> <p>9 EXTERIOR RAMP. APPROX. RISE OF 75' DIVIDED INTO (3) 25FT RUNS @ MAX SLOPE 1:12</p> <p>10 DECK RAMP TO #2710. APPROX. RISE OF 3 1/2" @ MAX SLOPE 1:12</p> <p>11 42" HIGH GUARDRAIL REQUIRED</p> <p>12 36" HIGH HANDRAIL ON BOTH SIDES OF STAIR OR RAMP</p> <p>13 HANDRAILS ARE NOT REQUIRED AT RAMP'S LESS THAN 6" RISE</p>	<p>14 EX. ROOF DRAIN</p> <p>15 PROPOSED ROOF DRAIN TO STORM SYSTEM</p> <p>16 EXISTING ELECTRICAL TRANSFORMER ON CONC. PAD. FIELD VERIFY LOCATION</p> <p>17 NEW GAS METER LOCATION (LOWER LEVEL). SOUTH WALL BETWEEN GRIDS 16 & 17. ONE GAS METER INSTALLED INITIALLY, WITH SPACE FOR FUTURE TENANTS</p> <p>18 EX. LOADING DOCK LEVEL 3'-8" BELOW MAIN FLOOR</p> <p>19 NEW SERVICE SINK AT EX. SINK LOCATION</p> <p>20 1'-4" TALL x 2'-0" WIDE CRAWL SPACE VENT WITH LOUVERED COVER (2 LOCATIONS)</p> <p>21 CRAWL SPACE ACCESS DOOR MIN 18" x 24" WITH COVER PANEL OR DOOR</p> <p>22 18" WIDE, 10 FT TALL FIXED LADDER TO ROOF HATCH, MODEL WLF50111 BY TRI-ARC OR EQUIVALENT. SEE SHEET E1 FOR ROOF HATCH</p> <p>23 NEW ELECTRICAL METER BANK</p> <p>24 NEW ELECTRICAL TRANSFORMER LOCATION</p>

AREAS & OCCUPANT LOADS		
	GROSS (A)	USE GROUP B (99 GROSS PER OCCUPANT)
SUITE 100	9,802 SF	98
SUITE 100 LOWER LEVEL	1,823 SF	18
CORRIDOR	880 SF	9
SUITE 200	4,782 SF	48
#2710	2,370 SF	24
#2710 LOWER LEVEL	706 SF	7
SUITE 300	1,968 SF	20
TOTAL GROSS AREA	22,363 SF	224

(22,725 SF INCLUDING FRONT & REAR OVERHANGING ROOFS)

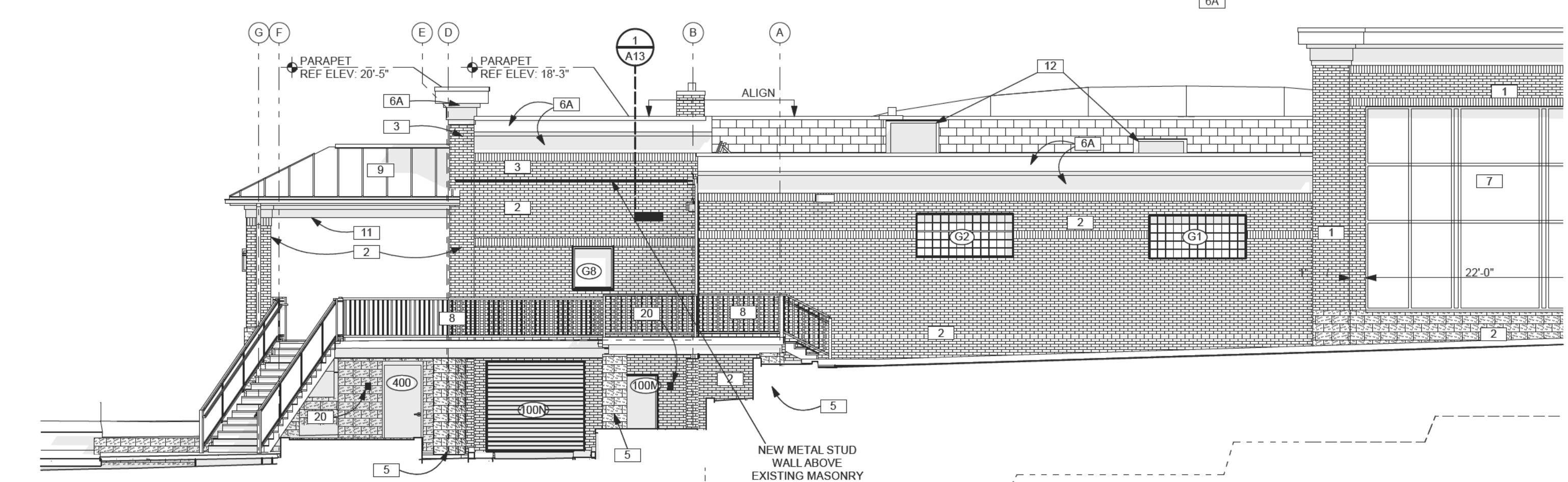


6 FRONT ELEVATION
A8

1/8" = 1'-0"

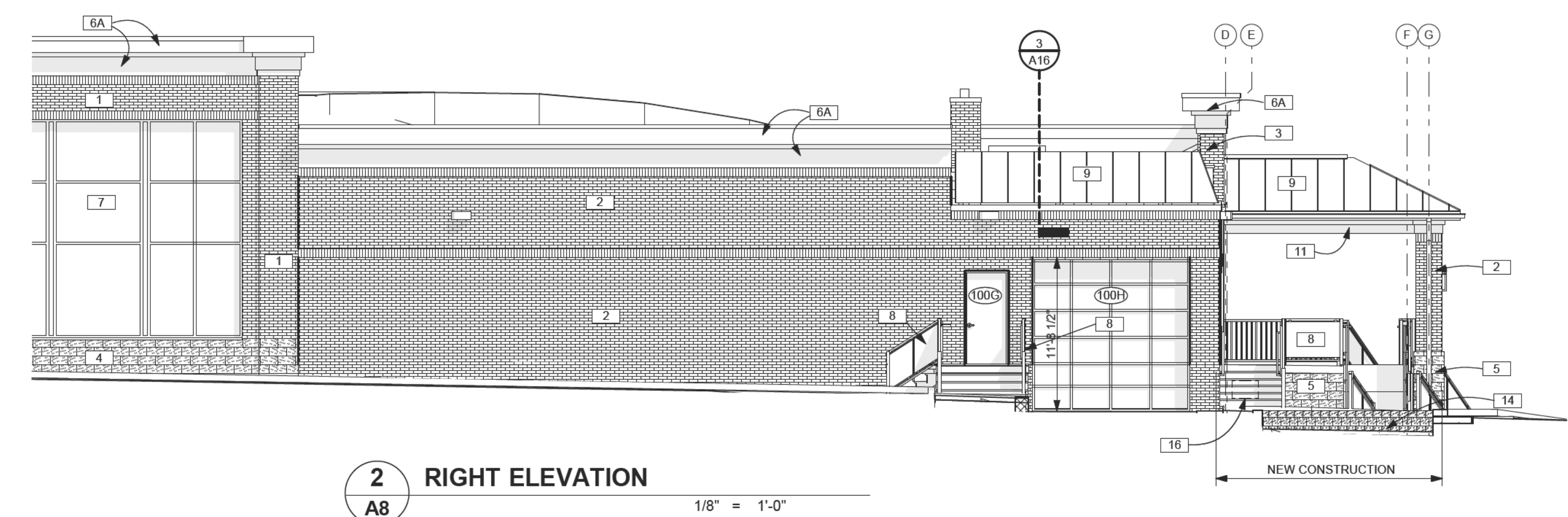
CONSTRUCTION OF THE FRONT FACADE WAS RECENTLY COMPLETED AS "PHASE 1", DOCUMENTED UNDER SEPARATE CONSTRUCTION DOCUMENTS AND SEPARATE BUILDING PERMIT

GAS METERS	18 AUG 2020
BUILDING PERMIT	22 JUN 2020
REVIEW & BIDS	21 MAY 2020
REVIEW & BIDS	5 MAY 2020
80% CONST. DOCS	4 MAR 2020
DOORS & WINDOWS	16 FEB 2020
STEEL	30 JAN 2020
REVIEW	7 JAN 2020



1 LEFT ELEVATION
A8

1/8" = 1'-0"



2 RIGHT ELEVATION
A8

1/8" = 1'-0"

ELEVATION NOTES:

- 1 4" BRICK VENEER (RECENT CONSTRUCTION)
- 2 4" BRICK VENEER OVER EX. MASONRY WALL
- 3 4" BRICK VENEER OVER METAL STUD WALL
- 4 4" SPLIT FACED BLOCK VENEER (RECENT CONSTRUCTION)
- 5 8" SPLIT FACED BLOCK WALL OR PIER
- 6A EXTERIOR INSULATION FINISH SYSTEM (EIFS) INSTALLED ON METAL FRAMING
- 6B EXTERIOR INSULATION FINISH SYSTEM (EIFS) INSTALLED OVER BRICK VENEER (ABOVE DOORS)

ELEVATION NOTES:

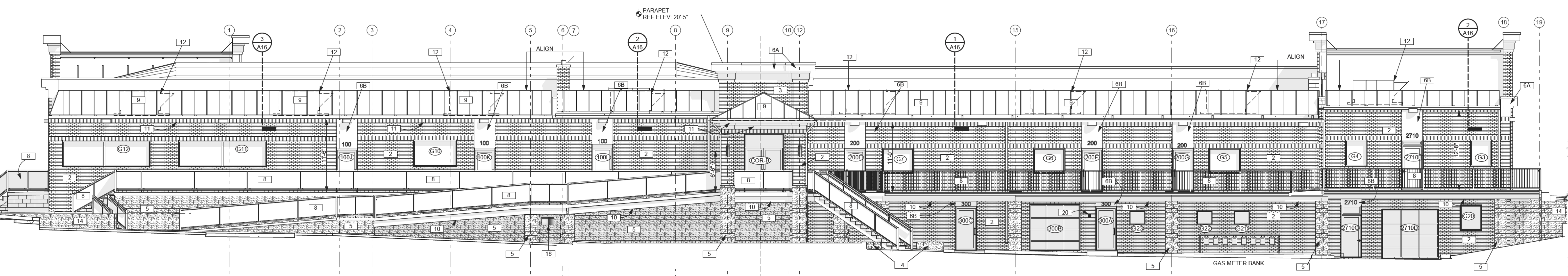
- 7 ALUMINUM STORE FRONT WINDOWS-CLEAR GLASS
- 8 GLASS RAILING SYSTEM
- 9 STANDING SEAM METAL ROOFING
- 10 STEEL STRUCTURE, PAINTED
- 11 METAL TRIM
- 12 ROOFTOP HVAC UNIT BEHIND SCREEN

ELEVATION NOTES:

- 13 EXISTING GLASS BLOCK
- 14 RETAINING WALL SYSTEM
- 15 GOOSENECK LIGHT MOUNTED 11'-0" ABOVE FLOOR, JUST ABOVE SOLIDER BRICK COURSE
- 16 WALL SCONCE MOUNTED
- 17 WALL PACK FIXTURE
- 18 EXTERIOR EMERGENCY LIGHTING REMOTE HEAD

ELEVATION NOTES:

- 19 ADDRESS OF EACH TENANT SPACE TO BE LOCATED ON GRAND RIVER SIDE, WITH MIN 8" LETTERS. 12" LETTERS SHOWN ON PLAN
- 20 KNOX BOX TO BE LOCATED AT THE MAIN ENTRANCE OF EACH TENANT SPACE AND EACH LOCKED COMMON AREA SPACE, 5'-6" ABOVE THE THRESHOLD. 8 LOCATIONS PROPOSED @ DOORS 100A, 100B, 100C, 200A, 200B, 200C, 300A, 300B, AND 400



3 REAR ELEVATION
A8

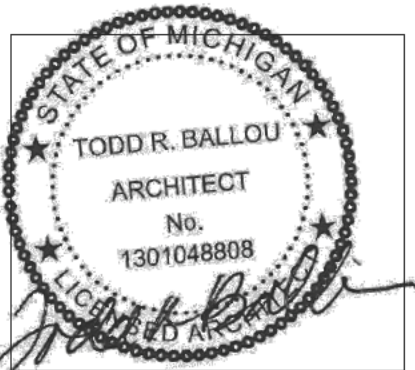
1/8" = 1'-0"

focus / design
Todd Ballou, Registered Architect
www.focusdesign.us
focusdesign@comcast.net
3300 Berry Rd., Ypsilanti, MI 48198

PROJECT: **PARTLUND DEVELOPMENT**
2700 E. GRAND RIVER
GENOA TOWNSHIP, MI

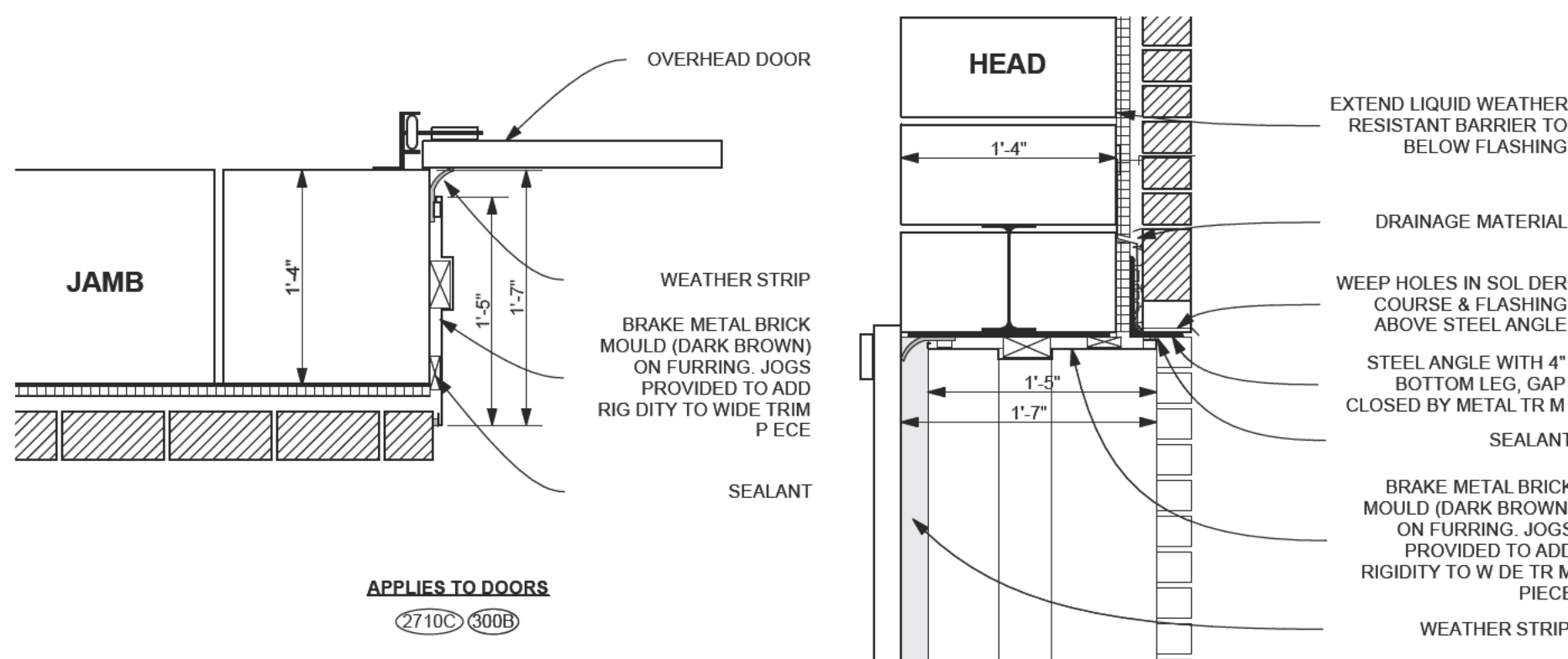
TITLE: **ELEVATIONS**

JOB NO:
1835

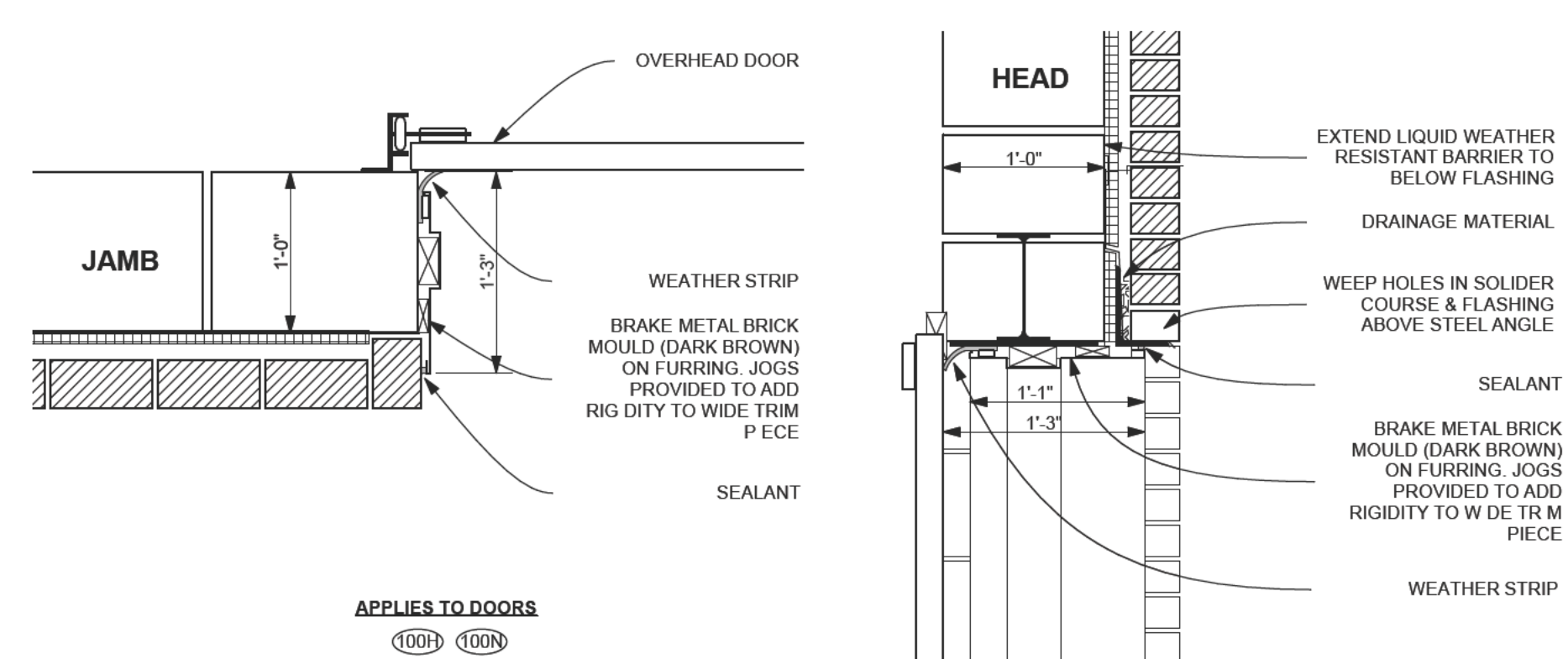


SHEET NO.

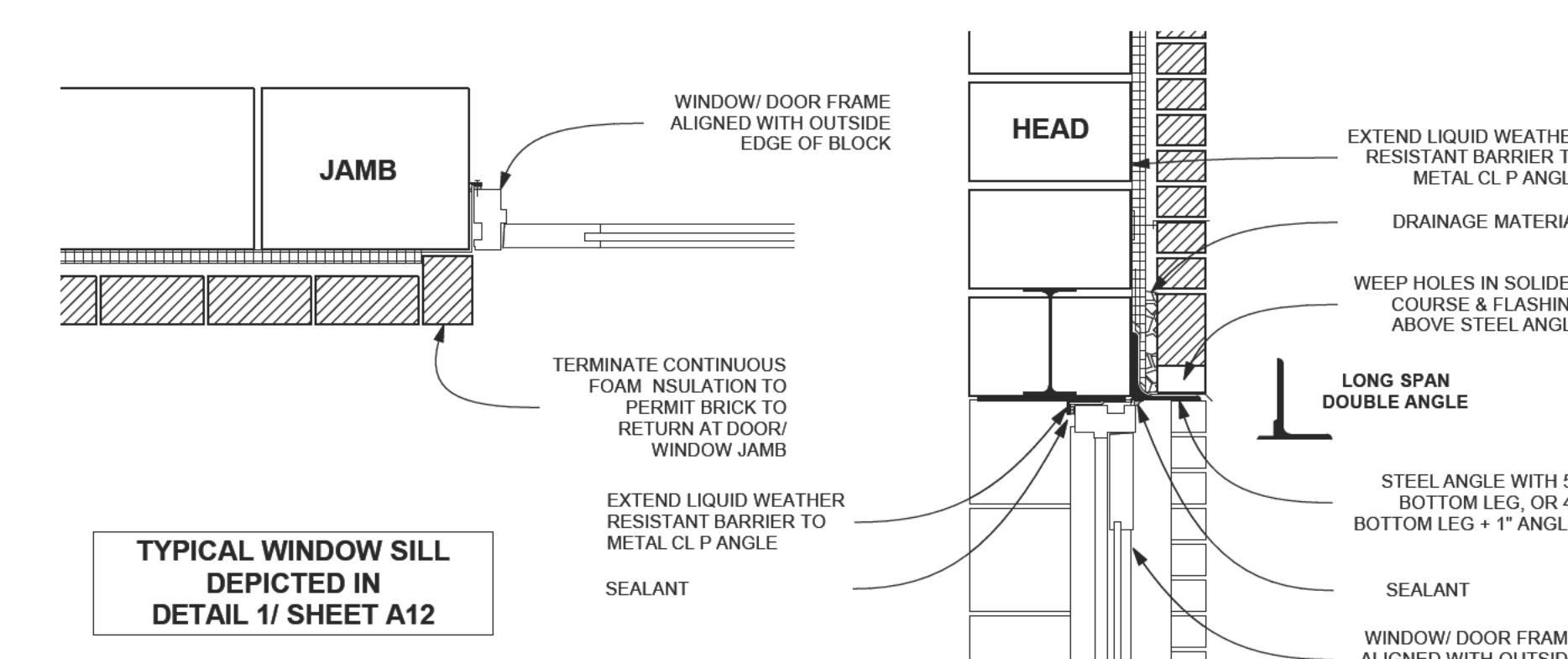
A8



4
A9 **OVERHEAD DOOR HEAD & JAMB- 16" WALL**
Scale 1" = 1'-0"



3
A9 **OVERHEAD DOOR HEAD & JAMB- 12" WALL**
Scale 1" = 1'-0"



2
A9 **TYPICAL DOOR HEAD & JAMB**
Scale 1" = 1'-0"

COMcheck Software Version 4.1.1.0
Envelope Compliance Certificate

Project Information
Energy Code: 2015 IECC
Project Title: Partlund Development
Location: Howell, Michigan
Climate Zone: 5a
Alteration Type: Alteration
Vertical Glazing / Wall Area: 10%

Construction Site: 2700 & 2710 E Grand River, Genoa Township, MI
Owner/Agent:
Designer/Contractor: Todd Ballou, focus design, 3300 Berry Rd, Ypsilanti, MI 48198, (734) 276-2110

Building Area	Floor Area
1-Office : Nonresidential	22725

Envelope Assemblies

Post-Alteration Assembly	R-Value		Proposed		Max. Allowed	
	Cavity	Cont.	U-Factor	SHGC	U-Factor	SHGC
NORTH Existing North Walls: Steel-Framed, 16" o.c., [Bldg. Use 1 - Office], Exemption: Framing cavity not exposed. Storefront Windows: Metal Frame:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]. Storefront Doors: Glass (> 50% glazing):Metal Frame, Entrance Door, Entrance Door, Entrance Door, [Bldg. Use 1 - Office]	---	---	0.380	0.530	0.380	0.531
EAST Existing East Wall: Concrete Block:12", Partially Grouted, Cells Empty,Normal Density, Furring: Metal, [Bldg. Use 1 - Office], Exemption: Framing cavity filled with insulation. Storefront Window: Metal Frame:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]. Solid Door 100M, 400: Insulated Metal, Swinging, [Bldg. Use 1 - Office]. Solid Garage Door 100N: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	---	---	0.380	0.400	0.380	0.400
SOUTH Existing South Walls: Concrete Block:12", Partially Grouted, Cells Empty,Normal Density, Furring: Metal, [Bldg. Use 1 - Office], Exemption: Framing cavity filled with insulation. Storefront Windows 1ST FLOOR: Wood Frame:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]. Storefront Window G20: Metal Frame:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.380	0.400	0.380	0.644

Post-Alteration Assembly	R-Value		Proposed		Max. Allowed	
	Cavity	Cont.	U-Factor	SHGC	U-Factor	SHGC
Storefront Doors 1ST FLOOR: Glass (> 50% glazing):Metal Frame, Entrance Door, Entrance Door, Entrance Door, [Bldg. Use 1 - Office].	---	---	0.770	0.400	0.770	0.400
Storefront Doors LOWER LEVEL: Glass (> 50% glazing):Metal Frame, Entrance Door, Entrance Door, Entrance Door, [Bldg. Use 1 - Office].	---	---	0.770	0.400	0.770	0.644
Glass Garage Doors LOWER LEVEL: Glass (> 50% glazing):Metal Frame, Non-Entrance Door, Non-Entrance Door, [Bldg. Use 1 - Office].	---	---	0.770	0.640	0.770	0.644
New South Wall at East Tower: Steel-Framed, 16" o.c., [Bldg. Use 1 - Office], Exemption: Framing cavity not exposed. Optional Aluminum Storefront: Metal Frame:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.380	0.400	0.380	0.400
WEST Existing West Wall: Concrete Block:12", Partially Grouted, Cells Empty,Normal Density, Furring: Metal, [Bldg. Use 1 - Office], Exemption: Framing cavity filled with insulation. Glass Garage Door 100H: Glass (> 50% glazing):Metal Frame, Non-Entrance Door, Non-Entrance Door, Non-Entrance Door, [Bldg. Use 1 - Office]	---	---	0.770	0.400	0.770	0.400

(a) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

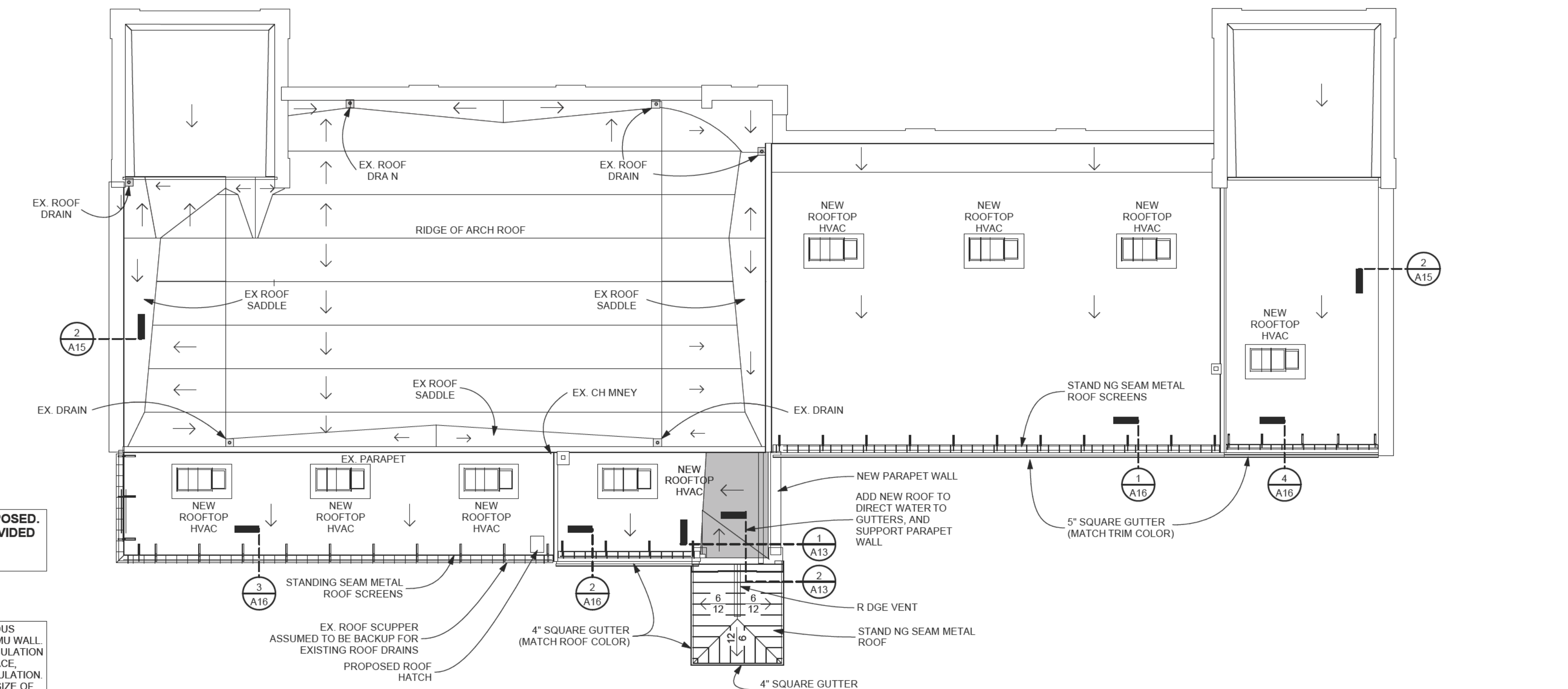
Envelope Compliance Statement

Compliance Statement: The proposed envelope alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Todd Ballou, Architect Signature Date 5/5/2020

NO NEW EXTERIOR WALLS ARE PROPOSED. ENERGY CODE COMPLIANCE IS PROVIDED TO SUPPLY WINDOW & DOOR REQUIREMENTS

NEW BRICK VENEER AND 1" OF CONTINUOUS INSULATION IS PROPOSED ON THE EXISTING CMU WALL. THE INTENTION IS TO FILL THE CAVITY WITH INSULATION WHILE PROVIDING THE REQUIRED AIR SPACE. EXEMPTING THE AMOUNT OF CONTINUOUS INSULATION AMOUNT OF NEW INSULATION IS LIMITED BY SIZE OF THE EXISTING BRICK VENEER FOOTING, AND CONTINUOUS INSULATION CAN BE INCREASED OR ELIMINATED BASED ON AVAILABLE FOOTING SIZE. IF 1" INSULATION IS PROVIDED, WALL CAN MEET ENERGY CODE COMPLIANCE WITH ADDITION OF MINIMAL INTERIOR INSULATION OF R-3.75 OR BETTER BY FUTURE TENANT(S)



ROOF PLAN
Scale 1/16" = 1'-0"



1
A9 **SECTION AT LOADING DOCK**
Scale 1/8" = 1'-0"

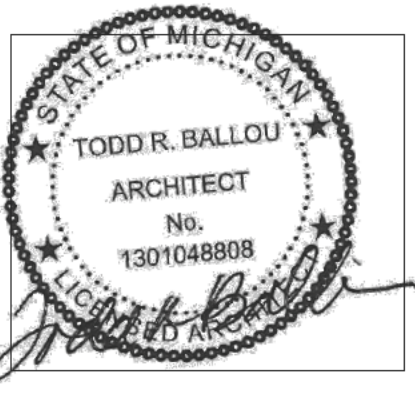
GAS METERS 18 AUG 2020
BUILDING PERMIT 22 JUN 2020
REVIEW & BIDS 21 MAY 2020
80% CONST. DOCS 4 MAR 2020
DOORS & WINDOWS 16 FEB 2020
STEEL 30 JAN 2020
REVIEW 7 JAN 2020

focus / design
Todd Ballou, Registered Architect
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3300 Berry Rd, Ypsilanti, MI 48198
(734) 276-2110

PROJECT: PARTLUND DEVELOPMENT
2700 E. GRAND RIVER
GENOA TOWNSHIP, MI

TITLE: ELEVATIONS ROOF PLAN

JOB NO:
1835



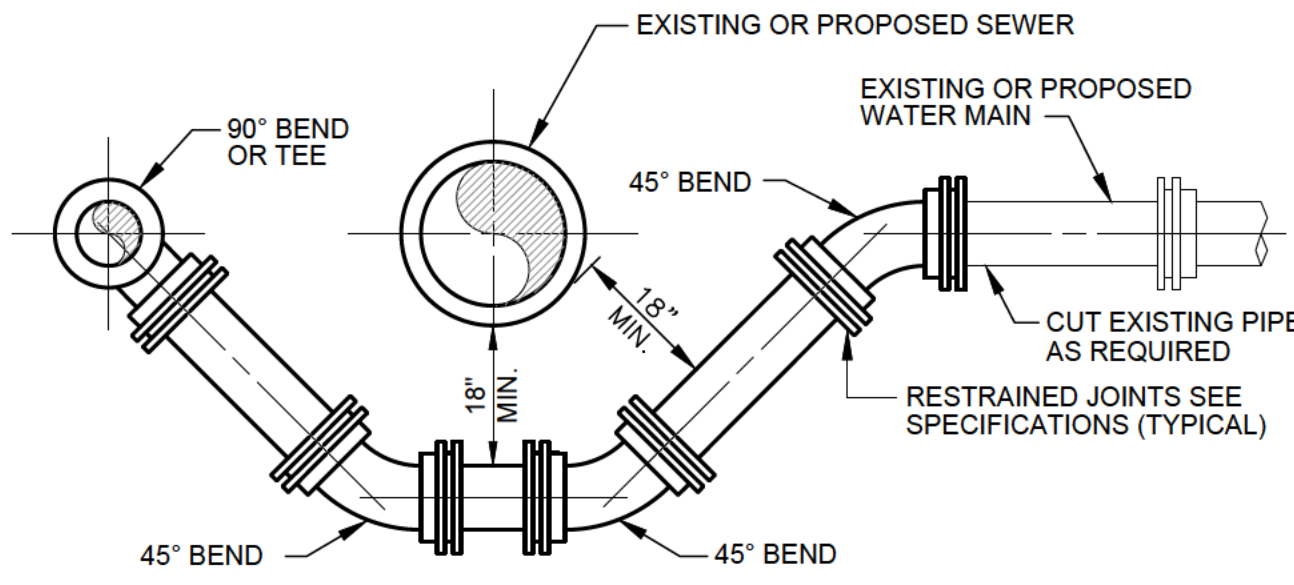
SHEET NO.
A9

PIPE RESTRAINT SCHEDULE

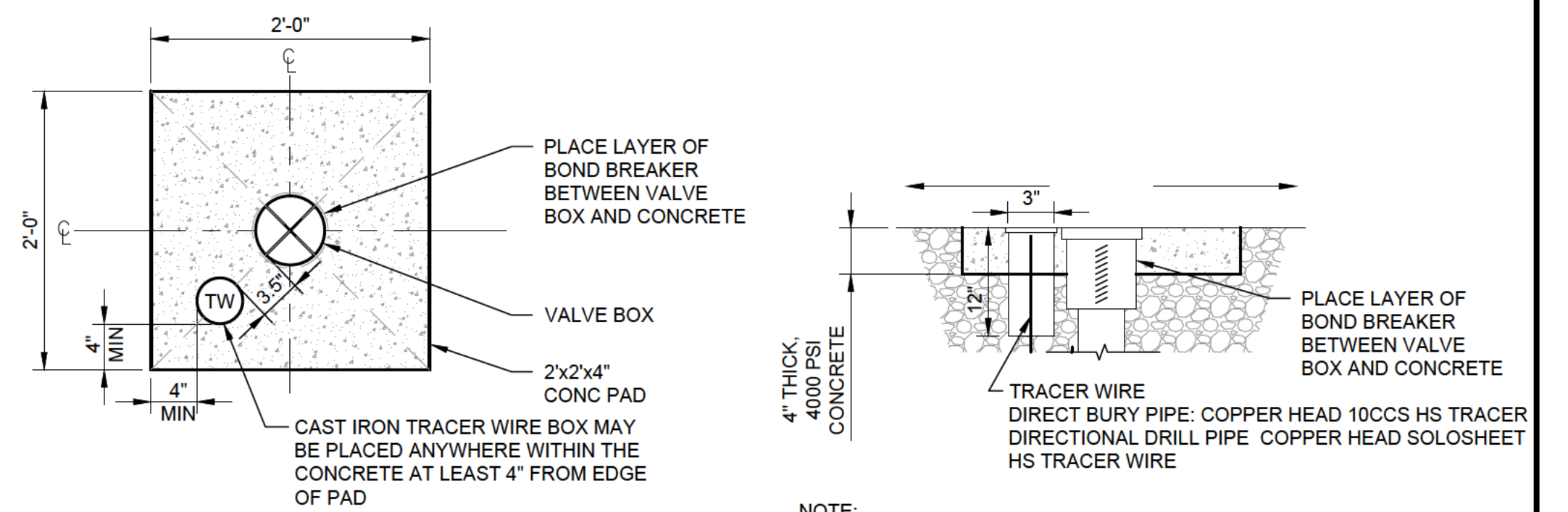
GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE

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



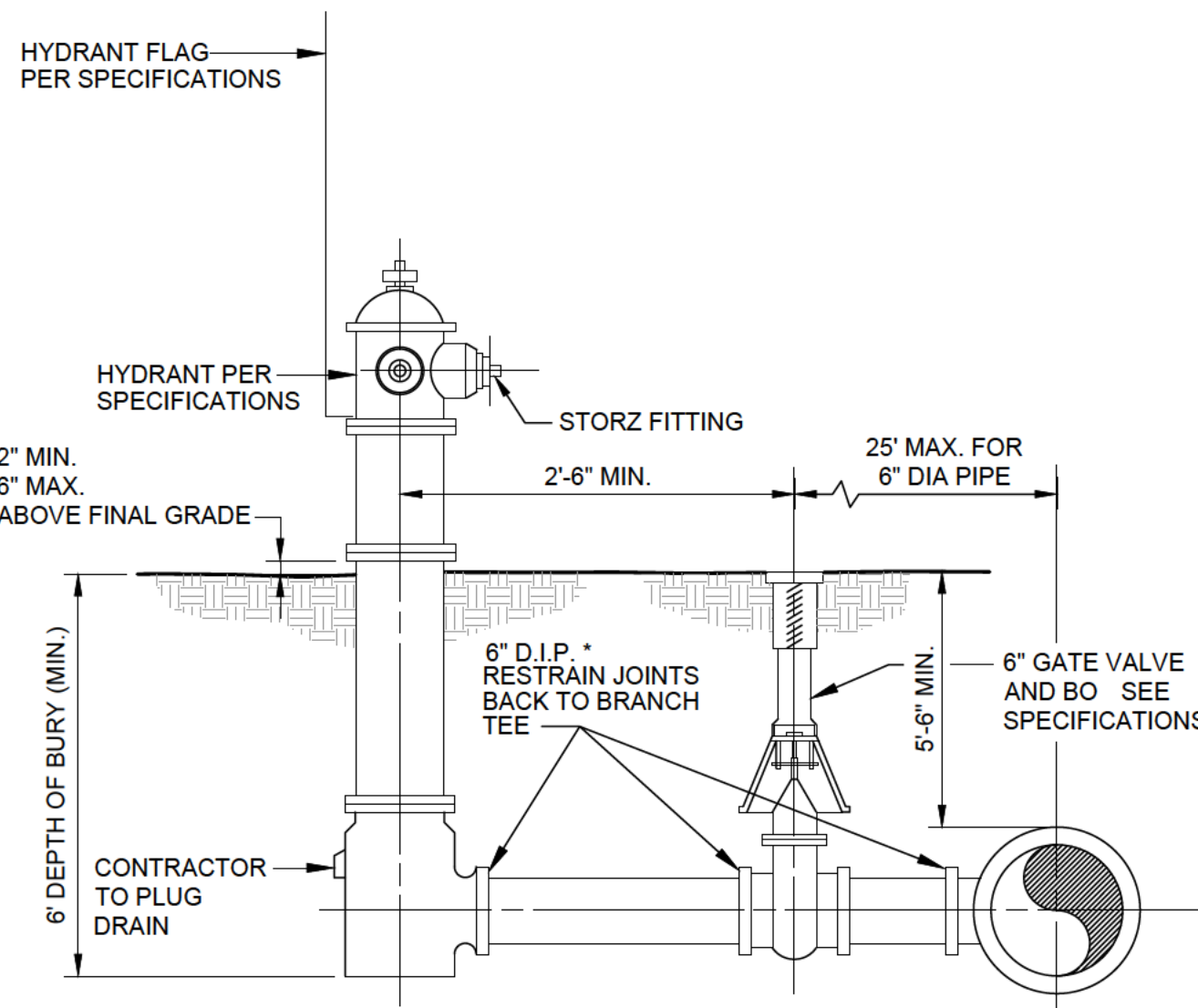
WATER MAIN UTILITY OFFSET



NOTE: ALL BOXES & ADJOINING TW BOXES SHALL BE ENCASED IN A CONC. PAD UNLESS OTHERWISE DETERMINED BY MHOOG.

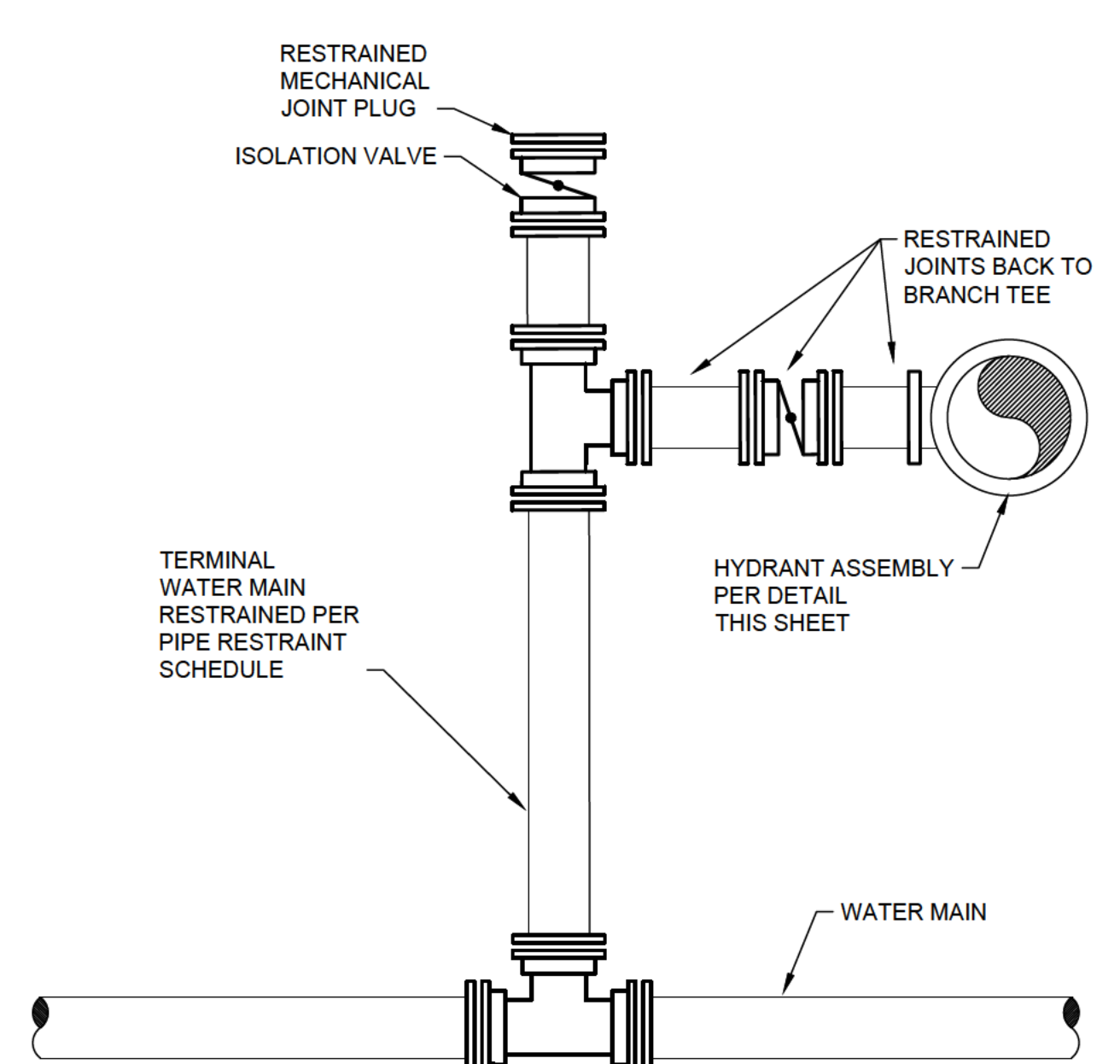
PLAN
VALVE/TRACER WIRE BOX IN CONCRETE DETAIL
 NO SCALE

- 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.

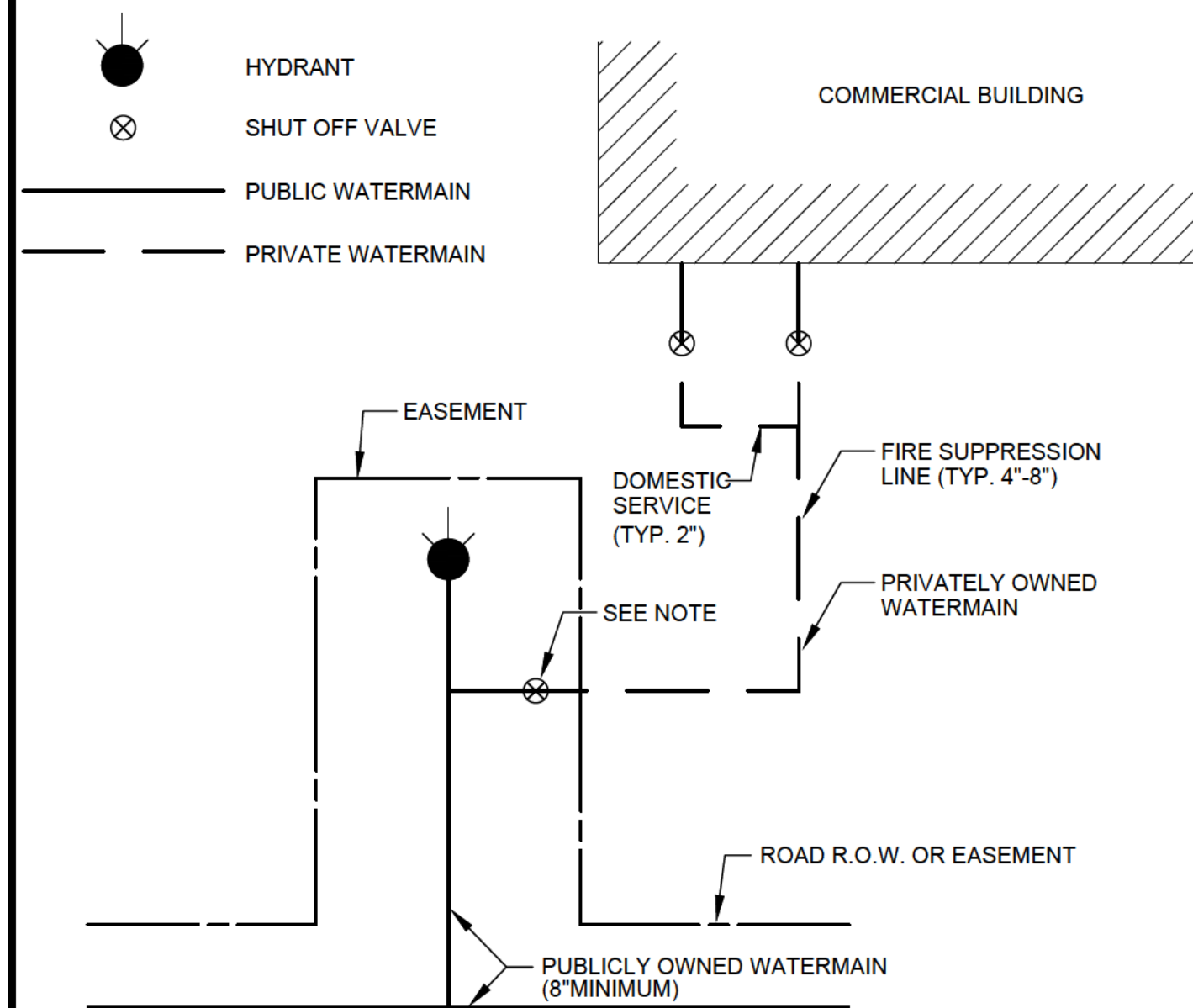


* THE LENGTH OF 6" PIPE FROM THE MAIN TO THE HYDRANT ASSEMBLY CANNOT EXCEED 25'. ANY PIPE OVER 25 FEET SHALL BE 8" DIAMETER MINIMUM AND DESIGNED PER MHOOG SPECIFICATIONS.

FIRE HYDRANT ASSEMBLY

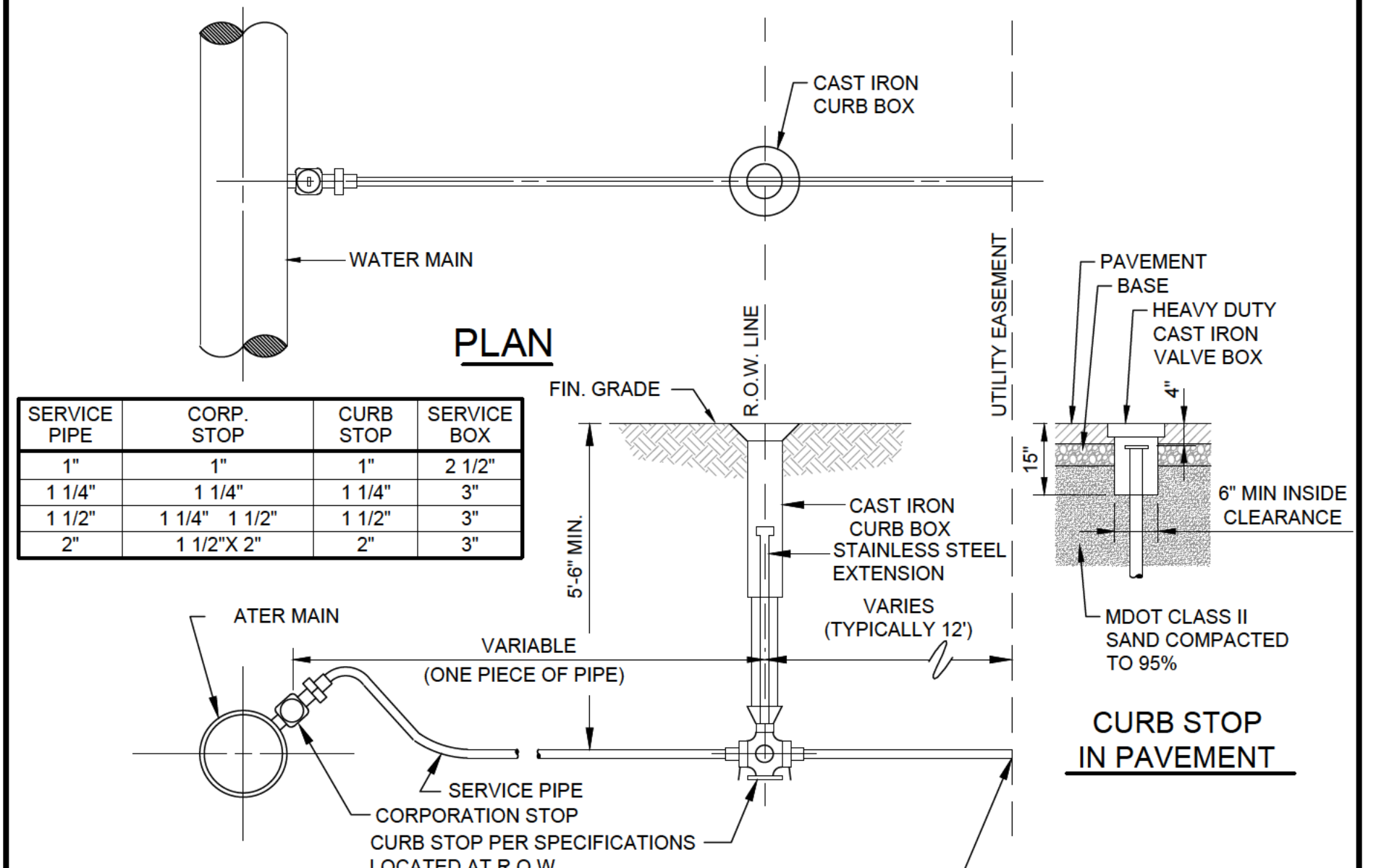


TERMINAL HYDRANT DETAIL

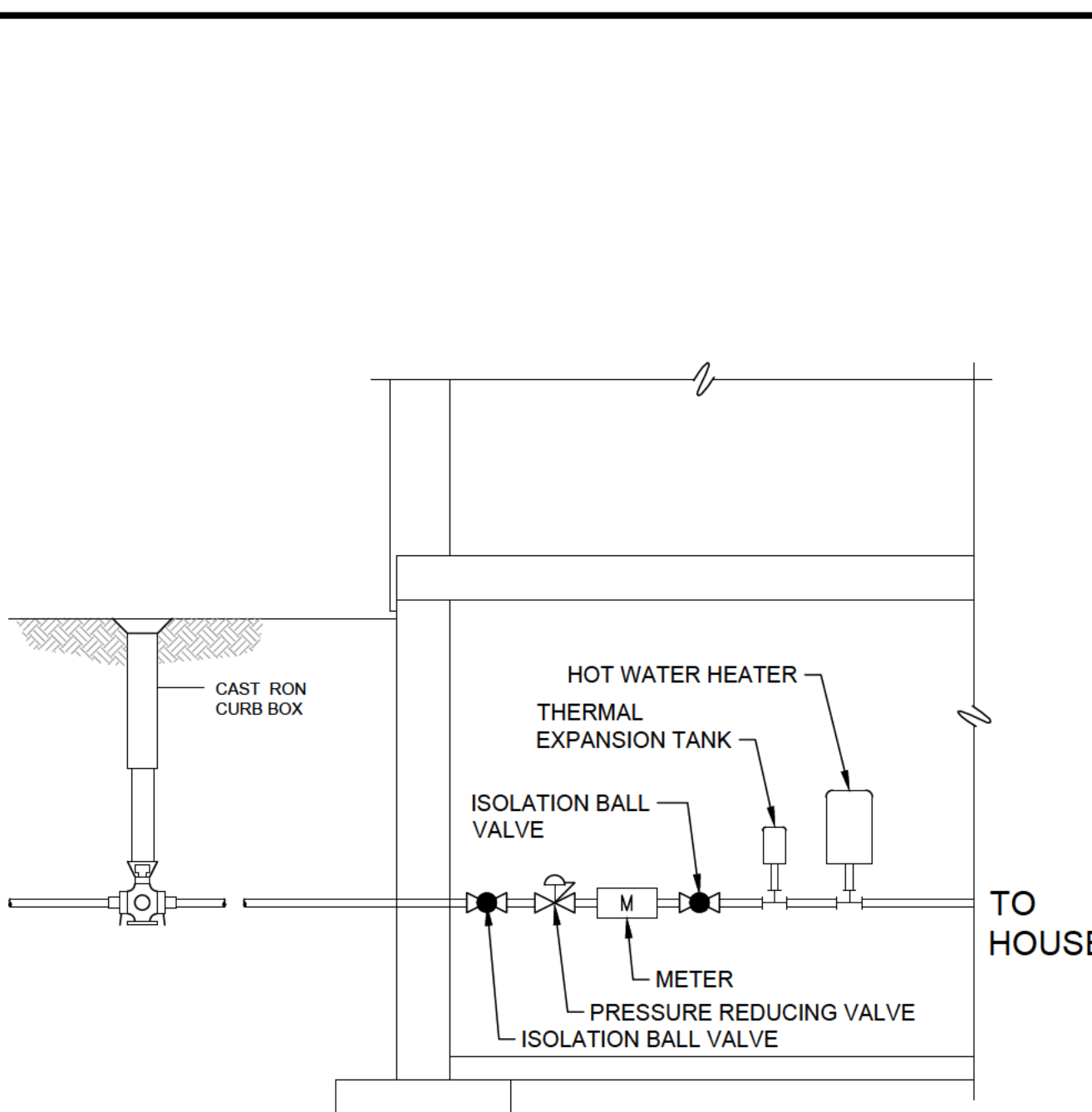


NOTE: PUBLICLY OWNED SHUT OFF VALVE TO BE LOCATED IN EASEMENT.

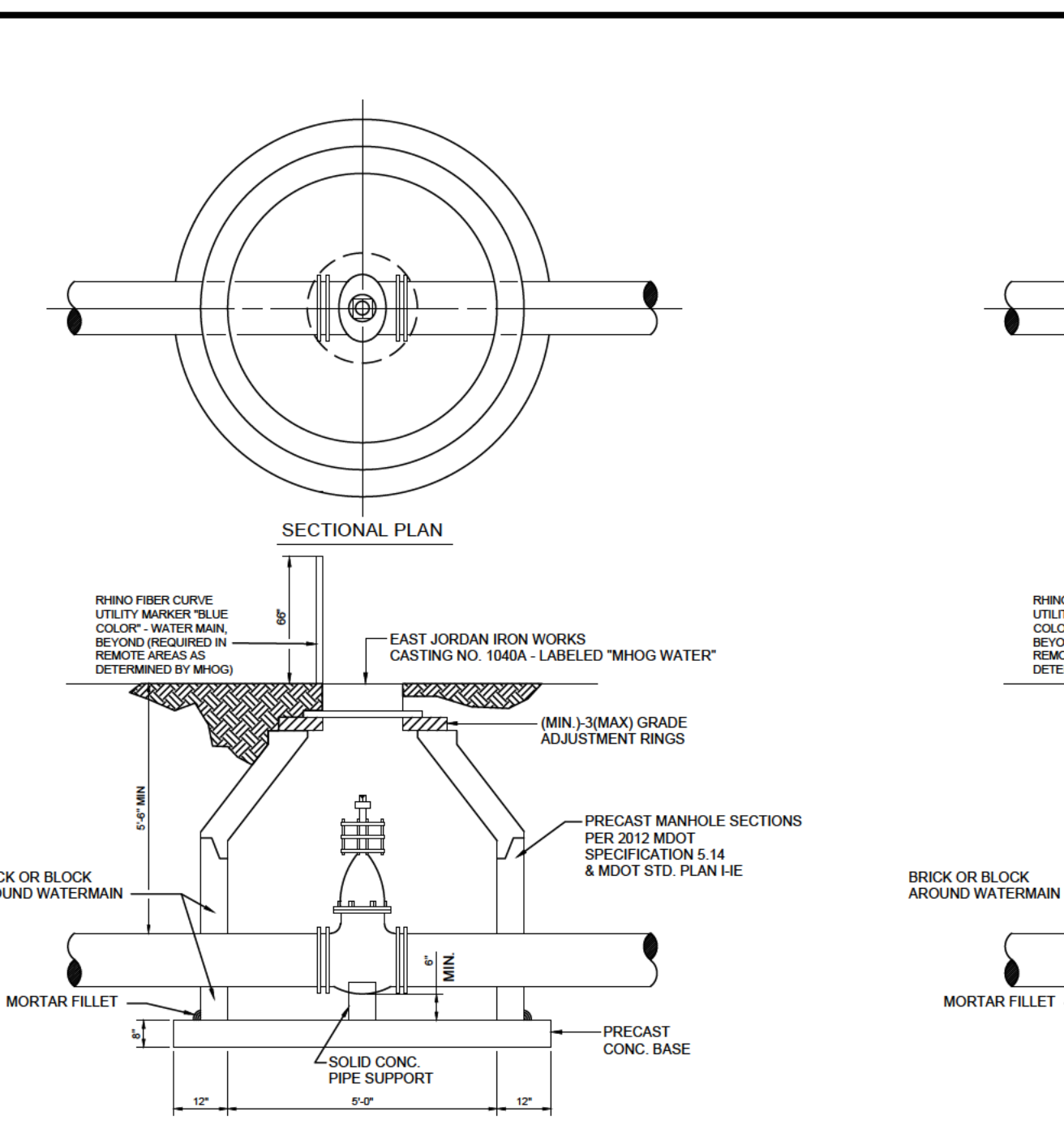
COMMERCIAL BUILDING WATER SERVICE LAYOUT



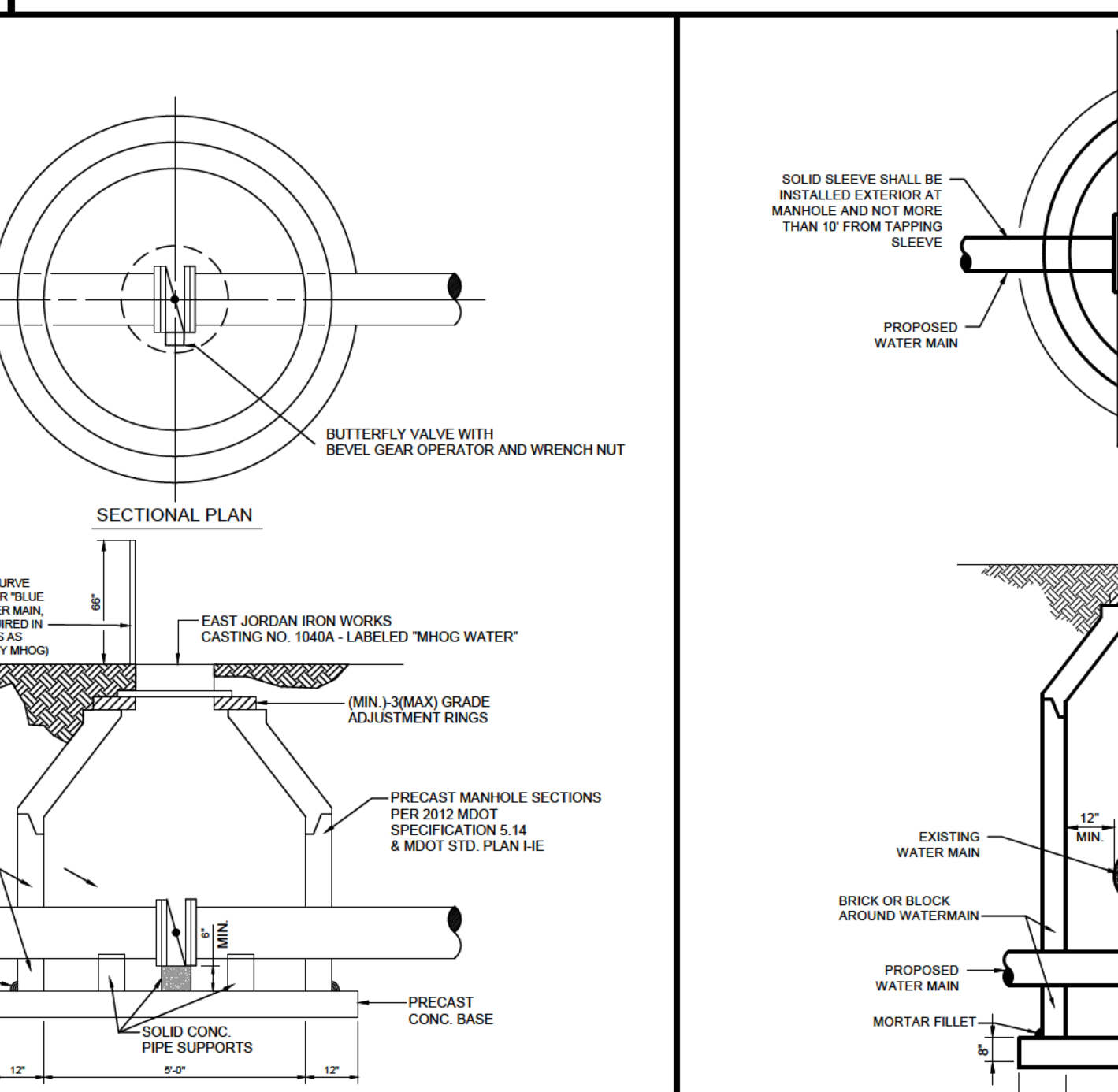
SECTION
WATER SERVICE LATERAL



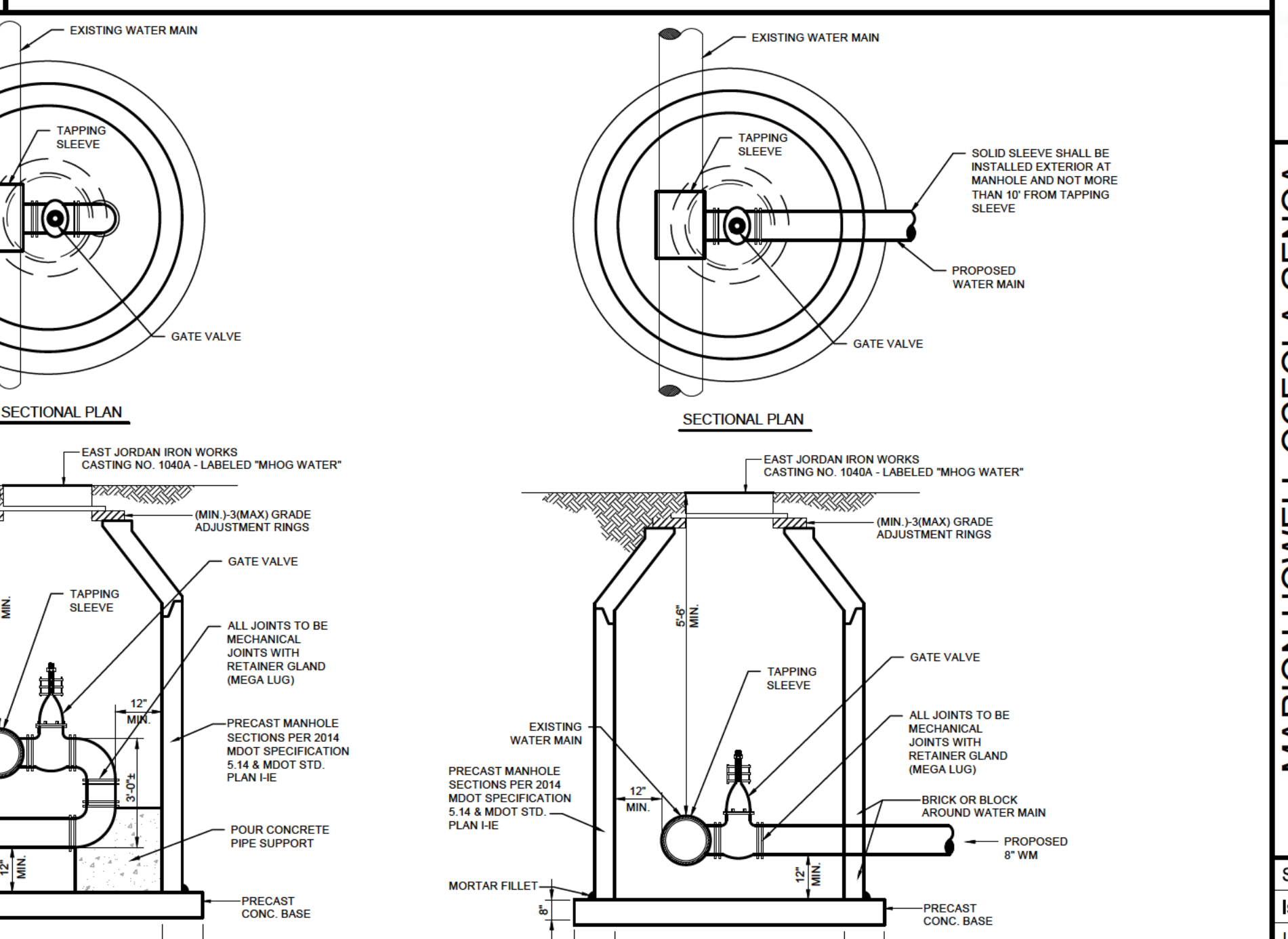
PRIVATE RESIDENCE PRESSURE REDUCING VALVE (PRV)



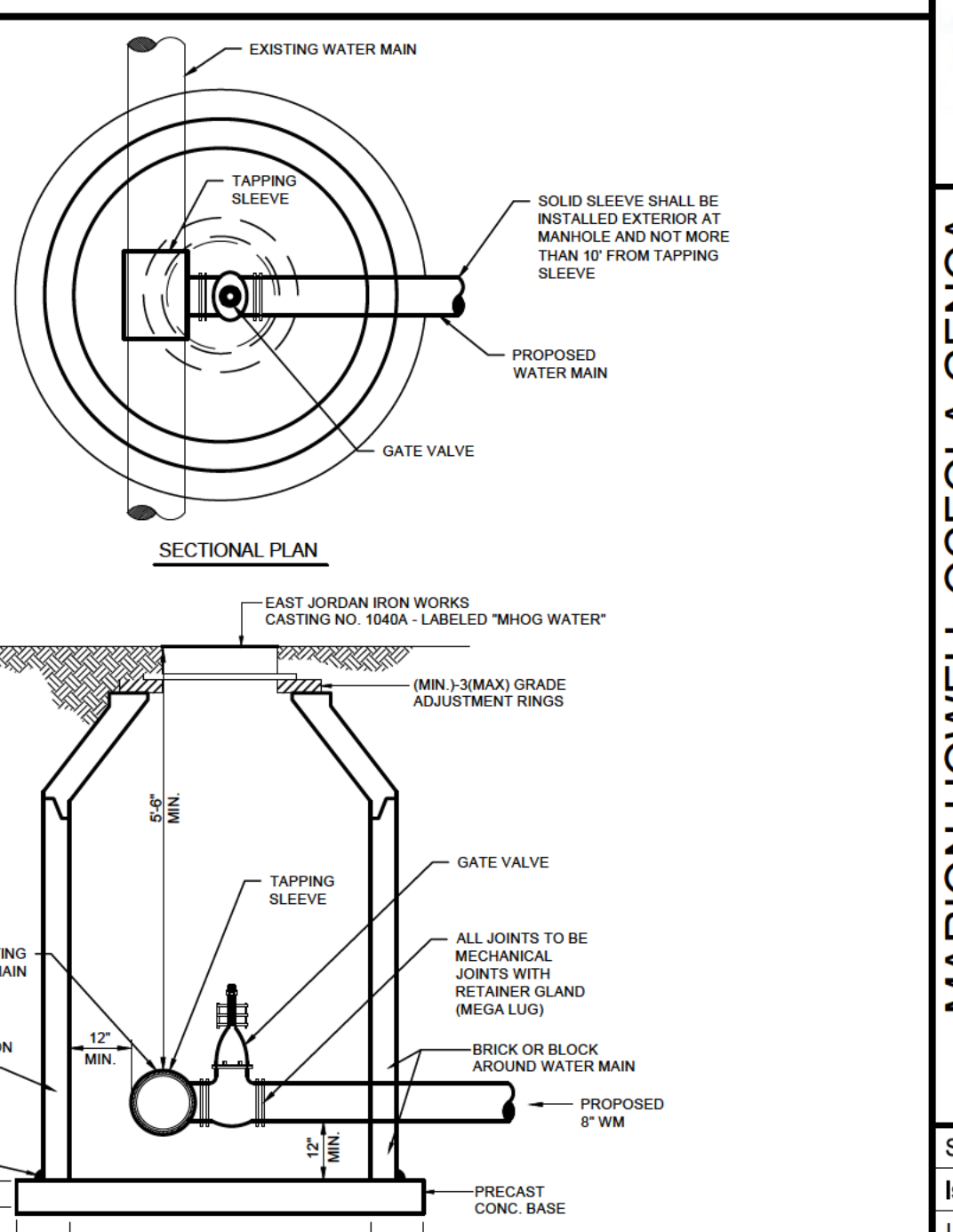
VALVE AND GATE WELL



BUTTERFLY VALVE AND WELL



REVERSE TAP GATE WELL



REGULAR TAP GATE WELL

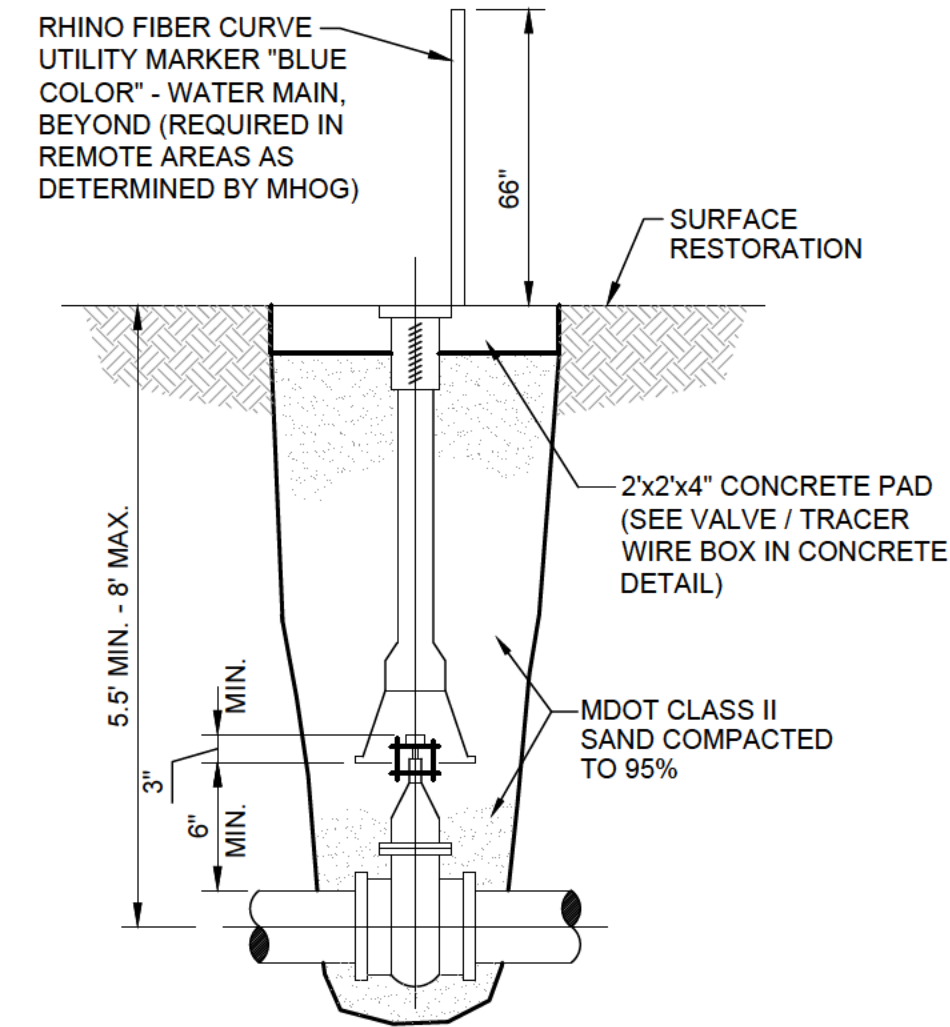


MARION HOWELL OCEOLA GENOA
 Sewer and Water Authority

Scale: NONE
 Issued Date: JANUARY - 2014
 UPDATED: MAY 2015
 UPDATED: FEBRUARY 2016
 UPDATED: APRIL 2016
 UPDATED: OCTOBER 2017
 UPDATED: FEBRUARY 2019

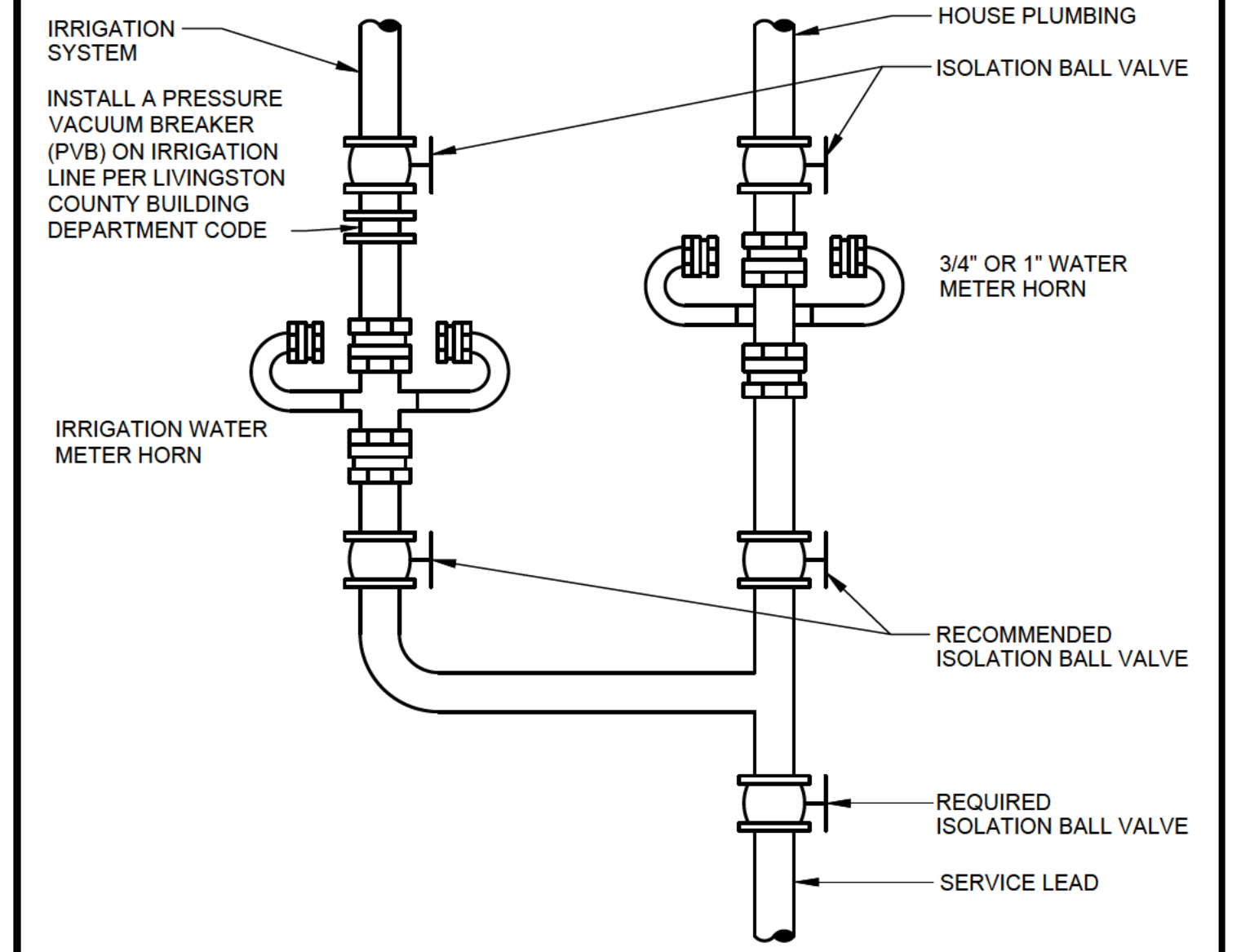
STANDARD DETAILS

Friday, February 9, 2018 9:13:59 AM DRAWING: P:\IER\12719200-12719-00-000\CAD\SheetFiles\Mhog-std.dwg



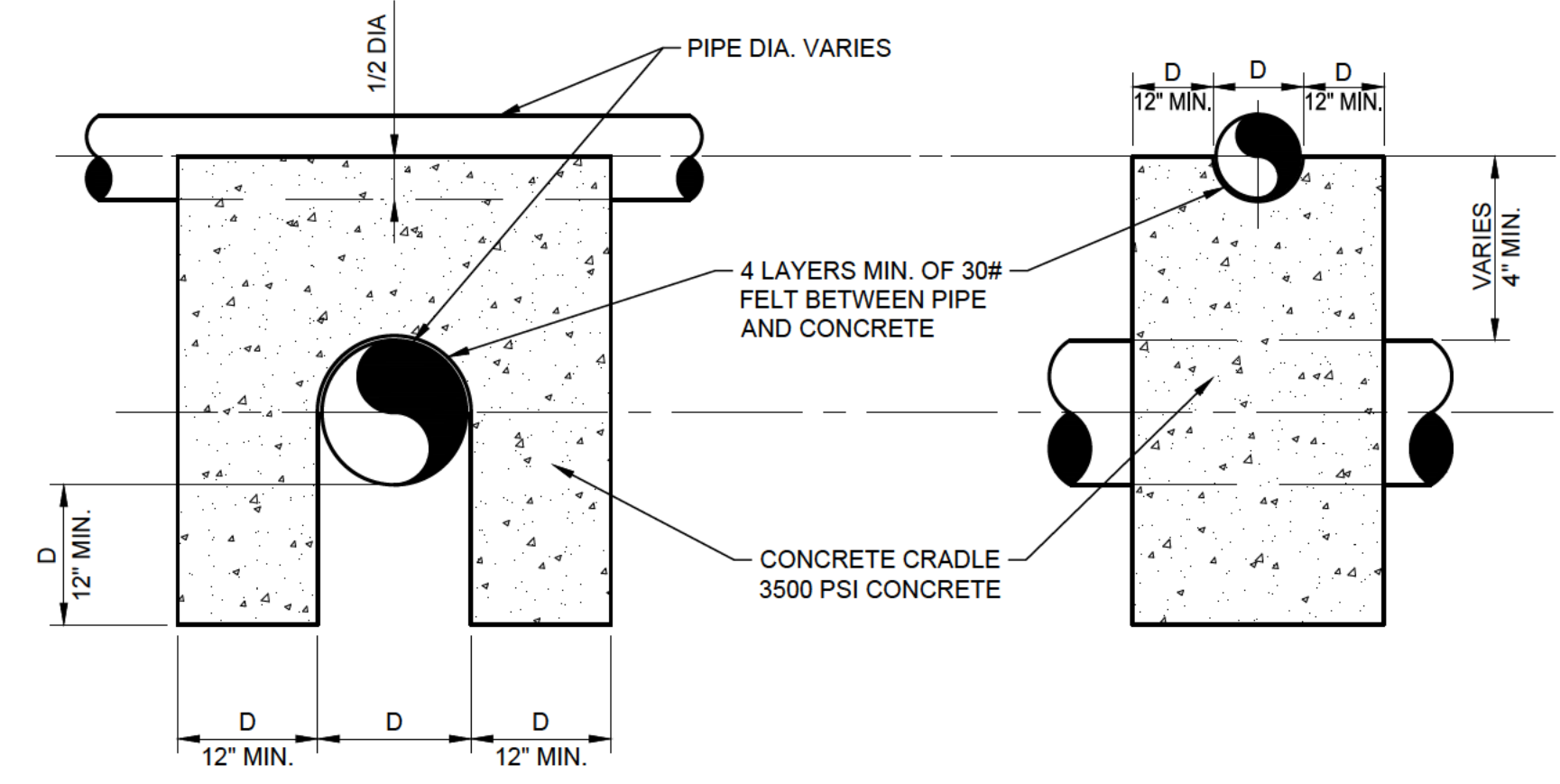
- NOTES:
1. VALVE BOX SHALL NOT REST ON VALVE OR MAIN LINE PIPE.
 2. A VALVE STEM EXTENSION WITH CENTERING RING IS REQUIRED FOR VALVES BURIED DEEPER THAN 6".

GATE VALVE AND BOX



- NOTES:
1. 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).
 2. 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



CONCRETE CRADLE DETAIL

SCALE: NONE



MHOG CASTING DETAIL

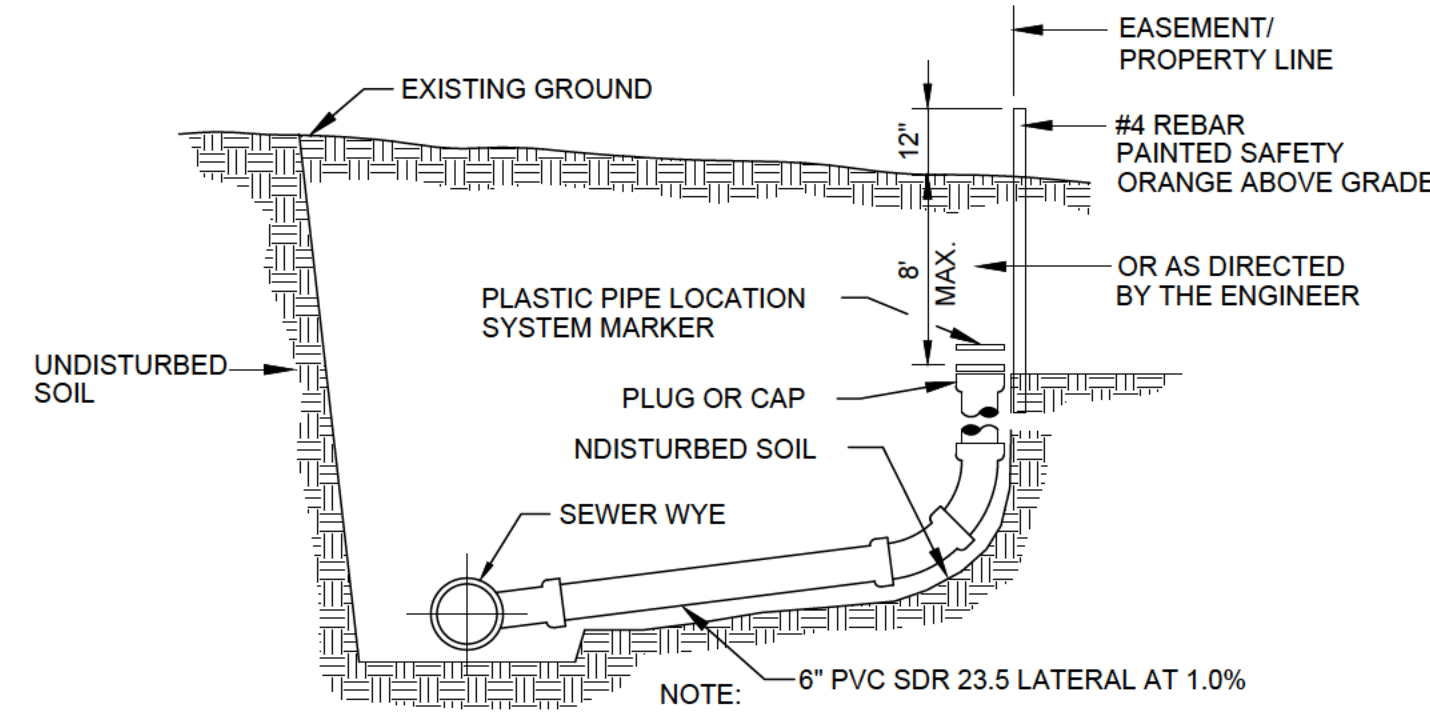
NO SCALE



MARION HOWELL OCEOLA GENOA
Sewer and Water Authority

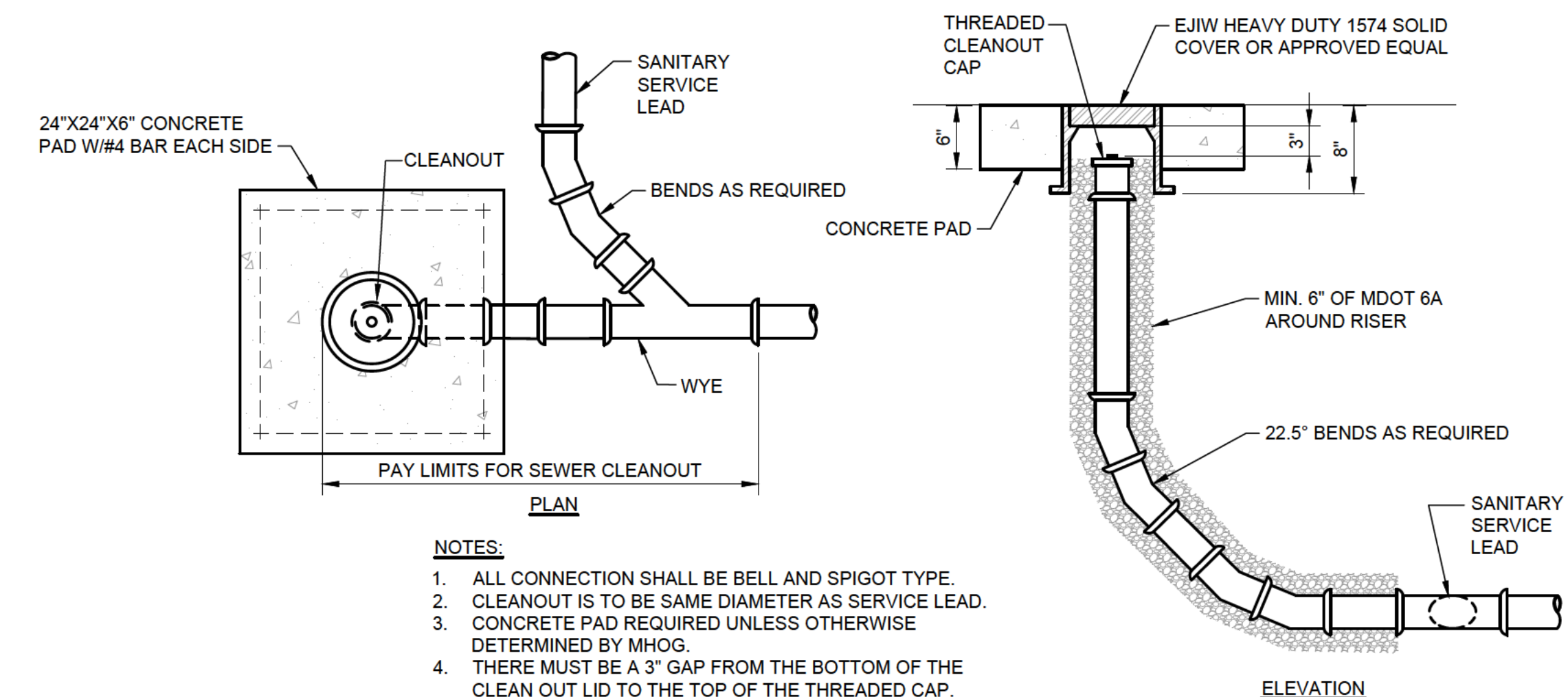
STANDARD DETAILS

Scale: NONE
 Issued Date: JANUARY - 2014
 UPDATED: MAY 2015
 UPDATED: FEBRUARY 2016
 UPDATED: APRIL 2016
 UPDATED: OCTOBER 2017
 UPDATED: FEBRUARY 2019



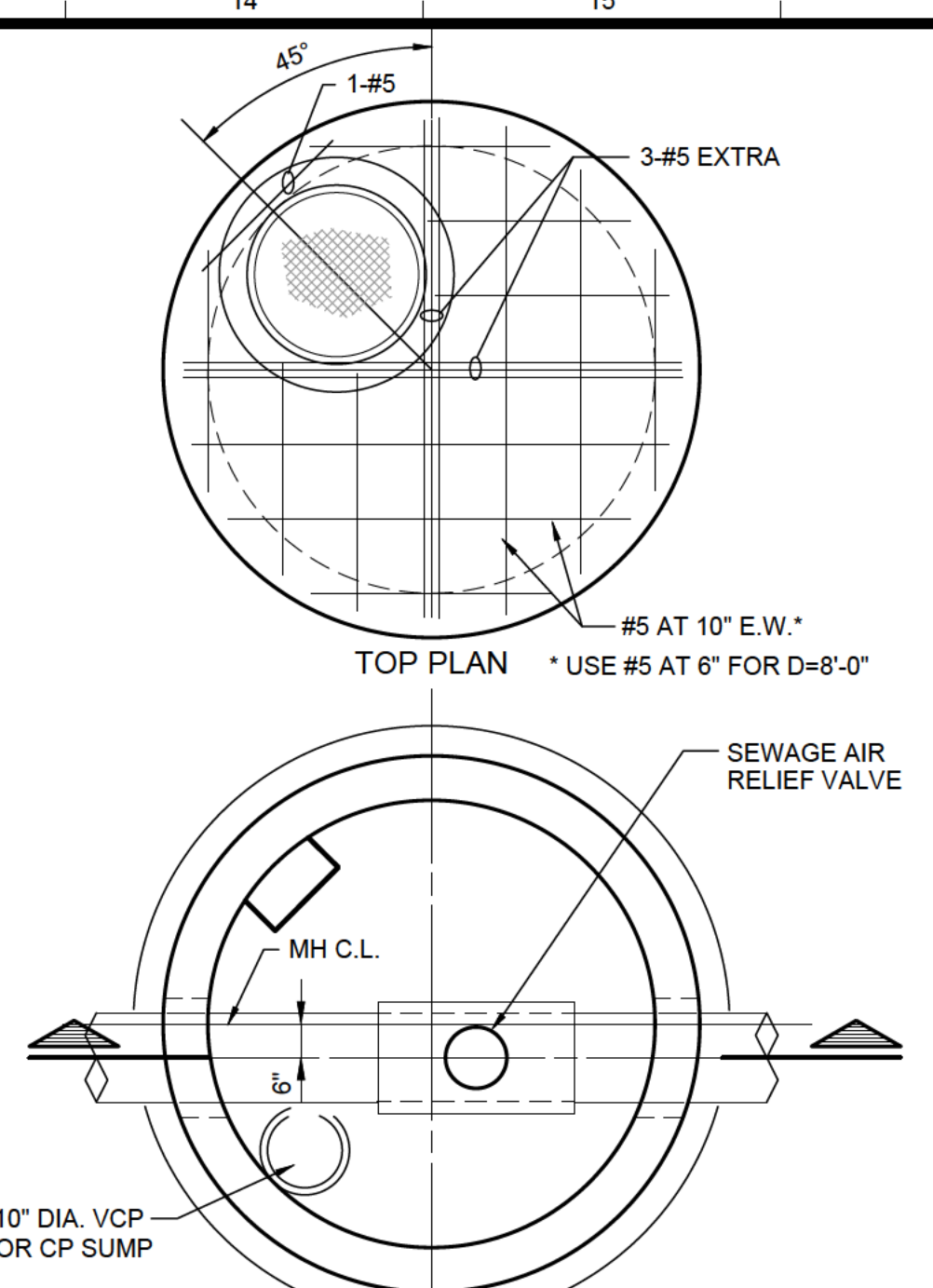
SANITARY SEWER LATERAL

NOTE: 6" PVC SDR 23.5 LATERAL AT 1.0%
 1. RISER PIPE MAY NOT BE REQUIRED FOR SHALLOW SEWERS AS SHOWN.
 2. WHEN CONNECTING TO AN EXISTING SEWER THE AUTHORITY MAY REQUIRE CORING OF THE EXISTING PIPE AND INSTALLATION OF A SEWER SADDLE. SADDLE SHALL BE ROMAC "CB" SEWER SADDLE OR APPROVED EQUAL.



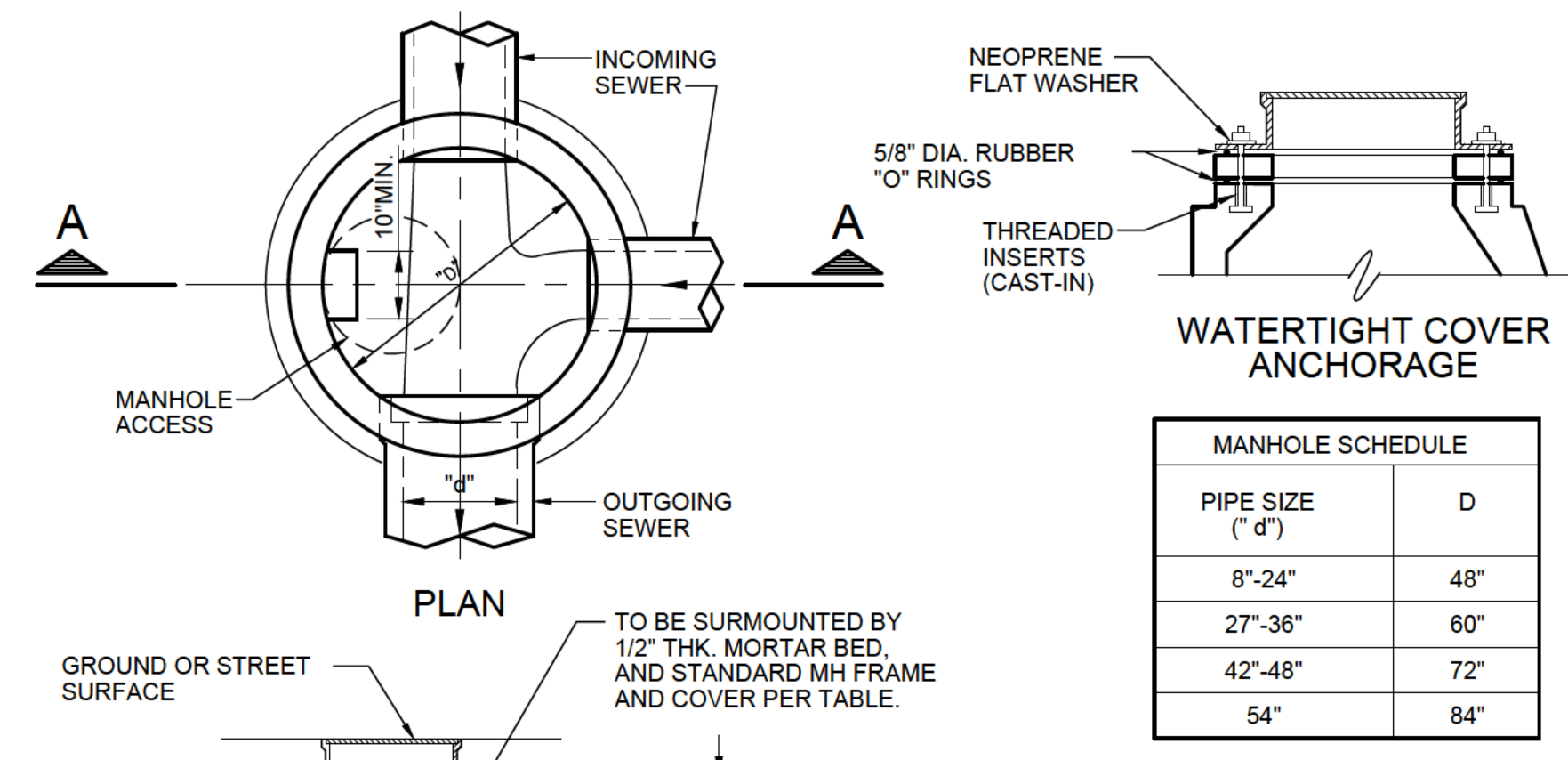
SEWER CLEANOUT DETAIL

NOTES:
 1. ALL CONNECTION SHALL BE BELL AND SPIGOT TYPE.
 2. CLEANOUT IS TO BE SAME DIAMETER AS SERVICE LEAD.
 3. CONCRETE PAD REQUIRED UNLESS OTHERWISE DETERMINED BY MHOG.
 4. THERE MUST BE A 3" GAP FROM THE BOTTOM OF THE CLEAN OUT LID TO THE TOP OF THE THREADED CAP.



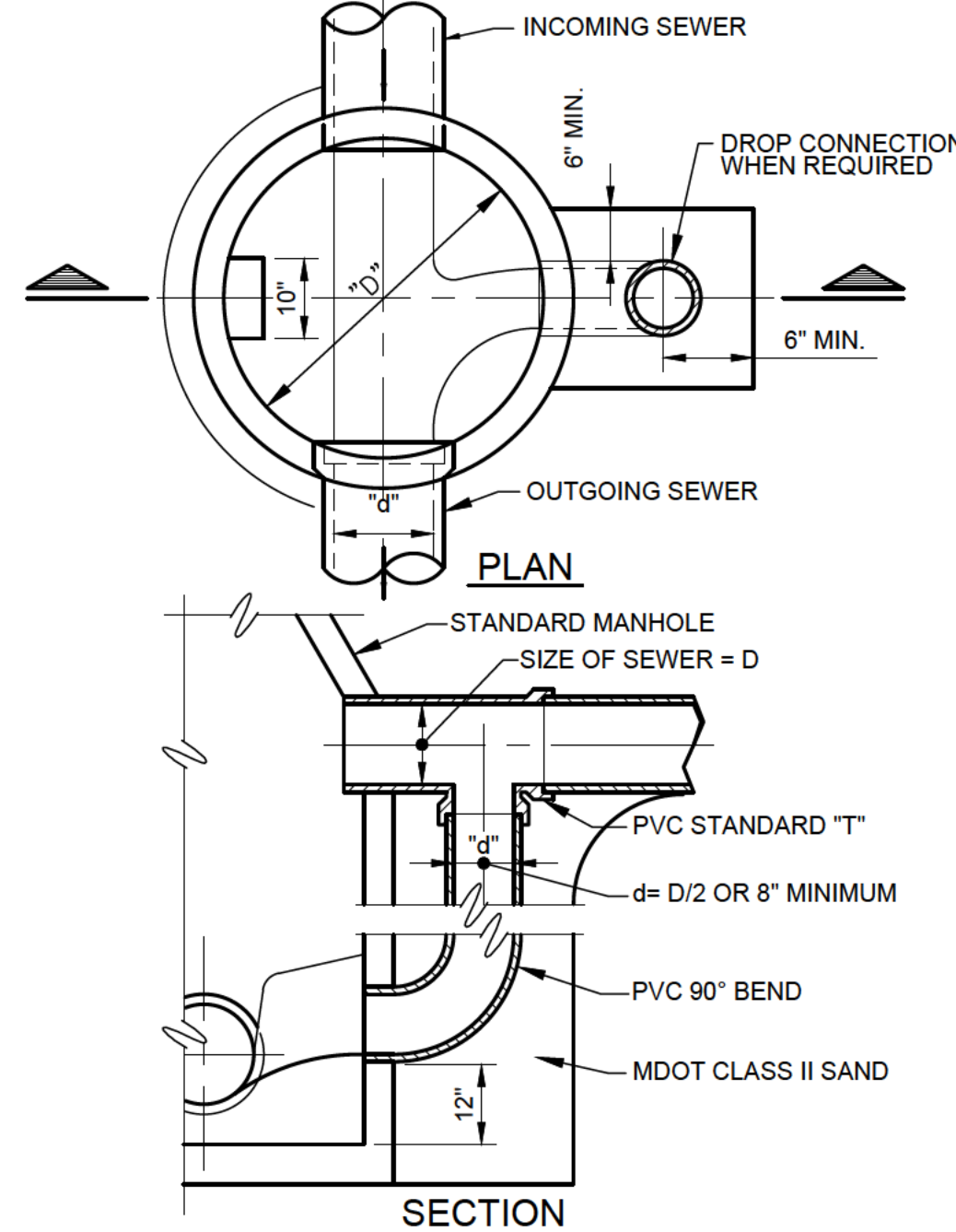
AIR RELIEF STRUCTURE

NOTE: ALL PLUMBING MATERIALS TO BE NON-CORROSIVE. ALL FITTINGS SHALL BE STAINLESS STEEL.



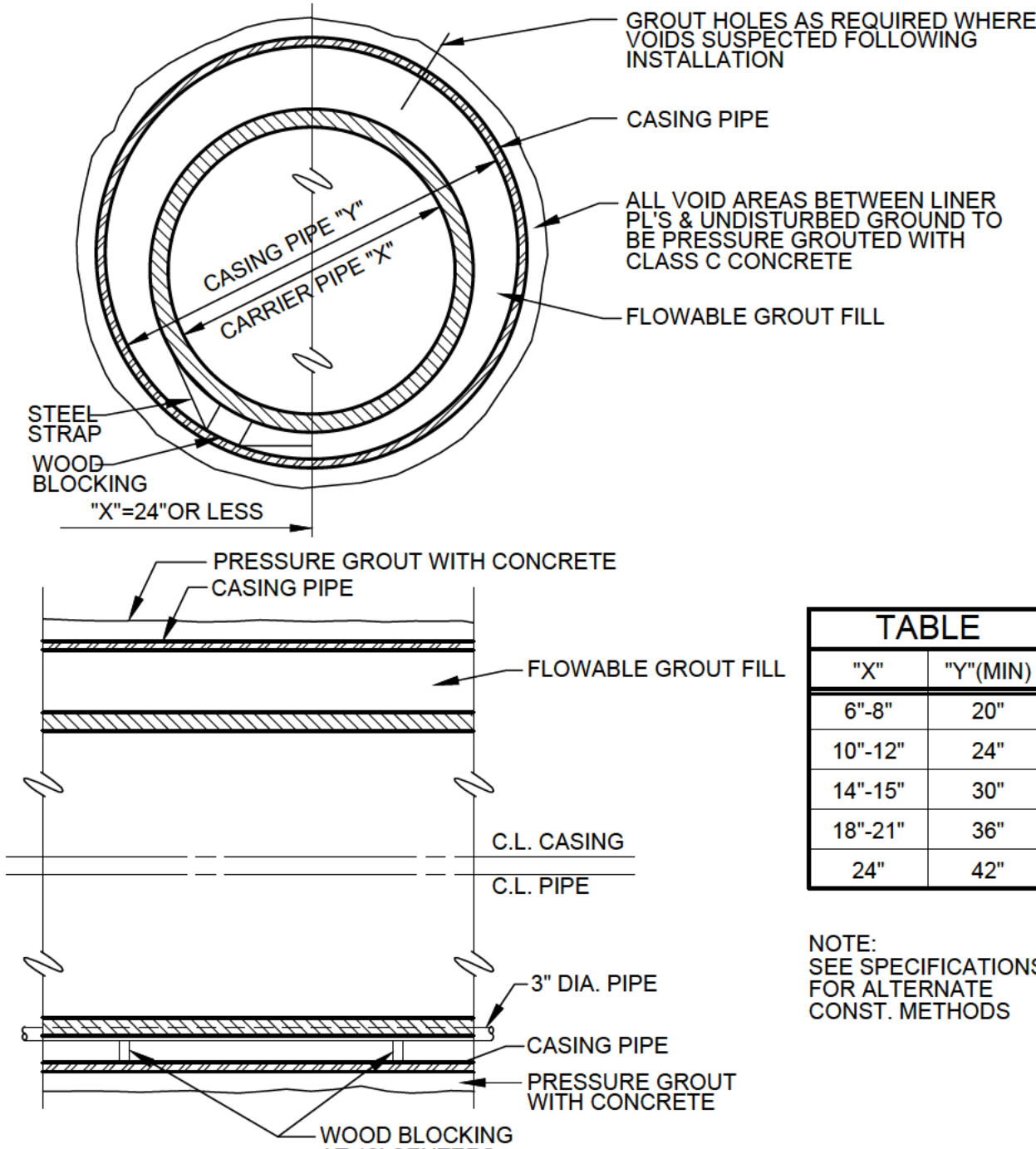
WATERTIGHT COVER ANCHORAGE

MANHOLE SCHEDULE	
PIPE SIZE ("d")	D
8"-24"	48"
27"-36"	60"
42"-48"	72"
54"	84"



DROP CONNECTION

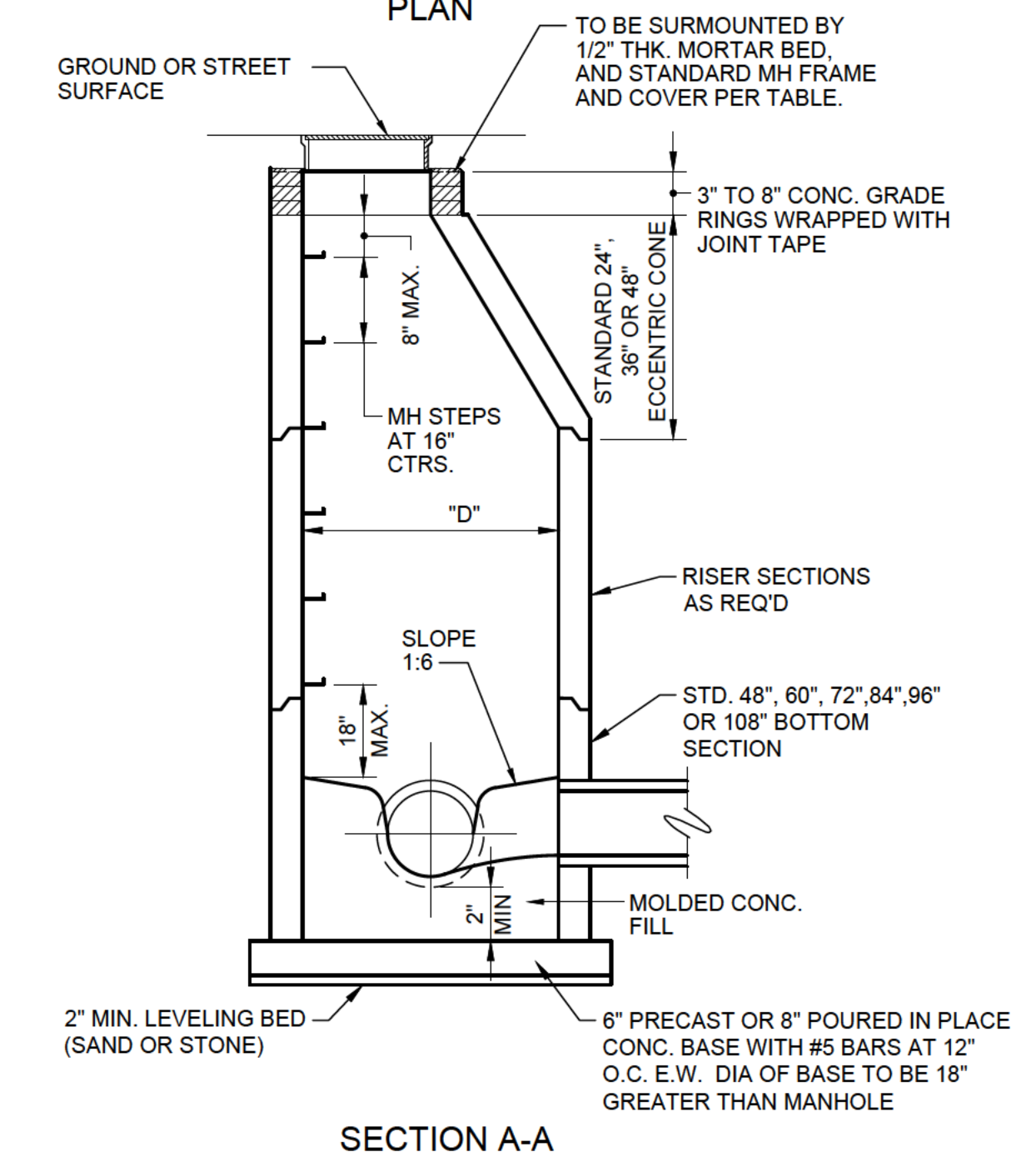
REQUIRED WHEN AN INLET PIPE IS 24" OR MORE ABOVE THE OUTLET PIPE IN A MANHOLE



CASING PIPE

TABLE	
"X"	"Y"(MIN)
6"-8"	20"
10"-12"	24"
14"-15"	30"
18"-21"	36"
24"	42"

NOTE: SEE SPECIFICATIONS FOR ALTERNATE CONST. METHODS



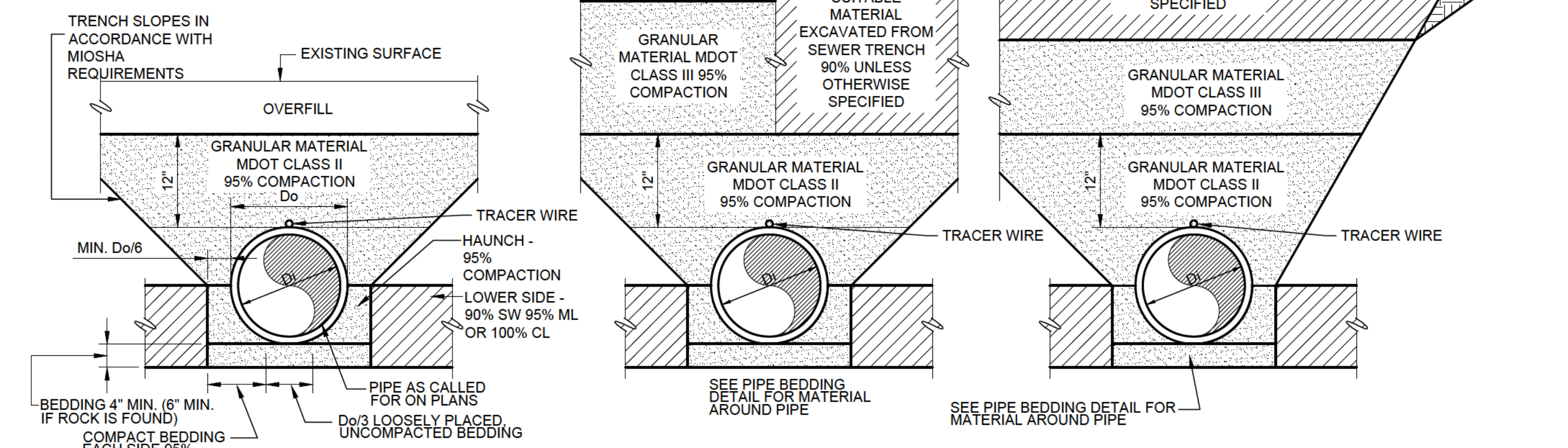
SECTION A-A

NOTES:
 1. ALL SANITARY MANHOLES TO BE PRECAST REINFORCED CONCRETE WITH PREMIUM JOINTS. SEE SPECIFICATIONS FOR BASE SLAB AND PIPE OPENINGS AND CONNECTIONS.
 2. MANHOLE CONES SHALL BE THE ECCENTRIC TYPE.
 3. PROVIDE 6" OF COMPACTED GRANULAR MATERIAL UNDER ALL PRECAST CONCRETE BASE SLPVC.
 4. FORCE MAINS CONNECT DIRECTLY TO A MANHOLE SHALL BE INSTALLED SO THAT THE ELEVATION OF THE PIPE CROWNS MATCH. THE FORCE MAIN SHALL BE DIRECTED DOWNWARD INTO THE FLOW CHANNEL.
 5. FOR SANITARY SEWERS ALL PIPES SHALL ENTER MANHOLE THROUGH RUBBER BOOTED CONNECTION.

FRAME & COVER FOR SANITARY SEWER MANHOLES			
TYPE	TYPE OF COVER	MANUFACTURER OR EQUAL	
		EAST JORDAN	NEENAH
MH	SANITARY - SOLID SELF-SEALING	1040.0000	R-1642
MH	SANITARY - SOLID WATERTIGHT	1040-APT	R-1916-F
CO	SOLID	1574A	R-1973-A

STANDARD MANHOLE

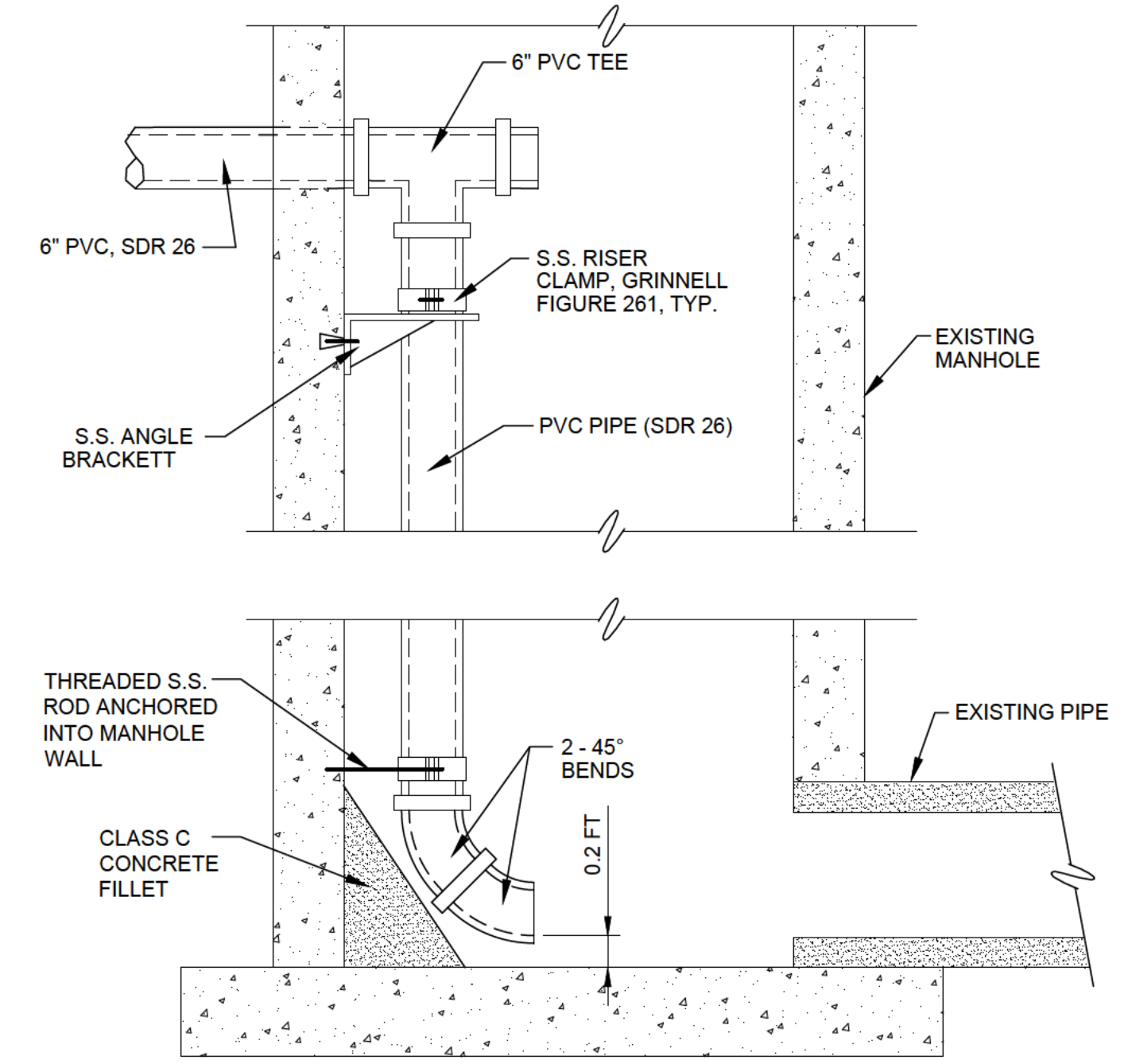
NOTES:
 1. COMPACTION PRESENTED AS MINIMUM STANDARD PROCTOR VALUES.
 2. MATERIALS AROUND THERMOPLASTIC PIPE WITH DIAMETER 6 INCHES SHALL PASS 0.5 INCH SIEVE, MATERIALS AROUND OTHER PIPES SHALL PASS 1.5 INCH SIEVE.
 3. MATERIALS AROUND HDPE PIPE TO BE MDOT 6A OR 21AA.
 4. DRIVEN SURFACE IS DRIVEWAY, PARKING AREA, ROAD BED OR SHOULDER.
 5. UTILITY TRENCHES LOCATED WITHIN A MDOT ROW SHALL CONFORM TO MDOT STANDARD DETAIL R-83.
 6. TRACER WIRE IS REQUIRED ON FORCE MAIN ONLY AND SHALL BE BROUGHT TO GRADE AT A MINIMUM EVERY 1000 FEET IN A APPROVED CAST IRON TRACER WIRE BOX ENCASED IN CONCRETE OR WITH AN APPROVED GREEN MARKER POST.



PIPE BEDDING

PIPE UNDER/NOT UNDER DRIVEN SURFACE TRENCH EXCAVATION & PIPE BEDDING

PIPE WITHIN INFLUENCE OF DRIVEN SURFACE



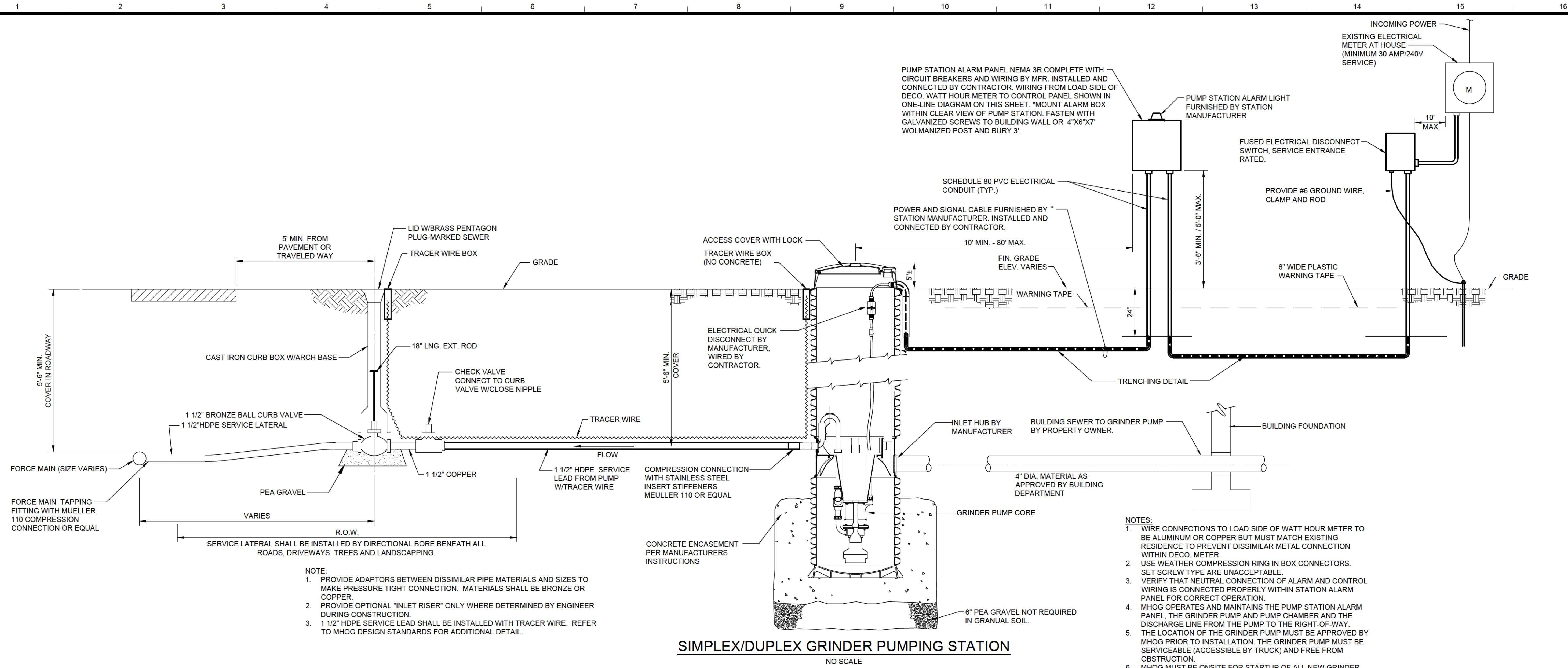
INTERIOR SEWER LATERAL DROP CONNECTION



MARION HOWELL OCEOLA GENOA Sewer and Water Authority

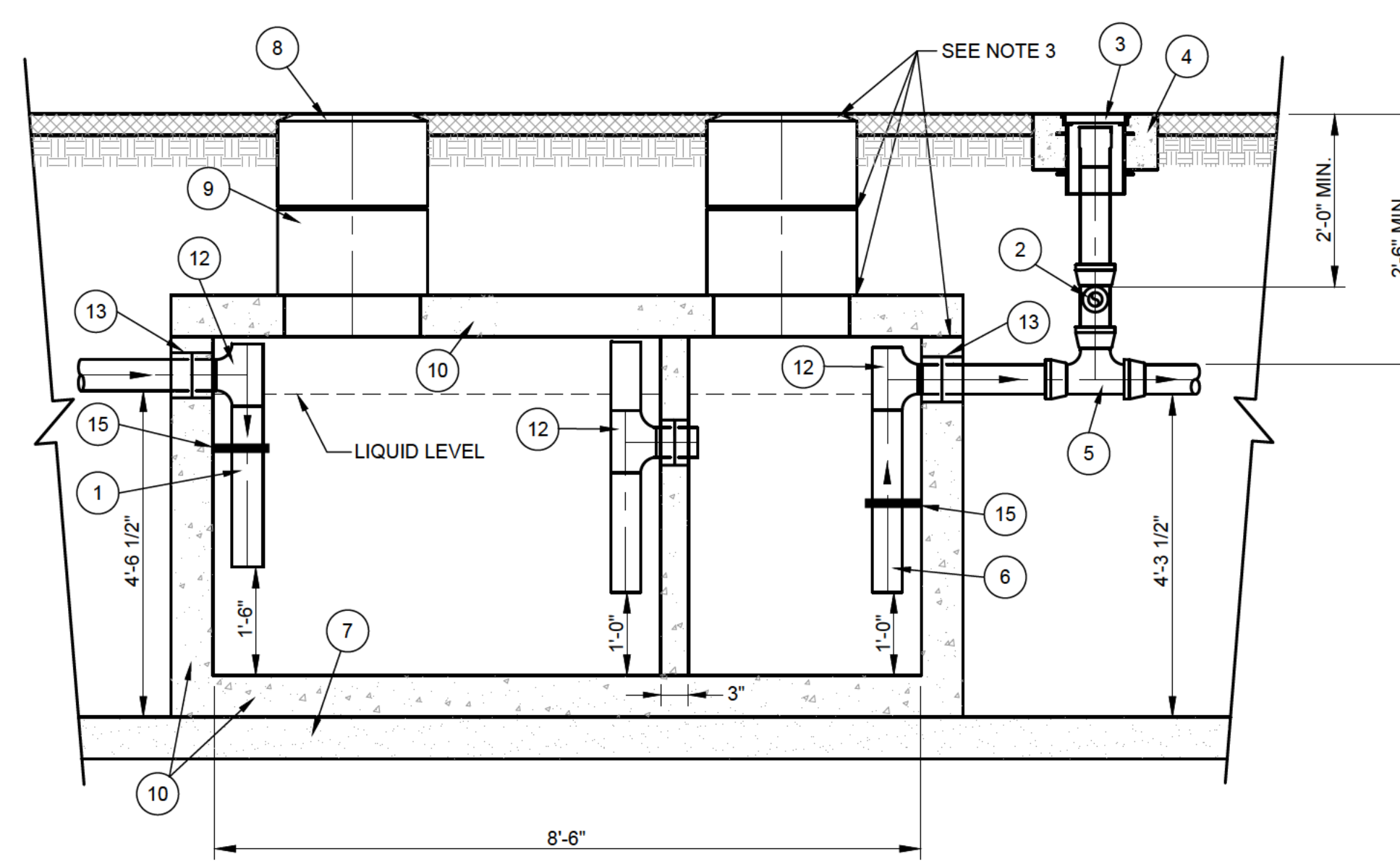
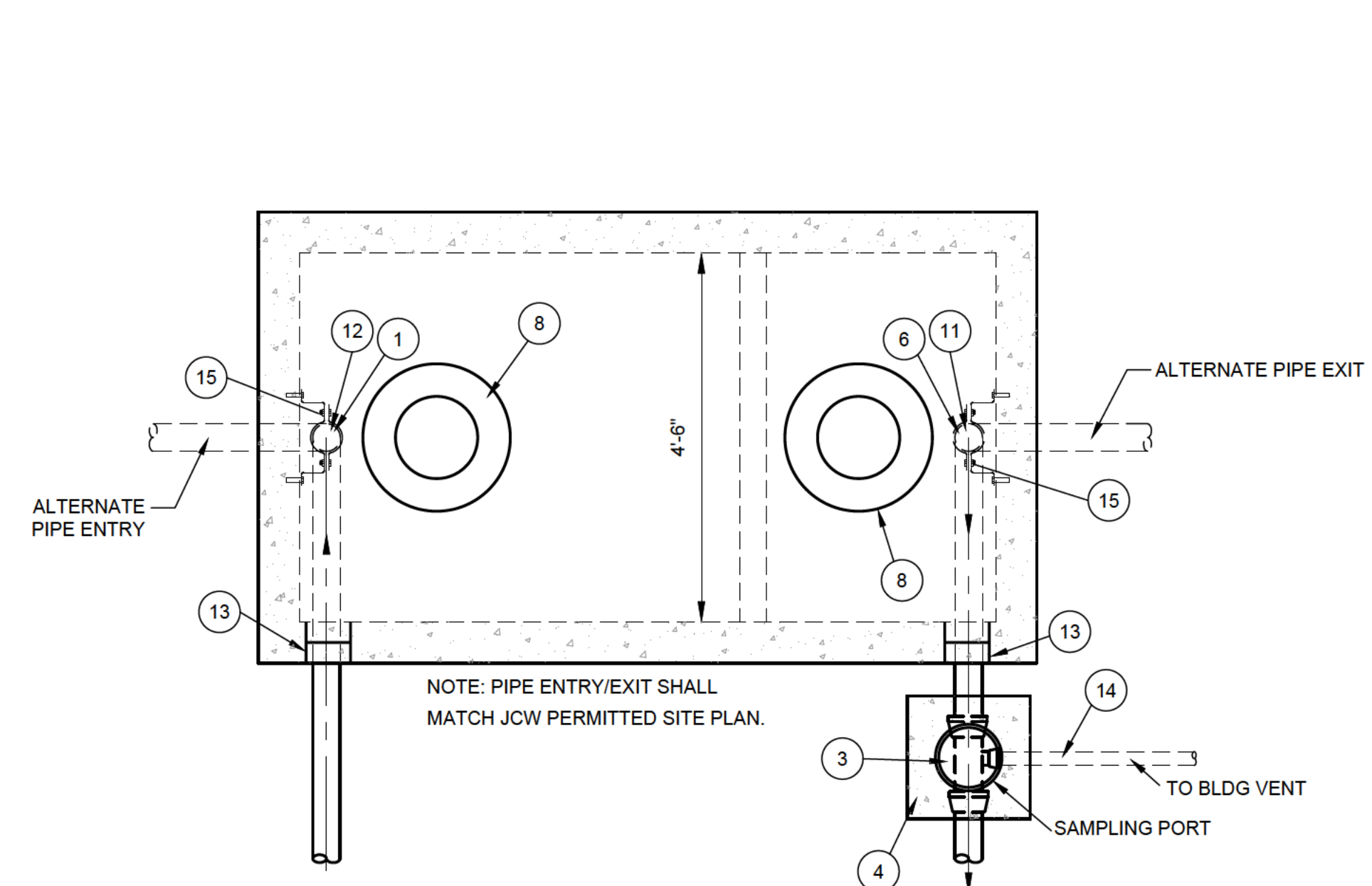
STANDARD DETAILS

Scale: NONE
 Issued Date: JANUARY - 2014
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 UPDATED: OCTOBER 2017
 UPDATED: FEBRUARY 2019



SIMPLEX/DUPLEX GRINDER PUMPING STATION

NO SCALE



ITEM	DESCRIPTION
1	4" PVC INLET PIPE*
2	4"x4"x2" TEE WITH 2" PIPE TO BUILDING VENT*
3	THREADED C/O CAP JOSAM 58860 OR APP EQUAL**
4	CONCRETE PAD
5	4"x4"x4" TWO-WAY CLEANOUT TEE*
6	4" PVC OUTLET*
7	4" - 6" GRAVEL BEDDING
8	HEAVY-DUTY CAST IRON FRAME AND COVER ***
9	CONCRETE ADJUSTMENT RINGS
10	REINFORCE AS REQUIRED FOR SERVICE CONDITIONS
11	4" PVC 90° ELBOW*
12	4" PVC TEE*
13	A-LOK OR PRESS SEAL PSX PIPE/WALL CONNECTOR
14	2" VENT PIPE (IDENTIFY PIPE TYPE, CLASS & JOINT AS REQUIRED FOR PROJECT)
15	STAINLESS STEEL PIPE SUPPORT CLAMP ****

* 6" PIPE MAY BE SUBSTITUTED TO MATCH UPSTREAM PIPE DIAMETER.
 ** REFER TO CLEAN OUT DETAIL(S) ON STANDARD DETAIL SHEET.
 *** CLAY & BAILEY 2008 BV OR EQUAL (FROST PROOF COVERS OPTIONAL)
 **** FM STAINLESS FASTNERS #63 OR EQUAL. 1/2"x2-1/2" SS BRACKET W/ 1/2"x1-1/2" FULLY THREADED SS HEX BOLT WITH 1/2" SS WASHER AND 1/2"x1-3/4" SS ANCHORS. CLAMP TO BE FACTORY INSTALLED.

- NOTES:**
1. THREE COVERS AND RISERS SHOWN. TWO COVERS AND RISERS CENTERED OVER UPPER TWO BAFFLES ARE OPTIONAL.
 2. INTERCEPTOR SIZE - 1000 GAL MINIMUM (REVISE THE SIZE DIMENSIONS, AS NEEDED, FOR LARGER CAPACITY INTERCEPTORS)
 3. ALL JOINTS AT THE FRAME & COVER, CONCRETE ADJUSTMENT RINGS AND THE LID OF THE INTERCEPTOR SHALL BE SEALED WITH A MINIMUM OF TWO (2) ROWS OF 3/4 TO 1 INCH PREFORMED BUTYL JOINT SEALER AND A 6" BUTYL JOINT WRAP AROUND SLEEVE (EZ WRAP). THE ENDS OF THE 6" EZ WRAP SHALL OVERLAP BY 12".
 4. PIPING ON THE INTERIOR OF THE INTERCEPTOR SHALL BE PVC WITH SOLVENT-CEMENTED JOINTS.
 5. GREASE INTERCEPTOR INCLUDING ADJUSTMENT RINGS AND CASTINGS SHALL BE WATER TESTED FOR WATER TIGHTNESS AFTER THE BACKFILL OPERATIONS HAVE BEEN COMPLETED. WATER TESTING SHALL CONSIST OF THE FOLLOWING: 1. SEAL THE TANK. 2. FILL WITH WATER. 3. LET STAND FOR 24 HOURS. 4. REFILL TANK. 5. TANK IS APPROVED IS WATER LEVEL IS HELD FOR 1 HOUR.
 6. ONLY KITCHEN WASTE SHALL BE DIVERTED TO THE GREASE TRAP.

GREASE INTERCEPTOR 1000 GALLON

NO SCALE



MARION HOWELL OCEOLA GENOA
 Sewer and Water Authority

Scale: NONE
 Issued Date: JANUARY - 2014
 UPDATED: MAY 2015
 UPDATED: FEBRUARY 2016
 UPDATED: APRIL 2016
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 UPDATED: FEBRUARY 2019

STANDARD DETAILS

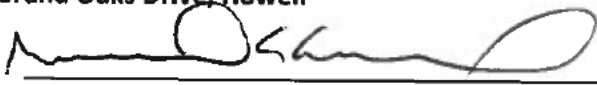
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2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

MEMORANDUM

TO: Honorable Board of Trustees
FROM: Kelly VanMarter, Assistant Township Manager
DATE: September 15, 2020
RE: Dewitt Radiator Addition – Re-approval
1275 Grand Oaks Drive, Howell

MANAGER'S REVIEW: 

This project for a proposed 4,661 square foot storage addition located at 1275 Grand Oaks Drive was previously approved by the Township Board on February 16, 2015. Despite moving ahead with permits, the owner decided not to pursue construction of the project and the approvals subsequently expired. The new owner of the business has decided to pursue construction of the addition therefore re-approval of the project is necessary.

The impact assessment was recommended for approval and the site plan was approved by the Planning Commission on September 14, 2020. Based on the conditions established by the Planning Commission, I offer the following motion for your consideration:

Moved by _____, support by _____ to approve the environmental impact assessment dated July 28, 2020 with the condition that all requirements of the Planning Commission motion be satisfied.

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

Sincerely,



Kelly VanMarter
Assistant Township Manager/Community Development Director

SUPERVISOR
Bill Rogers
CLERK
Paulette A. Skolarus
TREASURER
Robin L. Hunt
TRUSTEES
Sean W. Ledford
L. 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: Tad Bad LLC

If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: 11672 Hyne Rd. Brighton MI 48114

SITE ADDRESS: 1275 Grand Oaks Drive PARCEL #(s): _____

APPLICANT PHONE: (313) 580-1574 OWNER PHONE: (313) 580-1574

OWNER EMAIL: tomdewitt40@gmail.com

LOCATION AND BRIEF DESCRIPTION OF SITE: 1275 Grand Oaks Drive - 1/2 mile south of Grand River, 1/2 mile west of Latson

BRIEF STATEMENT OF PROPOSED USE: Addition to existing DeWitt's Radiator - 4661 S.F. - one story for enclosed storage

THE FOLLOWING BUILDINGS ARE PROPOSED: addition to existing DeWitt's Radiator

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: John Stewart, Architect

ADDRESS: 1645 N. Milford Rd. Milford, Michigan 48381
(248) 390-5260

see below

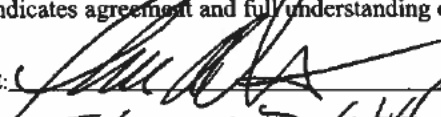
Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1. John Stewart	or John Stewart Associates	stewartcontractors@gmail.com
Name	Business Affiliation	E-mail Address

send letters to → tomde Witt40@gmail.com

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: 8/21/20

PRINT NAME: THOMAS DEWITT PHONE: 313 580 1574

ADDRESS: 1275 Grand Oaks Howell 48843

The call to the public was closed at 7:59 pm.

Commissioner McCreary is a supporter of people being allowed to use their property as they wish and that the applicant is trying to bring people together for retreats. The question she asks herself is will this alter the character of the area. She does not feel that this is the appropriate place for this. It is a rural area surrounded by five-acre parcels.

Commissioner Dhaenens is familiar with this site as he used to camp there as a child. Because of the current use of the property and the noise concerns and parties the neighbors do not believe that this place will change and that it will be more quiet. He hopes it will be a great place for a retreat and the noise issue does need to be addressed.

Commissioner McBain noted that the current zoning of the property allows for this type of use.

Mr. Jarbow stated that if this property starts to be used for the retreats as what is being proposed this evening, there would no longer be wedding receptions, family reunions, concerts, etc. The income generated from having these events would be used to maintain the property. They are a very minor source of income. It is not intended to be a profit making facility.

Ms. Yaldo reiterated that they are here this evening proposing a retreat center to have a quiet, meditative place to pray in a church and in a peaceful setting, and to remove people from the noise of the world.

Commissioner Mortensen is not in favor of the township approving the expansion of a use that currently has violations of the sound ordinance. He needs the applicant to absolutely guarantee that they will comply with the sound ordinance.

Moved by Commissioner Mortensen, seconded by Commissioner McCreary, to table the request for a Special Land Use Site Plan, and Environmental Impact Assessment for the Prophet Elijah Retreat Center to allow the applicant to come back with information regarding how they will address the noise concerns of the neighborhood. **the motion carried unanimously.**

OPEN PUBLIC HEARING # ... Review of a site plan and environmental impact assessment for re-approval of an expired project for a 4,661 sq. ft. addition for enclosed storage, located at 1275 Grand Oaks Drive Brighton. The request is petitioned by Tadbad, LLC.

- A. Recommendation of Environmental Impact Assessment (7-28-2020)
- B. Disposition of Site Plan (7-27-2020)

Mr. Tom Dewitt, the owner of the building, and Mike Long from Dewitt's radiator, who is the tenant, were present. Mr. Dewitt stated he applied for and was granted approval in 2015 for an addition to his building. He would like to begin the construction of the plan that was approved by the Township at that time..

Mr. Borden stated that nothing has changed since the original plan. He has reviewed the Township Ordinance to see if there were any changes that would affect this project and there were none.

Mr. Markstrom reviewed his letter dated September 9, 2020.

- The proposed site plan and gravel access drive will need to be approved by the Brighton Area Fire Authority and this approval should be provided to the Township prior to site plan approval.
- The proposed addition will increase the net impervious area on the site, but the existing on-site detention basins are shown to have adequate capacity. Additional spot elevations near the corner of the building, indicating positive drainage towards the existing detention basin should be added to the construction plans. This comment was on the January 2015 review letter also.

Vice-Chairman Rauch advised Mr. Dewitt that the concerns noted in the Fire Marshal's letter dated September 8, 2020 shall be addressed. Mr. Dewitt's architect has reviewed the letter and will be working with them to address their requirements. He added that there may be areas where the applicant and the Fire Marshal can compromise some of his comments in their letter.

The call to the public was made at 8:21 pm with no response.

Moved by Commissioner Mortensen, seconded by Commissioner McBain, to recommend to the Township Board approval of the Environmental Impact Assessment dated July 28, 2020 for Tadbak, LLC. **The motion carried unanimously.**

Moved by Commissioner Mortensen, seconded by Commissioner Dhaenens, to approve the Site Plan dated July 27, 2020 for Dewitt Raab, subject to the following:

1. The applicant shall meet the requirements listed in the Township Engineer's letter dated September 10, 2020.
2. The applicant shall work with the Fire Marshal to address his concerns.

The motion carried unanimously.

OPEN PUBLIC HEARING # ... Review of a site plan and environmental impact assessment for proposed exterior building renovations and site improvements to the existing commercial building located at 2700 E Grand River Avenue on the south side of Grand River, east of Chilson Road. The request is petitioned by Partlund Development, LLC.

- A. Recommendation of Environmental Impact Assessment (8-18-2020)
- B. Disposition of Site Plan (8-18-2020)

Mr. Shawn Toole, the project manager, Steve Baibak of Desine Inc, and Todd Ballou, the architect, was present.

Mr. Toole stated they are working on the former Tenpenny Furniture store at 2700 East Grand River and are requesting to increase the size of the rear parking lot.

GENOA CHARTER TOWNSHIP BOARD

Regular Meeting

Feb. 16, 2015

MINUTES

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

A Call to the Public was made with no response.

Approval of Consent Agenda:

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

1. Payment of Bills.

2. Request to Approve Minutes: Feb. 4, 2015

Approval of Regular Agenda:

Moved by Ledford and supported by smith to approve for action all items listed under the Regular Agenda with the deletion of Item 3 at the petitioner's request. The motion carried unanimously.

3. Consideration of a request to the local governing body of a resolution for a charitable gaming license as requested by the Lucas Foundation to be located at 3555 E. Grand River.

Deleted at the petitioner's request.

4. Second review of budget for the General Fund 101 for the Fiscal Year ending March 31, 2016.

Reviewed by the Board with a recommendation for a 2.5% increase for all employees and a 2.1% increase for the Supervisor, Clerk and Treasurer with final approval of the General Fund Budget at the public hearing scheduled for March 16, 2015.

5. Review of environmental impact assessment (2/10/15) for a proposed 4,661 sq. ft. storage addition located at 1275 Grand Oaks Drive, Howell, Michigan 48843 (parcel # 4711-08-101-015). The request is petitioned by DeWitt Radiator.

Moved by Ledford and supported by Skolarus to approve the impact assessment as presented. The motion carried unanimously.

6. Adoption of an amendment to the Official Zoning Map of Genoa Charter Township as ordered by the Court of Appeals. The property in question involves parcels 4711-33-400-003 and 4711-34-300-005 and is located at 5885 Chilson Road, Howell, Michigan 48843. The property is owned by Chestnut Development, LLC. The map amendment will change the zoning from Residential Planned Unit Development (RPUD) to Agricultural (AG).

A call to the public was made with no response. Moved by Rowell and supported by Hunt to approve the amendment to the Zoning Map as requested by VanMarter. The motion carried by roll call vote as follows: Ayes – Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe. Nays – None. Absent – None.

The regular meeting and public hearing of the board was adjourned at 7:15 p.m.

Paulette A. Skolarus, Clerk
Genoa Charter Township Board

property owners might be contacted in the near future regarding that project as the project is being discussed. Ms. VanMarter indicated a meeting occurred about a month ago with the Livingston County Road Commission and there is work being done to bring costs down and to move forward. The property owners will be contacted as soon as the project details are known. Mr. DeWitt indicated that the Grand Oaks community became aware of the possibility of a special assessment some time ago and the delay might cause a negative response from property owners. Ms. VanMarter indicated that she would be happy to talk further with Mr. DeWitt as the Planning Commission does not oversee this function.

No one further was present to address the Commission and the call to the public was closed.

OPEN PUBLIC HEARING #1... Review of site plan and environmental impact assessment for a proposed 4,661 sq. ft. addition for enclosed storage, located at 1275 Grand Oaks Drive, Brighton, Michigan 48116, parcel # 4711-08-101-015. The request is petitioned by DeWitt Radiator.

Mr. John Stewart, project architect from 1645 Milford Rd, Milford, Michigan addressed the Planning Commission on behalf of the petitioner. The petitioner is interested in adding storage with some assembly taking place in the space. An additional barrier-free parking space is being added and an exact match of the current exterior materials is being used. Dumpsters are out of view. No new signage is anticipated. No additional landscape is anticipated at this time. The project is at the rear of the building, not impacting visuals of the property. Mr. Stewart stated that Deputy Chief Mike Evans walked through the building and asked for an additional access drive in the back and that was agreed to along with all other fire related requests.

Mr. Brown indicated that Planner Mr. Borden indicated in his review that additional plantings might benefit the property, along the frontage. Mr. Stewart indicated that trees are already present along the south. Because of the scope of the project, a small addition in the back, updating the entire site with landscaping did not seem to be a necessity. Mr. Brown indicated that the zoning ordinance calls for plantings and that the commission has to be careful about what they approve because they need to be in keeping with the ordinance. Mr. Stewart asked how a small project in the back of the property affects the entire site? Mr. Brown indicated that the ordinance has grown and the interest in a quality community has grown and we are trying to make improvements in that direction for the sake of everyone in the township.

Mr. Brown asked why the project was categorized as site plan review and not sketch plan. Ms. VanMarter indicated that the project falls under the classification of a site plan because the project affects more than 10% of the property. Had the request been for outdoor storage, a special land use permit would have been required. Mr. Mortensen stated that the scope of the project only calls for squaring off an L-shaped building. Mr. McManus indicated that squaring off the building is an improvement of the property. Mr. Stewart indicated the current area is a concrete slab and was used by a previous owner as outdoor storage.

Mr. Mortensen indicated that the request is such a minor change to the property, it seems unnecessary to impose the landscaping requirement. Mr. Rauch indicated that no aesthetic opportunity is being proposed as part of the project. Mr. Stewart indicated that the parking lot is adequately striped. Mr. Mortensen asked about dumpsters. Where is it? Is it enclosed? Mr. Stewart indicated that the dumpster is enclosed on three sides and that it is below the surface of the ground. The dumpster is difficult to see from the north because of a change in elevation and grade.

A call to the public was made with no response.

Planning Commission disposition of petition

- A. Recommendation of Environmental Impact Assessment. (01-09-15)
- B. Disposition of Site Plan. (11-19-14)

Ms. Figurski moved to recommend approval of the environmental impact assessment dated January 9, 2015, saying that a notation about the barrier free parking spot should be added to the impact assessment. Seconded by Mr. McManus. **Motion carried unanimously.**

Mr. Mortensen moved to approve the site plan dated November 19, 2014 for a proposed 4,661 sq. ft. addition for enclosed storage, located at 1275 Grand Oaks Drive, Brighton, Michigan, subject to the following:

1. The building materials of the expansion will match the existing building.
2. One additional barrier free parking space will be provided.
3. The existing dumpster will continue to be in the truck loading dock which is below grade.
4. The requirements of the township engineer as specified in his letter dated January 30, 2015 and the requirements of the fire department in their letter dated February 5, 2015 will be complied with.
5. The landscaping as presently existing will continue, although non-conforming this Commission finds that the changes to the site are minor enough and at the rear of the building thus not requiring a revision to the landscaping.

Supported by Ms. Figurski. **Motion carried unanimously.**

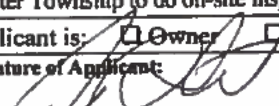
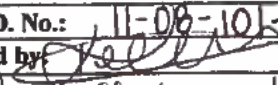
OPEN PUBLIC HEARING #2... Request to table site plan, environmental impact, and PUD amendment for a proposed redevelopment of an existing outparcel to demolish the existing Bennigan's Restaurant and construct a new 12,000 sq. ft. multi-tenant building, located at 3950 E. Grand River Avenue, Howell, Michigan 48443, parcel # 4711-05-400-047. The request is petitioned by RG Properties, Inc.

Planning Commission disposition of petition

- A. Table request to March 9, 2015 meeting.

Mr. McManus moved to table open public hearing item #2 at the request of the petitioner. Supported by Lowe. **Motion carried unanimously.**



1. PROJECT INFORMATION					
Name of Business: <u>DeWitt Radiator</u>			Site Address: <u>1275 Grand Oaks Drive</u>		
Name of retail center/business park (if applicable):					
2. OWNER/CONTRACTOR INFORMATION					
Owner Name: <u>DeWitt Radiator</u>			Owner Phone No: <u>(517) 548-0600</u> <input type="checkbox"/>		
Owner Address: <u>1275 Grand Oaks Dr</u>		City: <u>Brighton</u>	State: <u>MI</u>	Zip: <u>48116</u>	
Contractor Name:			Contractor Phone No: <input type="checkbox"/>		
Contractor Address:		City:	State:	Zip:	
3. TYPE OF IMPROVEMENT					
<input type="checkbox"/> New Building		<input checked="" type="checkbox"/> Addition to Existing Building		<input type="checkbox"/> Tenant Buildout	<input type="checkbox"/> Grading/Site Work
Describe in detail proposed use of the building. If use of existing building is being changed, describe prior use of building. If plans have change since site plan approval, please include an explanation of those changes.					
<u>Additional 4661 square feet of warehouse space</u>					
Will the project or facility store or use hazardous substances, oil, salt, pesticides or fertilizers? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please explain:					
4. SETBACK AND DIMENSIONAL INFORMATION					
A. Building Setbacks (in feet)					
Front (from front property line, right-of-way line or private road easement, whichever is less): <u>70 ft.</u>					
Rear: <u>52 ft</u>	Least Side: <u>40 ft (S)</u>	Side: <u>170 ft. (N)</u>	Water/Wetland: <u>NONE</u>		
B. Parking Lot Setbacks (in feet)					
Front: <u>70 ft</u>	Least Side: <u>8 ft</u>	Side: <u>100 ft</u>	Rear:	Water/Wetland: <u>NONE</u>	
C. Building Dimensions <u>Addition</u>					
Size of Building or Tenant Space : <u>4661</u> square feet					
Height (measured from grade at the center of the front of the building to the beam height level between eaves and ridge for gable, hip and gambrel roofs): <u>21</u> feet					
5. SIGNATURE OF APPLICANT					
I hereby certify that all information attached to this application is true and accurate to the best of my knowledge. I certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as the authorized agent. The owner and applicant agree to conform to all applicable ordinances of Genoa Township. Any modification to location, size or dimensions must be approved by Genoa Township. A Land Use Permit is valid for a period of 12 months from the date of issue. In signing this application, I am permitting an official representative of Genoa Charter Township to do on-site inspections. I acknowledge that private covenants and restrictions are potentially enforceable by private parties.					
Applicant is: <input type="checkbox"/> Owner <input type="checkbox"/> Contractor <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Architect/Engineer <input type="checkbox"/> Other:					
Signature of Applicant: 		Printed Applicant name: <u>John Stewart Architect</u>		Date: <u>2/23/15</u>	
OFFICE USE ONLY					
A. TOWNSHIP APPROVALS					
		Approved		Date	
Planning Commission/Township Board		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<u>PC 2/9/15 BOARD 2/14/15</u>	
Zoning Board of Appeals		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Construction Plan Review		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
1. ASSESSING APPROVAL					
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved		Approved by:		Date:	
2. ZONING APPROVAL:					
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved		Parcel I.D. No.: <u>11-08-101-015</u>		Zoning: <u>IND</u>	
		Approved by: 		Date: <u>2/27/15</u>	
Comments/Conditions <u>All conditions of approval shall be met. Current water and sewer usage is 0.02 REU when 12 REU's are assessed. NO ADDITIONAL TAP FEES REQUIRED.</u>					
Date picked up:					
3. FEES					
Land Use:	\$ <u>150.00</u>	Water/Sewer:	\$ <u>1</u>	Meter:	\$
Sewer Clean Out	\$	MHOG Water New User	\$	Total Due:	\$ <u>150.00</u>



1. PROJECT INFORMATION			
Site Address: <u>1275 Grand Oaks Drive</u>	Parcel I.D. No.: <u>4711-08-101-015</u>	Zoning: <u>IND</u>	
2. OWNER/APPLICANT INFORMATION			
Owner Name: <u>DeWitt Radiator</u>	Phone No.: <u>(517) 548-0600</u>		
Owner Address: <u>1275 Grand Oaks Drive</u>	City: <u>Brighton</u>	State: <u>MI</u>	Zip: <u>48116</u>
Applicant is: <input type="checkbox"/> Contractor <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Architect/Engineer <input type="checkbox"/> Owner <input type="checkbox"/> Other: _____			
Applicant Name: <u>John Stewart Associates</u>	Phone No.: <u>(248) 685-0978</u>		
Applicant Address: <u>1645 N. Milford Rd.</u>	City: <u>Milford</u>	State: <u>MI</u>	Zip: <u>48381</u>
Tenant Name:	Phone No.:		
Tenant Address:	City:	State:	Zip:
3. TYPE OF IMPROVEMENT			
A. <u>Principal Structure</u>			
<input type="checkbox"/> New Building	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Apartments
<input type="checkbox"/> Tenant Buildout	<input checked="" type="checkbox"/> Addition to Existing Building		
B. <u>Accessory Structure</u>			
<input type="checkbox"/> Fence	<input type="checkbox"/> Detached Accessory Building	<input type="checkbox"/> Dumpster enclosure	
4. SELECTED CHARACTERISTICS OF IMPROVEMENT			
Building	Height: <u>31 ft.</u>	Building value: <u>\$ 100,000.00</u>	
Frame	<input checked="" type="checkbox"/> Masonry, Wall Bearing	<input type="checkbox"/> Wood Frame	<input type="checkbox"/> Structural Steel <input type="checkbox"/> Reinforced Concrete
Exterior	<input checked="" type="checkbox"/> Brick/Block	<input type="checkbox"/> Stone	<input type="checkbox"/> Siding <input type="checkbox"/> Wood
Foundation	<input type="checkbox"/> Basement	<input type="checkbox"/> Crawl	<input checked="" type="checkbox"/> Slab
Area	New Building Square Footage: <u>4661</u>	Addition Square Footage: <u>4661</u>	
Bathrooms	No. of Toilets: <u>0</u>	No. of Sinks: <u>0</u>	
Basement	Walkout: <input type="checkbox"/> Yes <input type="checkbox"/> No	Finished: <input type="checkbox"/> Yes <input type="checkbox"/> No	Finished Square Footage: <u>0</u>
Central Air	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Fire Suppression <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. APPLICANT SIGNATURE			
I hereby certify that all information attached to this application is true and accurate to the best of my knowledge. I certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as the authorized agent and agree to conform to all applicable ordinances of Genoa Township. I acknowledge that private covenants and restrictions are potentially enforceable by private parties.			
Signature of Applicant: 		Date: <u>2-23-15</u>	

September 13, 2020

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116
Attn: Ms. Kelly Van Marter

RE: Dewitt Radiator Site Plan

Review Letter Responses

1. Safe Built Studio Letter Dated Sept. 9, 2020

No action required

2. Tetra Tech Letter Dated Sept. 9, 2020

- a. *Issues with Fire Dept. Review on revised plans*
- b. *Spot elevations now shown on drawings at south east corner*

3. Fire Marshal review letter Dated Sept. 8, 2020

1. *The existing fire hydrant located on the west side of Grand Oaks Drive is 442 feet from the furthest location of the existing building and the proposed addition. This seems adequate for the addition onto the existing building. The distance was measured to the existing north east corner, which has been existing.*
2. *Address will be as required*
3. *Fire access signs will be installed at the existing driveway. A detail of the sign will be provided*
4. *Access around the building is 30' radius on the inside and 50' radius at the outside of the access route.
"Exception is the southeast corner where a new Hammerhead turn area is shown on the revised plan"*
5. *13'-6" height clearance will be maintained*

6. *Fire access of 150 feet is shown to points on the building from the new extended south access drive. Also the 150 feet is provided from direct street access.*
A new Hammerhead turn around is proposed at the southeast corner of proposed addition.
6" thick reinforced concrete is proposed at the Hammerhead turn around, and the new fire access road.
The pavement with the crushed concrete base of 6" thick will support a 75,000 pound fire truck.

Sincerely;

A handwritten signature in cursive script, appearing to read "J Stewart".

John Stewart
Architect

September 9, 2020

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Dewitt Radiator – Site Plan Review
Location:	1275 Grand Oaks Drive – east side of Grand Oaks, south of Grand River Avenue
Zoning:	IND Industrial District

Dear Commissioners:

At the Township’s request, we have reviewed the submittal from Dewitt Radiator requesting site plan review/approval (plans dated 7/27/20).

The applicant seeks to construct a 4,661-square foot addition to the existing industrial building at 1275 Grand Oaks Drive.

The addition is at the rear of the site and will essentially square off the building in the southeast corner. Building materials and colors will match the existing masonry block building.

The proposed addition also complies with the dimensional standards of the IND District.

The plan was approved by the Township in 2015, and the applicant pulled permits for construction. However, the project was never initiated, and the site plan approval has expired (per Section 18.09).

There have not been any changes to the Township Zoning Ordinance that impact the proposal, and the applicant merely seeks a new approval for the same project.



Aerial view of site and surroundings (looking east)

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

Respectfully,

SAFEBUILT STUDIO

Brian V. Borden, AICP
Planning Manager



February 4, 2015

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Assistant Township Manager and Planning Director
Subject:	DeWitt Radiator Addition – Site Plan Review #1
Location:	1275 Grand Oaks Drive – east side of Grand Oaks, south of Grand River Avenue
Zoning:	IND Industrial District

Dear Commissioners:

At the Township’s request, we have reviewed the site plan (cover sheet dated 11/19/14) proposing construction of a 4,661 square foot addition to an existing one-story industrial building. We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance.

A. Summary

1. The Planning Commission has approval authority over the building elevations.
2. The applicant must confirm that proposed materials and colors will match the existing building.
3. The existing parking lot is nonconforming for multiple reasons (deficient side setback, deficient drive aisle widths, deficient number of barrier free spaces and an excessive amount of parking). The Commission may wish to require improvements as part of this project. At a minimum, we recommend the applicant provide the 1 additional barrier free space needed for compliance.
4. We recommend the applicant provide front yard landscaping, particularly the required greenbelt trees and a hedgerow along the front of the parking lot.
5. If one does not already exist, we recommend the applicant be required to provide a waste receptacle and enclosure in accordance with Section 12.04.
6. Any new signage proposed must be in accordance with the requirements and procedures of Article 16 (including the need for a permit prior to installation).

B. Proposal/Process

The applicant requests site plan review and approval for construction of a 4,661 square foot addition to an existing 23,348 square foot industrial building on a 3-acre site.

Because this is a permitted use, Planning Commission has review and approval authority over the site plan; however, the Environmental Impact Assessment will be subject to review and approval by the Township Board (following a recommendation by the Planning Commission).



Aerial view of site and surroundings (looking east)

C. Site Plan Review

1. Dimensional Requirements. The site and project have been reviewed for compliance with the dimensional standards of the IND as follows:

District	Lot Size		Minimum Setbacks (feet)				Max. Height	Max. Coverage
	Lot Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking		
IND	1	150	50	25	40	20 front 10 side/rear	30'	40% building 85% impervious
Proposal	3	330	70	170 (N) 40 (S)	52	70 front 8 side (N) 100 side (S)	21.4'	24.4% building 48.9% impervious

The only dimensional issue is a deficient north side parking lot setback; however, this is an existing nonconformity and does not have any impact on the proposed project.

2. Building Materials and Design. Proposed elevations, including colors and materials, are subject to review and approval by the Planning Commission.

The submittal includes elevation views of the addition, which identify the use of 12” masonry block. There is no indication of existing materials and colors; however, we are under the impression that the intent will be to match existing. The applicant must confirm whether or not this is the case.

3. Parking. In accordance with Section 14.04, light industrial and manufacturing requires 1.5 parking spaces for each 1,000 square feet of gross floor area plus 1 space per corporate vehicle and warehousing requires 1 parking space per 1,500 square feet of gross floor area plus 1 space per corporate vehicle. Based upon the size of the existing building and proposed addition, 39 spaces are required, while the site provides 61 existing spaces.

Section 14.02.06 requires Planning Commission approval for excessive parking (more than 20% above the minimum requirement); however, the amount of parking provided is an existing condition and the proposed addition will bring the ratio closer to compliance.

The parking spaces meet or exceed the dimensional requirements of Article 14; however, the drive aisles near the front of the property are narrower than required.

Lastly, given the amount of parking provided, 3 barrier free spaces are required, but only 2 are provided.

The Commission may wish to require improvements to these nonconforming conditions as part of this site plan review. At a minimum, we recommend the required number of barrier free parking spaces be provided.

4. **Pedestrian Circulation.** Sidewalks are not proposed nor required along Grand Oaks Drive. The plan does identify an existing sidewalk between the parking lot and front building entrance.
5. **Vehicular Circulation.** No changes are proposed to the existing driveway along Grand Oaks or to internal circulation.
6. **Loading.** Given the size of the proposed addition and existing building, Section 14.08.08 requires 1 loading space. Such spaces are to contain 500 square feet of area and be located in a rear or side yard not directly visible to a public street. There is an existing loading/unloading area that meets requirements in the rear yard.
7. **Landscaping.** Sheet A.3 identifies existing landscaping, but does not propose any new plantings. Based on our review, the site is deficient in terms of plantings for the front yard greenbelt, parking lot and detention ponds.

In our opinion, the site and area would benefit greatly from additional plantings in the front yard. Greenbelt requirements call for 9 canopy trees, while there is only 1 existing tree shown on the plan. Additionally, a hedgerow along the front parking spaces would diminish views of parking cars and keep headlights from shining into the building across Grand Oaks.

8. **Waste Receptacle and Enclosure.** The site plan does not identify an existing or proposed waste receptacle/enclosure. Review of aerial photos show a stand-alone dumpster that is not contained within an enclosure. If this condition is still present, we recommend the applicant be required to install a waste receptacle/enclosure in accordance with the provisions of Section 12.04.
9. **Exterior Lighting.** Sheet A.3 identifies 3 new wall mounted fixtures on the proposed building addition. Details show shielded/downward directed fixtures with compliant light intensities.
10. **Signs.** The submittal identifies an existing monument sign in the front yard. If any new signage is proposed, the applicant must comply with the standards and procedures outlined in Article 16, which includes the need to obtain a sign permit from the Township.
11. **Impact Assessment.** The submittal includes an Impact Assessment (dated 1/9/15), which notes that the proposed project is not expected to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

Genoa Township Planning Commission

DeWitt Radiator Addition

Site Plan Review #1

Page 4

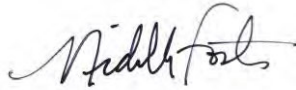
Should you have any questions concerning this matter, please do not hesitate to contact our office. We can be reached by phone at (248) 586-0505, or via e-mail at borden@lslplanning.com and foster@lslplanning.com.

Sincerely,

LSL PLANNING, INC.



Brian V. Borden, AICP
Principal Planner



Michelle Foster
Project Planner



September 9, 2020

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

**Re: Dewitt Radiator Remodeling
Site Plan Review No. 1**

Dear Ms. Van Marter:

Tetra Tech conducted a review of the proposed Dewitt Radiator Remodeling site plan last dated July 27, 2020. Tetra Tech previously reviewed the plans in January of 2015. The plans and impact assessment were submitted by John Stewart Architects. The site is a 3-acre parcel located on the east side of Grand Oaks Drive, just south of the Toddem intersection. The petitioner is proposing a 4,661 square foot building addition to the existing 23,348 square foot building. The Petitioner is proposing no site work other than a gravel access path around the new building addition.

It is our understanding that the petitioner is requesting an extension of their previous site plan approval. After reviewing the site and impact assessment we offer the following comments for the planning commission's consideration in your action on the extension request:

GENERAL NOTES

1. The proposed site plan and gravel access drive will need to be approved by the Brighton Area Fire Authority. This approval should be provided to the Township prior to site plan approval.

DRAINAGE AND GRADING

1. The proposed addition will increase the net impervious area on the site, but the existing on-site detention basins are shown to have adequate capacity. Additional spot elevations near the corner of the building, indicating positive drainage towards the existing detention basin, should be added to the construction plans. This comment was on the January 2015 review letter also.

We recommend the petitioner address the above comments prior to approval. Please call or email if you have any questions.

Sincerely,

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

Gary J. Markstrom, P.E.
Vice President

A handwritten signature in blue ink, appearing to read 'Shelby Scherdt'.

Shelby Scherdt
Project Engineer



BRIGHTON AREA FIRE AUTHORITY

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

September 8, 2020

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Dewitt Radiator Addition Renewal
1275 Grand Oaks Drive.
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above mentioned site plan. The plans were received for review on August 25, 2020 and the drawings are dated July 27 2020. The project is based on an existing Type IIB constructed 23,348 square foot square foot factory/storage building. The plan proposes an addition of 4,661 square feet to be used for storage. The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

1. The water main location is indicated on the submittal, however, the nearest hydrant(s) to the building are not provided. A fire hydrant shall be located within 400-feet of all parts of the building (hose lay) or a fire hydrant shall be provided on site located at the corner of the parking areas, approximately 65-feet North of the office.

2. The address will be verified at inspection. Numbers shall be provided on the street side of the structure at a **minimum of 6"** high and of contrasting colors. Address shall be clearly visible from the street.

IFC 505.1

3. The access drive into the site is an existing non-conforming to fire code. With the provided width, both sides of the drive shall be marked as a fire lane. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. Signage shall be provided every 50-feet along the drive and building (in non-parking areas). The East side proposed access drive shall be maintained as an all weather surface constructed to be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds, I do not recommend gravel. The access to the building shall be provided and maintained during construction, including the proposed East access drive.

IFC D 103.6

IFC D 103.1

IFC D 102.1

IFC 503.2.3

4. Access around the building shall provide emergency vehicles with a turning radius of 50-feet outside and 30-feet inside.

IFC 503.2.4

5. A minimum vertical clearance of 13½-feet shall be maintained throughout the access drive.

IFC 503.2.1



September 9, 2020

Page 2

Dewitt Radiator Addition

Renewal

1275 Grand Oaks Dr.

Site Plan Review

6. The secondary access drive is required to achieve fire emergency vehicle access to within 150-feet of all parts of the structure. The access drive coupled with the existing dead-end of 180-feet creates a dead-end access in excess of 300-feet. The access drive shall be provided with an approved means of emergency vehicle turn around. A hammerhead compliant with Appendix D of the fire code would best suit the site conditions.

IFC 503.1.1

7. Provide names, addresses, phone numbers, emails of owner or owner's agent, contractor, architect, on-site project supervisor.

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,

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

Rick Boisvert, FM, CFPS
Fire Marshal

cc: Amy Ruthig amy@genoa.org

July 28,2020

Genoa Township Planning Commission

IMPACT ASSESSMENT STUDY

A. Person Responsible for Study:

John Stewart, Architect
1645 North Milford Road
Milford, Michigan 48381

B. Maps and Written description/analysis of project site

Existing One Story Industrial Building, 23,348 SF
Proposed Addition to match existing and fill in the
Southeast corner, 4661 SF
Existing asphalt parking lot to remain unchanged, 61 Cars
Required parking for site is 39 cars
Aerial Map attached
Removal of an existing concrete within the proposed building pad

C. Impact on Natural Features

Entire site and topography to remain as is
No additional site disturbance anticipated
Existing trees, brush and landscaped beds to remain unchanged
No trees to be removed
No wetlands are to be disturbed or impacted

D. Stormwater Management Requirements

Soil Erosion Plan will be submitted to Livingston County Drain Comm.
Soil Erosion Fencing will be installed surrounding new addition per
LCDC Requirements. Parking Lot catch basins will have erosion control
silt fabric placed at Manhole Covers.

Stormwater discharge increase due to increase in size of addition vs. existing hard surface imperviousness is within the existing stormwater collection basins capacity.

Existing drainage swale along south side between building and property line will be extended to collect rain water from new addition downspouts.

E. Impact on Surrounding Land Uses

New addition will have no effect on surrounding land uses.

Addition is for inside (enclosed) storage of materials used to make aftermarket radiators. Product is aluminum and steel sheets, including storage racks for completed products.

No additional sound or air pollution

F. Impact on Public Facilities and Services

New Addition will have no effect or impact on public facilities or services. Number of employees will not change due to addition.

G. Impact on Public Utilities

New Addition will have no impact on Public Utilities.

Additional Stormwater is within the existing storm water designed storm waters system collection and flow parameters.

During construction, all erosion control measures will be implemented.

No additional sewer or water requirements.

H. Storage and Handling of Hazardous Materials

No hazardous substances will be stored in the new addition.

I. Impact on Traffic and Pedestrians

New addition will not impact traffic or pedestrians

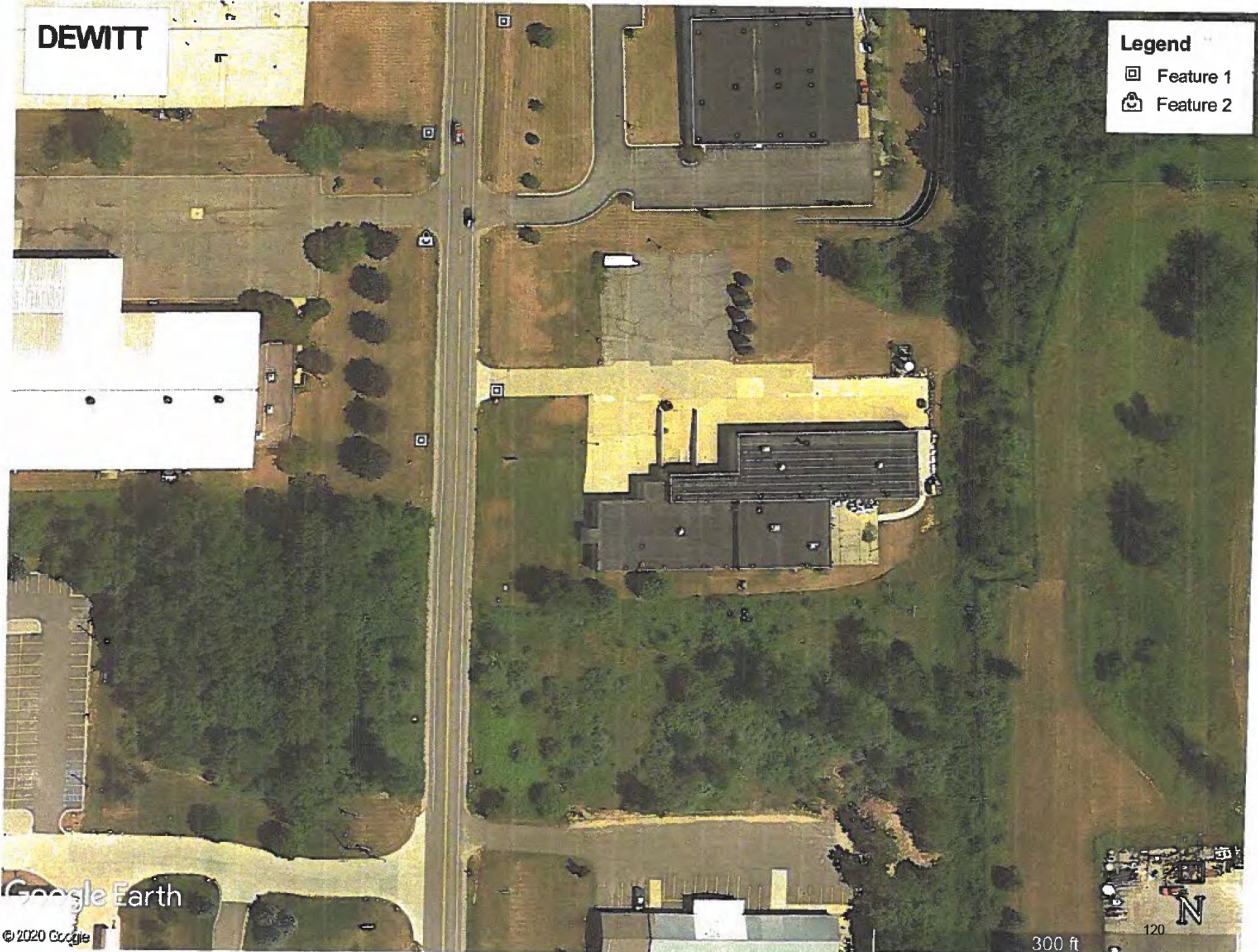
J. Special Provisions

New addition has no special provisions or requirements

DEWITT

Legend

- Feature 1
- 📍 Feature 2



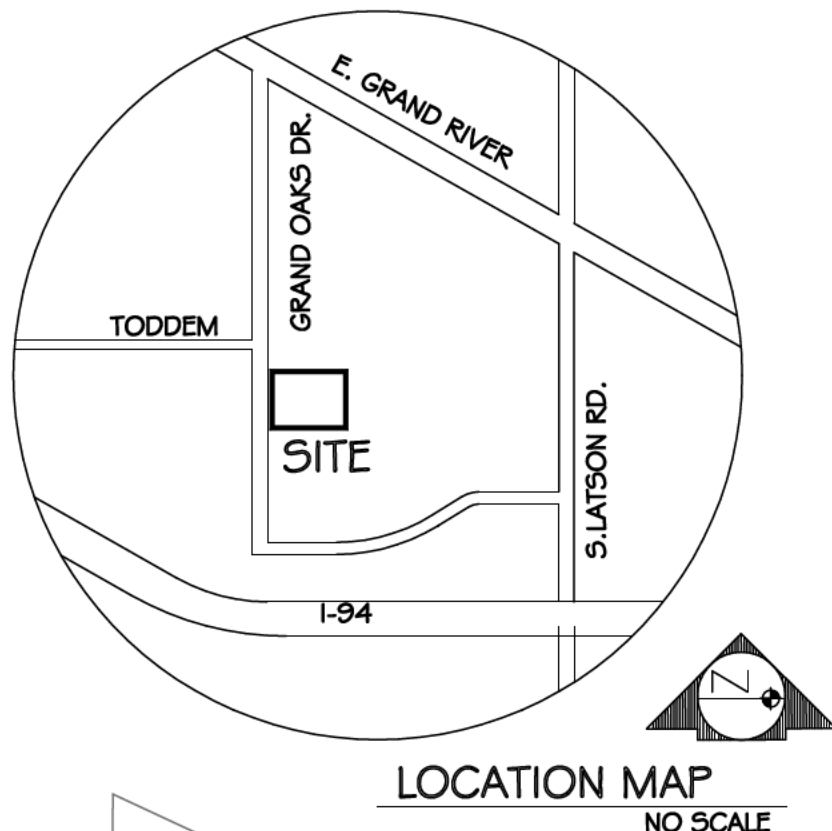
Google Earth

© 2020 Google

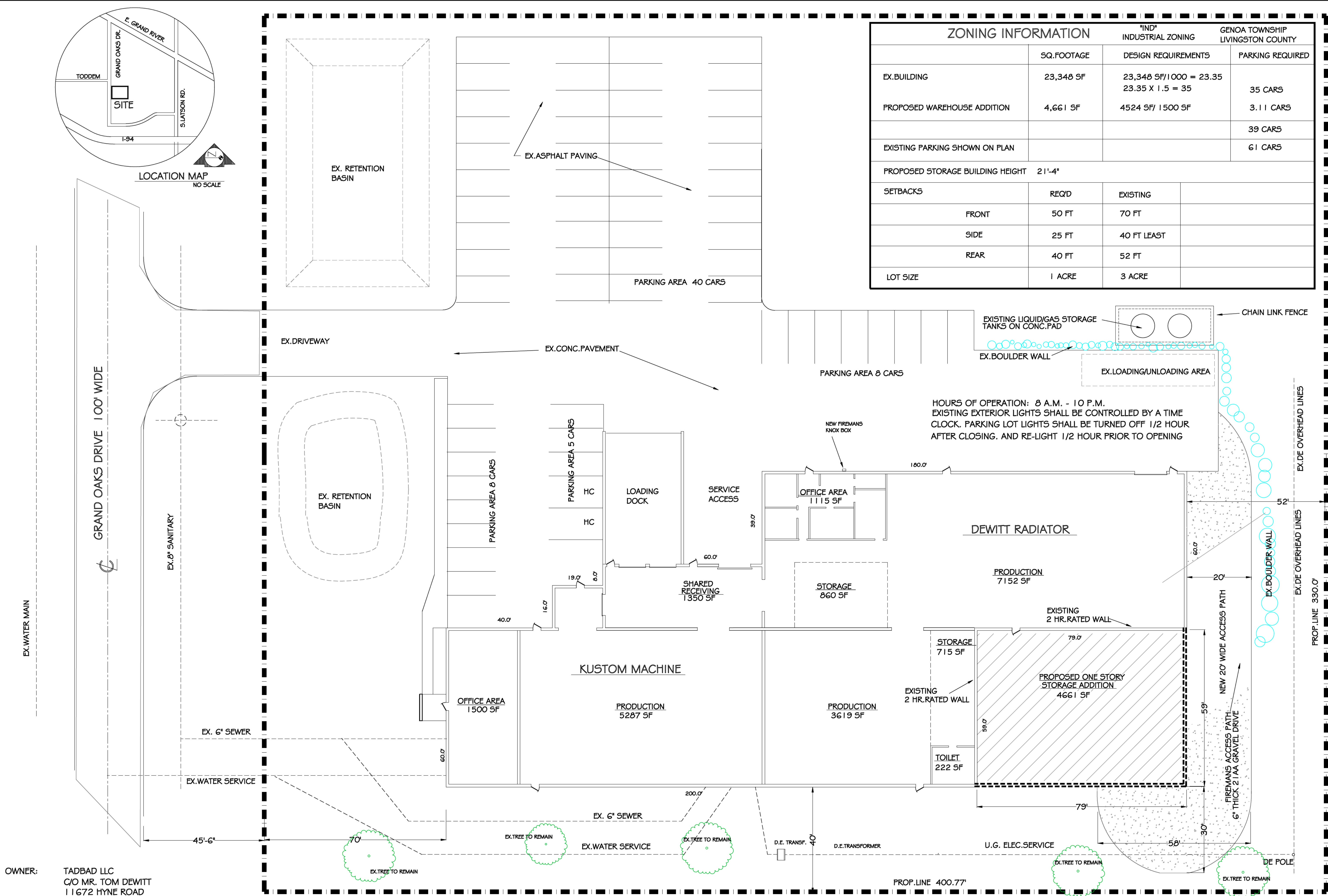
300 ft

120





ZONING INFORMATION		"IND" INDUSTRIAL ZONING	GENOA TOWNSHIP LIVINGSTON COUNTY
	SQ. FOOTAGE	DESIGN REQUIREMENTS	PARKING REQUIRED
EX. BUILDING	23,348 SF	23,348 SF / 1000 = 23.35 23.35 X 1.5 = 35	35 CARS
PROPOSED WAREHOUSE ADDITION	4,661 SF	4524 SF / 1500 SF	3.11 CARS
EXISTING PARKING SHOWN ON PLAN			39 CARS
			61 CARS
PROPOSED STORAGE BUILDING HEIGHT		21'-4"	
SETBACKS		REQ'D	EXISTING
FRONT	50 FT	70 FT	
SIDE	25 FT	40 FT LEAST	
REAR	40 FT	52 FT	
LOT SIZE	1 ACRE	3 ACRE	



HOURS OF OPERATION: 8 A.M. - 10 P.M.
 EXISTING EXTERIOR LIGHTS SHALL BE CONTROLLED BY A TIME CLOCK. PARKING LOT LIGHTS SHALL BE TURNED OFF 1/2 HOUR AFTER CLOSING. AND RE-LIGHT 1/2 HOUR PRIOR TO OPENING

OWNER: TADBAD LLC
 C/O MR. TOM DEWITT
 11672 HYNÉ ROAD
 BRIGHTON, MICHIGAN 48114
 (313) 580-1574

SURVEYOR: ANC ENGINEERING INC.
 5111 PONTIAC TRAIL
 WIXOM, MICHIGAN 48393

- NOTES:
- STORE MATERIALS ARE COMPLETED AUTO RADIATORS IN BOX READY FOR SHIPMENT AND RAW METAL FOR FABRICATION
 - STORE MATERIALS ARE STORED ON RACKS TO 12'-0" HIGH

CODE REVIEW		CONSTRUCTION INFORMATION	
2015 MICHIGAN BUILDING CODE		NO BUILDING SPRINKLERS	
MICHIGAN BUILDING CODE	2015	BUILDING CLASSIFICATION	F-1
MICHIGAN PLUMBING CODE	2015	CONSTRUCTION TYPE	2-B
NATIONAL ELECTRICAL CODE	2017	ALLOWABLE HEIGHT	2 - STORY 55 FT
MICHIGAN MECHANICAL CODE	2015	PROPOSED HEIGHT	1 - STORY 21 FT
		ALLOWABLE AREA	15,500 SF
		PROPOSED ADDITION AREA	4,661 SF



DATE: 11-19-14
2-1-15
7-27-20

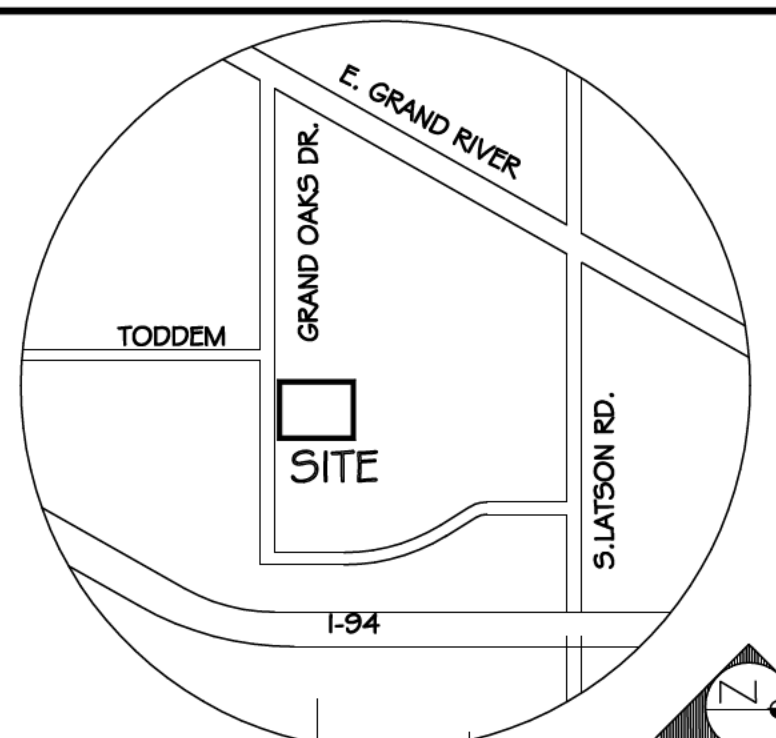
ISSUE/REVISIONS
FM REVISE 01-20-15
SITE PLAN UPDATE

DEWITT RADIATOR REMODELING
 1275 GRAND OAKS DRIVE
 HOWELL, MICHIGAN 48843

John Stewart
 ARCHITECTS
 1645 N. MILFORD RD., MILFORD MICH. 48361 248-685-0978

JOB NO.

SHEET A-1
121



LOCATION MAP
NO SCALE

STORM WATER DESIGN

SITE AREA	132,254 SF	3.04 ACRES
BUILDING	23,348 SF	
HARD SURFACE - PAVING	35,600 SF	
EXISTING HARD SURFACED TO BE REMOVED (EXISTING SLAB AND DRIVE)	3,266 SF	
TOTAL BUILDING AND PAVING	62,214 SF	1.43 ACRES
PROPOSED ADDITION	4,661 SF	
EXISTING HARD SURFACED TO BE REMOVED (EXISTING SLAB AND DRIVE)	3,266 SF	
INCREASED IMPERVIOUSNESS	1,395 SF	1.46 ACRES
TOTAL IMPERVIOUSNESS	63,610 SF	
GRASS (Pervious)	68,644 S.F.	1.58 ACRES

"C" (bldg+ paving)	1.46 A X .9 = 1.31
"C" (grass)	1.58 A X .25 = 0.40
	3.04 ACRES 1.71
"C" _d	$\frac{1.71}{3.04} = .56$
(COEFFICIENT FOR THE DEVELOPED AREA)	

Q_a = .15 C.F.S. ALLOWABLE RUNOFF / ACRE
OR
3.04 ACRES X .15 CFS (ALLOWABLE) = .46 CFS FOR THE DEVELOPED SITE

Q_a = $\frac{.46 \text{ CFS}}{3.04 \text{ A} \times .56} = .27$

NET INCREASE IN IMPERVIOUSNESS = 1395 SF

$$T = -25 + \sqrt{\frac{6562.5}{.27}} = 130.9 \text{ MIN}$$

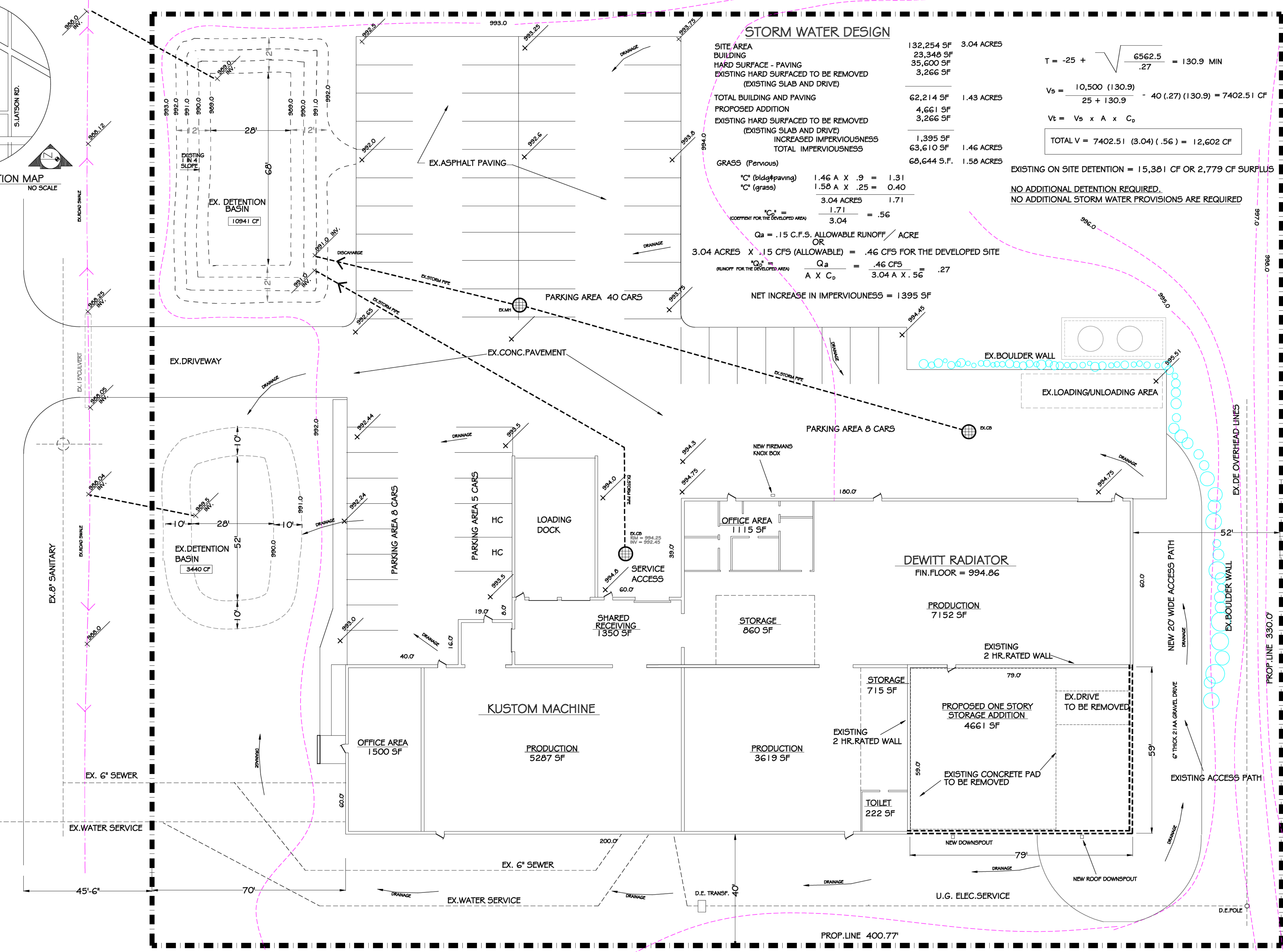
$$V_s = \frac{10,500 (130.9)}{25 + 130.9} - 40 (.27) (130.9) = 7402.51 \text{ CF}$$

$$V_t = V_s \times A \times C_o$$

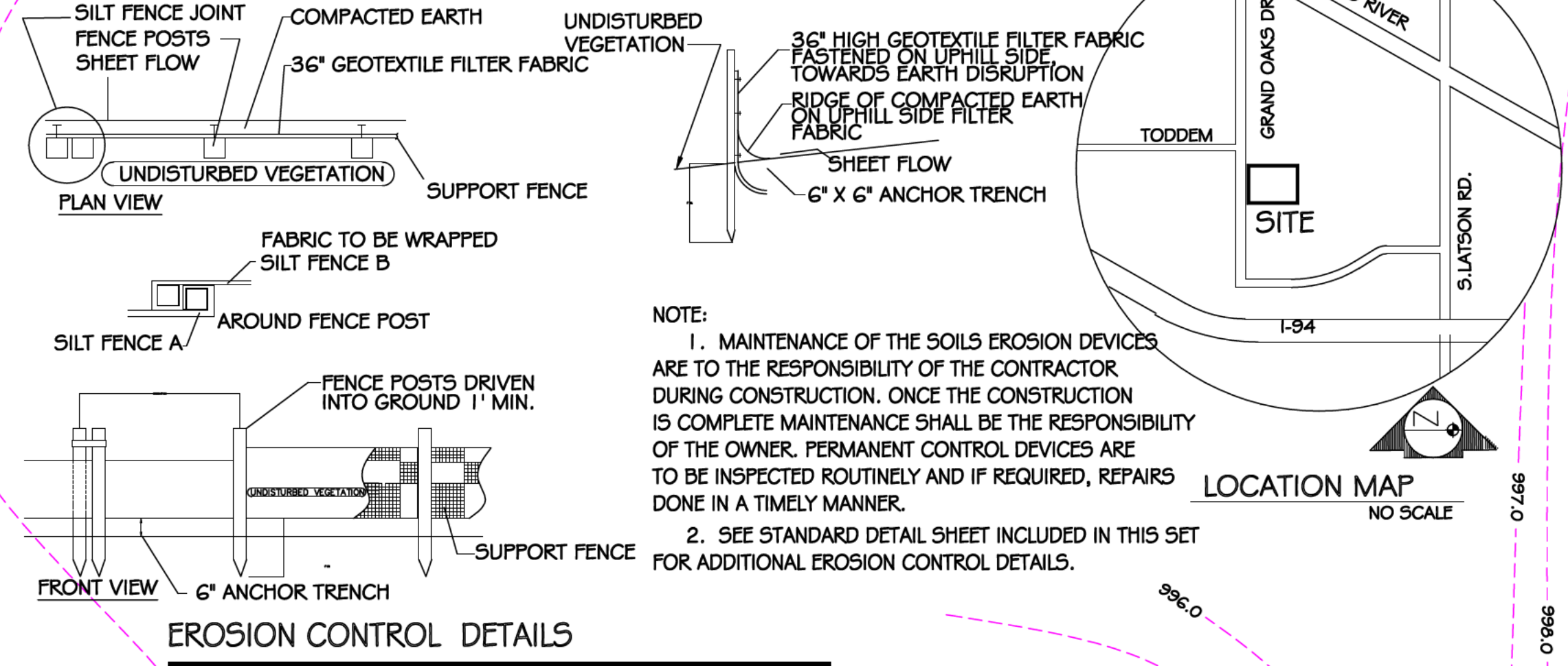
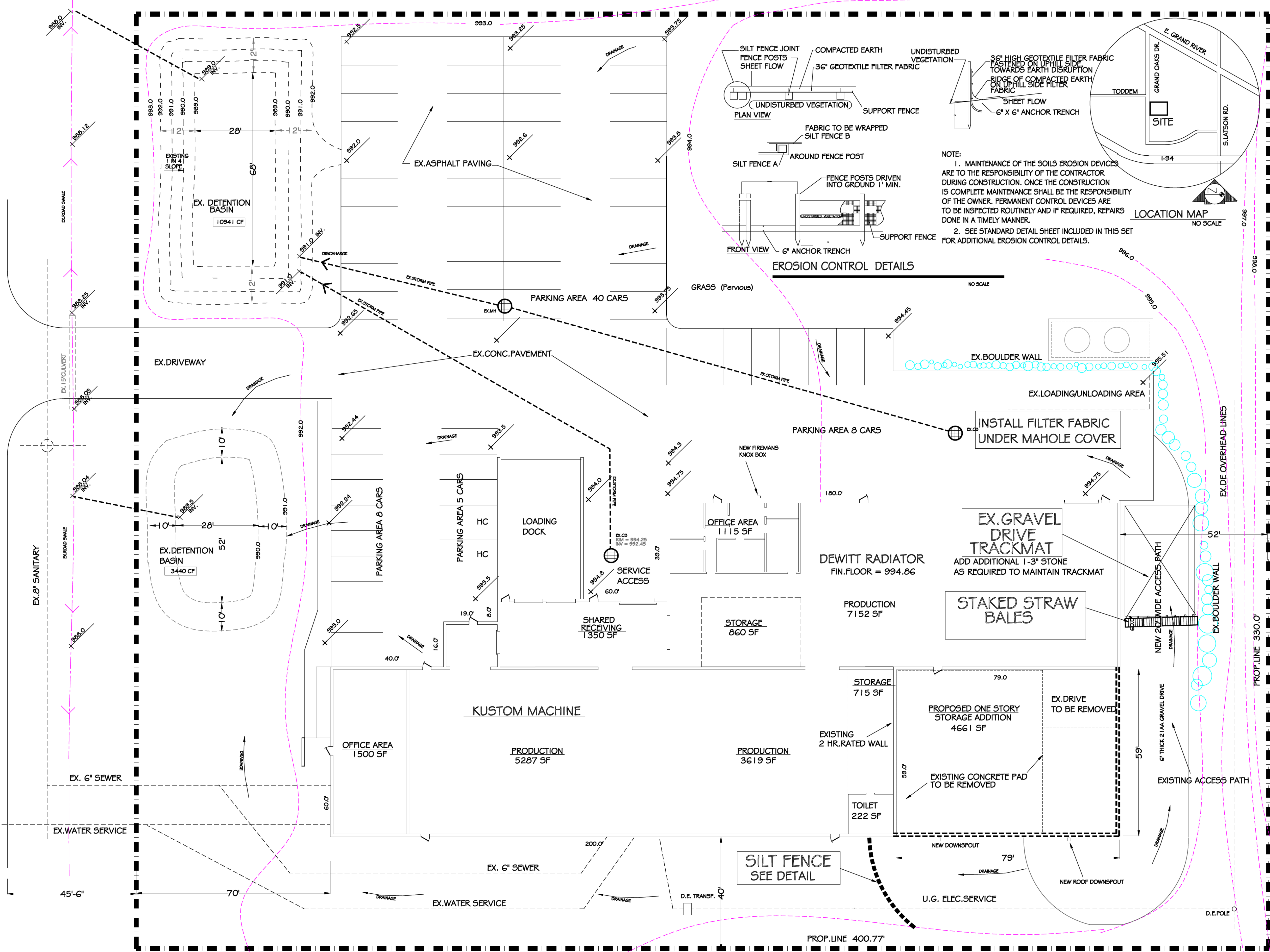
TOTAL V = 7402.51 (3.04) (.56) = 12,602 CF

EXISTING ON SITE DETENTION = 15,381 CF OR 2,779 CF SURPLUS

NO ADDITIONAL DETENTION REQUIRED.
NO ADDITIONAL STORM WATER PROVISIONS ARE REQUIRED



GRAND OAKS DRIVE 100' WIDE



INSTALL FILTER FABRIC UNDER MAHOLE COVER

EX. GRAVEL DRIVE TRACKMAT
ADD ADDITIONAL 1-3" STONE AS REQUIRED TO MAINTAIN TRACKMAT

STAKED STRAW BALES

SILT FENCE
SEE DETAIL

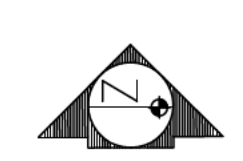
EROSION CONTROL SEQUENCE

1. INSTALL EROSION CONTROL PROTECTIVE SCREEN.
2. EXCAVATION AND LANDBALANCING.
3. INSTALL FOOTINGS.
4. CONSTRUCT BUILDING.
5. FINISH GRADE AND LANDSCAPE.
6. REMOVE EROSION CONTROL.

DATE	12-1-14 2-1-15 4-1-15 7-27-20
ISSUE/REVISIONS	FM REVISE 01-20-15 LCDC REVIEW SITE PLAN UPDATE
DEWITT RADIATOR REMODELING	
1275 GRAND OAKS DRIVE HOWELL, MICHIGAN 48843	
John Stewart ARCHITECTS	
1645 N. MILFORD RD., MILFORD MICH. 48381 248-685-0978	
JOB NO.	
SHEET	A-4

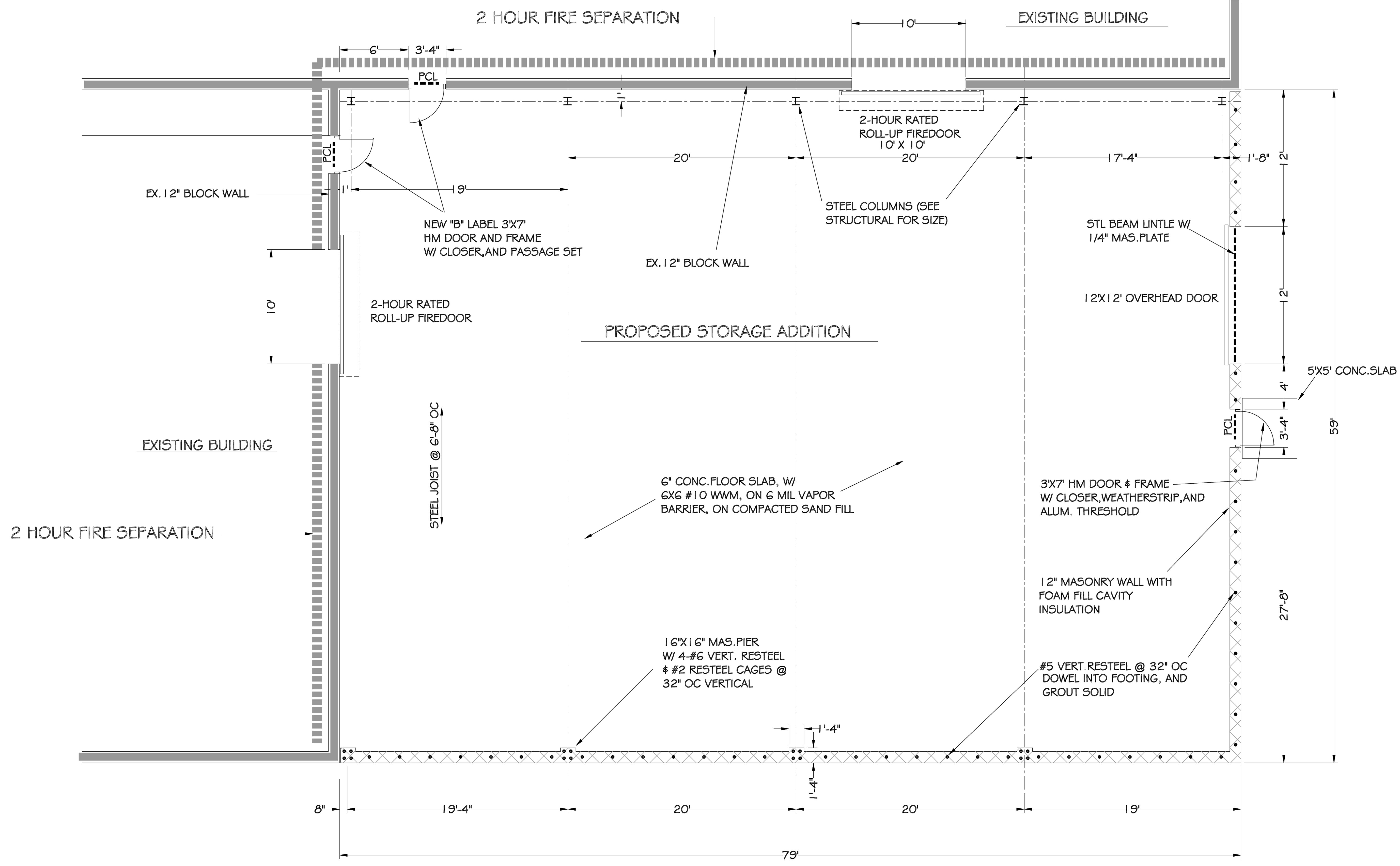
SURVEYOR:
ANC ENGINEERING INC.
5111 PONTIAC TRAIL
WIXOM, MICHIGAN 48393

OWNER:
TADBAD LLC
C/O MR. TOM DEWITT
11672 HYNÉ ROAD
BRIGHTON, MICHIGAN 48114
(313) 580-1574



EROSION CONTROL

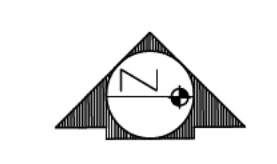




CONSTRUCTION INFORMATION

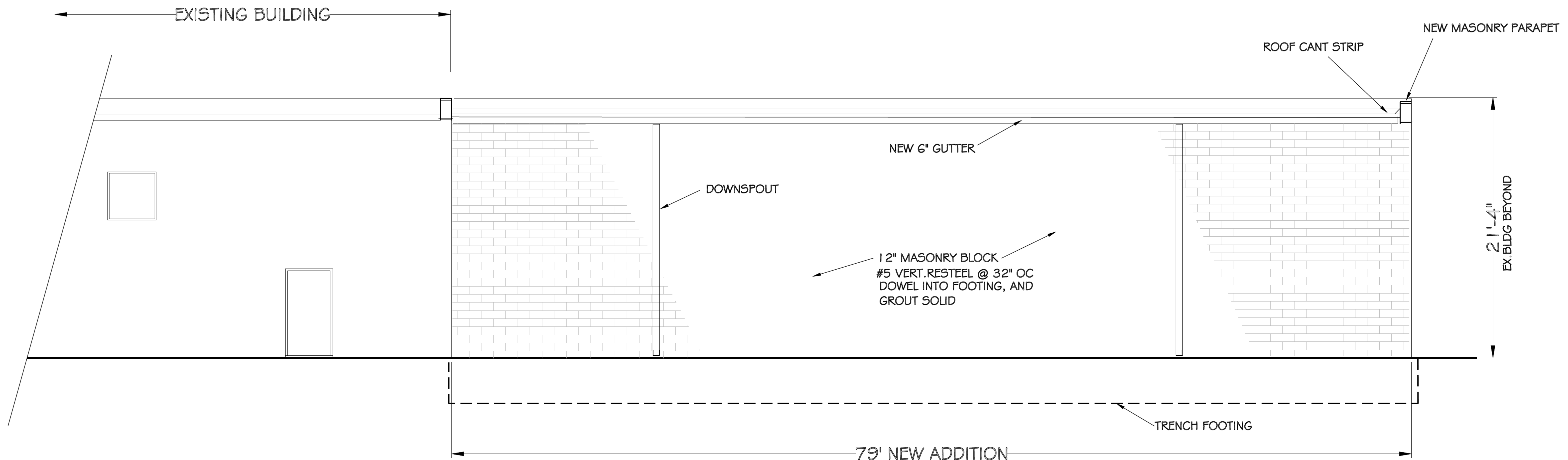
2012 MICHIGAN BUILDING CODE

BUILDING CLASSIFICATION	F-1	FIRE RESISTANCE RATING REQUIREMENT FOR 2-B	
CONSTRUCTION TYPE	2-B	BEARING WALLS (INTERIOR/EXTERIOR)	0 HR
ALLOWABLE HEIGHT	2 - STORY 55 FT	NON BEARING WALLS	0 HR
PROPOSED HEIGHT	1 - STORY 21 FT	ROOF CONSTRUCTION	0 HR
ALLOWABLE AREA	15,500 SF		
PROPOSED ADDITION AREA	4,661 SF		



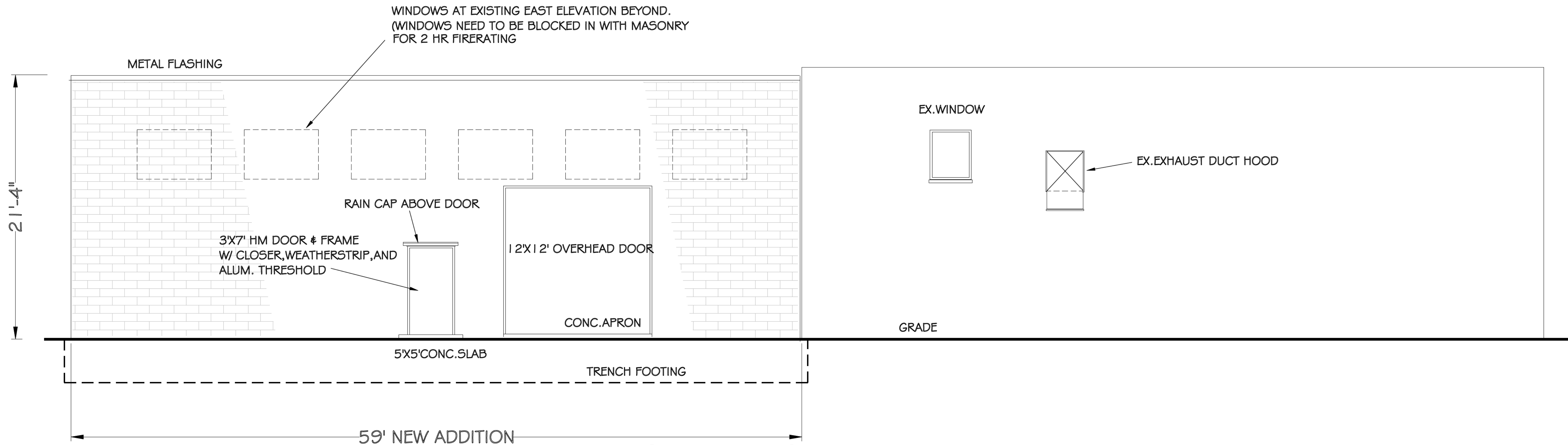
FLOOR PLAN

SCALE 1/4" = 1'-0"



SOUTH ELEVATION

SCALE 1/4" = 1'-0"



EAST ELEVATION

SCALE 1/4" = 1'-0"

DATE
11-19-14
7-27-20

ISSUE/REVISIONS
DRAWING UPDATED

DEWITT RADIATOR REMODELING
1275 GRAND OAKS DRIVE
HOWELL, MICHIGAN 48843

248-685-0978

John Stewart
ARCHITECTS
1645 N. MILFORD RD., MILFORD MICH. 48381

JOB NO.

SHEET
A-6

Board Correspondence

**CANVASS OF VOTES CAST
AT THE PRIMARY ELECTION**

HELD ON

Tuesday, August 4, 2020

**AND CANVASSED BY THE LIVINGSTON COUNTY
BOARD OF CANVASSERS**

FOR

**Genoa Charter Township
Livingston County, Michigan**

**Elizabeth Hundley
Livingston County Clerk**

STATEMENT OF VOTES

The whole number of votes given by the **Democratic Party** for candidates for the office of
Trustee
was **3,305**

and they were given for the following named persons:

PERSONS RECEIVING THE VOTES		NUMBER OF VOTES WRITTEN IN WORDS	
1	Rachel Becker	One Thousand Seven Hundred Sixty Eight	1,768
2	Matthew McClanahan	One Thousand Five Hundred Thirty Seven	1,537

CERTIFICATE OF DETERMINATION

STATE OF MICHIGAN.
COUNTY OF LIVINGSTON } ss.

The Board of Canvassers of the COUNTY OF LIVINGSTON Having Ascertained and Canvassed the Votes
of said Genoa Charter Township at the PRIMARY Election
held on Tuesday, August 4, 2020

Do Hereby Certify and Determine:

That Rachel Becker having received sufficient number of votes is nominated
candidate by the Democratic Party for the office of Trustee

That Matthew McClanahan having received sufficient number of votes is nominated
candidate by the Democratic Party for the office of Trustee

In Witness Whereof, We have hereunto set our hands and
affixed the Seal of the COUNTY OF LIVINGSTON on this

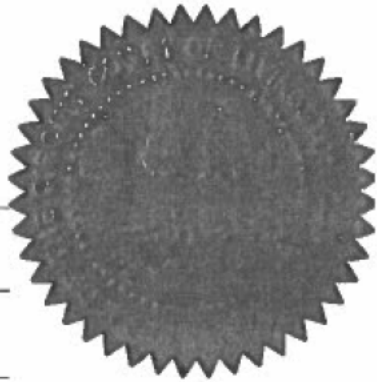
Tuesday, August 11, 2020

Board of Canvassers:

Paula Pharo
CHAIRWOMAN

Judy Williams

Wanda Sawage



ATTEST:

Elizabeth Humbley
CLERK OF BOARD OF CANVASSERS

STATEMENT OF VOTES

The whole number of votes given by the **Republican Party** for candidates for the office of Supervisor was **3,615**

and they were given for the following named persons:

PERSONS RECEIVING THE VOTES		NUMBER OF VOTES WRITTEN IN WORDS	
1	Bill Rogers	Three Thousand Six Hundred Fifteen	3,615

The whole number of votes given by the **Republican Party** for candidates for the office of Clerk was **3,782**

and they were given for the following named persons:

PERSONS RECEIVING THE VOTES		NUMBER OF VOTES WRITTEN IN WORDS	
1	Rita Croft	One Thousand Seven Hundred Twelve	1,712
2	Paulette A. Skolarus	Two Thousand Seventy	2,070

The whole number of votes given by the **Republican Party** for candidates for the office of Treasurer was **3,477**

and they were given for the following named persons:

PERSONS RECEIVING THE VOTES		NUMBER OF VOTES WRITTEN IN WORDS	
1	Robin L. Hunt	Three Thousand Four Hundred Seventy Seven	3,477

The whole number of votes given by the **Republican Party** for candidates for the office of Trustee was **11,538**

and they were given for the following named persons:

PERSONS RECEIVING THE VOTES		NUMBER OF VOTES WRITTEN IN WORDS	
1	Terry Croft	Two Thousand Four Hundred Eighty Eight	2,488
2	Jean W. Ledford	Two Thousand One Hundred Forty Six	2,146
3	Diana Lowe	Two Thousand Three Hundred Thirty Two	2,332
4	Jim Mortensen	Two Thousand Six Hundred Sixty One	2,661
5	Dewey Thomas	One Thousand Nine Hundred Eleven	1,911

CERTIFICATE OF DETERMINATION

STATE OF MICHIGAN,
COUNTY OF LIVINGSTON } ss.

The Board of Canvassers of the COUNTY OF LIVINGSTON Having Ascertained and Canvassed the Votes
of said Genoa Charter Township at the PRIMARY Election
held on Tuesday, August 4, 2020

Do Hereby Certify and Determine:

That **Bill Rogers** having received sufficient number of votes is nominated
candidate by the **Republican Party** for the office of **Supervisor**

That **Paulette A. Skolarus** having received sufficient number of votes is nominated
candidate by the **Republican Party** for the office of **Clerk**

That **Robin L. Hunt** having received sufficient number of votes is nominated
candidate by the **Republican Party** for the office of **Treasurer**

That **Terry Croft** having received sufficient number of votes is nominated
candidate by the **Republican Party** for the office of **Trustee**

That **Jean W. Ledford** having received sufficient number of votes is nominated
candidate by the **Republican Party** for the office of **Trustee**

That **Diana Lowe** having received sufficient number of votes is nominated
candidate by the **Republican Party** for the office of **Trustee**

That **Jim Mortensen** having received sufficient number of votes is nominated
candidate by the **Republican Party** for the office of **Trustee**

In Witness Whereof, We have hereunto set our hands and
affixed the Seal of the COUNTY OF LIVINGSTON on this

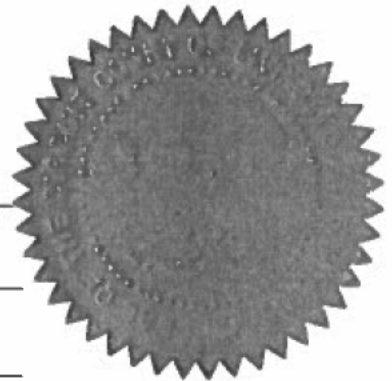
Tuesday, August 11, 2020

Board of Canvassers:

Paula Johnson
CHAIRWOMAN

Judy Williams

Wendy Sawage



ATTEST:

Elizabeth Huskley
CLERK OF BOARD OF CANVASSERS



STATE OF MICHIGAN
REMITTANCE ADVICE

BANK ID: 000
VENDOR NO: MISC00001

AGENCY UNIT: X28F

CHECK NO: 103399915
CHECK DATE: 08/26/2020

20200819 33 471050 VZLRR239 L20081900150 49664.39
REIMBURSEMENT FOR THE COST OF THE MARCH 10, 2020 PRESIDENTIAL
PRIMARY. IF YOU HAVE QUESTIONS, CONTACT THE MICHIGAN DEPARTMENT
OF TREASURY, OFFICE OF REVENUE AND TAX ANALYSIS AT 517-335-7484.

Total Payment Amount \$49,664.39
Net Payment Amount \$49,664.39

Check Total \$49,664.39

MICHIGAN DEPARTMENT OF TREASURY REVENUE SHARING
PO BOX 30788 LANSING, MI 48909 PHONE 517-335-7484

000 (Rev. 09-17) DETACH HERE - RETAIN STUB FOR YOUR RECORDS - DETACH HERE

GRETCHEN WHITMER, GOVERNOR 000 103399915

STATE OF MICHIGAN

MISC00001 X28F
VENDOR NO. AGENCY

08/26/2020 56-1544 / 441

FORTY NINE THOUSAND SIX HUNDRED SIXTY FOUR AND 39/100 DOLLARS

\$49,664.39

000043

PAY TO THE
ORDER OF:

TREASURER-TOWNSHIP OF GENOA
GENOA TOWNSHIP TREASURER
2911 DORR
BRIGHTON, MI 48116



Security features included.
Details on back.

Rachael Eubanks

RACHAEL EUBANKS, STATE TREASURER

JPMorgan Chase Bank, N.A.

⑈ 103399915⑈ ⑆044115443⑆ 826208675⑈

THE TWO-COLOR AREA OF THIS DOCUMENT CHANGES TO BE GRADUALLY FROM DARK TO LIGHT

Trustees Present: Mary Cafmeyer, Kate DeRosier, Nancy Lewis, Kathleen Oemke, Doug Sargent, Don Thompson

Members Absent: Holly Naylor

Staff Present: Mallorie DeVilbiss, Barbara Berlin, Glenn Fischer, Maeve Devlin, Heidi Pratt, Liesl Schick, Damon Zuidema

Public Present: None

- I. President Lewis called the meeting to order at 7:00 p.m. in the Community Room of the Cromaine Village Library.
- II. **Approval of agenda** Agenda Approval
Trustee Thompson moved to approve the agenda, seconded by Vice President DeRosier. Passed unanimously.
- III. **Approval of Consent Agenda** Consent Calendar Approval
President Lewis pointed out that the Finance Committee Minutes of 7/21/20 replace the previous Finance Committee Minutes dated 7/16/20; requested changing the date of the Personnel Committee Minutes to July 2; Trustee Oemke requested a change to the 6/18/20 regular minutes to say that she “may attend the 7/16/20 Finance Committee virtually”.
Trustee Oemke moved to approve the consent agenda as amended, seconded by Trustee Thompson. Passed unanimously.
- A. Approval of regular meeting minutes, 6/18/2020; special meeting minutes 7/10/2020.
 - B. Acknowledge receipt of the June Financial Reports and payment of June invoices totaling \$60,276.30 and payroll obligations totaling \$81,448.22.
 - C. Director’s Report
 - D. Committee Reports
 - Community Relations July 7
 - Personnel July 2
 - Planning July 9
 - Finance July 21
- IV. **Call to the Public:** Call to the Public
Liesl Schick:
“I attended the board meeting on June 9th, and was happy to be invited by our director Mallorie. These meetings are usually held when our building is open which makes it difficult to attend. I attend these meetings as a "patron", never expecting to compensated by time or monetary fashion, even though the board itself is paid to hold these meetings. In the past, we were told that what the board did was not our business; Covid-19 changed my perspective. I'm glad that we have a leader who encourages us to attend these meetings, which

so clearly affect many of us as both patrons and employees of Cromaïne.”

The Board appreciates when the public and employees attend their meetings. The more voices the better.

V. **Director’s Report – Update and Comments from the Community**

Director’s Update

The Director’s printed report was updated verbally with the following:

Based on the results of a new study by the Institute of Museum and Library Services (IMLS) we will be increasing the quarantine time for all items to 4 days. We have ordered more book carts to allow for storage of quarantined items.

Our new public copier/scanner and wide format printer/scanner were delivered and installed this morning. The new public copier will allow patrons to copy, scan to email or usb and print from usb all in one place.

The Director and Trustee Thompson attended the HCS foundation meeting yesterday (7/22). They are recommending to the Heartland Foundation to budget \$25,000 for new windows at the Music Hall. That board meets on 8/4.

We currently have 289 summer reading participants - up 33% over last month - with 67 adult participants and 222 youth and teen participants. The youth & teens have logged 22,000 minutes of reading and the adults have logged 549 books.

Project Play Kits have been very successful - Each Monday at least 110 kits have been distributed from the Library’s parking lot with the remaining 40 kits going to families who are taking advantage of the Gleaners summer food distribution at the Middle School. We have two more giveaways - a playground ball and a jump rope.

Virtual Move Across America - In addition to reading, we have challenged the community to Virtually Move Across America with us by logging the number of miles they walk, hike, or bike. We currently have 11 entries for a total of 147 miles moved.

New Teen Blog - Our new teen blog already has 88 posts, the majority of which include book reviews, artwork, and general interest articles and videos submitted by our teen volunteers. It can be accessed via the Teen page of our website.

Our Audit has been scheduled for the week of August 17. Auditors from Maner Costerian will be on site all day that Monday.

Since we haven’t been able to present our scholarship winners at a board meeting, we will be presenting the awards before next Tuesday’s (7/28) concert, around 6:45. If anyone is able to be there and represent the Board, it would be greatly appreciated! Trustee Thompson indicated he will be at the concert and will say a few words to the students.

Questions from the Board:

Trustee Thompson relayed a phone call he received from a former resident who inquired about the possibility of being allowed to do an overnight paranormal investigation of the Music Hall for potential book material. Reverend Gerald S. Hunter, author of the *Haunted Michigan* book series and former pastor of the Hartland United Methodist Church several years ago would be leading the investigation. Rev. Hunter's publisher has asked him to write a fourth book about haunted public and private locations in Michigan. Trustee Thompson will allow access to the building and will be interviewed by the team. Perhaps they would be willing to share their findings in a program for the community.

President Lewis is happy to see programming happening like the mystery book club. Vice President DeRosier is happy to see patrons exhibiting a positive response to the new policy and respecting the staff. We have a great staff! Secretary Cafmeyer asked if there had been any issues and the Director was pleased to report "No".

VI. Discussion

A. Strategic Plan 2018-2022

It is a great idea for us to attend the Gleaners food giveaway for students at the Middle School and hand out Project Play kits and Summer Reading bags.

Strategic Plan
2018-2022

B. Director's 360 Evaluation

Vice President DeRosier thought overall the responses were excellent and applauded the transparency, courage, and respect for the whole process. It is an educational and learning experience.

Director's 360
Evaluation

C. Year-end Statistics

There were questions about e-books and the LAN (Local Area Network) stats. Because of the pandemic, 2020 will not be a comparable year to the next. We could foresee a change in how we count statistics.

Year-end
Statistics

D. Personnel Committee Policy Review

The Committee reviewed policies 7002, 7003, 7005. Treasurer Sargent requested a revision to Policy 7005, compensation of Library Employees, to clarify language of how staff receives their compensation yearly.

-Personnel
Committee Policy
Review

Secretary Cafmeyer asked about resolution of the \$8,000 bill from the state for unemployment. It has been resolved as the state is so far behind in their accounting they have not cashed the check from the 501 Alliance for our unemployment insurance.

VII. Decision

A. Resolution 2020-14, Revising Policy 7005, Compensation of Library Employees

Resolution
2020-14

Trustee Oemke moved to approve Resolution 2020-14, Revising Policy 7005, Compensation of Library Employees, Treasurer Sargent seconded. A roll call vote was taken for approval of the resolution. Ayes: Cafmeyer, DeRosier, Lewis, Oemke, Sargent, Thompson Nays: None APPROVED

VIII. Information

Upcoming meeting dates include:

Upcoming
Meeting Dates

August 4	Community Relations Committee, 10:00 am – Vice President DeRosier cannot attend
August 5	Personnel Committee, 9:00 am, Director’s Office (tentative change)
August 13	Planning Committee, 9:30 am
August 13	Finance Committee, 2:00 pm
August 20	Board of Trustees meeting, 7:00 pm, Community Room. – Secretary Cafmeyer cannot attend

IX. Agenda Items for Next Meeting

Items for next
meeting

- Strategic Plan 2018-2022
- Presentation of employees’ work goals completed for prior year and for current year

X. Call to the Public:

Public Call

Trustee Oemke read the following dated 7/23/2020 into the public record:

“Dear Cromaïne District Library Board, I am tendering my resignation as a Board member. We will likely be moving from the District; therefore, I will be unqualified to serve as a Board member. I have enjoyed working with all of you throughout my terms. I know you all are devoted to promoting a vibrant library for the enhancement of the community. I know the Library is in good hands. Thank you for being mindful Board members. Sincerely, Kathleen M. Oemke”

President Lewis accepted Trustee Oemke’s resignation with regret and understanding. She will be missed. It has been a pleasure to have her on the Board. She also noted that the Board has 45 days to make an appointment. The Director will review the application and posting and get them out shortly. Vice President DeRosier was asked if she would fill in on the Personnel and Finance Committees as needed. She replied that she would be happy to, just let her know when.

XI. Adjournment:

Adjournment

Motion by Trustee Thompson, seconded by Secretary Cafmeyer to adjourn at 8:35 pm.

MARY CAFMEYER, SECRETARY
Cromaine District Library Board

Barbara Berlin, Recording Secretary
Cromaine District Library Board

Documents distributed to the Board for/at this meeting:

- 6/18/2020 Proposed Regular Meeting Minutes
- 7/10/2020 Proposed Special Meeting Minutes
- June 2020 Financial Reports & Checks Issued Totals
- June 2020 CDL Investment Performance Report
- Director's Report 7/23/2020
- CDL Statistics for June 2020 & updated CDL 4-year Circulation Graph
- Patron Comments June/July 2020
- Community Relations Committee Meeting Minutes, 7/7/2020 w/draft Policy 2040 attached
- Finance Committee Action/Decision List, V.2 7/21/2020
- Personnel Committee Meeting Minutes, 7/2/2020 w/draft revised Policy 7005 attached
- Planning Committee Meeting Minutes, 7/9/2020
- Strategic Plan 2018-2022 Progress Report, 4/1/2020 through 7/7/2020
- Director's 360 Evaluation Results
- FY 2019-2020 Year-end Statistics
- Trustee Oemke's Resignation Letter
- Copy of Resolution 2020-14, To Adopt Policy 2040, COVID-19 Patron Expectations w/approved Policy 2040, COVID-19 Patron Expectations
- Revised Policy 8011, Board Member Compensation & Expenses
- Replacement stickers for Policies 8008 & 8009
- *Board & Administrator*, July 2020

Polly

From: Polly
Sent: Friday, August 21, 2020 10:47 AM
To: Phinn-Borrero, Jenele A - New York, NY - Contractor
Subject: Re: 1836626 GENOA CHARTER TOWNSHIP

In response to your email that I received today please know that our mail will be only from the Genoa charter Township clerk and it will be related to elections thank you very much for your assistance Polly Skolarus

On Aug 21, 2020, at 10:34 AM, Phinn-Borrero, Jenele A - New York, NY - Contractor <Jenele.A.Phinn-Borrero@usps.gov> wrote:

Hi Polly,

This is in reference to the nonprofit application that was recently submitted under: **#1836626 GENOA CHARTER TOWNSHIP**. Since we do not approve townships, in order to continue with this application please respond and state that all mailings will be done under the name Genoa Charter Township Clerk.

Please respond promptly so we can proceed with your application.

Thank you for your inquiry. Since the PCSC office is closed for the foreseeable future, I am working remotely and will not be able to receive faxes and hard copy documentation. If you need me to review documentation, please email it preferably in PDF format.

Jenele Phinn-Borrero
Non Profit Specialist
US Postal Service – Pricing & Classification Service Center (PCSC)
Hours: M – F 7:30 am – 4:00 pm

To Board 9/24/20



August 27, 2020

Ms. Polly Skolarus, Clerk
Township of Genoa
2911 Dorr Rd.
Brighton, MI 48116

Re: Cartoon Network Moving to Digital Preferred Package

Dear Ms. Skolarus:

We are committed to keeping you and our customers informed about changes to Xfinity TV services. Accordingly, please note following changes:

- Effective October 27, 2020, StarzEncore, StarzEncore Westerns, StarzEncore Black, and StarzEncore Action will only be available with a subscription to Starz. They will not be included with Digital Preferred. For more information about this change, visit xfinity.com/EncoreChanges.
- Effective October 27, 2020, MoviePlex will no longer be available.
- The distributor of CBeebies en español informed Comcast that effective October 31, 2020 the channel would no longer be available in the U.S.
- Xfinity is adding Zona Football HD. This channel will only have programming when broadcasting soccer games. It is anticipated this may happen with the possible return of UEFA Champions League and Europa League 2020-21 seasons this coming October.

Please feel free to contact me at 734-359-2308 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Kyle V. Mazurek", is written over the typed name.

Kyle V. Mazurek
Manager of External Affairs
Comcast, Heartland Region
41112 Concept Drive
Plymouth, MI 48170

To Board 9/21/20



Dear MTA Member Board,

On behalf of the MTA Board of Directors and staff, thank you for renewing your Association membership. While this has certainly been a time of uncertainty and change, the Michigan Townships Association's dedication to serving townships in the year ahead remains constant. As we have faced unprecedented times and challenges in recent months—and continue to do so—we are proud to provide your township with new opportunities, information and resources as you continue to lead your communities.

MTA is your voice at both the state and federal level, ensuring that townships are part of key discussions about the impact of executive orders and CARES Act federal funding, as well as legislation that continues to be introduced and debated impacting townships. When the COVID-19 outbreak began, MTA was in daily contact with the governor's administration, as well as state lawmakers, conveying townships' questions and experiences as we navigated the pandemic. With your help, we demonstrated the need for reimbursement and support at the local level—to allow you to continue to provide the services and programs your residents need.

As our world rapidly changed, so too did **MTA's education and information for our members**. We quickly launched COVID-19 update videos and live Q&A webinars, allowing you to get the updates and answers you need. In addition to sometimes-daily email updates, we created web resources including a massive compilation of Coronavirus information for townships, and further expanded our offerings with recovery/reopening information. And we unveiled MTA Online, an innovative, accessible—and incredibly affordable—opportunity to ensure every member of your township team can continue to get the education that they want, with access to MTA webcasts for a full year. While we hope that face-to-face workshops and conferences can resume in upcoming months, MTA Online allows education on-demand, on the topics critical to your team.

Through it all, **MTA remains your trusted guide** for advice, insights and clarity during sometimes turbulent times. Our Member Information Services team has remained available to answer all of your township questions, and has created a multitude of guidelines, best practices and samples as your township continues its operations in the "new normal." We analyze, decipher and decode the latest information and updates to share how they impact you, your township and your residents.

Thank you for your service to your communities. In recognition of your continued support of MTA and township government, a current tab is enclosed that may be affixed to your MTA membership plaque. We appreciate the opportunity to be of service to you, as you serve others!

Sincerely,

A handwritten signature in black ink that reads "Neil Sheridan". The signature is written in a cursive, slightly slanted style.

Neil Sheridan,
MTA Executive Director

LIVINGSTON
COUNTY
EDITION

THE ANN ARBOR NEWS

** \$1.50
Sunday
October 3, 1998

Linking growth areas, Genoa Township itself growing

■ Population grows 12-fold since 1950.

By STEPHENIE KOEHN
NEWS STAFF REPORTER

Reflections in the windows of the new Genoa Township Hall on Dorr Road mirror the township's past and present, and provide a glimpse into its future.

The Livingston County township's agricultural past can be seen in the mirrored view of Lyle Herbst's faded red barn to the

south. Reflections of tree-lined subdivisions to the west illustrate the rural flavor that characterizes its residential present. And the fleeting images of traffic whizzing along Dorr Road toward Grand River Avenue show the continuing rapid growth that is likely to heavily impact the township's future.

"There's been a lot of change here over the years," said Lyle Herbst, 83, owner of the rambling 150-year-old barn that sits on his farm adjacent to the new township hall. "I've lived here all my life and I used to know everyone in town, but times change.

You can't know everybody anymore — there are too many people."

Herbst said he has watched with regret the gradual demise of the family farm, but he is undaunted by most of the change that growth has wrought in the township. After curtailing his own farming operation, he sold a 45-acre portion of his farm to the township for construction of the new township hall. In fact, he even turned over the first shovelful of dirt at the ground-breaking ceremonies.

"How can you stop progress?" Herbst said.

Genoa Township comprises 36 lake-studded square miles, straddling Grand River Avenue between the cities of Brighton and Howell. A quiet farming community with a population of about 1,000 in 1950, its population doubled in each succeeding decade, carried on a tide of exurbanites looking for more space, recreational opportunities and a less complicated way of life.

Agriculture began to give way to residential and commercial development.

A mid-decade census put Genoa's population at 12,744, an increase of more than 17 percent since 1990 and a 12-fold increase

since 1950. Demographic forecasts by the Southeast Michigan Council of Governments (SEMCOG) predict a population of 21,549 by the year 2020, a 68-percent increase over the 1990 figure of 10,820.

The equalized value of real and personal property in the township has risen from \$132.7 million in 1986 to \$552.4 million in 1998, 11 percent of the total for the entire county.

Genoa's location has had a good deal of impact on its rampant growth.

See GENOA, A11