

PROJECT:

CLIENT:

HAYDEN STORAGE BUILDING 4693 ROCHESTER ROAD TROY, MICHIGAN 48085

HAYDEN UNLIMITED

360 WOODCREST ROCHESTER HILLS, MICHIGAN 48309 **BUILDER:**

CMA DESIGN SERVICES 8183 RHODE, SUITE B SHELBY TOWNSHIP, MICHIGAN, 48317

ENGINEER: GATEWAY ENGINEERING & SURVEYING, INC. JOSEPH VAGLICA, P.E.

8155 ANNSBURY, SUITE 109

SHELBY TOWNSHIP, MICHIGAN 48316

LIST OF DRAWINGS

SHEET TITLE SHEET NUMBER TITLE PAGE C1.1 TOPOGRAPHIC SURVEY C2.1 SITE PLAN FOUNDATION PLAN FLOOR PLAN/ ELECTRICAL REFLECTED CEILING PLAN **ELEVATIONS/ DETAILS** RENDERINGS





Business Adresses: Mailing Adresses 8183 Rhode, Suite B P.O BOX 183392 Shelby Twp., MI 48317 Shelby Twp., MI 48318

Phone: (586) 726-1043 Fax: (586) 726-6609

WWW.CMADESIGNSERVICES.COM



Professional Engineering Construction Staking Construction Services Soil Testing Architectural Design & Rendering Professional Realtors Surveyors 8155 ANNSBURY DRIVE, SUITE # 109 SHELBY TWP., MI 48316

ALL CONTRACTORS SHALL VERIFY AND COORDINATE ALL DIMENSIONS ON THESE DRAWINGS, AS WELL AS REVIEW AND OORDINATE PLANS WITH EXTERIOR BUILDING ELEVATIONS, SECTION AND DETAILS BEFORE COMMENCING WITH THE WORK. A DIMENSIONAL ERROR OR CONFLICT OCCURS BETWEEN THESE PLANS, BUILDING ELEVATIONS, SECTIONS, AND DETAILS, IT SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE DESIGNER, BEFORE PROCEEDING WITH THE WORK. CONTRACTORS WHO FAIL TO DO SO SHALL TAKE FULL RESPONSIBILITY OF ANY ERRORS.

OFFICE #(586) 786-5533 FAX #(586) 786-5575

© COPYRIGHT CMA Design Services



TITLE PAGE

Description

Date

CITY FILE NO. #18-011

1803 Project number 2018.05.08 Drawn by Author Checker Checked by Scale

BUILDING CODE: MECHANICAL CODE:

APPLICABLE CODES

NOTE:

BUILDING INFORMATION

2015 MICHIGAN BUILDING CODE 2015 MICHIGAN MECHANICAL CODE PLUMBING CODE: 2015 MICHIGAN PLUMBING CODE

ELECTRICAL CODE: 2014 NATIONAL ELECTRICAL CODE (2014 NEC) W/PART 8 STATE AMENDMENTS

USE GROUP: S-2 PER SECTION 302 OF THE 2015 MICHIGAN BUILDING CODE.

CONSTRUCTION TYPE: IIB PER SECTION 602

BUILDING AREA: 3,500 SF FIRE SUPPRESSION: NO **RISK CATEGORY:**

OCCUPANCY: PER TABLE 1004.2 MICHIGAN BUILDING CODE 2015 (MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT)

WAREHOUSE: 7 OCCUPANTS 7 OCCUPANTS TOTAL:

2,000 PSF ASSUMED FOUNDATION SOIL BEARING:

ROOF LIVE LOAD: 20 PSF ROOF DEAD LOAD: 20 PSF GROUND SNOW LOAD: 25 PSF FROST DEPTH: 42 IN. WIND LOAD: 115 MPH SEISMIC LOAD: Ss= 0.112 S1=0.043

ACCESSIBLE ROUTE: PER SECTION 1009.2 AND 1104.1 EXCEPTION " OTHER THAN IN BUILDINGS OR FACILITIES CONTAINING OR SERVING T

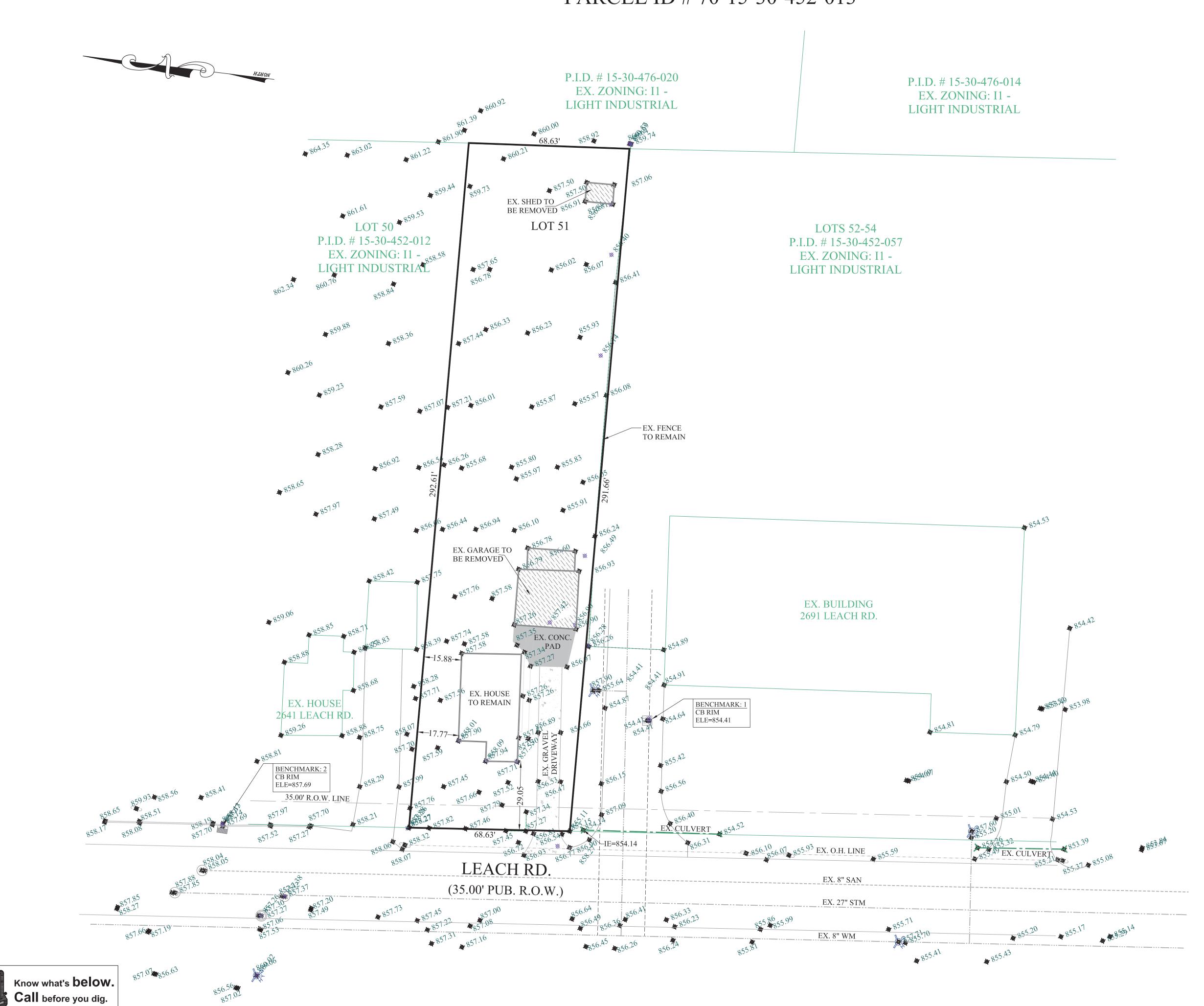
TYPE B UNITS, AN ACCESSIBLE ROUTE SHALL NOT BE REQUIRED BETWEEN SITE ARRIVAL POINTS AND THE BUILDING OR FACILITY ENTRANCE IF THE ONLY MEANS OF ACCESS BETWEEN THEM IS A VEHICULAR WAY NOT

PROVIDING FOR PEDESTRIAN ACCESS."

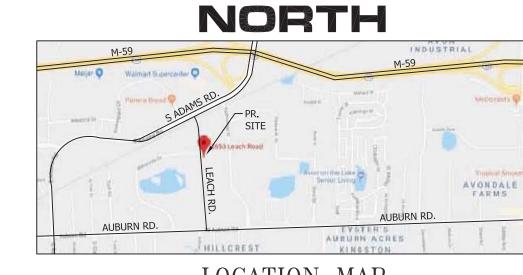
NEW STORAGE BUILDING IS NOT FOR PUBLIC ACCESS. ANY REVISIONS IN USE WILL NEED TO GO THROUGH CITY

APPROVAL TO DETERMINE SITE AND BULDING COMPLIANCE

TOPOGRAPHIC SURVEY 2653 LEACH RD. PARCEL ID # 70-15-30-452-013







LOCATION MAP

LEGAL DESCRIPTION:

A PARCEL OF LAND LOCATED IN THE S.E. 1/4 OF SECTION 30, T.3N., R.11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

T3N, R11E, SEC 30 AUBURN HIGHLANDS LOT 51 EXC W 10 FT 9-6-94 CORR.

CONTAINING: 0.45 ACRES, MORE OR LESS.

SUBJECT TO THE RIGHTS OF A PUBLIC AND ANY EASEMENTS AND/OR RESTRICTIONS OF RECORD OR OTHERWISE.

ZONING - I1 LOT SIZE - 0.45 ACRES (19,963 SF)

INFRONT OF 2641 LEACH RD.

BENCHMARK:

BENCHMARK # 1

RIM OF CATCH BASIN IN DRIVEWAY AT 2691 LEACH RD. ELEVATION = 854.41 * RIM ELEVATION WAS OBTAINED FROM THE CITY OF

ROCHESTER HILLS. BENCHMARK # 2

ELEVATION = 857.69

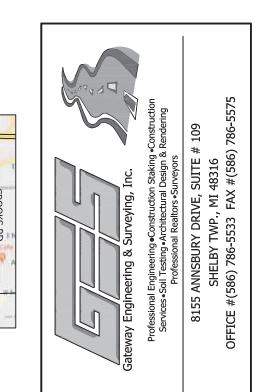
SOIL LEGEND:

(10B) - MARLETTE SANDY LOAM, 1 TO 6% SLOPES.

RIM OF CATCH BASIN ON EAST SIDE OF LEACH ROAD

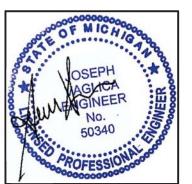
SUBJECT PROPERTY AS DEPICTED HEREIN, DOES NOT LIE IN A SPECIAL FLOOD HAZARD AREA (SFHA), ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) NO. 26125C0389F, EFFECTIVE ON 09/292006.

SUBJECT PROPERTY IS NOT WITHIN THE REGULATED WETLAND AREA.



PROJECT INFORMATION: PARCELIDE#0753-89-265-209913 2653.BEAVIP.RIVI ROCHESTER HILLS, MI 48309

CLIENT INFORMATION: MIMATAES ISENMAN **PP0632NFEY#A15/878(37/2/15)**,1043 STERLING HEIGHTS, MI 48310 PHONE # 586-274-1111



☐ SCHEMATIC
☐ BIDDING
■ MUNI SUBMITTAL ☐ CONSTRUCTION ☐ OTHER

DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS INDICATED

I. MUNI SUBMITTAL 05/01/18 . REVISION

REVIEWED BY: M.G. DESIGNED BY:

DRAWN BY: SCALE: 1" = 20.00' DRAWING: TOPOGRAPHIC SURVEY

PROJECT NO. 16-0903

SITE PLAN 2653 LEACH RD.

P.I.D. # 15-30-476-020

EX. ZONING: I1 -

LIGHT INDUSTRIAL

MATCH EX.

- PR. 145 LF. 30" DIA

-EX. FENCE

PR. 4' DIA C.B. #1

– 30" PEFRORATED PIPE I.E. = 852.50

BENCHMARK:

ELE=854.41

6" DRAIN PIPE I.E. = 854.85

RIM = 855.50

TO REMAIN

PVC PIPE A-2000 PERFORATED PIPE.

FOR STORM WATER STORAGE.

857.00

858.00

FG 857.85

PROPOSED

STORAGE

PR. (2) PARKING

SPACE INSIDE

- STORAGE

EX. HOUSE

TO REMAIN

(35.00' PUB. R.O.W.)

LOT 51

16.62-

LOT 50 **

EX. ZONING: I1 - _{\$58.5}8

PR. FENCE ON

PROP. LINE —

P.I.D. # 15-30-452-012



LOTS 52-54

P.I.D. # 15-30-452-(

EX. ZONING: I1

LIGHT INDUSTRI

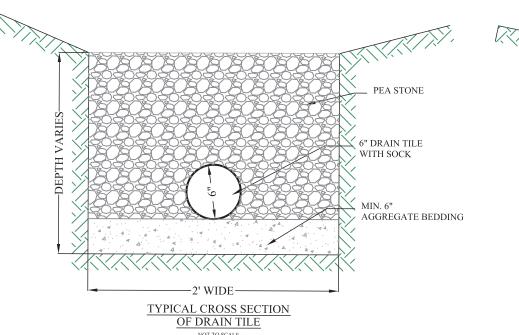
EX. BUILDING

2691 LEACH RD.

EX. 8" SAN

EX. 27" STM

EX. 8" WM



AC

=

=

=

= |

2.70 5.40 2.20 4.40 2.00 4.00

0.020

Oakland County Volume of Detention Basin Calculation

Vs10 = (10500 X T10 /(T10 + 25))-(60 X Qo X T10)

PR. 145 LF. 30" PVC A-2000 PIPE A-2000 PEFORATED PIPE.

h = (TOP OF STORAGE ELEV. - INV. OF OUTLET PIPE)

THIS SPECIFICATION INCLUDES MATERIALS, TEST METHODS AND INSTALLATION REQUIREMENTS FOR 4 TO 36-INCH DIAMETER POLYVINYL CHLORIDE (PVC) CORRUGATED PIPE WITH A SMOOTH INTERIOR. THE REQUIREMENTS OF THIS SPECIFICATION ARE INTENDED TO PROVIDE PIPE AND FITTINGS SUITABLE FOR UNDERGROUND USE IN NON-PRESSURE APPLICATIONS SUCH AS SANITARY SEWERS, STORM SEWERS, DRAINAGE AND UNDERDRAINS.

IPVC CORRUGATED PIPE WITH A SMOOTH INTERIOR SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION F949.

PIPE AND FITTINGS SHALL BE HOMOGENEOUS THROUGHOUT AND FREE FROM VISIBLE CRACKS, HOLES, FOREIGN INCLUSIONS OR OTHER INJURIOUS DEFECTS. PIPE SHALL BE MANUFACTURED TO 46 PSI STIFFNESS WHEN TESTED IN ACCORDANCE WITH ASTM TEST METHOD D2412. THERE SHALL BE NO EVIDENCE OF SPLITTING, CRACKING OR BREAKING WHEN THE PIPE IS TESTED PER ASTM TEST METHOD D2412 IN ACCORDANCE WITH ASTM F949 SECTION 7.5 AND ASTM F794 SECTION 8.5. THE PIPE SHALL BE MADE OF PVC COMPOUND HAVING A MINIMUM CELL CLASSIFICATION OF 12454 AS DEFINED IN ASTM SPECIFICATION D1784.

ALL FITTINGS.
ALL FITTINGS FOR PVC CORRUGATED SEWER PIPE WITH A SMOOTH INTERIOR SHALL CONFORM TO ASTM F949, SECTION 5.2.3 OR F794, SECTION 7.2.4. TO INSURE COMPATIBILITY, THE PIPE MANUFACTURER SHALL PROVIDE ALL FITTINGS.

ASTM TEST METHOD D3212. ELASTOMERIC SEALS (GASKETS) SHALL MEET THE REQUIREMENTS OF ASTM DESIGNATION

<u>PERFORATIONS:</u> FOR SLOTTED, STANDARD PERFORATED PIPE, THE PERFORATION DIMENSIONS SHALL BE IN ACCORDANCE WITH ASTM F949

A-2000 PERFORATED PIPE SOALE N/A

FOR (F949) PVC PIPE

TABLE 5 AND SECTION 7.9. INSTEAD OF SLOTS, ROUND HOLES (MIN. 1/4*ø) MAY BE USED FOR 15"-18" DIAMETER PIPE AND (MIN. 3/8"ø) FOR 21"-36" DIAMETER PIPE.

TOTAL VOLUME PROVIDED = 4.90 X 145 = 7105 CU. FT.

0.101410698

0.95

T10 = -25 + SQRT(4375 / Qo)

ONSITE UNDERGOUND STORAGE:

C/S AREA OF 30" PIPE = 4.90 SF

AREA OF SITE (A)=| 0.1014107 | AC.

Qallowable = 0.2 X(A) Cft/Sec.

Qallowable = 0.0202821 Cft/Sec.

h = 855.50-854.85

A orifice = 0.003 Sq. Ft.

6 6.4 5.9 1.375 0.031 0.516 134

Dia of orifice = 0.78 Inch

h = 0.65 FT

C = 0.95

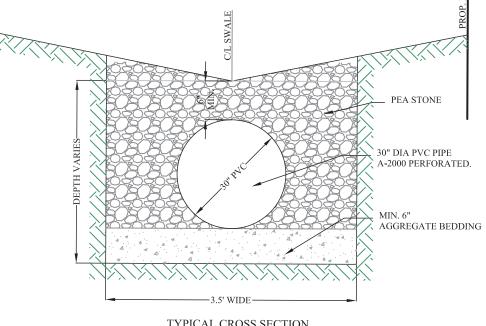
Qa =0.2* 0.101410698

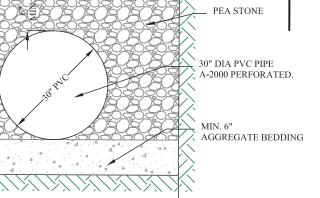
Qo = Qa / (A X C)

Vt10 = Vs10 XA XC

Outlet Orifice calculation.

Qa = C X A orifice x sqrt(2gh)





UNDERGROUND STORAGE PIPE

BENCHMARK # 1 RIM OF CATCH BASIN IN DRIVEWAY AT 2691 LEACH RD. ELEVATION = 854.41

* RIM ELEVATION WAS OBTAINED FROM THE CITY OF ROCHESTER HILLS.

BENCHMARK # 2 RIM OF CATCH BASIN ON EAST SIDE OF LEACH ROAD

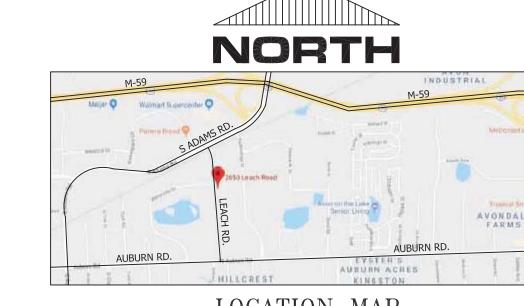
INFRONT OF 2641 LEACH RD. | ELEVATION = 857.69

0.211					
0.211	TRE	EE AND	SHR	UB PLANTING SCI	HEDULE
119.157	KEY	SYMBOL	QUANT.	TYPE	MIN. CAL./ SIZE
7173.928	173 928 DECIDUOUS TREES		DECIDUOUS TREES		
	D1		2	MAIDENHAIR TREE GINKGO BILOBA (MALE ONLY)	3" CALIPER BB
691.137	D2		2	ACER PLATANOIDES NORWAY MAPLE	3" CALIPER BB
	D3		2	PYRUS CALLERYANA BRADFORD PEAR	3" CALIPER BB
	TOTAL DECIDUOUS TREES PROVIDED: 6				
PE.	-	.17		EVERGREEN TREES	ī
7	E1		3	GREEN SPRUCE	6' HT. BB
TOTAL EVERGREEN TREES PROVIDED: 3			ED: 3		
	SHRUBS AND FLOWERS				
			SHRUBS AND FLOWERS		
	S1	8	9	HICKS YEWS	1"-1.5"-ø _{BB}
	S2	0	3	COMPACT BURNING BUSH	30" HT. BB

VARIOUS FLOWERING PLANTS OR GRASSES

TOTAL SHRUBS PROVIDED: 12 TOTAL <u>TREES</u> PROVIDED: 9 TOTAL <u>SHRUBS</u> PROVIDED: 12

TOTAL PLANTING PROVIDED: 21



LOCATION MAP

LEGAL DESCRIPTION:

A PARCEL OF LAND LOCATED IN THE S.E. 1/4 OF SECTION 30, T.3N., R.11E ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: T3N, R11E, SEC 30 AUBURN HIGHLANDS LOT 51 EXC W 10 FT 9-6-94 CORR. CONTAINING: 0.45 ACRES, MORE OR LESS.

SUBJECT TO THE RIGHTS OF A PUBLIC AND ANY EASEMENTS AND/OR RESTRICTIONS OF RECORD OR OTHERWISE.

PROJECT DATA:

EXISTING ZONING: I1: LIGHT INDUSTRIAL

GROSS AREA OF SITE FOR GAS STATION: ± 19,962.95 SF. (± 0.458 ACRES) EX. BUILDING FOOT AREA: $\pm 1,062.77$ SF. EX. GARAGE & SHED AREA (TO BE DEMOLISHED): ±908.37 SF.

PROPOSED STORAGE AREA: 3,500.00 SF INCREASE IN IMPERVIOUS AREA

(STORAGE + NEW PAVT. AREA) = 5325.82 - 908.37 = 4417.45 SF.

TOTAL AREA OF PAVT. (GRAVEL DRIVE & CONC. DRIVE) =± 2,819.44 SF. SITE COVERAGE (BUILDING, PARKING & WALK) =± 7,382.21 SF. = 36.97%

MUNICIPAL - EXISTING

SPRINKLER SYSTEM INSTALLED.

MUNICIPAL - EXISTING SANITARY: ON SITE SWALE STORM: DETENTION: ON SITE UNDERGROUND STORAGE WITH RESTRICTED OUTLET AREAS LABELED "SOD" SHALL HAVE LAWN:

SIGN IS NOT PART OF THIS APPROVAL. SEPERATE PERMIT SHALL BE OBTAINED.

REQUIRED PARKING:

REFERENCE (138-11.100-308) CITY OF ROCHESTER HILLS ZONING ORDINANCE

REQUIRED PARKING SPACES:

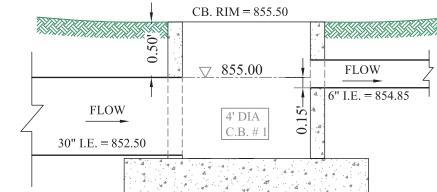
WATER SUPPLY:

WAREHOUSE & OFFICE: 1 SPACE PER 1700 SQ. FT. +1 SPACE PER 350 SF. OF OFFICE AREA

PARKING REQUIRED:

|OFFICE = 1062.77 S.F. / 350 = 3 SPACESWAREHOUSE = 3500 SF. / 1700 = 2 SPACESTOTAL SPACES REQUIRED = 5 SPACES

PARKING PROVIDED: = 2 SPACES INSIDE STORAGE.



RESTRICTED FLOW DETAIL NOTE TO SCALE

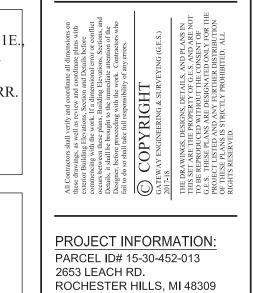
SECTION 138-12.109 MAINTENANCE NOTES

- THE OWNER OF THE PROPERTY SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF SITE LANDSCAPING, AS FOLLOWS:
- A. LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE. 3. PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD OR DISEASED BRANCHES.SUBSEOUENT
- AND PLANT MATERIAL INSTALLED TO REPLACE DEAD OR DISEASED MATERIAL SHALL BE AS CLOSE AS PRACTICAL TO THE SIZE OF THE MATERIAL IT IS INTENDED TO REPLACE. THE CITY MAY NOTIFY PROPERTY OWNERS OF THE NEED TO REPLACE DEAD.
- REMOVAL OF PLANT MATERIALS, OR NON-COMPLIANCE WITH THE MAINTENANCE REQUIREMENTS OF THIS SECTION 138-12.109 WILL PLACE THE PARCEL IN NON-CONFORMITY WITH THE APPROVED LANDSCAPE PLAN AND BE A VIOLATION OF THIS
- IF PROTECTED TREES ARE DAMAGED, A FINE SHALL BE ISSUED ON AN INCH-BY-INCH BASIS AT A MONETARY RATE AS DEFINED BY

FIRE DEPT. NOTES:

- A KNOX KEY SYSTEM SHALL BE INSTALLED, IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE FROM THE KNOX COMPANY AT KNOXBOX.COM
- FIRE LANES SHALL BE DESIGNATED BY THE FIRE CODE OFFICIAL, AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS, SPACED NOT MORE THAN 100 FEET APART. FIRE LANE SIGNS SHALL READ: NO STOPPING,
- STANDING, PARKING, FIRE LANE:, AND SHALL CONFIRM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC 2006 CHAPTER 14.
- OPEN BURNING IS NOT PERMITTED INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAL SHALL BE WITHIN THE CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES.

CITY OF ROCHESTER HILLS # 18-011 SECTION 30.



CLIENT INFORMATION: CMA DESIGN PHONE # 586-726-1043



ISSUANCE: ☐ SCHEMATIC ☐ BIDDING MUNI SUBMITTAL ☐ CONSTRUCTION

☐ OTHER DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS INDICATED

NO. DESC.

MUNI SUBMITTAL 05/01/18 REVISION

REVIEWED BY:	J.V.

M.G. DRAWN BY: SCALE: 1" = 20.00' DRAWING: SITE PLAN

DESIGNED BY:

PROJECT NO. 18-0413



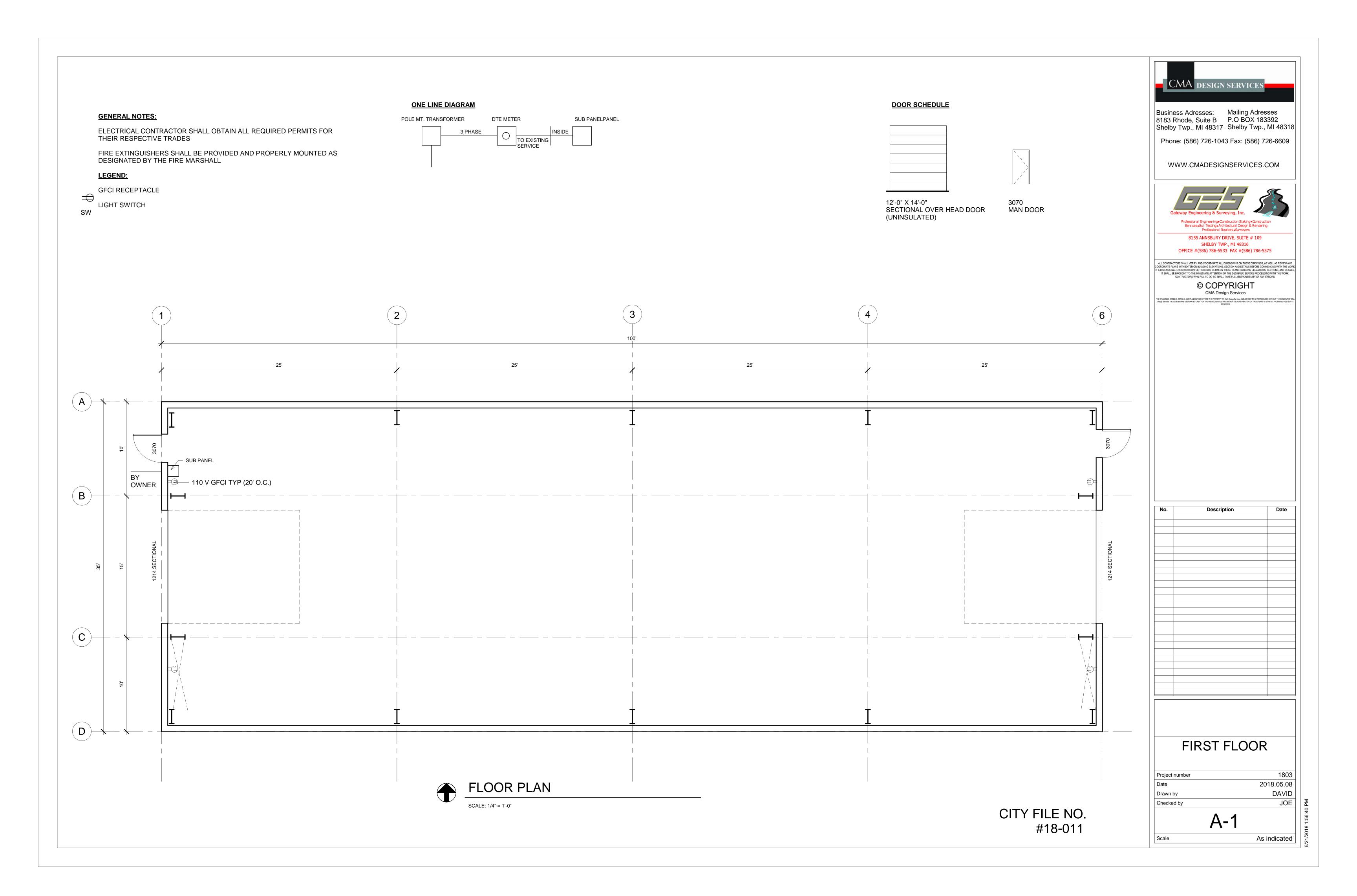
EX. HOUSE

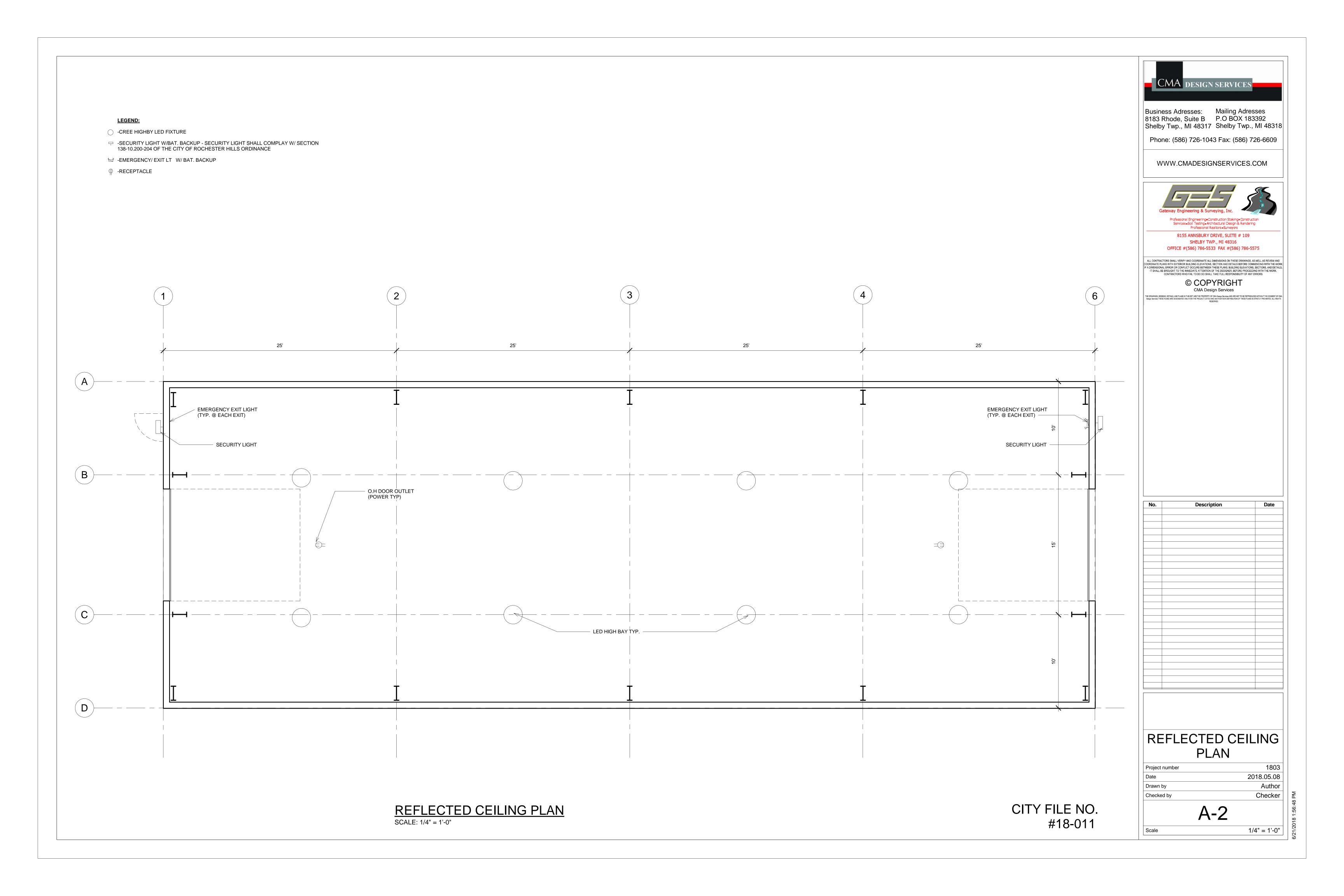
2641 LEACH RD

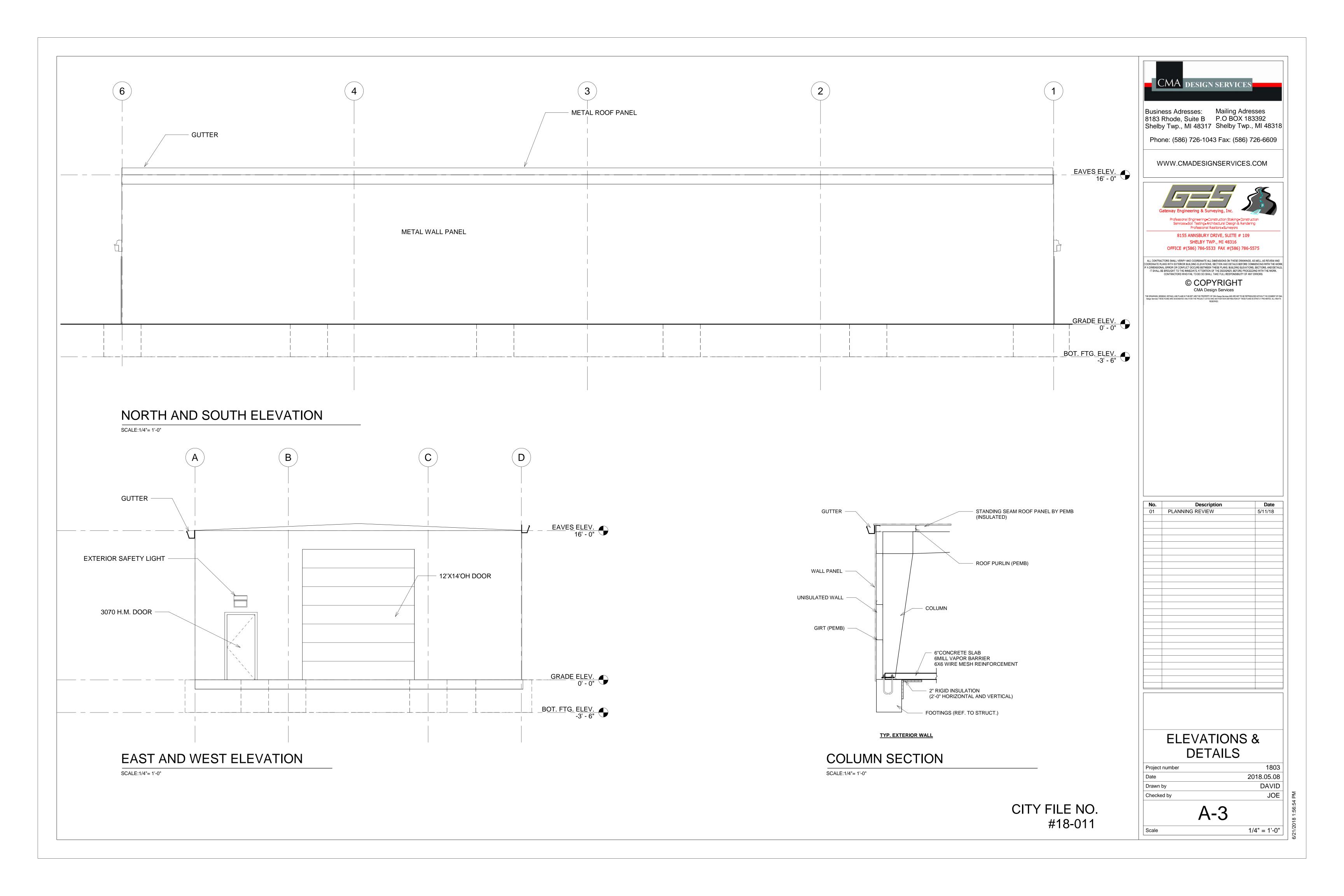
BENCHMARK:

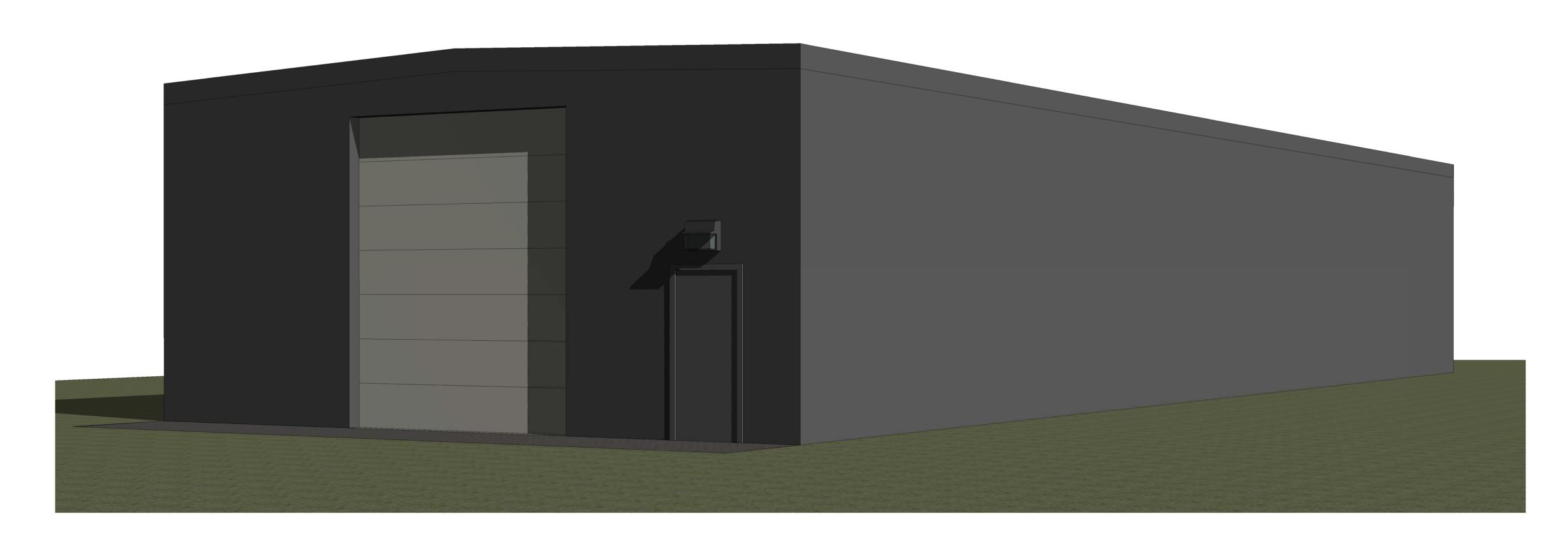
CB RIM

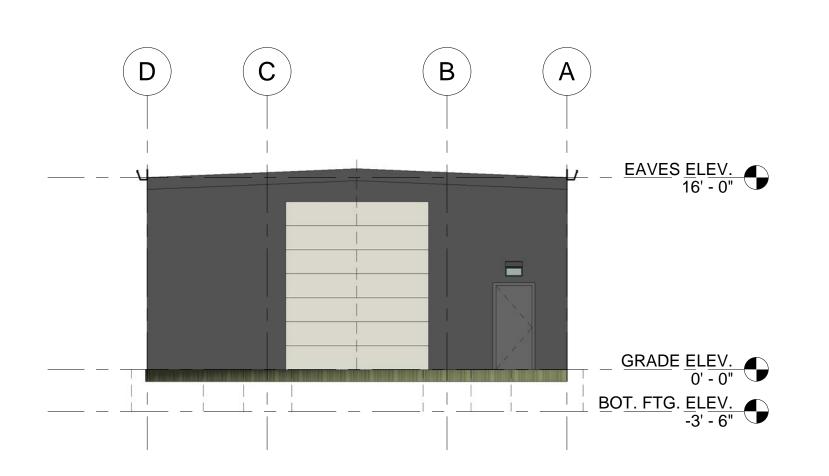
ELE=857.69

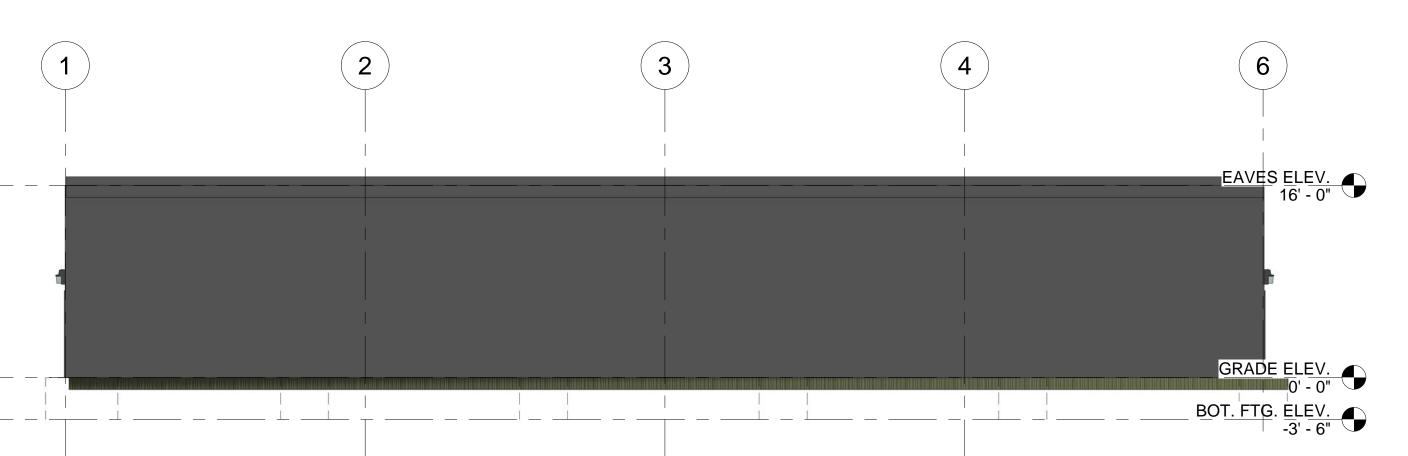












RENDERING

CITY FILE NO. #18-011



Business Adresses: Mailing Adresses 8183 Rhode, Suite B P.O BOX 183392 Shelby Twp., MI 48317 Shelby Twp., MI 48318

Phone: (586) 726-1043 Fax: (586) 726-6609

WWW.CMADESIGNSERVICES.COM



Professional Engineering • Construction Staking • Construction Services • Soil Testing • Architectural Design & Rendering Professional Realtors • Surveyors

8155 ANNSBURY DRIVE, SUITE # 109
SHELBY TWP., MI 48316

OFFICE #(586) 786-5533 FAX #(586) 786-5575

ALL CONTRACTORS SHALL VERIFY AND COORDINATE ALL DIMENSIONS ON THESE DRAWINGS, AS WELL AS REVIEW AND COORDINATE PLANS WITH EXTERIOR BUILDING ELEVATIONS, SECTION AND DETAILS BEFORE COMMENCING WITH THE WORK. IF A DIMENSIONAL ERROR OR CONFLICT OCCURS BETWEEN THESE PLANS, BUILDING ELEVATIONS, SECTIONS, AND DETAILS, IT SHALL BE BROUGHT TO THE IMPROBIATE ATTENTION OF THE DESIGNER, BEFORE PROCECEING WITH THE WORK. CONTRACTORS WHO FAIL TO DO SO SHALL TAKE FULL RESPONSIBILITY OF ANY ERRORS.

© COPYRIGHT
CMA Design Services

THE DRAWINGS, DESIGNS, DETALS, AND PLANS IN THIS SET ARE THE PROPERTY OF CIM Design Services AND ARE NOT TO BE REPRODUCED WITHOUT THE CONSEN-Design Services THESE PLANS ARE DESIGNATED ONLY FOR THE PROJECT LISTED AND ANY FURTHER DISTRIBUTION OF THESE PLANS IS STRICTLY PROHBITED. ALL RESERVED.

No.	Description	Date

RENDERING

Project number 1803

Date 2018.05.08

Drawn by Author

Checked by Checker

A-4

Scale

1/8" = 1'-0"

FOOTING SCHEDULE (42" DEEP)

MARK	TYPE	SIZE	REINFORCING	TOP	BOTT. ELEV
			111.1000.1111111111111	ELEV.	
F-1	TRENCH	12"X42"	(2) NO. 5 BAR TOP AND BOTTOM CONT.	99'-4"	95'-10"
F-2	COLUMN	36"X36"X42"	NO. 5 BAR 3" O.C. IN EACH DIRECTION	99'-4"	95'-10"
			TOP AND BOTTOM		
F-3	COLUMN	48"X48"X42"	NO. 5 BAR 3" O.C. IN EACH DIRECTION	99'-4"	95'-10"
			TOP AND BOTTOM		100000000

SLAB SCHEDULE

MARK	TYPE	THICKNESS	REINFORCING	FINISH	TOP ELEV.	BOTTOM ELEV.
S-1	GRADE	6"	6X6 NO. 10WIRE MESH	TROWEL	100'-0"	99'-4"

STEEL NOTES

SEE PEMB DRAWINGS

EARTHWORK

CONTRACTOR SHALL PERFORM THE FOUNDATION SUBSURFACE PREPARATION AS DESCRIBED ON THE PLANS. ALL EXCAVATION QUANTITIES SUCH AS FILL DEPTHS NOTED ON THE PLANS AND IN THE SPECIFICATIONS ARE ESTIMATED QUANTITIES ONLY. NET ALLOWABLE BERING STRENGTH OF 2000 PSF SHALL BE VERIFIED BY A CERTIFIED SOIL TECHNICIAN.

ALL FILL REQUIRED SHALL BE COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM DENSITY AS DETEREMINED BY ASTM D 1557, OR FOR UNIFORM SANDS FOR SHICH A PROCTOR CURVVE CAN NOT BE ESTABLISHED. A RELATIVE DENSITY OF 70% SHALL BE ATTAINED, FIELD TESTING SHALL BE PERFOMED IN ACCORDANCE WITH THE FREQUENCY REQUIREMTNS CONTAINTED IN THE SPECIFICATIONS.

ENGINEER SHALL BE NOTIFIED IMEDIATELY IF ADVERSE SOIL CONDTIONS ARE ENCOUNTERED.

SLABS

STRUCTURAL SLABS SHALL BE PLACED IN ACCORDANCE WITH THESE PLANS. PROVIDE W1.4 X W1.4 66 WWF REINFORCEMENT UNLESS INDICATED OTHERWISE ON THE DRAWINGS. PLACE FABRIC A MINIMUM OF 1-1/2" AND A MAXIMUM OF 2" BELOW THE TOP OF THE SLAB, OVERLAP LENGTH FOR SPLICES SHALL BE NO LESS THAN 6" MESASURED BETWEEN THE OUTERMOST CROSS WIRES OF EACH FABRIC SHEET.

CONCRETE AND STEEL

CONCRETE SHALL HAVE A MINMUM 28 DAY COMPRESSIVE STRENGTH AS GIVEN IN THE SPECIFICATIONS.

REINFORCING BARS: ASTM A615 GRADE 60, DEFORMED

WELDED WIRE FABRIC: ASTM A185

INSTALL AND COVER ALL CONCRETE REINFORCEMENT AS PER CURRENT "ACJ" CODES.

HOT ROLLED SHAPES TO BE ASTM A36: TUBE SECTIONS TO BE ASTM A500 GRAD B



Business Adresses: Mailing Adresses 8183 Rhode, Suite B P.O BOX 183392 Shelby Twp., MI 48317 Shelby Twp., MI 48318

Phone: (586) 726-1043 Fax: (586) 726-6609

WWW.CMADESIGNSERVICES.COM



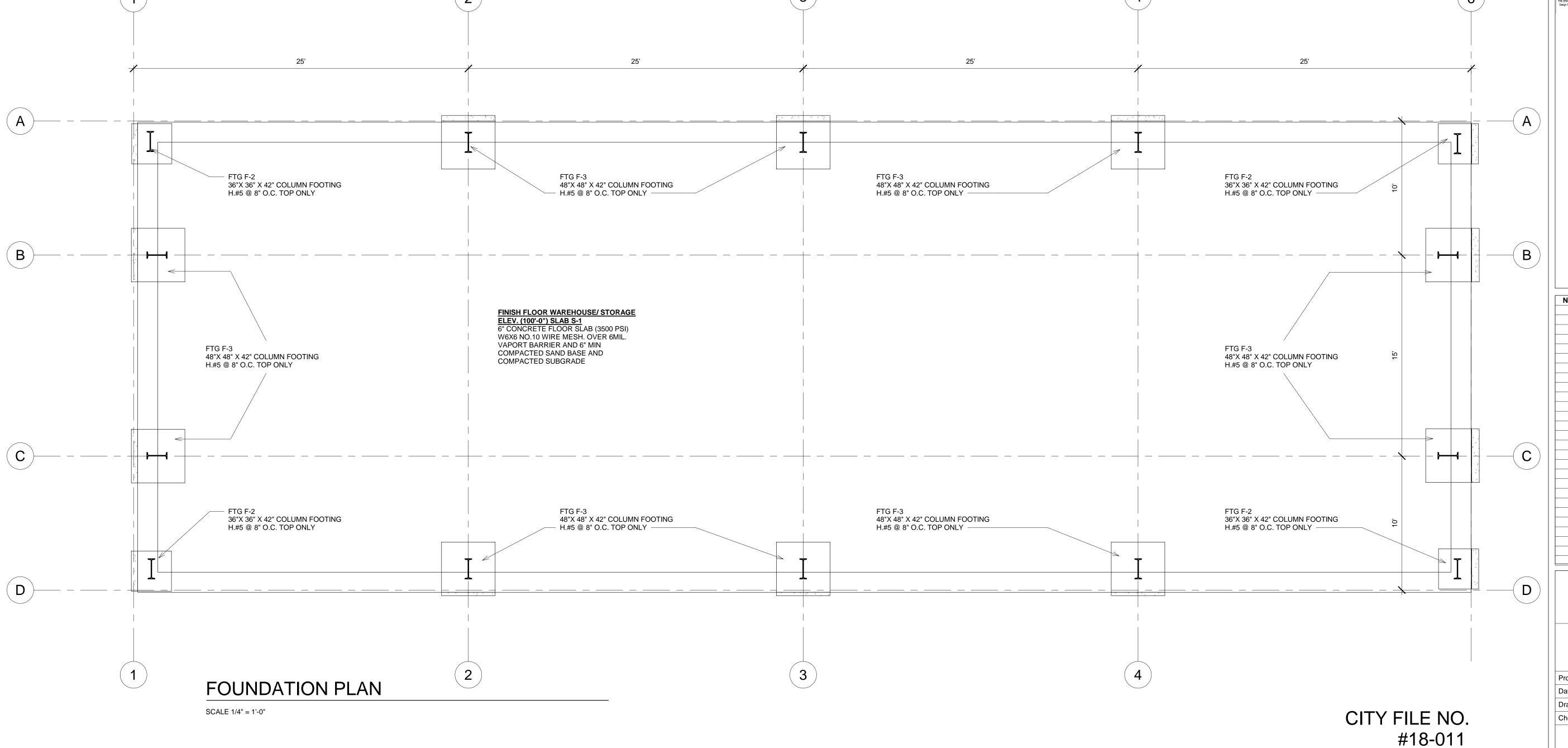
Services Soil Testing Architectural Design & Rendering
Professional Realtors Surveyors

8155 ANNSBURY DRIVE, SUITE # 109
SHELBY TWP., MI 48316
OFFICE #(586) 786-5533 FAX #(586) 786-5575

ALL CONTRACTORS SHALL VERIFY AND COORDINATE ALL DIMENSIONS ON THESE DRAWINGS, AS WELL AS REVIEW AND COORDINATE PLANS WITH EXTERIOR BUILDING ELEVATIONS, SECTION AND DETAILS BEFORE COMMENCING WITH THE WORK. IF A DIMENSIONAL ERROR OR CONFLICT OCCURS BETWEEN THESE PLANS, BUILDING ELEVATIONS, SECTIONS, AND DETAILS, IT SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE DESIGNER, BEFORE PROCEEDING WITH THE WORK. CONTRACTORS WHO FAIL TO DO SO SHALL TAKE FULL RESPONSIBILITY.

© COPYRIGHT
CMA Design Services

THE DRAWINGS, DESIGNS, DETAILS, AND PLAYS IN THIS SET ARE THE PROPERTY OF CMIA Design Services AND ARE NOT TO BE REPRODUCED WITHOUT THE CON-Design Services THESE PLANS ARE DESIGNATED ONLY FOR THE PROJECT LISTED AND ANY FURTHER DISTRIBUTION OF THESE PLANS IS STRICTLY PROHIBITED RESERVED.



Description

FOUNDATION PLAN

Project number 1803

Date 2018.05.08

Drawn by Author

Checked by Checker

S-1
Scale 1/4" = 1'-0"

Date