ORDINANCE NO. 1803
AN ORDINANCE OF THE TOWN OF MUNSTER TOWN COUNCIL
REZONING CERTAIN PROPERTY AS THE MAPLE LEAF CROSSING PUD AND
ADOPTING DEVELOPMENTAL STANDARDS FOR THE
MUNSTER BUSINESS COMPLEX
PLANNED UNIT DEVELOPMENT

WHEREAS, the Munster Redevelopment Commission previously applied for rezoning of the Munster Business Complex, which was adopted as Ordinance 1701 on October 17, 2016.

WHEREAS, the Town of Munster adopted Zoning Ordinance No. 1788 on December 23, 2019, which substantially revised the previous zoning code and maps for the Town of Munster.

WHEREAS, the Munster Town Council, Munster Plan Commission and Munster Redevelopment Commission have all engaged in significant discussion and planning with Maple Leaf Crossing, LLC, since Ordinance 1701 was passed in October, 2016.

WHEREAS, the Munster Plan Commission has held multiple public meetings, and approved the preliminary plat on May 12, 2020 for the development to be known as Maple Leaf Crossing on the Munster Business Complex site.

WHEREAS, the Munster Town Council desires to amend the Munster Business Complex Planned Unit Development, rename it to the Maple Leaf Crossing Planned Unit Development, and rezone and adopt development standards for Maple Leaf Crossing Planned Unit Development as set forth herein and in certain Development Standards approved concurrently herewith.

NOW, THEREFORE, BE IT ORDAINED by the Town Council as follows:

1. The Munster Business Complex Planned Unit Development shall be rezoned pursuant to the Approved Development Plan and Development Standards approved by the Town of Munster Plan Commission and Munster Town Council.
2. The Munster Business Complex Planned Unit Development shall now be known as the Maple Leaf Crossing Planned Unit Development.
3. The Maple Leaf Crossing PUD shall be developed according to the Approved Development Plan approved by the Munster Plan Commission on July 14, 2020, as amended, a true and correct copy of which is attached hereto as Exhibit A and incorporated herein.
4. The Development Standards for the Maple Leaf Crossing Planned Unit Development attached as Exhibit B are hereby adopted and ordained.

ORDAINED and ADOPTED by the Town Council of the Town of Munster, Indiana on the 20th Day of July, 2020 by a vote of 5 in favor and 0 opposed.

TOWN COUNCIL OF THE TOWN OF
MUNSTER, LAKE COUNTY, INDIANA

Lee Ann Mellon

Lee Ann Mellon, President

ATTEST:

Wendy Mis

Wendy Mis, Clerk -Treasurer

DEVELOPMENTAL STANDARDS FOR THE

MAPLE LEAF CROSSING DEVELOPMENT AT THE

MUNSTER BUSINESS COMPLEX

PLANNED UNIT DEVELOPMENT

This document sets forth the developmental standards for the Planned Unit Development known as Maple Leaf Crossing, with street addresses 9352-9482 Calumet Avenue.

I. Planned Unit Development

Maple Leaf Crossing is hereby designated as a Planned Unit Development Special District ("SD-PUD") under Ordinance No. 1788.

A. Permitted uses shall include:

1. Hotel
2. Professional Office
3. Medical or Dental Office or Clinic
4. Alcoholic Beverage Retail Sales
5. Alcoholic Beverage- Serving Establishment
6. Bar or Tavern
7. Brewpub
8. Craftsman Establishment
9. Dry Cleaning without drive-through
10. Entertainment Facility
11. Financial Services without Drive-through
12. Hair, skin, nail care or day spa
13. Open air market, including container shops
14. Open Front or Open Lot Retail, including container shops
15. Pharmacy
16. Restaurant, and Restaurant with outdoor dining
17. Tailor or Seamstress Shop
18. Tasting Room
19. Theater or Performing Arts Venue
20. Ticket Office
21. Veterinary Office Clinic or Hospital

22. Warehouse/ retail
23. Civic space
24. Brewery
25. Distillery
26. Microbrewery/MicroDistillery/ Microwinery/ Nanobrewery
27. Winery
28. Food/ Refreshment Stand
29. Garden
30. Gift Shop
31. Massage Services by Indiana licensed masseuse, accessory to Spa or Salon
32. Parking Area
33. Patio
34. Such other uses as approved by the Plan Commission or Town Council

B. Temporary buildings for construction purposes for a period not to exceed the duration of the construction.

2. Use Conditions and Restrictions

A. Hours. Maple Leaf Crossing hours of operation shall be seven days per week as allowed for any like businesses in Commercial Districts in the Town of Munster.

3. Yards

Yards, roadways, walkways, parking and greenspace shall be as set forth in the Approved Development Plan attached hereto as Exhibit A and incorporated herein.

4. Height Regulations

No building shall exceed four stories in height and a maximum of 60 feet.

5. Screening of Mechanicals

All mechanical equipment will be screened as to not be visible by those at street level on all sides of the building.

6. Off-Street Parking Facilities

Off-street parking shall include approximately 358 parking spaces as set forth in the Approved Development Plan.

7. Lot Coverage

Green space shall exceed 7.5% of the total area as set forth in the Approved Development Plan.

8. Pedestrian and Bicycle Access

Sidewalks and bicycle paths shall be located within and upon Maple Leaf Crossing as set forth in the Approved Development Plan.

II. Formula Business Regulations

Any Formula Business that desires to located within the Planned Unit Development must obtain a Special Use permit from the Board of Zoning Appeals. A "Formula Business" is defined as a restaurant or retail establishment which is required by contractual or other arrangements to operate with standardized menus, ingredients, architecture, décor, uniforms, appearance or signage.

The following findings, at a minimum, must be made prior to the issuance of a Special Use Permit for a Formula Business:

1. The Formula Business will be compatible with existing surrounding uses, and has been designed and will be operative in a non-obtrusive manner to preserve the community's distinctive character and ambiance;
2. The Formula Business will not result in an over-concentration of formula establishments in its immediate vicinity or the Town as a whole;
3. The Formula Business will promote diversity and variety to assure a balanced mix of commercial use available to serve both resident and visitor populations;
4. The Formula Business will contribute to an appropriate balance of local, regional or national-based businesses in the community;
5. The Formula Business will be mutually beneficial to and will enhance the economic health of surrounding uses in the district; and,
6. The Formula Business will contribute to an appropriate balance of small, medium and large-sized businesses in the community.

III. Building and Material Requirements

1. Building Design

All building designs and lot plans shall be submitted to the Plan Commission for building site plan approval in accordance with Section 26-6.804.G of the Town's Code of Ordinances. The overall image should be well coordinated, fully integrating components such as entries, displays and signage. Buildings shall comply with the

Approved Development Plan and the Development Standards for the Maple Leaf Crossing Planned Unit Development.

2. Materials and Details

Building materials shall consist primarily of glass, steel, brick, stone, and shipping containers for accents and small businesses as contemplated by the Development Agreement. Proposed materials and colors shall be submitted on a color material sample as a component of building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances..

3. Permitted Materials

The following is a list of permitted materials, subject to Town approval during the review process:

a. Painted aluminum or steel;
b. Stainless steel;
c. Solid brass, bronze, copper or pewter;
d. Enamel coated steel;
e. Textured or brushed stainless steel;
f. Galvanized, sandblasted or etched metals;
g. Natural stone;
h. Full size brick;
i. Painted or stained wood in limited amounts
j. Porcelain, ceramic or glass

4. Metals

High quality is expected for all metal applications. Metal such as shop-painted aluminum and steel, stainless steel, solid brass, bronze, copper, pewter, or enamel coated steel may be used for hardware, trim and panels when well designed and detailed.

a. Lap joints and seams must be even and straight and concealed when possible. Outside corners are to be mitered or continuous break shaped.
b. Fabrication must be either heavy gauge material or thinner gauge material shop laminated to solid backing. In no case are oil canning (resulting from light reflection from an uneven or buckled surface), scratches, warps, dents, occlusions, visible seams or other imperfections allowed.
c. Sealants on natural metals are required to prevent tarnishing.

d. Textured or brushed stainless steel, galvanized, sandblasted and etched metals are encouraged in creative applications. Unique treatments such as patina, rusted, etched and imprinted metals will be considered for special design objectives.
e. Polished metals should be solid, not plated and limited to accent trim.

5. Natural Stone
   a. Granite, marble, limestone, slate and other natural stone materials may be used in building applications. Stone may be polished, unpolished, sandblasted, flamed, honed, split face or caved. Careful, craftsman-like attention to detail is required at all connections and transitions to other materials.
   b. Edge details must prevent visible unfinished edges. Exposed edges must be quirk mitered, chamfered or polished to match adjacent surface finish.
   c. The transition between stone and adjoining materials must be defined by use of metal reveals.
   d. Stone use as a paving material must be flush when meeting other flooring materials.
   e. Natural stone must be protected against staining and discoloration by means of sealers appropriate to the material.

6. Wood
   a. Painted or stained wood may be used in many design applications, such as window frames, decorative trim or molding, and for solid areas, such as decorative bulkheads. In some cases, it may be used for larger architectural elements, such as columns and entablatures. Wood paneling and plank construction are not acceptable unless presented in a highly imaginative concept and approved by the Town.
      1. Wood used in the construction of the building must be kiln dried, mill quality, or marine grade hardwood and must meet local frame spread requirements.
      2. Painted wood must have a shop quality enamel finish.
      3. Wood without a paint finish must receive a clear, preservative sealant.
      4. Extensive use of natural wood finishes is discouraged.

7. Tile
   a. Tile may be used in diverse applications. Its use is encouraged to introduce light, decorative texture or graphic quality to a storefront.
      1. Porcelain ceramic or glass tiles in glazed or natural finishes may be used as accents and in limited field applications. Patterns used over large areas are expected t have a sophisticated, well executed design concept.

2. Small and intricate mosaic tile patterns may be utilized for detail and accent only.
3. All tiles must be carefully detailed at outside corners with bull nose edges or special corner trims. Lapped or butt joints are not permitted.

8. Glazing
   a. The creative use of glazing and other building front design elements is encouraged and must be carefully detailed.
      1. Large panes
      2. All glass
      3. Stained, leaded
      4. Glass block
      5. In frameless assemblies,
      6. Aluminum, metal or wood building
      7. All aluminum framing
      8. Tinted glass is permitted, however, reflective glass (including mirroring) is not permitted.
9. Lighting
   a. Lighting fixtures shall be high quality commercial grade. The fixtures shall be constructed and installed to be glare free and shall comply with all applicable code requirements.
   b. Recessed or appropriately styled surface mounted halogen incandescent, ceramic metal halide, or solid state (LED) sources are permitted. 2077 to 3000 k is the required color temperature range of these sources, with a minimum Color Rendering Index (CRI) of 80.
   c. Fluorescent fixtures are not permitted.
   d. The lighting plan shall be of the design and layout set forth in the Approved Development Plan.
   e. A detailed lighting plan for each building and lot shall be submitted for Plan Commission approval as a component of a site plan approval application in accordance with the procedure of Section 26-6.804.G of the Town's Code of Ordinances and the standards of the Development Plan and Development Standards.

10. Prohibited Materials
    1. The following is a list of prohibited materials. In rare instances, special consideration may be given for the use of a prohibited material if its application is highly original, creative and essential to the theme

or design concept of the building front. Exceptions may be granted by the Plan Commission solely at its discretion as a component of a building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances.: Plastic laminates, except for high pressure laminates such as Prodema and Trespa or similar.

2. Glossy, or large expanses of acrylic or Plexiglass
3. Pegboard
4. Mirror
5. Mirrored glass (but not tinted glass)
6. Vinyl, fabric or paper
7. Plywood or particle board
8. Sheet or modular vinyl
9. Luminous ceiling, including "egg crate"
10. Shingles, shakes, rustic siding
11. Drywall
12. Stucco, exterior insulation finishing system (EIFS) or similar products

IV. Signage Design Criteria

Signage shall be compliant with §26-6.701 unless a variance is obtained from the Board of Zoning Appeals.

V. Landscape Design Criteria

Landscaping for Maple Leaf Crossing shall generally be in accordance with the Landscaping Plan attached hereto as Exhibit C and incorporated herein. Other Developmental Standards

VI. Other Development Standards

The Approved Development Plan and Development Standards shall govern the development of Maple Leaf Crossing PUD. The development standards for zoning district CD-4.A set forth in Zoning Ordinance 1788, Table 26-6.405.A-6 shall apply to matters not addressed in the Approved Development Plan and Development Standards.

VII. All construction on the building sites on lots 1 through 7 of the Approved Development Plan are subject to approval by the Munster Plan Commission in accordance with the procedure set forth in Section 26-6.804.G of the Town's Code of Ordinances according to the terms and standards of the Approved Development Plan and Development Standards for Maple Leaf Crossing PUD or section VI above, if applicable.

EXHIBIT A

MAPLE LEAF CROSSING

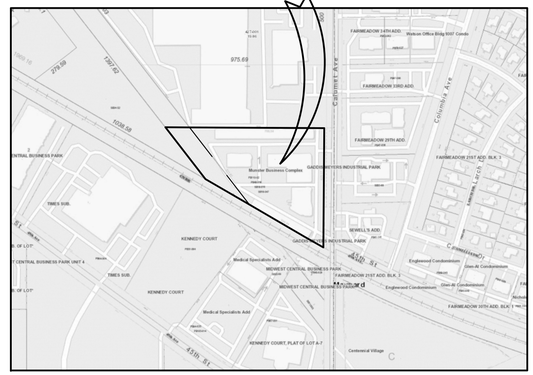
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE COUNTY, INDIANA

INDEX	
PAGE	DESCRIPTION
COVER	TITLE PAGE
C–1.0	EXISTING TOPOGRAPHY & UTILITIES
C–1.1	DEMOLITION PLAN
C–2.0	SITE PLAN
C–2.1	SIGNAGE PLAN
C–3.0	SANITARY SEWERS & WATERMAIN PLAN
C–4.0	STORM SEWERS & GRADING PLAN
C–5.0 TO C–5.3	DETAILS & SPECIFICATIONS
C–6.0	STORM WATER POLLUTION PREVENTION PLAN
C–7.0 TO C–7.1	STORM WATER POLLUTION PREVENTION PLAN DETAILS & SPECIFICATIONS
1 OF 1	FINAL PLAT

Legal Descriptions:
PARCEL 1
Lot 1 in Munster Business Complex, a Planned Unit Development, in the Town of Munster, as per plat thereof, recorded in Plat Book 110, page 02 in the Office of the Recorder, Lake County, Indiana.

PARCEL 2
Part of the Southeast Quarter of Section 25, Township 36 North, Range 10 West of the Second Principal Meridian, lying West of Lot 1 in Munster Business Complex, a Planned Unit Development, in the Town of Munster, as per plat thereof, recorded in Plat Book 110, page 02 in the Office of the Recorder, Lake County, Indiana, and North of Canadian National Railroad right-of-way, being more particularly described as follows: Commencing at the Northeast corner of said Section 25; thence South 00° 26' 30" West, along the East line of said Section 25, a distance of 3,054.86 feet; thence North 89° 43' 30" West, along the North line of said Lot 1 extended East, a distance of 756.34 feet to the Northwest corner of said Lot 1 and also being point of beginning; thence South 37° 47' 07" East, along the West line of said Lot 1, a distance of 511.81 feet to the Southwest corner of said Lot 1; thence North 59° 52' 07" West, along the Northerly line of said Canadian National Railroad right-of-way (100 feet wide), a distance of 265.99 feet; thence North 37° 47' 07" West, a distance of 343.63 feet; thence South 89° 43' 30" East, a distance of 127.01 feet to the point of beginning, containing 0.982 acres, more or less, all in the Town of Munster, Lake County, Indiana.

SUBJECT AREA



VICINITY MAP
NOT TO SCALE

NORTH

NOTES:
1. TOTAL SITE AREA = 7.049± (ACRES) 307,066± (S.F)

2. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AS TAKEN FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR MUNSTER, LAKE COUNTY, INDIANA, MAP NUMBER 18089C0117E, EFFECTIVE DATE JANUARY 18, 2012.

3. BENCHMARK(S):
TBM #1 – FIRE HYDRANT LOCATED ALONG THE WEST SIDE OF CALUMET AVENUE, 85.65 FEET SOUTH OF THE NORTHWEST CORNER OF LOT 1 IN MUNSTER BUSINESS COMPLEX, SOUTH SOUTHEAST BOLT ELEVATION 618.87.

TBM #2 – MAG. NAIL SET LOCATED ALONG THE EAST SIDE OF CALUMET AVENUE AT CONCRETE SIDEWALK, 120 FEET SOUTH OF THE NORTH LINE OF LOT 1 IN MUNSTER BUSINESS COMPLEX, ELEVATION 616.73.

4. DEVELOPER:
First Metropolitan Builders
400 Fisher Avenue
Munster, IN 46321

5. EXISTING TOPOGRAPHY AND UTILITIES DATA ARE PROVIDED AND TAKEN FROM TORRENGA SURVEYING, LLC, JOB NO.: 2019–0676 DATED 03–25–2020

6. ALL VERTICAL DATUM IS BASED ON NAVD88.

7. HYDROLOGIC UNIT CODES: 07120003030030– HART DITCH (PLUM CREEK)–DYER DITCH

8. LOCATION:
LATITUDE – 41°32'35" N
LONGITUDE – 87°30'36" W

9. CURRENT ZONING: CD–4A WITH NO GROUND FLOOR RESIDENTIAL USES PERMIT

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

"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
811 or 1-800-382-5544
CALL TOLL FREE
PER INDIANA STATE LAW IC8–1–26.
IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

County: Lake

SE **Qtr., Sec.** 25 , **T.** 36 **N, R.** 10 **W.**

Township: MUNSTER

DATE AND REVISIONS:

NO.	DATE	DESCRIPTION	BY
3	06-26-2020	RE-SUBMITTAL TO MUNSTER	DT/RT
2	06-05-2020	RE-SUBMITTAL TO MUNSTER	DT/EM/MH
1	05-11-2020	PRIMARY SUBMITTAL	DT/EM/MH

CLIENT/OWNER:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, IN 46321

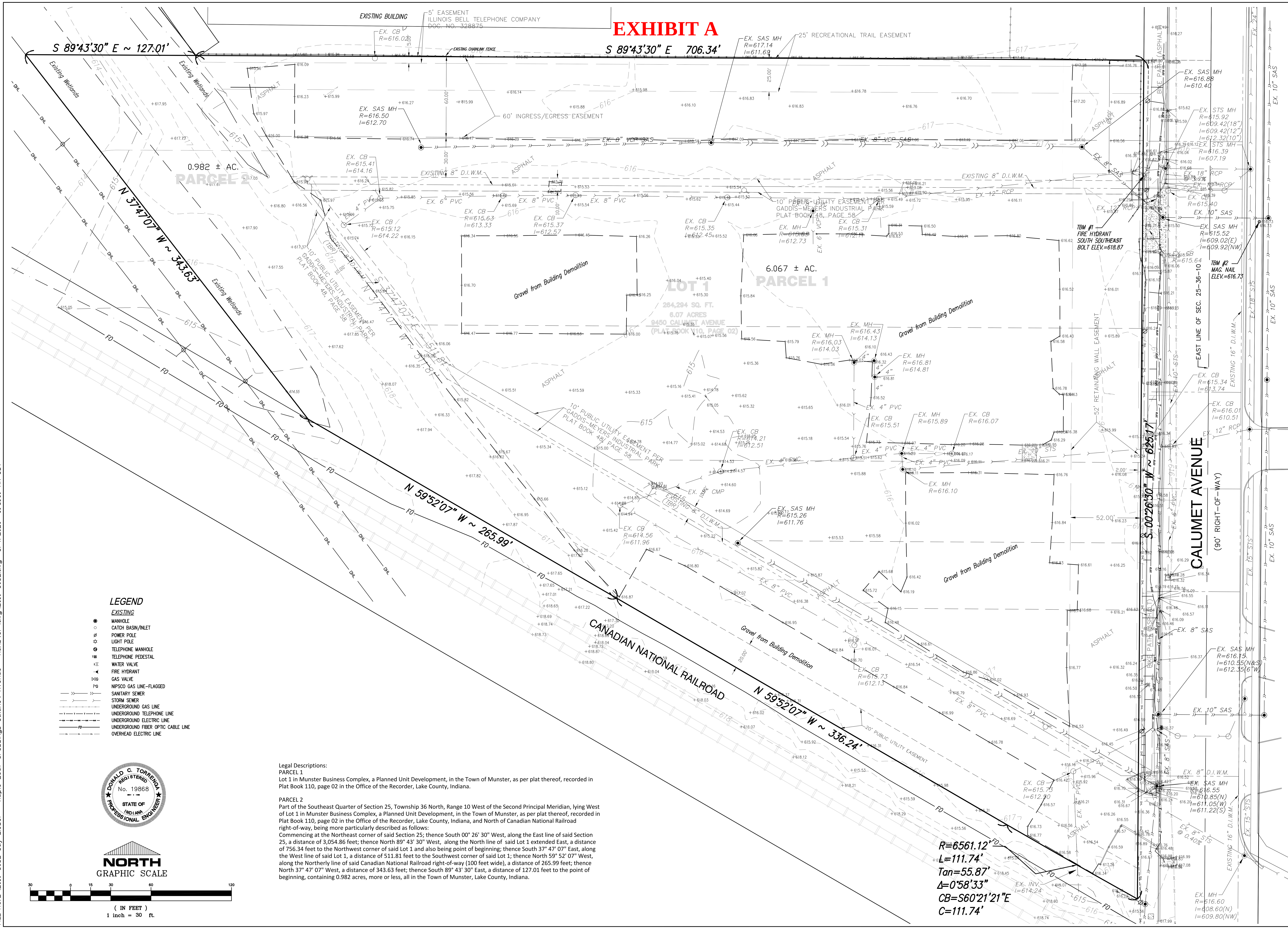
PREPARED BY:
Torrenga Engineering, Inc.
907 Ridge Road
Munster, Indiana 46321
(219)836–8918

CERTIFIED BY: DONALD C. TORRENGA
P.E. # 19868

DONALD C. TORRENGA REGISTERED No. 19868 STATE OF INDIANA PROFESSIONAL ENGINEER

Z:\2019-5052 Joy Lieser – Maple Leaf Crossings Calumet Avenue – Munster\dwg\2019-5052.dwg 6/4/2020 10:51:19 AM CDT

EXHIBIT A


S 89°43'30" E ~ 127.01'
S 89°43'30" E 706.34'
N 37°47'07" W ~ 343.63'
N 59°52'07" W ~ 265.99'
N 59°52'07" W ~ 336.24'
S 00°26'30" W ~ 625.7
0.982 ± AC.
PARCEL 2
6.067 ± AC.
PARCEL 1
LOT 1
264,294 SQ. FT.
6.07 ACRES
9450 CALUMET AVENUE
(PLAT BOOK 110, PAGE 02)
CALUMET AVENUE
(90' RIGHT-OF-WAY)
CANADIAN NATIONAL RAILROAD
EXISTING BUILDING
5' EASEMENT
ILLINOIS BELL TELEPHONE COMPANY
DOC. NO. 328875
25' RECREATIONAL TRAIL EASEMENT
60' INGRESS/EGRESS EASEMENT
10' PUBLIC UTILITY EASEMENT PER
GADDIS-MEYERS INDUSTRIAL PARK
PLAT BOOK 48, PAGE 58
20' PUBLIC UTILITY EASEMENT
52' RETAINING WALL EASEMENT
EAST LINE OF SEC. 25-36-10
Existing Wetlands
Gravel from Building Demolition
TBM #1
FIRE HYDRANT
SOUTH SOUTHEAST
BOLT ELEV.=618.87
TBM #2
MAG. NAIL
ELEV.=616.73
R=6561.12'
L=111.74'
Tan=55.87'
Δ=0°58'33"
CB=S60°21'21"E
C=111.74'
LEGEND
EXISTING
MANHOLE
CATCH BASIN/INLET
POWER POLE
LIGHT POLE
TELEPHONE MANHOLE
TELEPHONE PEDESTAL
WATER VALVE
FIRE HYDRANT
GAS VALVE
NIPSCO GAS LINE-FLAGGED
SANITARY SEWER
STORM SEWER
UNDERGROUND GAS LINE
UNDERGROUND TELEPHONE LINE
UNDERGROUND ELECTRIC LINE
UNDERGROUND FIBER OPTIC CABLE LINE
OVERHEAD ELECTRIC LINE
DONALD C. TORRENGA
REGISTERED
No. 19868
STATE OF INDIANA
PROFESSIONAL ENGINEER
NORTH
GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.
FILE NO:Z:\2019-5052 Jay Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052.dwg 6/4/2020 10:51:19 AM CDT

Legal Descriptions:

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Commencing at the Northeast corner of said Section 25; thence South 00° 26' 30" West, along the East line of said Section 25, a distance of 3,054.86 feet; thence North 89° 43' 30" West, along the North line of said Lot 1 extended East, a distance of 756.34 feet to the Northwest corner of said Lot 1 and also being point of beginning; thence South 37° 47' 07" East, along the West line of said Lot 1, a distance of 511.81 feet to the Southwest corner of said Lot 1; thence North 59° 52' 07" West, along the Northerly line of said Canadian National Railroad right-of-way (100 feet wide), a distance of 265.99 feet; thence North 37° 47' 07" West, a distance of 343.63 feet; thence South 89° 43' 30" East, a distance of 127.01 feet to the point of beginning, containing 0.982 acres, more or less, all in the Town of Munster, Lake County, Indiana.

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918 website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA
EXISTING TOPOGRAPHY & UTILITIES

REVISIONS:
06-26-2020
06-05-2020
DATE: 05-11-2020

CLIENT:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321
JOB NO: 2019-5052
SCALE: 1" = 30'

SHEET
C-1.0

EXHIBIT A

NOTE:

1) ALL EXISTING PAVEMENT SHALL BE REMOVED.

2) ALL SEWERS, MANHOLES, ETC. MARKED WITH A SERIES OF X'S SHALL BE COMPLETELY REMOVED AND BACKFILLED WITH 95% COMPACTION.

3) CONCRETE AND ASPHALT ENTRANCES OFF CALUMET AVENUE SHALL BE COMPLETELY REMOVED AND BACKFILLED WITH 95% COMPACTION.

4) FOUR (4) FIRE HYDRANTS ONSITE SHALL BE REMOVED AND SHALL NOT BE REUSED.

DONALD C. TORRENGA
REGISTERED
No. 19868
STATE OF INDIANA
PROFESSIONAL ENGINEER

FILE NO: Z:\2019-5052 Jay Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052.dwg 6/4/2020 10:51:19 AM CDT

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Tel. No.: (219) 836-8918 website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE
TOWN OF MUNSTER, LAKE CO., INDIANA
DEMOLITION PLAN

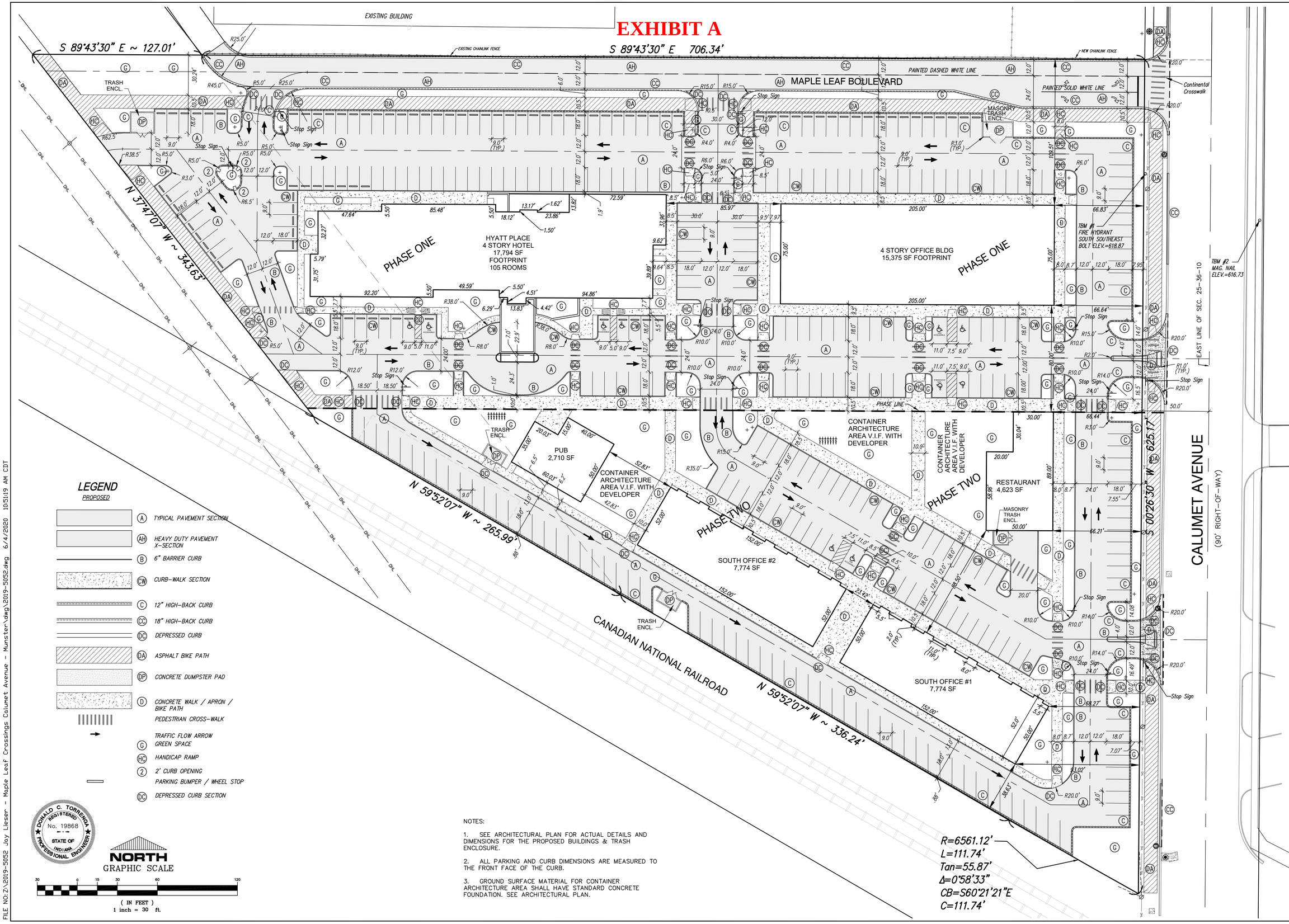
06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: 1" = 30'

SHEET
C-1.1

EXHIBIT A



LEGEND

PROPOSED

- (A) TYPICAL PAVEMENT SECTION
- (AH) HEAVY DUTY PAVEMENT X-SECTION
- (B) 6" BARRIER CURB
- (CW) CURB-WALK SECTION
- (C) 12" HIGH-BACK CURB
- (CC) 18" HIGH-BACK CURB
- (DC) DEPRESSED CURB
- (DA) ASPHALT BIKE PATH
- (DP) CONCRETE DUMPSTER PAD
- (D) CONCRETE WALK / APRON / BIKE PATH
- PEDESTRIAN CROSS-WALK
- TRAFFIC FLOW ARROW
- (G) GREEN SPACE
- (HC) HANDICAP RAMP
- (2) 2' CURB OPENING
- PARKING BUMPER / WHEEL STOP
- (DC) DEPRESSED CURB SECTION

DONALD C. TORRENGA REGISTERED No. 19868 STATE OF INDIANA PROFESSIONAL ENGINEER

NORTH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NOTES:

1. SEE ARCHITECTURAL PLAN FOR ACTUAL DETAILS AND DIMENSIONS FOR THE PROPOSED BUILDINGS & TRASH ENCLOSURE.
2. ALL PARKING AND CURB DIMENSIONS ARE MEASURED TO THE FRONT FACE OF THE CURB.
3. GROUND SURFACE MATERIAL FOR CONTAINER ARCHITECTURE AREA SHALL HAVE STANDARD CONCRETE FOUNDATION. SEE ARCHITECTURAL PLAN.

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918
website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA
SITE PLAN

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: 1" = 30'

SHEET
C-2.0

EXHIBIT A

EXISTING BUILDING

S 89°43'30" E ~ 127.01'

S 89°43'30" E 706.34'

EXISTING CHAINLINK FENCE

NEW CHAINLINK FENCE

MAPLE LEAF BOULEVARD

Speed Limit Sign R2-1

Stop Sign

Yield Sign R1-2

Continental Crosswalk

TRASH ENCL.

MASONRY TRASH ENCL.

N 37°47'07" W ~ 343.63'

HYATT PLACE
4 STORY HOTEL
17,794 SF FOOTPRINT
105 ROOMS

PHASE ONE

4 STORY OFFICE BLDG
15,375 SF FOOTPRINT

PHASE ONE

One Way Sign R6-1

PHASE LINE

PUB
2,710 SF

CONTAINER ARCHITECTURE AREA V.I.F. WITH DEVELOPER

RESTAURANT
4,623 SF

PHASE TWO

SOUTH OFFICE #2
7,774 SF

SOUTH OFFICE #1
7,774 SF

N 59°52'07" W ~ 265.99'

N 59°52'07" W ~ 336.24'

CANADIAN NATIONAL RAILROAD

Do Not Enter Sign R5-1

S 00°26'30" W ~ 625.17'

EAST LINE OF SEC. 25-36-10

CALUMET AVENUE

(90' RIGHT-OF-WAY)

R=6561.12'
L=111.74'
Tan=55.87'
Δ=0°58'33"
CB=S60°21'21"E
C=111.74'

NORTH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DONALD C. TORRENGA
REGISTERED
No. 19868
STATE OF INDIANA
PROFESSIONAL ENGINEER

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918
website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE
TOWN OF MUNSTER, LAKE CO., INDIANA
SIGNAGE PLAN

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: 1" = 30'

SHEET
C-2.1

FILE NO: Z:\2019-5052 Joy Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052.dwg 6/4/2020 10:51:19 AM CDT

EXHIBIT A

EXISTING BUILDING

EXISTING CHAINLINK FENCE

NEW CHAINLINK FENCE

MAPLE LEAF BOULEVARD

TRASH ENCL.

MASONRY TRASH ENCL.

MH "F" R=616.25 I=612.25

MH "E" R=616.50 I=611.53

MH "D" R=616.50 I=610.27

160' ~ 8" PVC SAS @ 0.45%

281' ~ 8" PVC SAS @ 0.45%

71' ~ 8" PVC SAS @ 0.49%

8" PVC Sanitary Sewer Service Line

SEE DETAIL NO. 1

EXISTING 8" D.I.W.M.

Fire Hydrant

8"x8" Tee

8" Gate Valve

27' ~ 8" DIWM

FDC

122' ~ 8" DIWM

Stub to within 5 feet of the building outer wall. See architectural plans for inside plumbing.

PHASE ONE

HYATT PLACE
4 STORY HOTEL
17,794 SF FOOTPRINT
105 ROOMS
FF=617.75
FG=617.50

4 STORY OFFICE BLDG
15,375 SF FOOTPRINT
FF=618.00
FG=617.75

TBM #1
FIRE HYDRANT
SOUTH SOUTHEAST
BOLT ELEV.=618.87

TBM #2
MAG. NAIL
ELEV.=616.73

EX. 10" SAS

EX. SAS MH
R=615.52
I=609.02(E)
I=609.92(NW)

EX. 16" D.I.W.M.

156' ~ 8" DIWM

45° Bend

MH "C" R=617.25 I=612.48

139' ~ 8" DIWM

45° ~ 8" DIWM

8" Gate Valve

8"x8" Tee

Grease Trap

82' ~ 8" PVC SAS @ 0.50%

PUB
2,710 SF
FF=617.85

CONTAINER ARCHITECTURE AREA V.I.F. WITH DEVELOPER

6" PVC Sanitary Sewer Service Lines

2" Copper Water Service Lines

450' ~ 8" DIWM

MH "B" R=617.20 I=612.07

6" Gate Valve

6" x 6" Tee

8"x8" Tee

8" Gate Valve

PHASE LINE

FDC

4"x 8" Tee

4" Service Line

Stub to within 5 feet of the building outer wall. See architectural plans for inside plumbing.

RESTAURANT
4,623 SF
FF=618.00
FG=617.75

Grease Trap

MASONRY TRASH ENCL.

282' ~ 8" DIWM

282' ~ 8" PVC SAS @ 0.40%

Plug

45° Bend

PHASE TWO

CALUMET AVENUE
(90' RIGHT-OF-WAY)

EX. 10" SAS

EX. 16" D.I.W.M.

6" PVC Sanitary Sewer Service Line

SOUTH OFFICE #2
7,774 SF
FF=617.45

Stub to within 5 feet of the building outer wall. See architectural plans for inside plumbing.

280' ~ 6" DIWM

MH "A" R=617.25 I=611.02

118' ~ 8" PVC SAS @ 0.40%

EX. 8" SAS

EX. SAS MH
R=616.15
I=610.55(N&S)
I=612.35(6"W)

6" Gate Valve

6" x 6" Tee

SOUTH OFFICE #1
7,774 SF
FF=617.45

165' ~ 8" DIWM

39'~8" DIWM

8" Gate Valve

43' ~ 8" DIWM

8"x8" Tee

EX. 8" D.I.W.M.

EX. SAS MH
R=616.55
I=610.85(N)
I=611.05(W)
I=611.22(S)

EXISTING 16" D.I.W.M.

TRASH ENCL.

CANADIAN NATIONAL RAILROAD

FO

DHL

332' ~ 8" DIWM

8"x8"x6" TEE

8"x8"x4" TEE

4" GATE VALVE

8" W.M.

4" to 2" REDUCER

6" GATE VALVE

16" MIN. SEPARATION

4" DIP DOMESTIC WATER SERVICE LINE

2" COPPER IRRIGATION WATER SERVICE LINE

6" DIP FIRE SERVICE LINE

PROPOSED BUILDING

DETAIL NO. 1

NTS

LEGEND

PROPOSED

- MANHOLE
- CATCH BASIN/INLET
- FIRE HYDRANT
- WATER VALVE
- FDC — FIRE DEPT. CONNECTION
- 000.00 — GRADE PROPOSED
- FG=000.00 — FINISHED GRADE
- STORM SEWER
- SANITARY SEWER
- SANITARY SEWER STUB
- WATER MAIN
- WATER MAIN STUB

(1) STORM/SANITARY CROSSING 1

Top of 8" Sanitary = 611.77
Bottom of 12" Storm = 611.85

DONALD C. TORRENGA REGISTERED No. 19868 STATE OF INDIANA PROFESSIONAL ENGINEER

NORTH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

FILE NO:Z:\2019-5052 Joy Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052.dwg 6/4/2020 10:51:19 AM CDT

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website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA
SANITARY SEWERS & WATERMAIN PLAN

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: 1" = 30'

SHEET
C-3.0

EXHIBIT A

MAPLE LEAF BOULEVARD

CALUMET AVENUE (90' RIGHT-OF-WAY)

CANADIAN NATIONAL RAILROAD

EXISTING BUILDING

EXISTING CHAINLINK FENCE

NEW CHAINLINK FENCE

Existing Wetlands

PHASE ONE

PHASE TWO

PHASE LINE

HYATT PLACE
4 STORY HOTEL
17,794 SF
FOOTPRINT
105 ROOMS
FF=617.75
FG=617.50

4 STORY OFFICE BLDG
15,375 SF FOOTPRINT
FF=618.00
FG=617.75

PUB
2,710 SF
FF=617.85

RESTAURANT
4,623 SF
FF=618.00
FG=617.75

SOUTH OFFICE #1
7,774 SF
FF=617.45

SOUTH OFFICE #2
7,774 SF
FF=617.45

CONTAINER ARCHITECTURE AREA V.I.F. WITH DEVELOPER

TRASH ENCL.

MASONRY TRASH ENCL.

MH #10 O/G R=615.22 I=611.29

INL #11 R=615.22 I=611.36

MH #9 O/G R=615.56 I=611.16

MH #6 O/G R=615.48 I=610.73

MH #7 O/G R=615.24 I=610.78

INL #8 R=615.24 I=611.65

MH #5 O/G R=616.08 I=610.45

INL #3 R=616.40 I=612.00

PP TO BE RELOCATED

MH #2 O/G R=616.16 I=609.62 I=611.89(N)

CB #1 w/ BMP 30R Snout R=616.35 I=609.55

EX. STS MH R=615.92 I=609.42(18") I=609.42(12") I=612.32(10")

EX. STS MH R=616.39 I=607.19

EX. 18" RCP @ 3.7%

EX. 10" RCP @ 2.0%

INLET #31 R=615.25 I=611.99

I=611.13

INL #29 R=616.00 I=611.62

INLET #17 R=616.25 I=611.20

MH #16 O/G R=616.00 I=610.93

INL #12 R=615.25 I=610.80

MH #13 O/G R=616.35 I=610.29

MH #15 O/G R=616.00 I=610.52

MH #14 O/G R=616.00 I=610.31

MH #30 R=616.70 I=611.62

CB #28 O/G R=616.35 I=611.40

12" HDPE MANIFOLD PIPE W/ 12" FEED PIPES

UNDERGROUND STORM CHAMBERS CULTEC RECHARGER 330XLHD BOTTOM OF CHAMBER=611.37 BOTTOM OF EXCAVATION=608.37

MH #27 O/G R=616.35 I=611.37

MH #26 O/G R=616.35 I=611.07

INL #23 R=615.80 I=612.52

MH #25 O/G R=615.90 I=610.78

MH #22 O/G R=615.80 I=612.14

MH #24 O/G R=615.90 I=610.46

MH #32 R=617.00 I=610.32

MH #18 O/G R=616.35 I=610.49

INLET #19 R=616.35 I=610.74 I=611.65(W)

MH #21 O/G R=616.35 I=610.56

CB #20 w/ BMP 12R Snout R=616.35 I=610.25 INSTALL OVER EXISTING 8" PVC PIPE

EX. CB R=615.34 I=613.74

EX. CB R=616.01 I=610.51

EX. 12" RCP

EX. 15" STS

EX. 8" STS @ 0.40%

EX. INV. I=612.54

CONNECT 6" PVC PIPE INTO MH #32

EX. MH R=616.60 I=608.60(N) I=609.80(NW)

22'~10" @ 0.33%
40'~10" @ 0.33%
128.50' @ 0.50%
125.00' @ -0.50%
22'~10" @ 0.33%
18'~12" @ 0.25%
322.84' @ 0.50%
90.49' @ -0.50%
34'~10" @ 0.50%
225'~15" @ 0.19%
125'~15" @ 0.22%
287'~18" @ 0.28% HDPE
0.5%
82'~8" @ 0.43%
26'~18" @ 0.28% HDPE
33'~24" @ 0.40%
134'~18" @ 0.55% HDPE
138'~12" @ 0.25%
45'~10" @ 0.50%
81'~10" @ 0.33%
162'~12" @ 0.25%
110'~15" @ 0.19%
112'~15" @ 0.23%
89'~12" @ 0.25%
79'~15" @ 0.25%
121'~12" @ 0.25%
153'~12" @ 0.25%
132'~15" @ 0.19%
117'~12" @ 0.25%
166'~15" @ 0.19%
98'~12" @ 0.50%
56'~12" @ 0.56%
70'~15" @ 0.19%
35'~15" @ 0.19%

10" PVC @ 0.5%
8" PVC @ 0.5%
12" PVC @ 0.5%

LEGEND

PROPOSED

- MANHOLE
- CATCH BASIN/INLET
- FIRE HYDRANT
- WATER VALVE
- FDC — FIRE DEPT. CONNECTION
- 000.00 — GRADE PROPOSED
- FG=000.00 — FINISHED GRADE
- STORM SEWER
- SANITARY SEWER
- SANITARY SEWER STUB
- WATER MAIN
- WATER MAIN STUB
- GRADE DIRECTION ARROW
- WATER FLOW ARROW

NOTE:

1) THE LOCATION OF ALL ELECTRICAL LINES GAS LINES, AND TELEPHONE LINES ARE BASED UPON FIELD LOCATIONS FROM 811 – HOLEY MOLEY. THE DEPTHS OF ALL LINES ARE UNKNOWN AND MUST BE FIELD VERIFIED BEFORE CROSSING.

2) THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ELEVATIONS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION SUPERVISOR, THE ENGINEER AND THE ARCHITECT IMMEDIATELY.

3) ALL ELEVATIONS ARE TOP OF PAVEMENT OR GROUND UNLESS OTHERWISE NOTED.

4) ALL MASONRY DUMPSTER PADS SHALL BE UNDERLAID WITH CONCRETE IN ACCORDANCE WITH THE DETAIL. SLOPE ALL CONCRETE PADS AT 1% TOWARDS ASPHALT PAVEMENT.

PIPE CROSSING SCHEDULE

CROSSING NO.	STS PIPE & TYPE SIZE	TOP OF PIPE	BOTTOM OF PIPE	SAS PIPE & TYPE SIZE	TOP OF PIPE	BOTTOM OF PIPE	CLEARANCE BETWEEN PIPES *
1	15" PVC	612.58	611.13*	8" PVC	610.84*	609.97	0.29'
2	8" PVC	610.92*	610.05	8" VCP	612.22	611.35*	0.43'

NOTE: THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO ALL WATERMAIN CROSSINGS AND MAINTAIN A MINIMUM OF 18 INCHES OF CLEARANCE BETWEEN THE OUTSIDE OF THE WATER MAIN PIPE AND ANY SEWER THAT IT CROSSES.

1 — STORM/SANITARY CROSSING 1

Top of 8" Sanitary = 611.77
Bottom of 12" Storm = 611.85

NORTH
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

TORRENGA ENGINEERING, INC.
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907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918
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MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA
STORM SEWERS & GRADING PLAN

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT: Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052

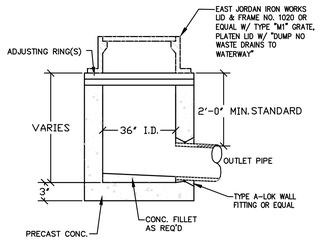
SCALE: 1" = 30'

SHEET
C-4.0

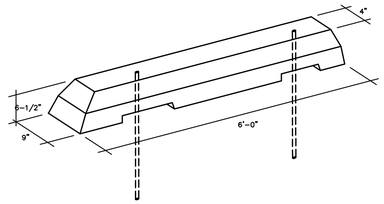
FILE NO: Z:\2019-5052 Joy Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052.dwg 6/4/2020 10:51:19 AM CDT

Figure 43a
INTERNATIONAL SYMBOL OF ACCESSIBILITY PROPORTIONS
NOT TO SCALE

ACCESSIBILITY SIGNAGE
NOT TO SCALE

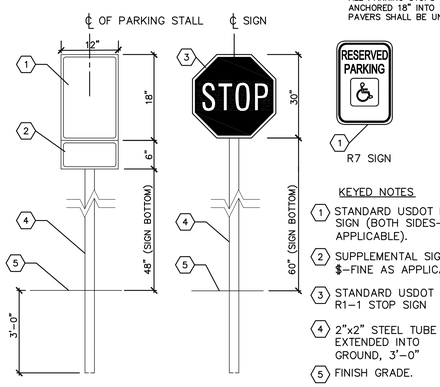


STANDARD INLET
NOT TO SCALE



PRECAST CONCRETE PARKING CHOCKS/WHEEL STOPS
NOT TO SCALE

ALL PARKING STOPS SHALL BE PINNED TO THE ASPHALT WITH #4 REBAR ANCHORED 18" INTO THE GROUND. PARKING STOPS PLACED OVER THE PAVERS SHALL BE UNPINNED.

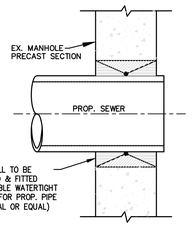


SIGN AND POST (FREE STANDING)
NOT TO SCALE

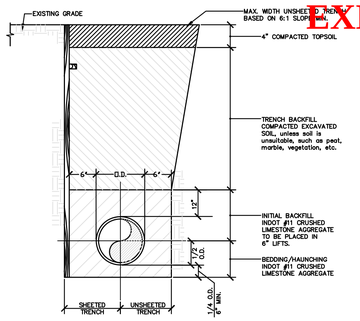
R7 SIGN

KEYED NOTES

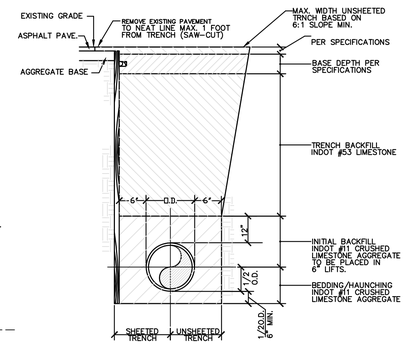
1. STANDARD USDOT R7 SIGN (BOTH SIDES—WHERE APPLICABLE).
2. SUPPLEMENTAL SIGNS, $—FINE AS APPLICABLE.
3. STANDARD USDOT R1-1 STOP SIGN
4. 2"x2" STEEL TUBE EXTENDED INTO GROUND, 3'-0"
5. FINISH GRADE.



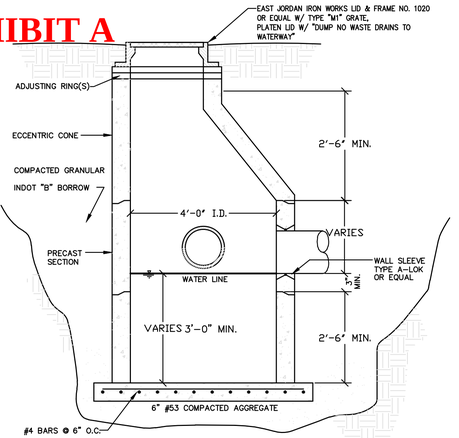
PIPE CONNECTION DETAIL TO EXISTING MANHOLE
NOT TO SCALE



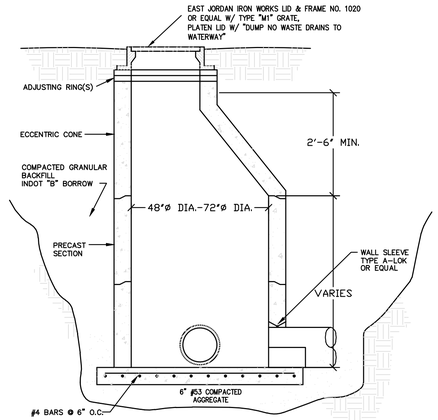
PIPE BEDDING DETAIL FOR TRENCH IN GRASS AREAS
NOT TO SCALE



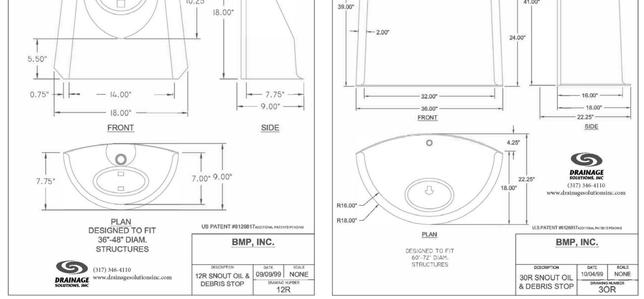
PIPE BEDDING DETAIL FOR TRENCH IN PAVED AREAS
NOT TO SCALE

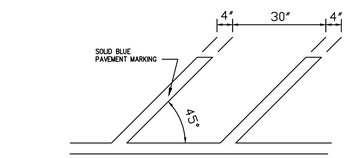


TYPE "A" CATCH BASIN
NOT TO SCALE



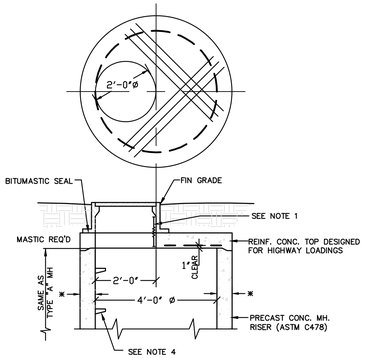
* IF CURB-TYPE FRAME IS REQ'D USE NEENAH R-3229-L OR EQUAL



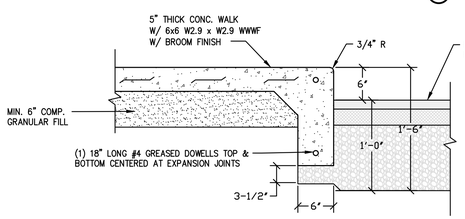


NOTE:
USE 4" SOLID WHITE PAVEMENT MARKING FOR REGULAR PARKING

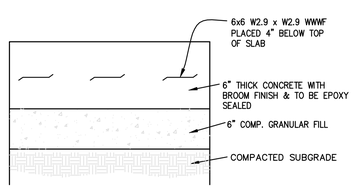
ACCESSIBILITY AND PARKING STRIPING DETAIL
NOT TO SCALE



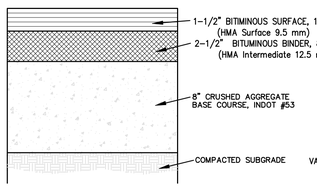
TYPE "C" (FLAT TOP) MANHOLE
NOT TO SCALE
USED WHERE RESTRICTED HEAD ROOM WILL NOT ALLOW FOR TAPERED WALLS



CURB-WALK SECTION
NOT TO SCALE

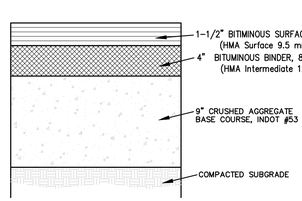


DUMPSTER PAD
SECTION VIEW
NOT TO SCALE



NOTES:
1. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.

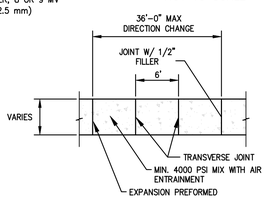
TYPICAL PAVEMENT SECTION
NOT TO SCALE



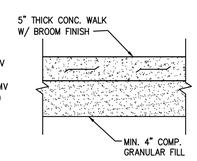
NOTES:
1. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.

HEAVY DUTY PAVEMENT X-SECTION
NOT TO SCALE

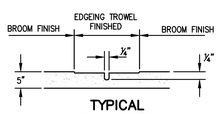
STORM TYPE MANHOLE
NOT TO SCALE



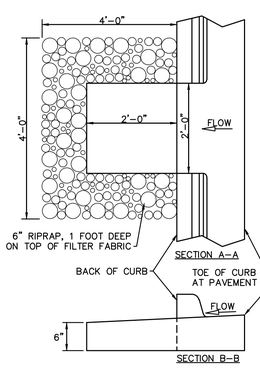
SIDEWALK PLAN



SIDEWALK SECTION



TYPICAL SIDEWALK DETAIL
NOT TO SCALE



2' CURB CUT
NOT TO SCALE

GENERAL SPECIFICATIONS FOR STORM SEWERS

1. All work shall be performed in accordance with the Codes, Ordinances and Standards of the Town of Munster, Lake County, Indiana.

2. All storm sewer pipe, branches and fittings shall conform to either of the following: (A) Poly-vinyl chloride SDR 35 or SDR 26 (ASTM D-3034) with push on rubber gasket joints (ASTM C-3212) for pipe 15" in diameter or under or: (B) High Density Polyethylene corrugated pipe with an integrally formed smooth interior (ASTM D-1248) for pipe 18" or over or: (C) Reinforced concrete pipe (ASTM C-76) with bell and spigot or tongue and groove push-on mastic joints. Class V reinforced concrete pipe shall be used for lines 15" diameter or under and Class III shall be used for lines 18" and over.

3. Gasketed joints shall be used on all storm sewers.

4. Storm sewers 18" to 27" with less than 3' cover shall be Class IV pipe.

5. All storm sewer manholes shall be standard precast concrete units (ASTM C-478) conforming with the standard details sheet of these plans.

6. All improvements installed across paved or future paved areas shall be backfilled with sand or graded stone aggregate to the subgrade line.

7. All sewers shall be laid at least 10 feet (3.0m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. All sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches (46 cm) between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to water pipe.

8. The Contractor is responsible for the preparation of "As Built" construction drawings showing actual sizes and lengths of pipe installed (i.e. from manhole to manhole or tee to valve, etc.), location of service taps and any structures added or omitted in comparison with these engineering plans. The Contractor shall supply the Developer (through the Project Engineer) with one set of reproducible original "As-Built" and shall supply the Town of Munster with 2 copies thereof prior to and as a condition of final acceptance.

9. No storm sewer manhole, catch basin and inlet shall be within eight (8) feet of a water main as measured from the outside edge of the storm sewer manhole, catch basin and inlet to the outside edge of the water main.

CURB NOTE:
1. Concrete Curb and Gutter shall be constructed in accordance with the state specifications except as herin modified.

a) Expansion joints shall be 3/4" in thickness, using premolded joint filler material and two 3/4" diameter smooth round dowel bars 30" long fully greased, placed in pairs at the ends of all radii, at roadway intersections, at the junction of new and existing curb, at all cold joints, at a minimum 40' interval between said radii locations.

b) Said dowel shall be placed so that half their length is in either side of the joint. On the same end of each bar, there shall be placed a plastic, premolded expansion tip, which will allow lateral and expansion movement. The dowel bars shall be placed such that they shall be encased in concrete, a minimum of 3" in any direction.

INFRASTRUCTURE NOTE:
1. All infrastructure being constructed shall be in accordance with the Town of Munster Proposed Infrastructure Specifications. Any difference Munster's Specification and these engineering drawings shall be brought to the attention of the Engineer immediately for review.

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918
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MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE
TOWN OF MUNSTER, LAKE CO., INDIANA
DETAILS & SPECIFICATIONS

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT:
First Metropolitan Builders
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: NTS

SHEET
C-5.0

DONALD C. TORRENGA
REGISTERED
No. 19868
STATE OF INDIANA
PROFESSIONAL ENGINEER

EXHIBIT A

GENERAL SPECIFICATIONS FOR SANITARY SEWER

1. All work shall be performed in accordance with the Codes, Ordinances and Standards of the Town of Munster, Lake County, and the State of Indiana.

2. All sanitary sewer pipe, branches and fittings shall conform to one of the following: (a) Extra strength vitrified clay pipe (ASTM C-700) with push on rubber gasket joints (ASTM C-425). (b) Poly-vinyl chloride (PVC), SDR 26 (ASTM D-3034), with push-on rubber gasket joints (ASTM C-3212). Six inch service pipes shall be in accordance with the infrastructure improvement codes of the Town of Munster.

3. All sanitary sewer manholes shall be standard 48" diameter precast concrete units (ASTM C-478) conforming with the Standard Detail sheet of these plans.

4. The sanitary manhole base shall be precast with a minimum of 2 foot section, trough, etc..

5. Sanitary manholes shall be provided with a watertight gasketed cover

6. All improvements installed across paved or future paved areas shall be backfilled with sand or graded stone aggregate to the subgrade.

7. The competed sanitary sewer system shall be air tested for infiltration and shall have a maximum infiltration of 100 GPD/inch/diameter/mile of sewer pipe. The completed sanitary sewer system shall be air pressure tested for infiltration/exfiltration with 4 lbs. of pressure for 4 minutes. The testing shall conform to the procedure described in ASTM C-838-86 for clay pipe, ASTM C 924 for concrete pipe, ASTM F-1417 for poly-vinyl chloride pipe, and for other materials test procedures approved by the regulatory agency. The Contractor shall be responsible for supplying all testing materials and appurtenances. The Town of Munster shall be notified when the system (or portion thereof) is ready for testing.

8. Deflection tests shall be performed on all flexible pipe materials placed. The contractor shall be responsible for supplying testing materials and appurtenances. The tests shall be conducted after the final backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5 %. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95 % of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices. The Town of Munster shall be notified when the system (or portion thereof) is ready for testing.

9. Care should be taken in parkway areas to assure compaction acceptable for the future stability of driveways and sidewalks. While special backfill material is not required, it shall be the responsibility of the Contractor to protect against substantial future settlement of backfilled areas. The contractor shall provide special backfill material across driveways and sidewalks in the event that a sewer or main is installed underneath.

11. All sewers shall be laid at least 10 feet (3.0m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. All sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches (46 cm) between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to water pipe.

12. The Contractor is responsible for the preparation of "As Built" construction drawings showing actual sizes and lengths of pipe installed (i.e. from manhole to manhole or tee to valve, etc.), location of service taps and any structures added or omitted in comparison with these engineering plans. The Contractor shall supply the Developer (through the Project Engineer) with one set of reproducible original "As-Built" Plans and shall supply the Town of Munster with 2 copies thereof prior to and as a condition of the final acceptance.

13. Air pressure test shall be performed on all completed Sanitary Manholes in accordance with ASTM C 1244-93, Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test. The tests shall be conducted prior to backfill to demonstrate the integrity of the installed materials. The manhole shall pass if the test time meets or exceeds the required minimum test times as specified in ASTM C 1244-93 for the vacuum reading to drop from 10 inches of mercury to 9 inches of mercury. If the manhole fails the initial test, necessary repairs shall be made, and the test shall be repeated. The contractor shall be responsible for supplying all testing materials and appurtenances. The Town of Munster shall be notified when the manholes (or portion thereof) are ready for testing.

14. No sanitary sewer manhole shall be within eight (8) feet of a water main as measured from the outside edge of the sanitary sewer manhole to the outside edge of the water main.

GENERAL SPECIFICATIONS FOR WATER MAINS

1. All work shall be performed in accordance with the Codes, Ordinances and Standards of the Town of Munster, and the State of Indiana.

2. All water main pipe shall be polywrapped Ductile Iron Pipe (AWWA C151 C-52) with bell and spigot push-on rubber gasket joints (AWWA CIII). All water main pipe shall be installed with a minimum cover of 5.0 feet from top of curb to top of pipe. All fire hydrants, tees, bends and fittings shall be suitably harnessed or thrust blocked with concrete.

3. All improvements installed across paved or future paved areas shall be backfilled with sand or graded stone aggregate to the subgrade.

4. All water valves 12" or larger shall be placed in vaults.

5. On 12" water main bends, restrained joints shall be used, megalug or equal. At 90º bends, the water main shall be additionaly restrained at 1 joint in each direction.

6. All fire hydrants shall be manufactured by Mueller Company, Super Centurion 250 model with 5¼" valve openings with a 5" Storz pumper connection and shall be backfilled with 3/4" stone for drainage purposes.

7. All water mains shall be laid at least 10 feet (3.0m) horizontally from any existing or proposed sewer. The distance shall be measured from outside of pipe to outside of pipe. All sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches (46 cm) between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to water pipe.

8. Care should be taken in parkway areas to assure compaction acceptable for the future stability of driveways and sidewalks. While special backfill material is not required, it shall be the responsibility of the Contractor to protect against substantial future settlement of backfilled areas. The Contractor shall provide special backfill material across driveways and sidewalks in the event that a water main is installed underneath.

9. The Buffalo Boxes shall be arch pattern box style and shall be located one foot behind sidewalks, if possible. No Buffalo Boxes shall be located in concrete areas, and they shall have AWWA approved shut offs and corporation valves.

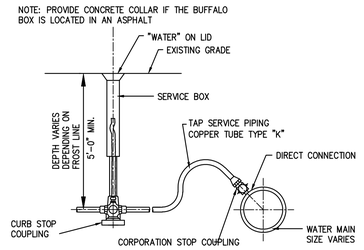
10. All water main pipe shall be disinfected by the use of liquid chlorine. The Contractor shall notify the town of Munster when the water main system (or portion thereof) is ready for testing.

11. The Contractor is responsible for water quality tests done by a State Certified Laboratory. The Town of Munster Water Department staff shall be notified and be present while tests are being performed. The approved water system shall be turned on by the Water Department Staff, only after the water quality reports have been approved.

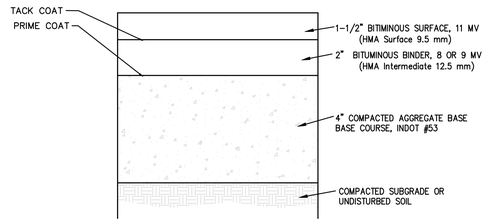
12. The newly installed water main (or portions thereof) shall be subjected to a pressure and leakage test, using hydrostatic testing. Test pressure shall not be less than 1.5 times the working pressure or exceed pipe design pressure. Pressure shall not vary by more than ± 5 PSI for a minimum of a 2 hour duration test. The exposed pipe and joints shall be examined carefully during the test and any damaged or defective pipe or joints shall be replaced, and the test shall be repeated. The allowable leakage shall not exceed 11.65 gpd/mi/in of nominal pipe diameter at a pressure of 150 PSI.
All visible leaks are to be repaired regardless of the amount of leakage. The contractor shall be responsible for supplying all testing materials and appurtenances. The Town of Munster shall be notified when the water main (or portion thereof) is ready for testing.

13. The contractor is responsible for the preparation of "As Built" construction drawings showing actual sizes and lengths of pipe installed (i.e. from manhole to manhole or tee to valve, etc.), location of service taps and any structures added or omitted in comparison with these engineering plans. The Contractor shall supply the Developer (through the Project Engineer) with one set of reproducible original "As-Built" Plans and shall supply the Town of Munster with 2 copies thereof prior to and as a condition of the final acceptance.

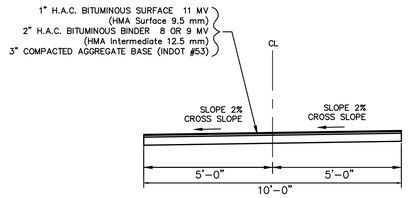
14. No water main shall be within eight (8) feet of a sanitary sewer manhole, a storm sewer manhole, or a drainage grate support structure as measured from the outside edge of the water main to the outside edge of the sanitary sewer manhole, storm sewer manhole, or drainage grate support structure.



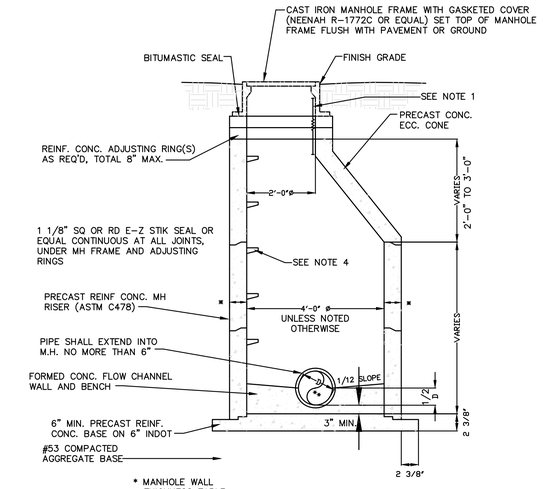
TYPICAL WATER TAP SERVICE PIPING
NOT TO SCALE



NOTES:
1. PAVEMENT & AGGREGATE THICKNESS MAY VARY DEPENDING ON CBR SOIL TESTING RESULTS.
2. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.



BIKE PATH
TYPICAL CROSS SECTION
NOT TO SCALE

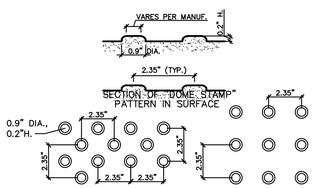


* MANHOLE WALL THICKNESS TABLE

MH I.D.	WALL THICKNESS
48"	5"
60"	6"
72"	7"

NOTES:
1. USE CANUSA WRAP ON ALL MANHOLES.
2. WHERE DEPTH FROM TOP OF CASTING TO INVERT IS LESS THAN 5'-0", USE FLAT TOP MANHOLE TYPE "C" IN LIEU OF ECCENTRIC CONE
3. WATERTIGHT SEAL IS REQ'D BETWEEN PRECAST RISER AND SEWER PIPE, TYPE A-LOK OR EQUAL.
4. COPOLYMER/STEEL MH STEPS AS MANUFACTURED BY M.A. INDUSTRIES, INC., OR EQUAL, AT 16" O.C.
** FOR PIPE SIZES RANGING FROM 8" TO 30" IN DIAMETER.

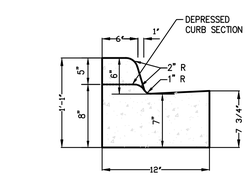
SANITARY
TYPE "A" MANHOLE
NOT TO SCALE



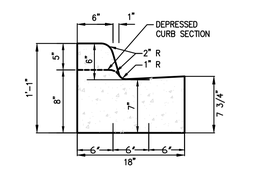
PLAN OF "DOME STAMP" PATTERN IN SURFACE

CURB RAMPS MUST HAVE A DETECTABLE WARNING FEATURE EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP (MID-WALK "IN-LINE" RAMPS ONLY NEED DETECTABLE WARNINGS AT WALK/PARKING TRANSITION). THE DETECTABLE SURFACE MUST CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER-TO CENTER SPACING OF NOMINAL 2.35 INCHES. THE TEXTURE OF THE DETECTABLE WARNING FEATURE MUST CONTRAST WITH THE SURROUNDING SURFACES (EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT). SEE ABOVE.
ACCEPTABLE PAVER MANUFACTURERS:
-HANOVER ARCHITECTURAL PRODUCTS, DETECTABLE WARNING PAVERS,
www.hanoverpavers.com/html/detectable.html
-TekWay™ - DETECTABLE WARNING SYSTEM
www.stronggo.com/ourproducts.html
-NuWay, CAST IN TACT, DETECTABLE WARNING PAVERS
www.nuwayinc.com/CAST_IN_TACT_1.pdf

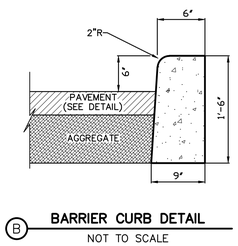
YELLOW COLOR ONLY
DETECTABLE WARNING SURFACE
NOT TO SCALE



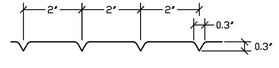
COMBINED CONCRETE HIGH BACK CURB AND GUTTER
NOT TO SCALE



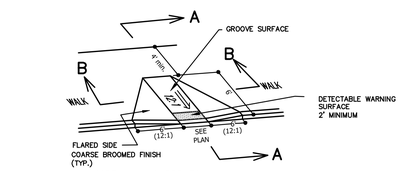
COMBINED CONCRETE HIGH BACK CURB AND GUTTER
NOT TO SCALE



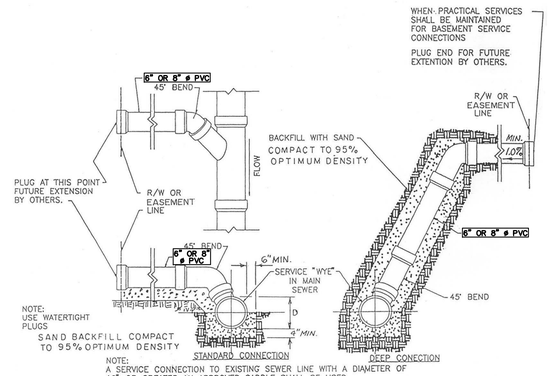
BARRIER CURB DETAIL
NOT TO SCALE



DETAIL OF RAMP GROOVES
NOT TO SCALE

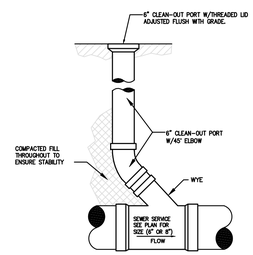


HANDICAP RAMP TYPE A
NOT TO SCALE



NOTE:
A SERVICE CONNECTION TO EXISTING SEWER LINE WITH A DIAMETER OF 10" OR GREATER AN APPROVED SADDLE SHALL BE USED.

SERVICE CONNECTION DETAILS
NOT TO SCALE



CLEAN-OUT
NOT TO SCALE

DONALD C. TORRENGA
REGISTERED
No. 19868
STATE OF INDIANA
PROFESSIONAL ENGINEER

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
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MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA
DETAILS & SPECIFICATIONS

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

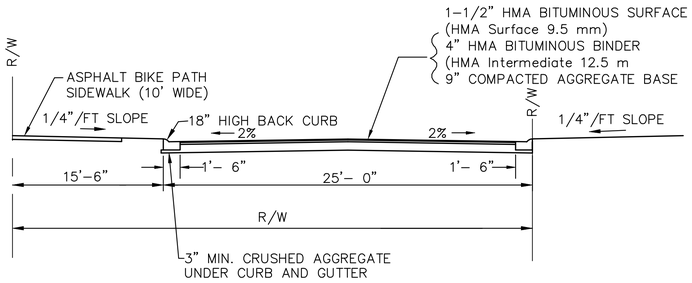
CLIENT:
First Metropolitan Builders
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: NTS

SHEET
C-5.1

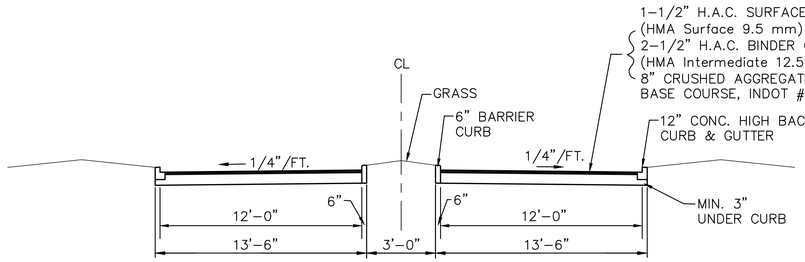
FILE NO: Z:\2019-5052 Jay Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052 Details.dwg 6/5/2020 11:47:37 AM CDT

EXHIBIT A



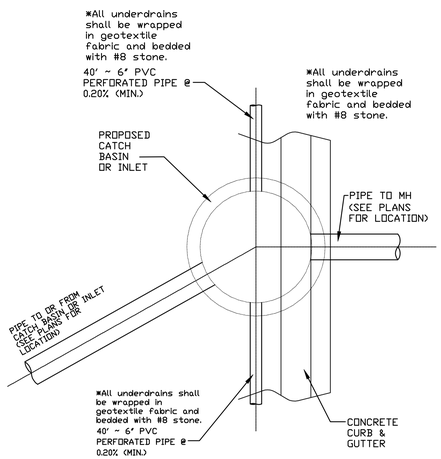
TYPICAL PUBLIC STREET CROSS SECTION

NO SCALE



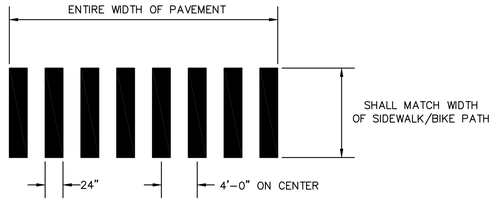
CALUMET AVENUE
RIGHT-IN/RIGHT-OUT
ENTRANCE X-SECTION

NO SCALE



PUBLIC ROADWAY UNDERDRAIN
CONNECTION DETAIL

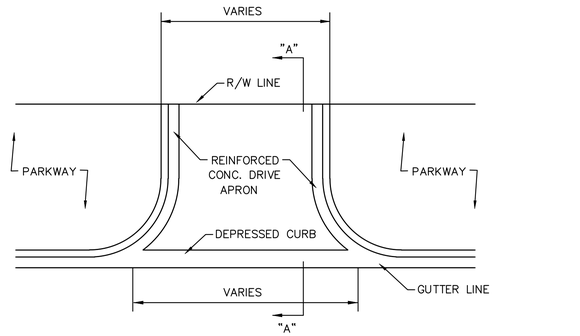
TO BE PLACED AT ALL SAG INLETS AND CATCH BASINS
NOT TO SCALE



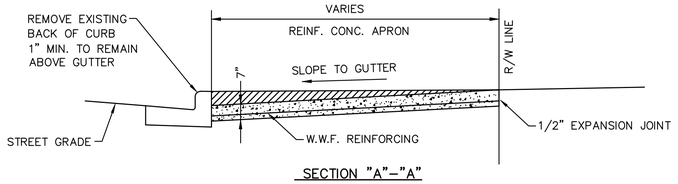
NOTE:
1. ALL REGULATOARY SIGNS SHALL BE HIGH INTENSITY AND IN ACCORDANCE WITH THE INDIANA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, MOST RECENT EDITION.
2. ALL PAVEMENT MARKINGS SHALL BE WHITE THERMOPLASTIC AND SPAN ACROSS APPROACH LANES.

CONTINENTAL
CROSSWALK DETAIL

NO SCALE



PLAN VIEW



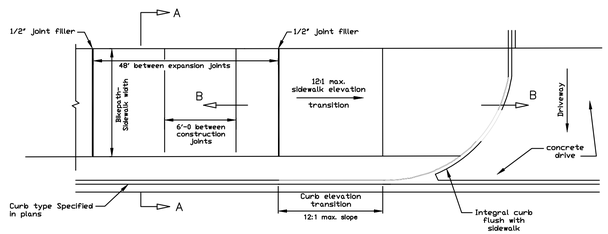
SECTION "A"-"A"

TYPICAL STREET CROSS SECTION

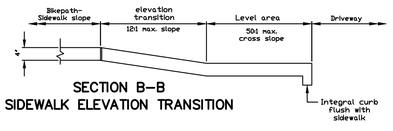
NOT TO SCALE

NOTE:
All concrete work for the drive aprons shall be in accordance with the codes and ordinances of the Town of Munster.

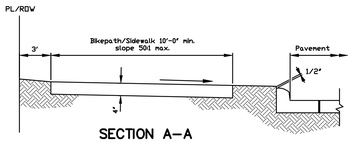
All driveway aprons extending beyond the sidewalk and into the street (parkway) shall consist of reinforced conrete at least seven inches in thickness and placed as shown on these plans and/or site plan accompanying the permit application.



SIDEWALK PLAN



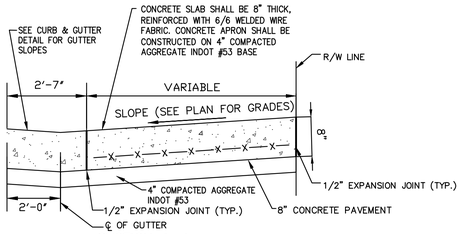
SECTION B-B
SIDEWALK ELEVATION TRANSITION



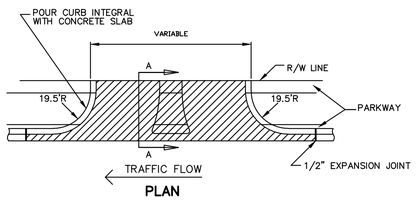
SECTION A-A
SIDEWALK ADJUSTMENT TO CURB

CALUMET AVENUE
BIKEPATH/SIDEWALK DETAILS

NO SCALE



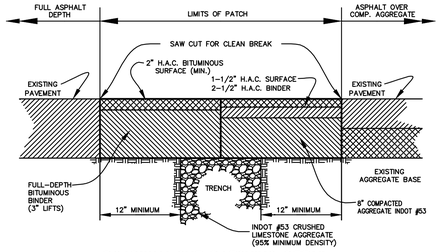
SECTION A-A



PLAN

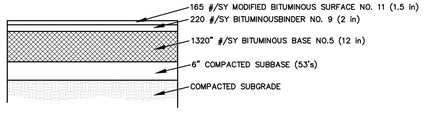
CALUMET AVENUE
CONCRETE DRIVE DETAIL

NO SCALE



ROADWAY CUT PATCHING DETAIL

NOT TO SCALE



NOTES:
1. PAVEMENT & AGGREGATE THICKNESS ARE TAKEN FROM THE TYPICAL CROSS SECTION DETAIL ON THE ORIGINAL PLANS FOR CALUMET AVENUE STAE HIGHWAY MAM-M-PROJECT NO. 152 (2), DATED 12/23/86

2. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.

TYPICAL PAVEMENT SECTION
CALUMET AVENUE

NOT TO SCALE

DONALD C. TORRENGA REGISTERED No. 19868 STATE OF INDIANA PROFESSIONAL ENGINEER

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918
website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE
TOWN OF MUNSTER, LAKE CO., INDIANA
DETAILS & SPECIFICATIONS

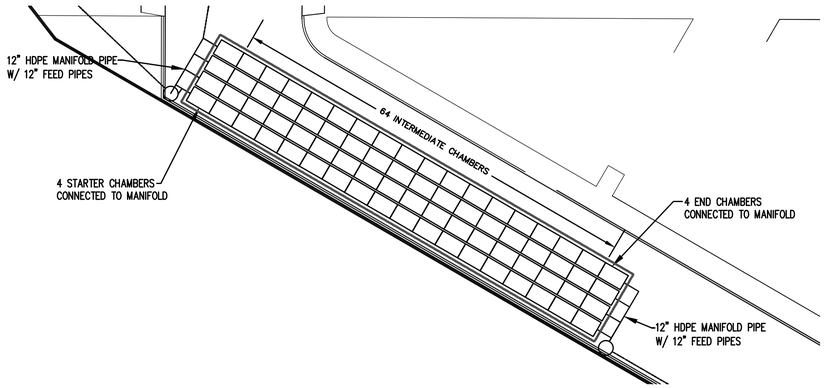
06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

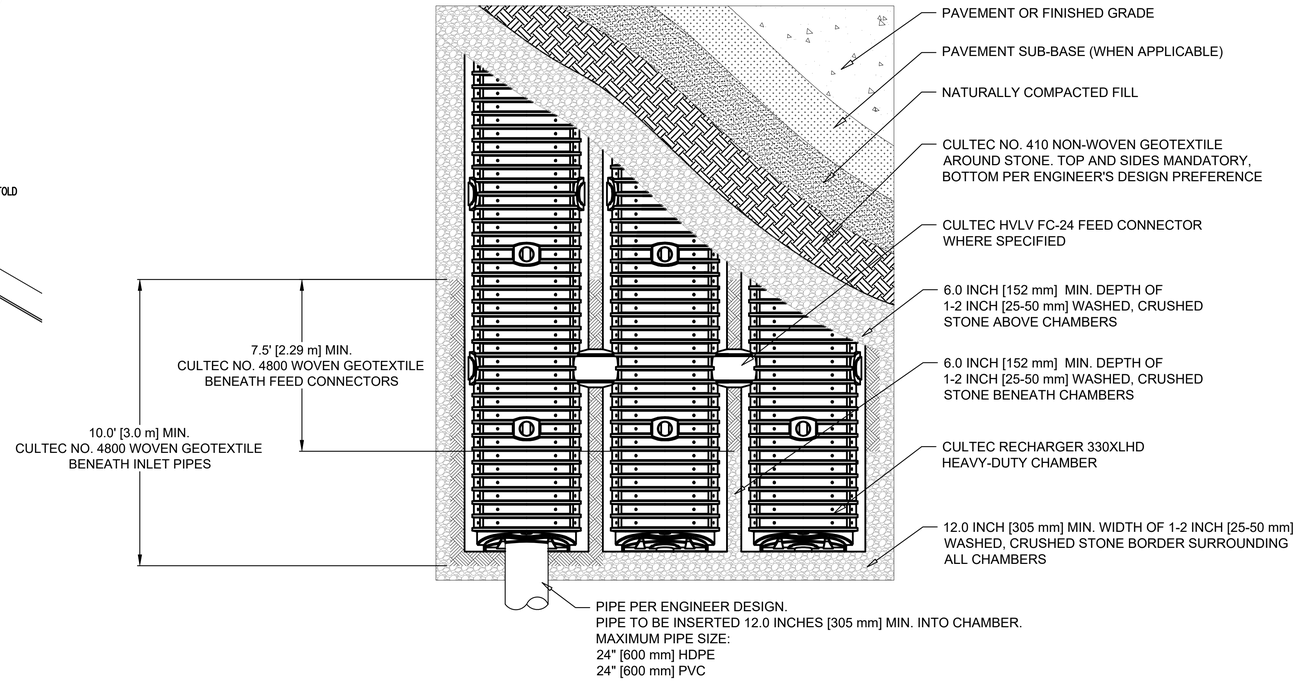
CLIENT:
First Metropolitan Builders
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: NTS

SHEET
C-5.2

EXHIBIT A





CULTEC

CULTEC Stormwater Design Calculator

Date:	June 15, 2020

Project Information:

Maple Leaf Crossings
9450 Calumet Avenue
Munster
Indiana
United States

INPUT INFO

RECHARGER 330XLHD

Project Number:	2019-5052

Calculations Performed By:

Ryan Torrenga
Torrenga Engineering
907 Ridge Road
Munster Indiana
46321
United States
(219) 836-8918
Ryan.Torrenga@Torrenga.com

Recharger 330XLHD Chamber Specifications		
Height	**30.5**	inches
Width	**52.0**	inches
Length	**8.50**	feet
Installed Length	**7.00**	feet
Bare Chamber Volume	**52.21**	cu. feet
Installed Chamber Volume	**99.56**	cu. feet

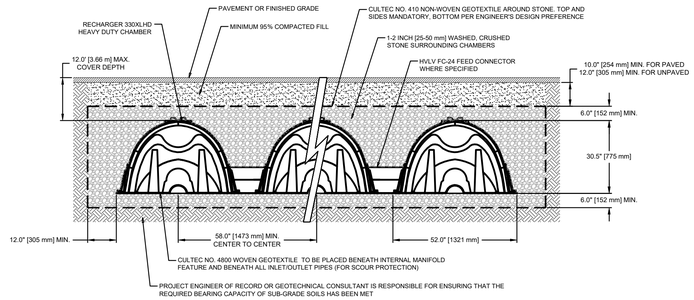
Breakdown of Storage Provided by Recharger 330XLHD Stormwater System		
Within Chambers	**3,804.09**	cu. feet
Within Feed Connectors	-	cu. feet
Within Stone	**3,919.16**	cu. feet
Total Storage Provided	**7,723.3**	**cu. feet**
Total Storage Required	7622.00	cu. feet

Materials List

Recharger 330XLHD		
Total Number of Chambers Required	**72**	**pieces**
Separator Row Chambers	**18**	pieces
Starter Chambers	**4**	pieces
Intermediate Chambers	**64**	pieces
End Chambers	**4**	pieces
HVLV FC-24 Feed Connectors	**0**	pieces
CULTEC No. 410 Non-Woven Geotextile	**960**	sq. yards
CULTEC No. 4800 Woven Geotextile	**128**	feet
Stone	**363**	cu. yards

Separator Flow Qty Included in Total

Based on External Pipe Manifold



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06-26-2020
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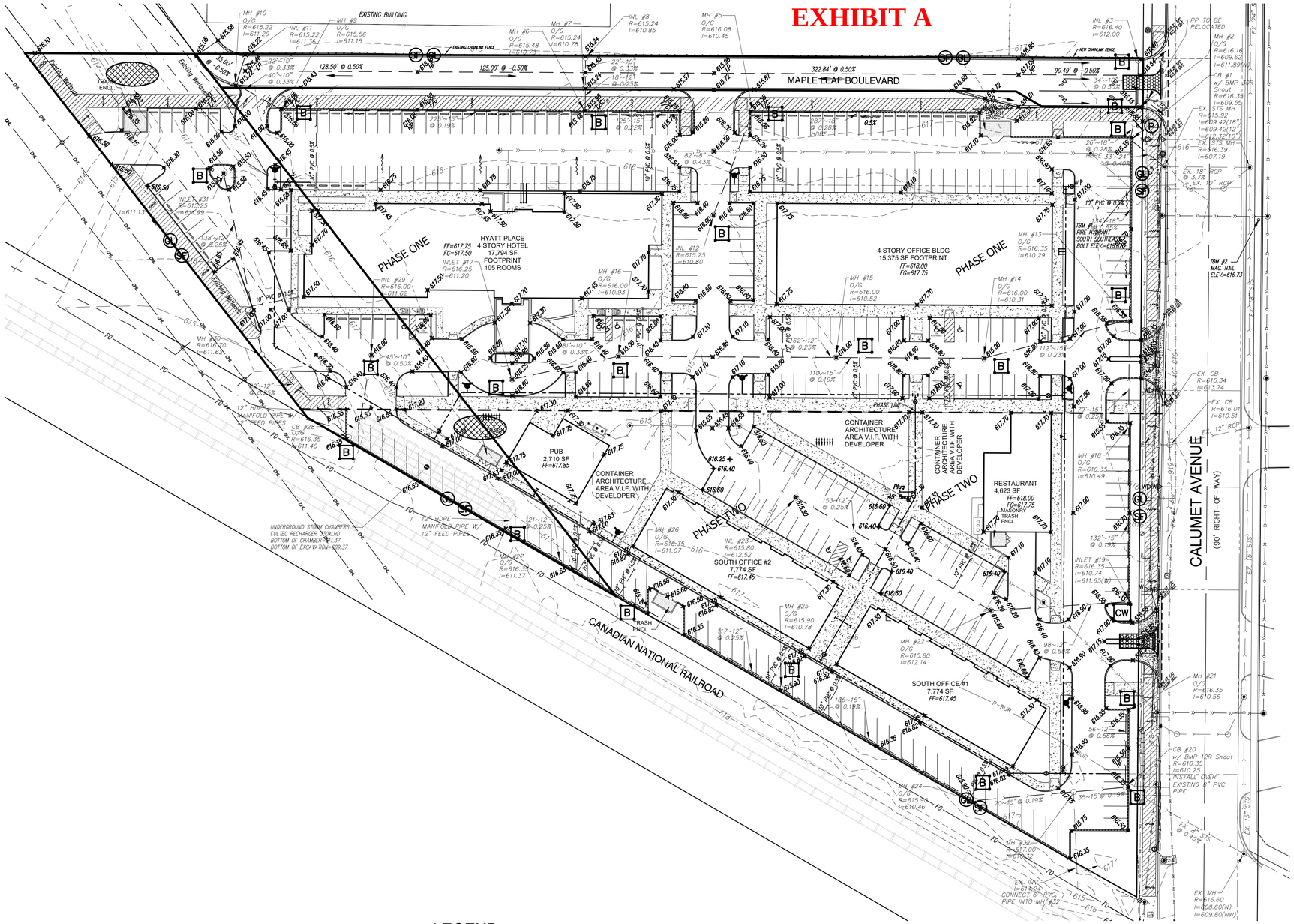

EXHIBIT A

GENERAL NOTES:

1. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X" (SHADED), AREA WITH REDUCED FLOOD RISK DUE TO LEVEE AS TAKEN FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR MUNSTER, LAKE COUNTY, INDIANA, MAP NUMBER 18089C0128E, EFFECTIVE DATE JANUARY 18, 2012.
2. HYDROLOGIC UNIT CODES: 071200030300630 - HART DITCH (PLUM CREEK) - DYER DITCH.
3. STATE OR FEDERAL WATER QUALITY PERMITS ARE REQUIRED FOR THE PROJECT, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) IDEM RULE 5 WATER QUALITY PERMIT IS REQUIRED.
4. THE SITE CONSISTS PRIMARILY OF DEMOLISHED BUILDINGS, BROKEN ASPHALT AND STONE.
5. THERE IS NO PRESENCE OF HYDRIC SOILS ON THIS PROPERTY.
6. THERE ARE EXISTING WETLAND AREAS ON THIS PROPERTY AS CLASSIFIED BY THE U.S. FISH AND WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY, AND THE UNITED STATES DEPARTMENT OF THE INTERIOR. HART DITCH (PLUM CREEK) - DYER DITCH IS THE WATER COURSE WHICH THE STORMWATER FROM THE PROPOSED SITE WILL ULTIMATELY DISCHARGE INTO, ITS LOCATED APPROXIMATELY 1 MILE EAST OF THE PROJECT SITE, AND IS CLASSIFIED AS A WATER OF THE U.S., WITH A NWL = 602±.
7. POTENTIAL SOURCE OF STORM WATER DISCHARGE ENTERING THE GROUNDWATER FROM THIS DEVELOPMENT WILL BE THROUGH NATURAL GROUND ABSORPTION ONLY. THERE ARE NO ABANDONED WELLS OR SINKHOLES ON THE PROPERTY.
8. THERE ARE NO REGULATED DRAINS WITHIN THIS PROPERTY, OR ON ADJACENT PROPERTIES. THERE IS NO RECORD OR KNOWLEDGE OF EXISTING FARM DRAINS OR FIELD TILE, INLETS AND OUTFALLS LOCATED WITHIN THE EXISTING PROPERTY LIMITS.
9. SOIL STOCKPILES, BORROW AND DISPOSAL AREAS ARE LOCATED WITHIN THE PROJECT SITE. THERE ARE NO OFFSITE BORROW, STOCKPILES, OR DISPOSAL AREA ASSOCIATED WITH THIS PROJECT. SOIL STOCKPILES SHALL BE SURROUNDED WITH SILT FENCING AT ALL TIMES TO PREVENT EXCESSIVE EROSION, AND IF LEFT UNDISTURBED FOR A PERIOD OF MORE THAN 14 DAYS, IT SHALL BE TEMPORARY SEEDED.
10. ALL ACREAGE OF THIS PROPERTY WILL BE DISTURBED DURING CONSTRUCTION.
11. FUEL STORAGE AREA SHALL BE WITHIN THE CONSTRUCTION STAGING AREA, FUEL SHALL BE STORED IN APPROVED MOBILE REFUELING TANK LOCATED AWAY FROM DRAINAGE STRUCTURES AND CHANNELS. FIRE EXTINGUISHERS SHALL BE LOCATED NEAR FUEL STORAGE AREA AND BE OF SUITABLE TYPE, POSTED, AND BE MAINTAINED IN GOOD CONDITION.
12. TEMPORARY SEED ALL AREAS OF BARE SOIL (WITH THE ADDITION OF A BLANKET WHERE SLOPES ARE GREATER THAN 2:1) THAT WILL REMAIN UNDISTURBED FOR A PERIOD OF MORE THAN 14 DAYS. SEEDING: OPTIMUM SEEDING DATED ARE MARCH 1 - MAY 10 AND AUGUST 10 - SEPTEMBER 30. SEEDING DATES BETWEEN MAY 10 AND AUGUST 10, MAY NEED TO BE IRRIGATED. FOR SEEDING RECOMMENDATIONS SEE PRACTICE 3.12, INDIANA STORM WATER QUALITY MANUAL.
13. ALL SOIL STOCKPILES, AREAS THAT ARE DISTURBED DURING CONSTRUCTION, AND DRAINAGE SWALES WHICH ARE SCHEDULED OR LIKELY TO BE LEFT INACTIVE FOR FOURTEEN (14) CALENDAR DAYS OR MORE MUST BE TEMPORARILY OR PERMANENTLY SEEDED WITH MEASURES APPROPRIATE FOR THE SEASON.
14. LOCATION OF ON-SITE POSTING, OF THE COMPLETE RULE 5 NOI WITH ASSIGNED PERMIT NUMBER, NOS LETTERS, LOCAL SWPPP PERMIT AND LOCATION OF THE COMPLETE SET OF ENGINEERING PLANS, SHALL BE AVAILABLE AT THE ENTRANCE TO THE SITE AND VISIBLE TO THE PUBLIC.
15. ALL PUBLIC AND PRIVATE STREETS AND ROADS FRONTING THE PROJECT SHALL BE SWEPT OF ANY DEBRIS, TRASH OR SEDIMENT WHICH MAY ULTIMATELY DRAIN TO STORM SEWER.
16. SITE ELEVATIONS ARE BASED ON NAVD 88, AND HORIZONTAL DATUM IS BASED ON INDIANA STATE PLANE COORDINATES NAD 83.

Rs	Rensselaer loam, calcareous subsoil variant

SOIL MAP

NOT TO SCALE

NORTH

Temporary stabilization plans and sequence of implementation.

a. On site posting of the complete Rule 5 NOI and NOS Letters. Location of the posting and plans shall be made available by the owner contractor.
b. Installation of all erosion/sedimentation controls including stabilized construction entrance, silt fences, etc... per the engineering plans.
c. Clearing and grubbing.
d. All disturbed areas shall be permanent seeded, mulched, when no additional disturbance is anticipated.
e. Topsoil stockpile surrounded with silt fencing.
f. Rough cut and fill of all proposed swales, road, and other major grading per the engineering plans shall be done to rough grades at start of construction to prevent excessive soil erosion due to construction.
g. Construction of storm sewers, sanitary sewers, water mains, and other utility, and implementation of storm sewer inlet protection at each open-grate structure (fabric drop inlet protection, basket inlet protection, etc., as per engineering plans).
h. Regrade and construct road.
i. Complete permanent erosion control and restoration of site vegetation. Erosion control measures are to be removed upon permanent vegetative cover being established.

RESPONSIBLE INDIVIDUAL FOR SWPPP

COMPANY: FIRST METROPOLITAN BUILDERS
NAME: JACK LIEISER
ADDRESS: 400 FISHER AVENUE
MUNSTER, IN 46321
PHONE: (219) 746-0753
E-MAIL: JACKLIESER@AOL.COM

LEGEND

EXISTING

- MANHOLE
- CATCH BASIN/INLET
- POWER POLE
- LIGHT POLE
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- WATER VALVE
- FIRE HYDRANT
- GAS VALVE
- NIPSCO GAS LINE-FLAGGED
- SANITARY SEWER
- STORM SEWER
- UNDERGROUND GAS LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND FIBER OPTIC CABLE LINE
- OVERHEAD ELECTRIC LINE

LEGEND

PROPOSED

- MANHOLE
- CATCH BASIN/INLET
- FIRE HYDRANT
- WATER VALVE
- FDC FIRE DEPT. CONNECTION
- 000.00 GRADE PROPOSED
- FG=000.00 FINISHED GRADE
- STORM SEWER
- SANITARY SEWER
- SANITARY SEWER STUB
- WATER MAIN
- WATER MAIN STUB
- GRADE DIRECTION ARROW

SWPPP LEGEND:

▨	TEMPORARY ENTRANCE/EXIT (GRAVEL OR MAT)
⬭	SOIL STOCK PILE
B	BASKET DROP INLET PROTECTION
GL	GRADE LIMITS
SF	SILT FENCE (SEDIMENT FENCE)
CW	CONCRETE WASH OUT AREA
TS	TEMPORARY SEEDING (SEE NOTE 12)
P	POSTING RULE 5 NOI & NOS LETTERS AND LOCAL SWPPP PERMIT (SEE NOTE 14)

DONALD C. TORRENGA
No. 19868

(IN FEET)
1 inch = 40 ft.

FILE NO: Z:\2019-5052 Jay Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052.dwg 6/4/2020 10:51:19 AM CDT

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MAPLE LEAF CROSSING
A P.U.D. TO THE TOWN MUNTER, INDIANA
STORM WATER POLLUTION PREVENTION PLAN

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: 1" = 40'

SHEET
C-6.0

EXHIBIT A

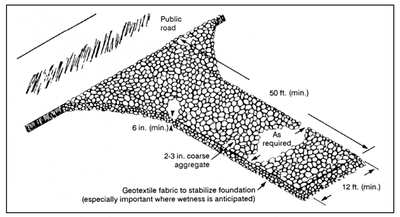
TEMPORARY CONSTRUCTION ENTRANCE/EXIT

Purpose: To provide a stable entrance/exit condition from the construction site, and to keep mud and sediment off public roads.

"GRAVEL"
Requirements:
Width: 12 feet minimum or full width of entrance
Length: 50 feet minimum
Material: 2-3 inch diameter washed stone (INDOT CA No. 2), with Geotextile Fabric Underliner.
Thickness: 6 inch minimum

Installation:
1. Remove all vegetation and other objectionable material from the foundation area.
2. Install pipe under the stone if needed to provide proper public road drainage.
3. Install Geotextile fabric on the graded foundation area prior to stone placement.
4. Divert all surface runoff and drainage from the stone to sediment trap.

Maintenance:
1. Inspect entrance pad for sediment deposits weekly and after storm events or heavy use.
2. Reshape pad as needed for drainage and runoff control.
3. Topdress with clean stone as needed.
4. Remove mud and sediment tracked or washed onto public road by brushing or sweeping. No flushing of sediment off the street
5. Repair any broken road pavement immediately.

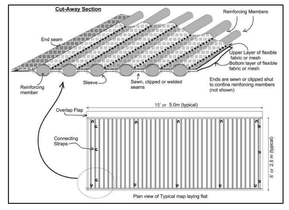


Plans of a temporary gravel construction entrance/exit pad.

"MAT"
Requirements:
Width: 12 feet minimum or full width of entrance
Length: 50 feet minimum
Material: Geotextile-Type mats, **AGES Mud Mat** or approved equal

Installation:
1. Install pipe under mat if needed to provide proper site drainage.
2. Install Geotextile-Type mat on the graded foundation area.
3. Divert all surface runoff and drainage from the mat to sediment trap.

Maintenance:
1. Inspect entrance mat for sediment deposits weekly and after storm of a minimum of 1/2 inch rainfall events or heavy use.
2. Reshape pad as needed for drainage and runoff control.
3. Repair or replace mats as needed.
4. Remove mud and sediment tracked or washed onto public road by brushing or sweeping. No flushing of sediment off the street.



PLANS OF TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD

TEMPORARY SEEDING

Purpose: To stabilize disturbed areas especially along both sides of the streets and courts after final grading work is completed and where additional work is not scheduled.

Requirements:
Site and seedbed preparation: Graded, and lime and fertilizer applied

Seed Selected:
Selected on the basis of quick germination, growth, and time of year, see Table for temporary seeding recommendations.

Fertilize: According to soil test or use 600 lbs/acre 12-12-12 analysis or equivalent.

Mulch: 1.5 - 2 tons/acre straw. Straw must be dry, unchopped and free of undesirable seeds.

Application:
1. Fertilize and lime as recommended by the soil test.
2. Till the soil to obtain a uniform seedbed, working the fertilizer and lime into the soil 2-4" deep with a disk or rake operated across the slope.
3. Apply seed uniformly with a drill or cultipacker-seeder, or by broadcasting, and cover to a depth as shown on Table for temporary seeding recommendations.
4. If drilling or broadcasting, firm the seedbed with a roller or cultipacker.
5. Mulch all seeded areas. (Note: If seeding is done with a hydroseeder, fertilizer and mulch can be applied with the seed in a slurry mixture.)

Maintenance:
1. Inspect periodically after planting to see that vegetative stands are adequately established; re-seed if necessary.
2. Check for erosion damage after storm events and repair; re-seed and mulch if necessary.

Notes:
1. Vegetative Filter Strip: permanent or temporary, shall be done on all disturbed areas along both sides of the streets and courts to reduce erosion where additional work is not scheduled.
2. Permanent Seeding: or sodding shall be done at the time of final landscaping.

Exhibit 3.11-B. Temporary Seeding Recommendations.

Seed species*	Rate/acre	Planting depth	Optimum dates**
Wheat or rye	150 lbs.	1 to 1½ in.	9/15 to 10/30
Spring oats	100 lbs.	1 in.	3/1 to 4/15
Annual ryegrass	40 lbs.	1/4 in.	3/1 to 5/1
			8/1 to 9/1
German millet	40 lbs.	1 to 2 in.	5/1 to 6/1
Sudangrass	35 lbs.	1 to 2 in.	5/1 to 7/30

* Perennial species may be used as a temporary cover, especially if the area to be seeded will remain idle for more than a year (See PERMANENT SEEDING)
** Seeding done outside the optimum dates increases the chances of seeding failure.

PERMANENT SEEDING

Purpose: To stabilize disturbed areas especially along both sided of the streets and courts after final grading work is completed and where additional work is not scheduled.

Requirements:
Site and seedbed preparation: Graded, and lime and fertilizer applied.

Seed Selected:
Selected on the basis of Site Conditions, Soil PH, intended land use, and expected level of maintenance see Table for permanent seeding recommendations.

Fertilize: According to soil test or use 600 lbs/acre 12-12-12 analysis or equivalent.

Mulch: 1.5 - 2 tons/acre straw. Straw must be dry, unchopped and free of undesirable seeds.

Application:
1. Fertilize and line as recommended by soil test.
2. Till the soil to obtain a uniform seedbed, working the fertilizer and lime into the soil 2-4" deep with a disk or rake operated across the slope.
3. Apply seed uniformly with a drill or cultipacker-seeder, or broadcasting, and cover to a depth of ¼ to ½ inch.
4. If drilling or broadcasting, firm the seedbed with a roller or cultipacker.
5. Mulch all seeded areas. (Note: If seeding is done with a hydroseeder, fertilizer and mulch can be applied with the seed in a slurry mixture.)

Maintenance:
1. Inspect periodically, especially after storm events, until the stand is successfully established. (Characteristics of a successful stand include: vigorous dark green or bluish-green seedling; uniform density with nurse plants, legumes, and grasses well intermixed; green leaves; and the perennials remaining green throughout the summer, at least at the plant base.)
2. Plan to add fertilizer the following seasons according to soil test recommendations.
3. Repair damaged, bare or sparse areas by filling any gullies, refertilizing, over- or re-seeding, and mulching.
4. If plant cover is sparse or patchy, review the plant materials chosen, soil fertility, moisture condition, and mulching; then repair the affected area either by over-seeding or by re-seeding, and mulching.
5. If vegetation fails to grow, consider soil testing to determine acidity or nutrient deficiency problems. (Contact your SWCD or Cooperative Extension office for assistance.)
6. If additional fertilization is needed to get a satisfactory stand, do so according to soil test recommendations.

Notes:
1. Permanent seeding optimum dates are March 1 to May 10 and August 10 to September 30, seeding done between May 10 to August 10 may require irrigation. Temporary seeding may be used as an alternative until preferred date for Permanent Seeding.
2. Retention/Detention area walls and base will be seeded as soon as possible using permanent seeding when possible, mulch or erosion control blankets are to be used on seeded areas to protect the soil from wind and water impact. Install silt fences around Retention/Detention area until seed is established.

Seeding Recommendations.
This table provides several seeding options. Additional seed species and mixtures are available commercially. When selecting a mixture, consider site conditions, including soil properties (e.g., soil pH and drainage), slope aspect and the tolerance of each species to shade and droughtiness.

Seed species and mixtures	Rate per acre: Permanent	Rate per acre: Dormont or frost	Optimum soil pH
OPEN AND DISTURBED AREAS (REMAINING IDLE MORE THAN 1 YR.)			
1. Perennial ryegrass	35 to 50 lbs.	50 to 75 lbs.	5.6 to 7.0
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
2. Kentucky bluegrass	20 lbs.	30 lbs.	5.5 to 7.5
+ smooth bromegrass	10 lbs.	15 lbs.	
+ switchgrass	3 lbs.	5 lbs.	
+ timothy	4 lbs.	6 lbs.	
+ perennial ryegrass	10 lbs.	15 lbs.	
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
3. Perennial ryegrass	15 to 30 lbs.	22 to 45 lbs.	5.6 to 7.0
+ tall fescue**	15 to 30 lbs.	22 to 45 lbs.	
4. Tall fescue**	35 to 50 lbs.	50 to 75 lbs.	5.5 to 7.5
+ ladino or white clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
STEEP BANKS AND CUTS, LOW MAINTENANCE AREAS (NOT MOWED)			
1. Smooth bromegrass	25 to 35 lbs.	35 to 50 lbs.	5.5 to 7.5
+ red clover*	10 to 20 lbs.	15 to 30 lbs.	
2. Tall fescue**	35 to 50 lbs.	50 to 75 lbs.	5.5 to 7.5
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
3. Tall fescue**	35 to 50 lbs.	50 to 75 lbs.	5.5 to 7.5
+ red clover*	10 to 20 lbs.	15 to 30 lbs.	
(Recommended north of US 40)			
4. Orchardgrass	^^ to 30 lbs.	30 to 45 lbs.	5.6 to 7.0
+ red clover*	10 to 20 lbs.	15 to 30 lbs.	
+ ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
5. Crownvetch*	10 to 12 lbs.	15 to 18 lbs.	5.6 to 7.0
+ tall fescue**	20 to 30 lbs.	30 to 45 lbs.	
(Recommended south of US 40)			
LAWNS AND HIGH MAINTENANCE AREAS			
1. Bluegrass	105 to 140 lbs.	160 to 210 lbs.	5.5 to 7.0
2. Perennial ryegrass (turf-type)	45 to 60 lbs.	70 to 90 lbs.	5.6 to 7.0
+ bluegrass	70 to 90 lbs.	105 to 135 lbs.	
3. Tall fescue (turf-type)**	130 to 170 lbs.	195 to 250 lbs.	5.6 to 7.5
+ bluegrass	20 to 30 lbs.	30 to 45 lbs.	
CHANNELS AND AREAS OF CONCENTRATED FLOW			
1. Perennial ryegrass	20 to 150 lbs.	150 to 225 lbs.	5.6 to 7.0
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
2. Kentucky bluegrass	20 lbs.	30 lbs.	5.5 to 7.5
+ smooth bromegrass	10 lbs.	15 lbs.	
+ switchgrass	3 lbs.	5 lbs.	
+ timothy	4 lbs.	6 lbs.	
+ perennial ryegrass	10 lbs.	15 lbs.	
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
3. Tall fescue**	100 to 150 lbs.	150 to 225 lbs.	5.5 to 7.5
+ ladino or white clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
4. Tall fescue**	100 to 150 lbs.	150 to 225 lbs.	5.5 to 7.5
+ Perennial ryegrass	15 to 20 lbs.	22 to 30 lbs.	
+ Kentucky bluegrass	15 to 20 lbs.	22 to 30 lbs.	

* For best results: (a) legume seed should be inoculated; (b) seeding mixtures containing legumes should preferably be spring-seeded, although the grass may be fall-seeded and the legume frost-seeded; and (c) if legumes are fall-seeded, do so in early fall.
** Tall fescue provides little cover for, and may be toxic to, some species of wildlife. The IDNR recognizes the need for additional research on alternatives to tall fescue, such as buffalograss, orchardgrass, smooth bromegrass, and switch-grass. This research, in conjunction with demonstration areas, should focus on erosion control characteristics, wildlife toxicity, turf durability, and drought resistance.

DORMANT AND FROST SEEDING

Purpose:
1. To provide early germination and soil stabilization in the spring.
2. To reduce sediment runoff to downstream areas.
3. To repair previous seedings.

Requirements:
Site and seedbed preparation: Graded, lime and fertilizer applied.

Seed Selected:
Selected on the basis of Site Conditions, Soil PH, intended land use, and expected level of maintenance. See Table for dormant or frost seeding recommendations.

Fertilize: According to soil test or use 400-600 lbs/acre 12-12-12 analysis or equivalent.

Application:
Dormant seeding is a temporary or permanent seeding application at a time when soil temperatures are too low for germination to occur (less than 50 °F) Frost seeding is a temporary or permanent seeding application in early spring when soils are in the freeze-thaw stage.

For Dormant Seeding: (Seeding dates: Dec. 1-Feb. 28)
1. Site preparation and mulching can be done months ahead of actual seeding, apply mulch upon completion of grading (Practice 3.15)
2. Broadcast fertilizer as recommended by soil test.
3. Broadcast seeding on top of the mulch and/or into existing ground cover at the rate shown on table. (if site preparation occurs within the recommended dates, fertilize and lime, seed, and mulch at the time.)

For Frost Seeding: (Seeding dates: Feb. 28 - Mar. 28)
1. Broadcast fertilizer as recommended by a soil test.
2. Select an appropriate seed species or mixture from table for temporary seeding or table for permanent seeding, and broadcast on to the seedbed or into the existing ground cover at the rate shown. (Do not work the seed into the soil.)

Maintenance:
1. Apply 200-300 lbs./acre of 12-12-12 or equivalent fertilizer between Apr. 15 and May 10 or during periods of vigorous growth.
2. Re-seed and mulch any areas that have inadequate cover by mid- to late April. For best results, re-seed within the recommended dates shown for temporary seeding or for permanent seeding.

Temporary Dormant or Frost Seeding Recommendations.

Seed species*	Rate per acre
Wheat or rye	150 lbs.
Spring oats	150 lbs.
Annual ryegrass	60 lbs.

*Perennial species may be used as temporary cover, especially if the area to be seeded will remain idle for more than a year.

MULCHING

Purpose: To promote seed germination and seedling growth, a temporary surface stabilization, and protecting the soil from wind and water impact.

Requirements:
Material: Straw, hay, wood fiber or excelsior, see table for Mulch Materials, Rates, and comments.
Comments:
Coverage: 75% of the soil surface
Anchoring: Required to prevent displacement by wind or water, see table for Mulch Anchoring Methods.

Application:
1. Apply mulch at the recommended rate.
2. Spread uniformly by hand, hay fork, mulch blower, or hydromulcher with no more than 25% of the surface visible.
3. Anchor immediately if using straw or hay, using one of the folliwing methods:
- Crimp with mulch anchoring tool.
- Hydromulch with short cellulose fibers.
- Apply liquid tackifier.
- Cover with netting secured with metal staples..

Maintenance:
1. Inspect after storm events to check for movement of mulch or for erosion.
2. If washout, breakage, or erosion is present, repair the surface, then re-seed, re-mulch.
3. Continue inspections until vegetation is firmly established.

Exhibit 3.15-B. Mulch Materials, Rates, and Comments.

Material	Rate	Comments
Straw or hay	1½-2 tons/acre	Should be dry, unchopped, free of undesirable seeds. Spread by hand or machine. Must be crimped or anchored (see *Exhibit 3.15-D*).
Wood fiber or cellulose	1 ton /acre	Apply with a hydromulcher and use with tacking agent.
Long fiber wood (excelsior)	1/2-3/4 ton/acre	Anchor in areas subject to wind.

Exhibit 3.15-D. Mulch Anchoring Methods.

Anchoring method	How to apply
Mulch anchoring tool OR Farm disk (dull, serrated, and set straight)	Crimp or punch the straw or hay into the soil 2-4 in. Operate machinery on the contour of the slope.
Cleating with dozer tracks	Operate dozer up and down slope, not across, or else the tracks will form rills.
Wood hydromulch fibers	Apply 1-2 tons/acre using a hydromulcher at a rate of 750 lbs./acre with a tacking agent (or according to contractor specifications). Do not use in areas of concentrated flow.
Asphalt emulsion	Emulsified asphalt should conform to the requirements of ASTM Spec. #977. Apply with suitable equipment at a rate of 0.05 gal./sq. yd. Do not use in areas of concentrated flow.
Synthetic tackifier, binder or soil stabilizer	Apply according to manufacturer's recommendation.
Biodegradable netting (polypropylene or similar material)*	Apply over mulch and staple with 6-8 in. wire staples. Follow manufacturer's recommendations for installation. Best suited to slope application.

* Install the netting immediately after applying the mulch. In areas of concentrated water flow, lay it parallel to the direction of flow; on other slopes, lay it either parallel or perpendicular to direction of flow. Edges of adjacent netting strips should overlap 4-6 in., with the strip on the upgrade side of any lateral water flow on top. Installation details are site specific, so follow manufacturer's directions.

SELF-MONITORING PROGRAM

A self-monitoring program that includes the following must be implemented at all permitted project sites:

1. A trained individual shall perform a written evaluation of the project site a minimum of one (1) time per week and by the end of the next business day following each measurable storm event.
2. The evaluation must address the maintenance of existing storm water quality measures to ensure they are functioning properly and identify additional measures necessary to remain in compliance with all applicable statutes and rules.
3. Written evaluation reports must include:
   a. the name of individual performing the evaluation;
   b. the date of evaluation;
   c. problems identified at the project site; and
   d. details of corrective actions recommended and completed.
4. All evaluation reports for the project site must be made available to the MS4 Operator or other designated entity within forty-eight (48) hours of a request.
5. Evaluation reports must be maintained for a period of two (2) years from date of NOT.
6. All evaluation reports will be submitted to the Town of Munster when requested.

Date: _____
Project: _____
Inspected by: _____
Type of Inspection: Scheduled Weekly Rain Event

CONSTRUCTION SITE INSPECTION AND MAINTENANCE LOG
(To be Completed by Property Owner or Agent)

All stormwater pollution prevention BMPs shall be inspected and maintained as needed to ensure continued performance of their intended function during construction and shall continue until the entire site has been stabilized and a Notice of Termination has been issued. An inspection of the project site must be completed by the end of the next business day following each measurable storm event. If there are no measurable storm events within a given week, the site should be monitored at least once in that week. Maintenance and repair shall be conducted in accordance with the accepted site plans. This log shall be kept as a permanent record and must be made available to **the ,Town of Munster Town)** Engineer, in an organized fashion, within forty-eight (48) hours upon request.

Yes	No	N/A	
			1. Are all sediment control barriers, inlet protection and silt fences in place and functioning properly?
			2. Are all erodible slopes protected from erosion through the implementation of acceptable soil stabilization practices?
			3. Are all dewatering structures functioning properly?
			4. Are all discharge points free of any noticeable pollutant discharges?
			5. Are all discharge points free of any noticeable erosion or sediment transport?
			6. Are designated equipment washout areas properly sited, clearly marked, and being utilized?
			7. Are construction staging and parking areas restricted to areas designated as such on the plans?
			8. Are temporary soil stockpiles in approved areas and properly protected?
			9. Are construction entrances properly installed and being used and maintained?
			10. Are "Do Not Disturb" areas designated on plan sheets clearly marked on-site and avoided?
			11. Are public roads at intersections with site access roads being kept clear of sediment, mud, and dust?
			12. Is spill response equipment on-site, logically located, and easily accessed in an emergency?
			13. Are emergency response procedures and contact information clearly posted?
			14. Is solid waste properly contained?
			15. Is a stable access provided to the solid waste storage and pick-up area?
			16. Are hazardous materials, waste or otherwise, being properly handled and stored?
			17. Have previously recommended corrective actions been implemented?

If you answered "no" to any of the above questions, describe any corrective action which must be taken to remedy the problem and when the corrective actions are to be completed.

REPORT SAMPLE

SPILL PREVENTION AND RESPONSE

Purpose: Procedures and practices to prevent and control spills in a manner that minimizes or eliminates the discharge of spilled material to the drainage system or watercourses.

Hazardous Waste Products:
- Petroleum Products,
- Asphalt Products,
- Concrete Curing Compounds,
- Pesticides,
- Acids,
- Paints,
- Stains,
- Solvents,
- Wood Preservatives,
- Roofing Tar, or

Other Waste Products:
- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals
- Fuels
- Lubricants
- Other petroleum distillates

Any materials deemed a hazardous waste in 40 CFR Parts 110, 117, 261, or 302

Spill Prevention Practices:
The following are management practices used for reduction of spills and other accidental exposure of materials and substances to storm water runoff:
a. The contractors and subcontractors shall refer to the Material Safety Data Sheet (MSDS) for information on the proper storage, use, and clean-up methods for all materials anticipated being on the project site.
b. All required materials for spill clean up and disposal of all onsite materials shall be kept on site in a project trailer with easy access for all users of associated materials.
c. All disposals of spilled materials shall be done in accordance with Federal, State and Local waste disposal regulations. All contractors and subcontractors shall be responsible for any and all spills associated with their work.
d. Prompt cleanup of any spills that may occur of liquid or dry materials.
e. Cleanup of sediments that have been tracked by vehicles or have been transported by wind or storm water about the site or onto nearby roadways.

Response Practices:
In the event that a large spill occurs (that which requires extensive cleanup actions, refer to MSD sheets for information), the following procedures shall be followed to minimize exposure of the material.

a. Immediate action shall be taken to control and contain the spill to prevent it from entering any nearby storm sewer structures or open waters.
b. Notify the Town of Munster Fire Department at 911 for all combustible and flammable materials.
c. Notify the Federal Emergency Spill Hotline at 1-800-424-8802 within 2 hours for spills above the reported allowable quantity, or if the material enters any nearby storm sewer structures or open waters.
d. Notify the Indiana Emergency Response Hotline at 1-888-233-7745.
e. The spill area shall be isolated from all surrounding areas with absorbent pads, booms, and pillows designed for the use of spill containment and absorption.
f. The spill kits that are required to be on site shall be utilized.
g. Emergency Response teams shall be contacted for extensive spills above and beyond the containment by available methods.

Waste Disposal Management Practices:
All solid waste associated with the construction and development of this project shall be removed and disposed of properly with in all applicable state and federal laws associated with the waste generated. Developer and/or contractor are to provide on-site dumpsters, rented from a licensed solid waste management company, to ensure waste is collected and disposed of properly. All trash and construction debris from the site will be deposited in a dumpster. No construction waste will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal.

a. Select a designated waste collection area onsite.
b. Provide an adequate number of containers with lids or covers throughout the site, and frequent pickups
c. Provide immediate cleanup of any container spills.
d. Make sure that construction waste is collected, removed, and disposed of only at authorized areas.

DONALD C. TORRENGA REGISTERED No. 19868 STATE OF INDIANA PROFESSIONAL ENGINEER

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918 website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA
SWPPP DETAILS & SPECIFICATIONS

06-26-2020
06-05-2020
REVISIONS:
DATE: 05-11-2020

CLIENT:
First Metropolitan Builders
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: NTS

SHEET
C-7.0

FILE NO:Z:\2019-5052 Joy Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052 SWPPP Details.dwg 6/4/2020 11:07:10 AM CDT

BASKET INLET / CATCH BASIN PROTECTION

Purpose: To prevent excessive sediment from entering storm sewers at inlet/catch basin, allowing full use of the storm drain system during the construction period.

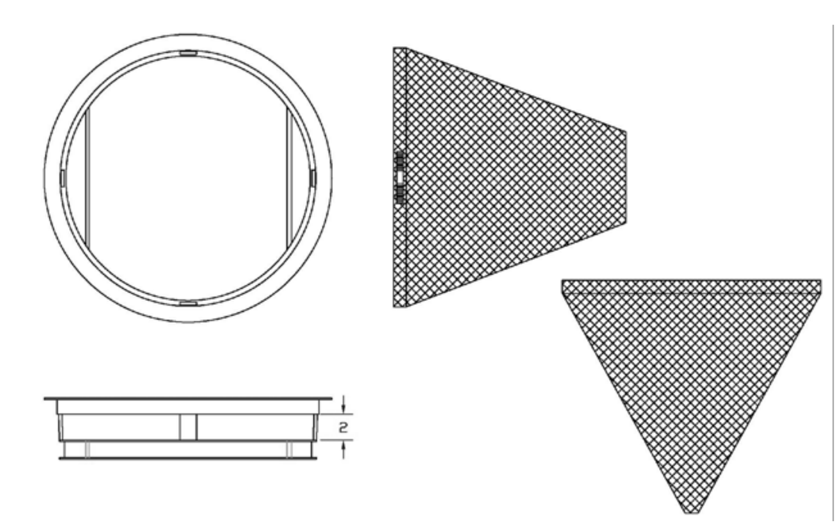
Requirements: Steel Frame with top width-length dimensions such that the basket fits into the inlet and/or catch basin (circular and/or rectangular), and a replaceable Geotextile fabric bag attached with a steel band locking cap that is suspended from the frame, **Catch -all Inlet Protector Hancor Flo-Gard bt Nyloplast** or approved equal.

Installation:

1. Install protection to existing and newly installed inlet/catch basin in a new development before land disturbing activities begin in a stabilized area.
2. Remove the grate, and place the basket assembly under the grate on the lip of the structure frame.
3. Replace the inlet/catch basin grate.

Maintenance:

1. Inspect weekly during construction and after each storm event of a minimum of 1/2 inch rainfall, and remove built-up sediment.
2. Replace bag every six (6) months.
3. Replace the Geotextile fabric bag if there is a hole and/or won't pass water.
4. Replace the Geotextile fabric bag after any oil, gasoline or solvent spill.



GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

TYPICAL INLET/CATCH BASIN PROTECTION
INSERT DETAIL

STREET AND PARKING LOT SWEEPING

Purpose: To reduce the amount of pollutants that get washed into the storm drain and ultimately transported and deposited in waterbodies.

Application:

1. Sweeping at points of egress where sediment is tracked from project site onto public or private streets and roads.

Limitations:

1. Sweeping may be ineffective if soil is wet or heavy accumulation of mud.
2. May require repeat cleanings.

Maintenance:

1. Inspect potential sediment tracking ingress and egress points locations daily, and after rain events.
2. Visible sediment observed outside the construction limits shall be swept and removed daily.
3. Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.
4. If not mixed with debris or trash, consider incorporating the removed sediment back into the project.
5. Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
6. Adjust brooms frequently; maximize efficiency of sweeping operations.
7. After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

SILT FENCE

EXHIBIT A

Purpose: To retain sediment from small sloping disturbed areas by reducing the velocity of sheet flow.

Requirements:

Trench: 6" minimum depth, flat bottom , filled with compacted soil to bury lower portion of fence fabric.

Support : 2" x 2" hardwood stakes set at least 8-inches to 12-inches deep.

Spacing of Support: 6-foot maximum on center.

Fence height: A 2-ft. minimum or high enough so depth of impounded water does not exceed one-half the height of the fence at any point along the line.

Attachement: Hardwood laths secured to stakes with five (5) 1-1/2 inch staples.

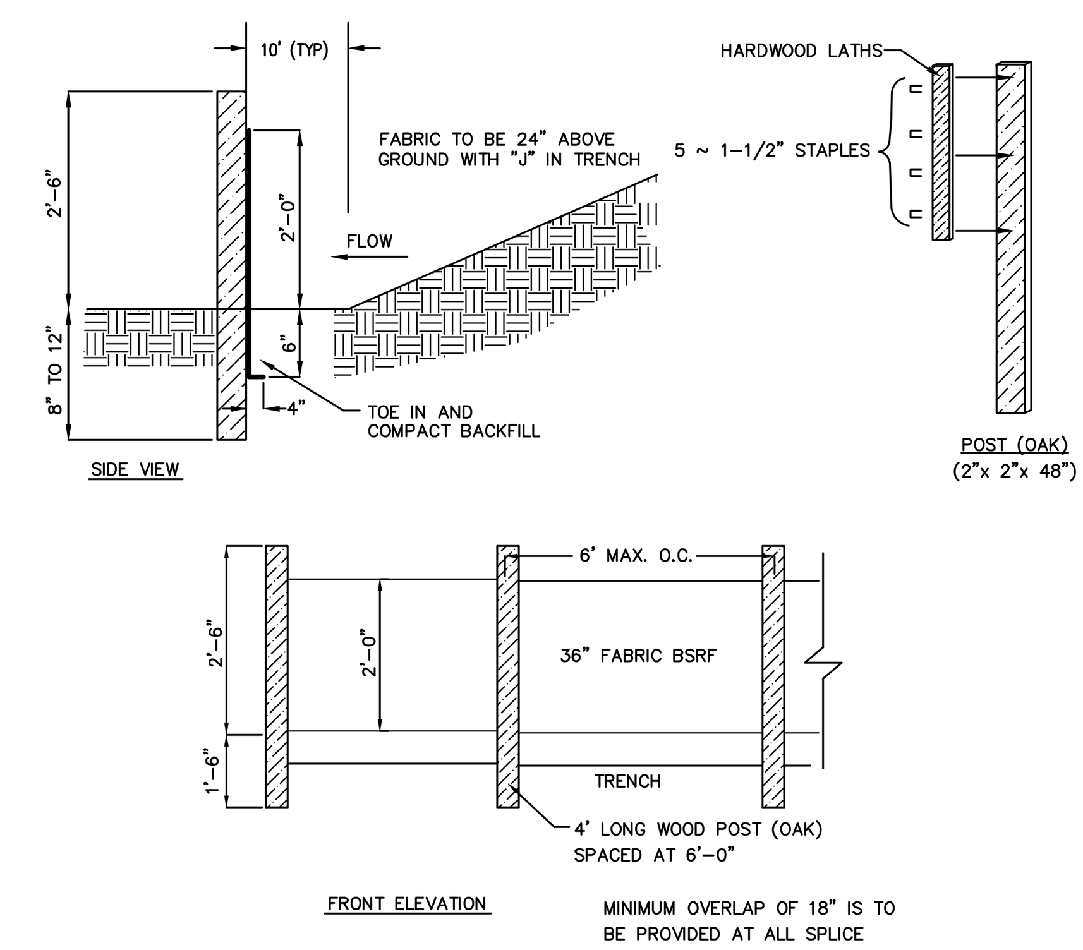
Fence Fabric: Spunbound polyester material with a fiberglass scrim or net sandwiched in between the layers, **SS-700 SiltSaver** or approved equal.

Installation:

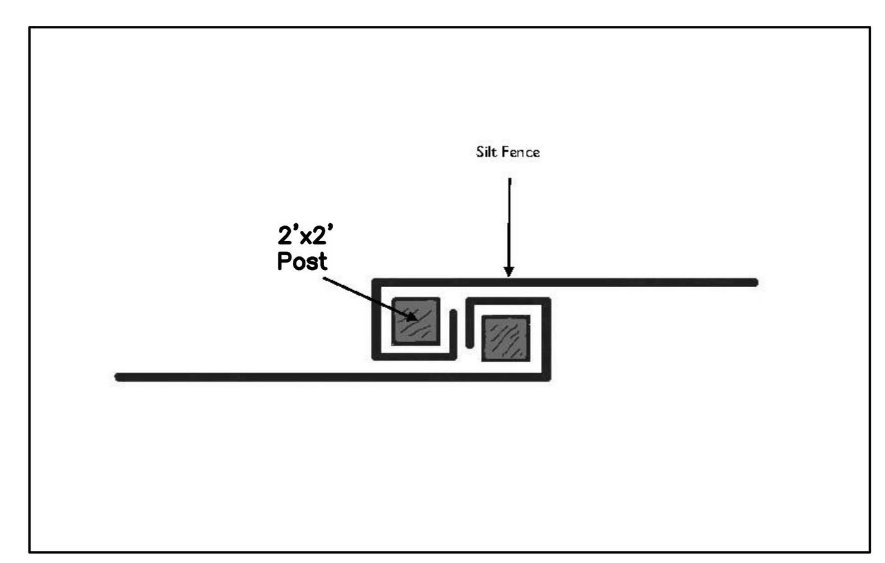
1. Along the entire intended fence line, maintain contour as much as possible, dig a 6" deep flat bottom trench.
2. On the downslope side of the trench, drive the post 8" to 12" into the ground.
3. Run a continuous length of fence fabric along upslope side of posts.
4. Fasten fence fabric to the upslope side of the stakes, extending it into the trench, and securing it with hardwood laths secured with five (5) 1-1/2 staples. The bottom 12" of the fence fabric shall be left unsecured to allow for entrenchment.
5. If a joint is necessary, staple the overlap to the nearest post with a wood lath.
6. Place the bottom 1' of fabric in the 6" deep trench, extending the remaining 4" of fabric toward the upslope side.
7. Backfill the trench with compacted earth.

Maintenance:

1. Inspect silt fence once every seven calendar days and 24 hours after each storm event of minimum of 1/2 inch rainfall.
2. If fence fabric tears, starts to decompose, or becomes ineffective, replace the affected portion, as outlined by the manufacturer.
3. Remove deposited sediment when it reaches one-half the height of the fence at its lowest point or is causing the fabric to bulge.
4. Take care to avoid undermining the fence during clean out.
5. After watershed has been stabilized, remove fence and sediment deposits, bring the disturbed area to grade and stabilize.



BELTED SILT RETENTION FENCE



Silt Fence Wrap Joint Detail

TOPSOIL SALVAGE & UTILIZATION

Purpose: To provide a method of preserving topsoil for use in establishing vegetation to achieve final site stabilization.

Specifications:
Material
Typically the darker, friable, loamy surface layer of soil found immediately below vegetation.

Storage Area

1. Free of stumps, rock, and construction debris.
2. Stockpile covered with vegetation or a tarp.
3. Surrounded by a sediment barrier or sediment filter.
4. Stockpile outside rooting zone of trees to be protected.

Application:
Salvaging and Stockpiling Topsoil

1. Determine depth and suitability of topsoil at site.
2. Prior to stripping topsoil, install any site-specific down slope measures needed to control storm water runoff and sedimentation.
3. Remove soil material no deeper than the "surface soil".
4. Stockpile the material in accessible locations that will not interfere with other construction activities or block drainage.
5. Stockpiled soil should be temporarily seeded and surrounded by a sediment control measure.

Spreading Topsoil

1. Prior to applying topsoil, grade the subsoil and roughen the top three to four inches by disking.
2. Apply topsoil evenly to a depth of a minimum of four inches, then compact slightly to improve contact with the subsoil.
3. Do not apply topsoil when the site is wet, muddy, or frozen.
4. After spreading the topsoil, grade and stabilize the site.

Maintenance:

1. Inspect daily.
2. Check for damage to perimeter barrier; repair immediately.
3. Check for erosion or damage to newly spread topsoil; repair immediately and revegetate.

CONCRETE WASHOUT

Purpose: To reduce the discharge of pollutants associated with concrete waste through consolidation of solids and retention of liquids.

Requirements:

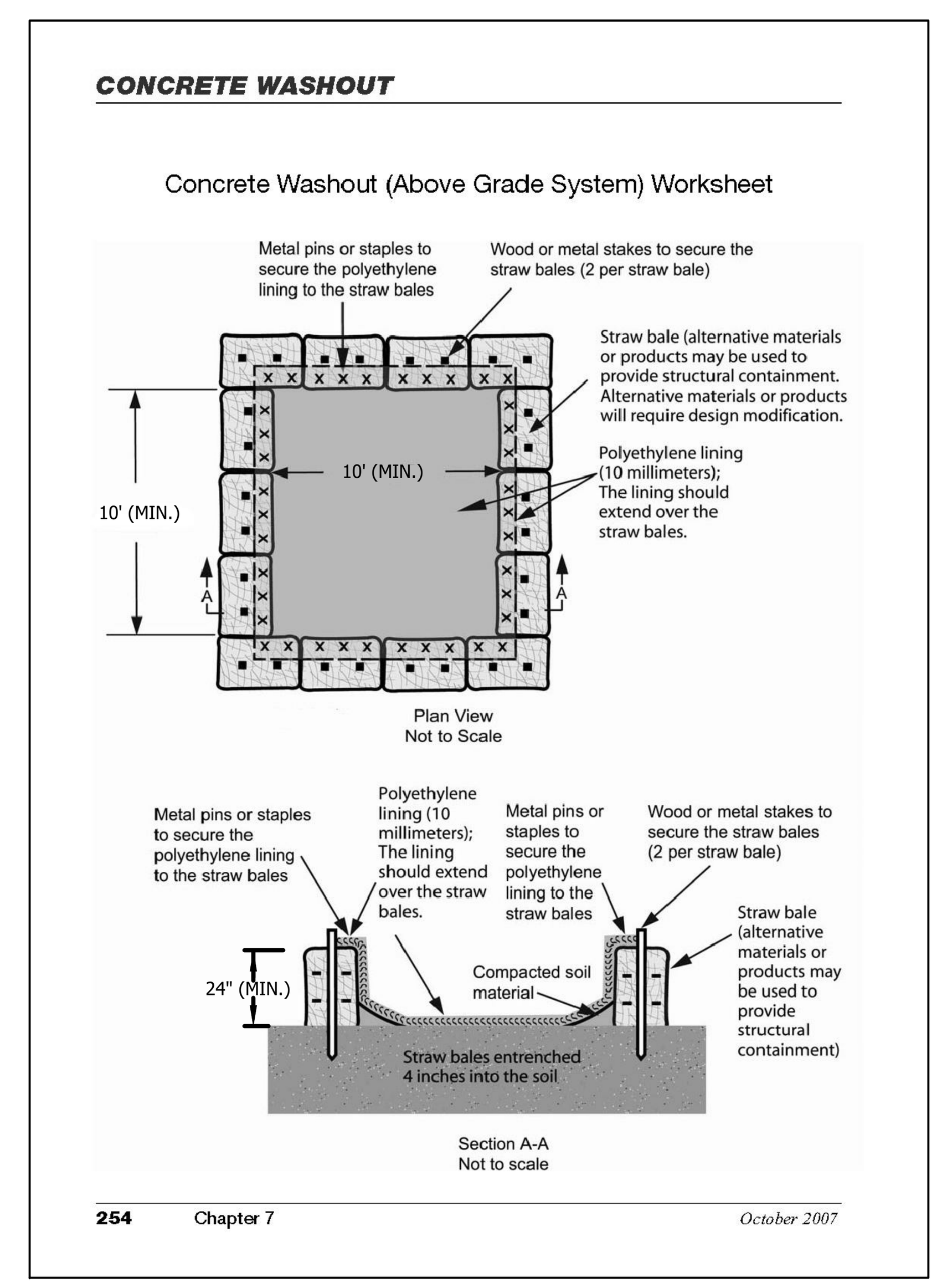
1.) Locate concrete washout systems at least 50 feet from any creeks, wetlands, ditches, karst features, or storm drains/manmade conveyance systems.
2.) Locate concrete washout systems in relatively flat areas with established vegetative cover and do not receive runoff from adjacent land areas.
3.) Locate in areas that provide easy access for concrete trucks and other construction equipment.
4.) Locate away from other construction traffic to reduce the potential for damage to the system.
5.) Minimum of ten millimeter polyethylene sheeting that is free of holes, tears, and other defects. The sheeting selected should be of an appropriate size to fit the washout system without seams or overlap of the lining.
6.) Signage.
7.) Orange safety fencing or equivalent.
8.) Straw bales, sandbags (bags should be ultraviolet-stabilized geotextile fabric), soil material, or other appropriate materials that can be used to construct a containment system (above grade systems).

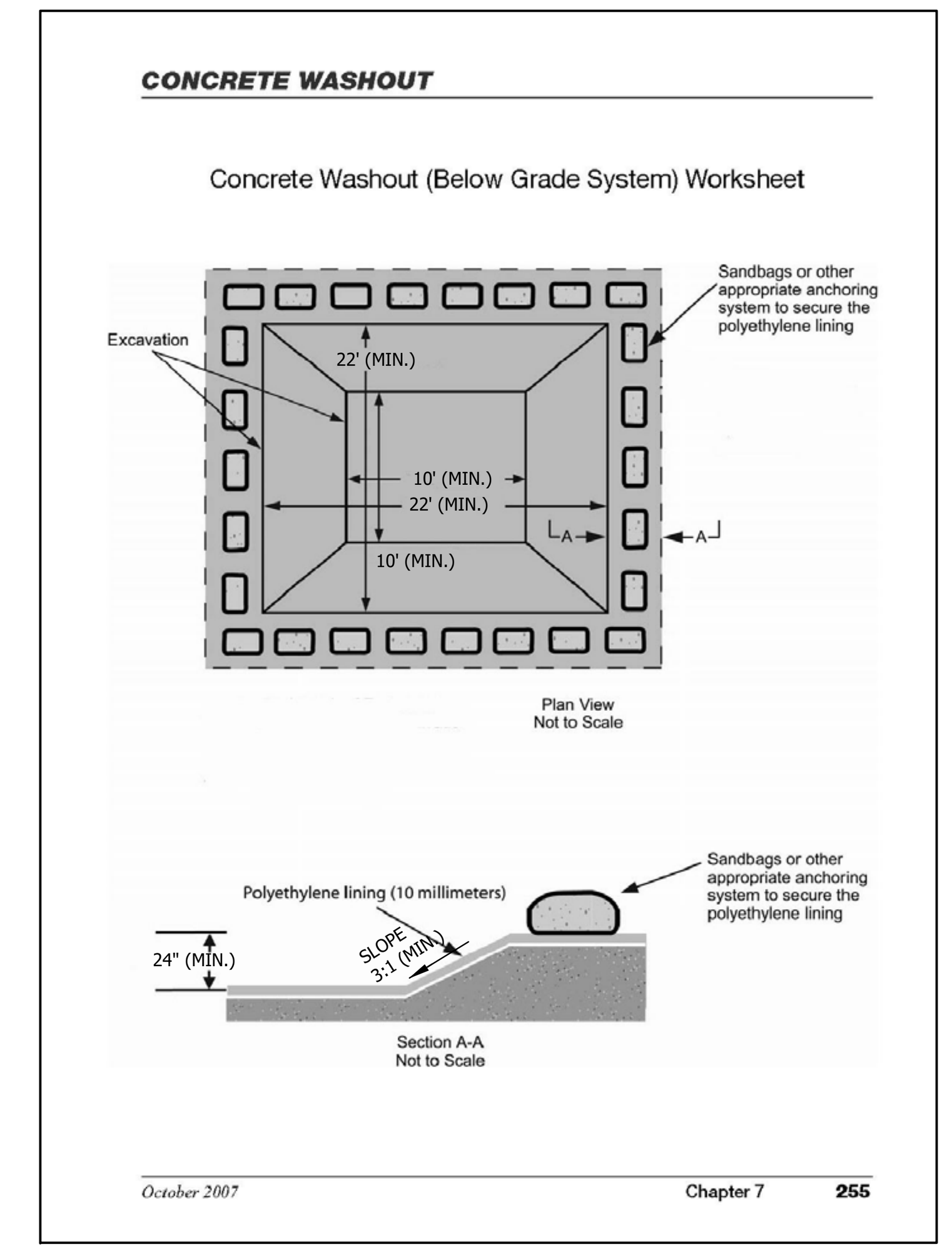
Installation:

1.) Dependent upon the type of system, either excavate the pit or install the containment system.
2.) A base shall be constructed and prepared that is free of rocks and other debris that may cause tears or punctures in the polyethylene lining.
3.) Install the polyethylene lining. For excavated systems, the lining should extend over the entire excavation. The lining for bermed systems should be installed over the pooling area with enough material to extend the lining over the berm or containment system. The lining should be secured with pins, staples, or other fasteners.
4.) Place flags, safety fencing, or equivalent to provide a barrier to construction equipment and other traffic.
5.) Place a non-collapsing, non-water holding cover over the washout facility prior to a predicted rainfall event to prevent accumulation of water and possible overflow of the system (optional).
6.) Install signage that identifies concrete washout areas.
7.) Post signs directing contractors and suppliers to designated locations.

Maintenance:

1.) Inspect daily and after each storm event.
2.) Inspect the integrity of the overall structure including, where applicable, the containment system.
3.) Inspect the system for leaks, spills, and tracking of soil by equipment.
4.) Inspect the polyethylene lining for failure, including tears and punctures.
5.) Once concrete wastes harden, remove and dispose of the material.
6.) Excess concrete should be removed when the washout system reaches 50 percent of the design capacity. Use of the system should be discontinued until appropriate measures can be initiated to clean the structure. Prefabricated systems should also utilize this criterion, unless the manufacturer has alternate specifications.
7.) Upon removal of the solids, inspect the structure. Repair the structure as needed or construct a new system.
8.) Dispose of all concrete in a legal manner. Reuse the material on site, recycle, or haul the material to an approved construction/demolition landfill site. Recycling of material is encouraged. The waste material can be used for multiple applications including but not limited to roadbeds and building. The availability for recycling should be checked locally.
9.) The plastic liner should be replaced after every cleaning; the removal of material will usually damage the lining.
10.) The concrete washout system should be repaired or enlarged as necessary to maintain capacity for concrete waste.
11.) Concrete washout systems are designed to promote evaporation. However, if the liquids do not evaporate and the system is near capacity it may be necessary to vacuum or remove the liquids and dispose of them in an acceptable method. Disposal may be allowed at the local sanitary sewer authority provided their National Pollutant Discharge Elimination System permits allow for acceptance of this material. Another option would be to utilize a secondary containment system or basin for further dewatering.
12.) Prefabricated units are often pumped and the company supplying the unit provides this service.
13.) Inspect construction activities on a regular basis to ensure suppliers, contractors, and others are utilizing designated washout areas. If concrete waste is being disposed of improperly, identify the violators and take appropriate action.
14.) When concrete washout systems are no longer required, the concrete washout systems shall be closed. Dispose of all hardened concrete and other materials used to construct the system.
15.) Holes, depressions and other land disturbances associated with the system should be backfilled, graded, and stabilized.





TORRENGA ENGINEERING, INC.
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MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE
TOWN OF MUNSTER, LAKE CO., INDIANA
SWPPP DETAILS & SPECIFICATIONS

REVISIONS:
06-26-2020
06-05-2020
DATE: 05-11-2020

CLIENT:
First Metropolitan Builders
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: NTS

SHEET
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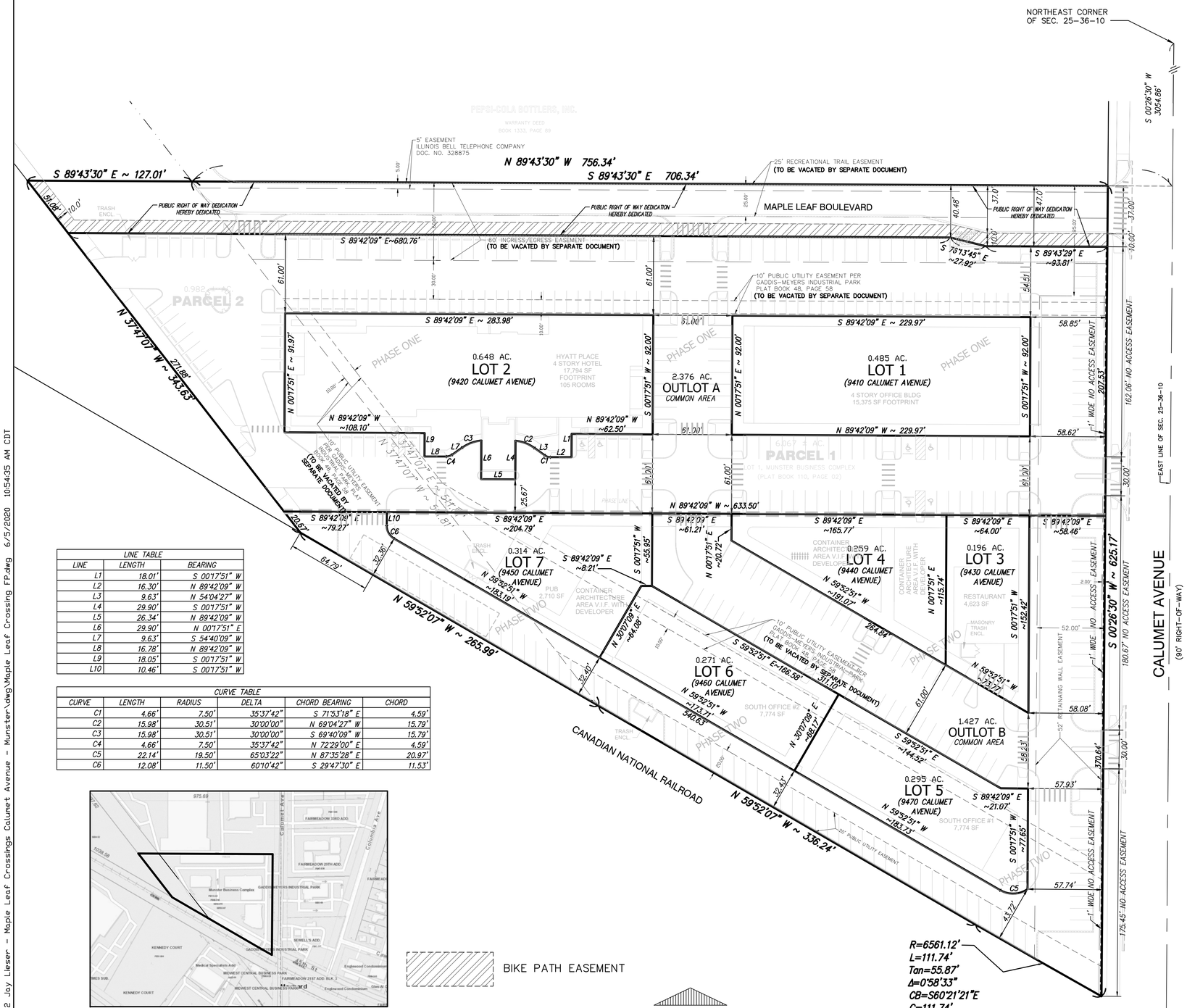
DONALD C. TORRENGA
REGISTERED
No. 19868
STATE OF INDIANA
PROFESSIONAL ENGINEER

EXHIBIT A



LINE TABLE		
LINE	LENGTH	BEARING
L1	18.01'	S 00°17'51" W
L2	16.30'	N 89°42'09" W
L3	9.63'	N 54°04'27" W
L4	29.90'	S 00°17'51" W
L5	26.34'	N 89°42'09" W
L6	29.90'	N 00°17'51" E
L7	9.63'	S 54°04'09" W
L8	16.78'	N 89°42'09" W
L9	18.05'	S 00°17'51" W
L10	10.46'	S 00°17'51" W

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD
C1	4.66'	7.50'	35°37'42"	S 71°53'18" E	4.59'
C2	15.98'	30.51'	30°00'00"	N 69°04'27" W	15.79'
C3	15.98'	30.51'	30°00'00"	S 69°40'09" W	15.79'
C4	4.66'	7.50'	35°37'42"	N 72°29'00" E	4.59'
C5	22.14'	19.50'	65°03'22"	N 87°35'28" E	20.97'
C6	12.08'	11.50'	60°10'42"	S 29°47'30" E	11.53'

VICINITY MAP

NORTH

BIKE PATH EASEMENT

NORTH
GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

MAPLE LEAF CROSSING

A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE COUNTY, INDIANA

Legal Descriptions:
PARCEL 1
Lot 1 in Munster Business Complex, a Planned Unit Development, in the Town of Munster, as per plat thereof, recorded in Plat Book 110, page 02 in the Office of the Recorder, Lake County, Indiana.

PARCEL 2
Part of the Southeast Quarter of Section 25, Township 36 North, Range 10 West of the Second Principal Meridian, lying West of Lot 1 in Munster Business Complex, a Planned Unit Development, in the Town of Munster, as per plat thereof, recorded in Plat Book 110, page 02 in the Office of the Recorder, Lake County, Indiana, and North of Canadian National Railroad right-of-way, being more particularly described as follows:
Commencing at the Northeast corner of said Section 25; thence South 00° 26' 30" West, along the East line of said Section 25, a distance of 3,054.86 feet; thence North 89° 43' 30" West, along the North line of said Lot 1 extended East, a distance of 756.34 feet to the Northwest corner of said Lot 1 and also being point of beginning; thence South 37° 47' 07" East, along the West line of said Lot 1, a distance of 511.81 feet to the Southwest corner of said Lot 1; thence North 59° 52' 07" West, along the Northerly line of said Canadian National Railroad right-of-way (100 feet wide), a distance of 265.99 feet; thence North 37° 47' 07" West, a distance of 343.63 feet; thence South 89° 43' 30" East, a distance of 127.01 feet to the point of beginning, containing 0.982 acres, more or less, all in the Town of Munster, Lake County, Indiana.

STATE OF INDIANA)
) §
COUNTY OF LAKE)

We, the undersigned, Maple Leaf Crossings, LLC, do hereby certify that we are the owner of the property herein described and that of its own free will and accord has caused said property to be surveyed and subdivided into lots, blocks and streets as heron shown.

This subdivision shall be known and designated as MAPLE LEAF CROSSING, a Planned Unit Development to the Town of Munster. All streets and easements shown and not heretofore dedicated, are hereby dedicated, to the Town of Munster.

Maple Leaf Crossings, LLC

_____
Jack Lieser, Principal

STATE OF INDIANA)
) §
COUNTY OF LAKE)

Before me, the undersigned Notary Public, in and for the County and State aforesaid, personally appeared Jack Lieser, on behalf of Maple Leaf Crossings, LLC, personally known to me to be the same persons who signed the attached certificate and acknowledged to me that he executed the same as his own free act and deed.

Witness my hand and Notarial Seal this _____ day of _____ , 20___ A.D.

My Commission expires: _____ _____
County of Residence: _____ Notary Public

STATE OF INDIANA)
) §
COUNTY OF LAKE)

Submitted to, approved and accepted by the Plan Commission of the Town of Munster, Lake County, Indiana, this _____ day of _____, 20____.

PLAN COMMISSION OF THE TOWN OF MUNSTER, LAKE COUNTY, INDIANA.

_____ ATTEST:_____
Chairman: Executive Secretary:

STATE OF INDIANA)
) §
COUNTY OF LAKE)

I, Gary P. Torrenga, hereby state that I am a registered Land Surveyor, licensed in compliance with the laws of the State of Indiana; and that to the best of my knowledge, information and belief, the plat within represents a survey made under my direction in accordance with Title 865, Article 1, Rule 12 of the Indiana Administrative Code. The field work for said survey was completed on March 25, 2020; that this plat correctly represents said survey and that all dimensions, linear and angular are correctly shown, and that all monuments or markers shown thereon actually exist, and that their locations, size, type and description are accurately shown. I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security Number in this document, unless required by law.

Witness my hand and Seal this _____ day of _____, 20_____.

TORRENGA ENGINEERING, INC.

_____
Gary P. Torrenga - Registered L.S. #S0514

GARY P. TORRENGA REGISTERED No. S0514 STATE OF INDIANA LAND SURVEYOR

UTILITY EASEMENTS:
An easement is hereby granted to the Town of Munster, Indiana, SBC, AT&T, Northern Indiana Public Service Company and other companies identified by the Munster Town Board as supplying public service needs severally and their respective successors and assigns to install, lay, erect, construct, renew, operate, repair, replace and maintain sewers, water mains, gas mains, conduits, cables, poles and wires, underground with all necessary braces, guys, anchors and other appliances, in, upon, along and over the strip or strips of land designated by dotted lines on the plat and marked " easements for public utilities" for the purpose of serving the public in general with sewer, water, gas, electric, telephone and television service, including aerial right as to streets where necessary with aerial service wires to adjacent lots, together with the right to enter upon the said easements for public utilities at all times for any and all of the purposes aforesaid and to trim and keep trimmed any trees, shrubs, or saplings that interfere with any such utility equipment. Any fences, trees, black toppings, vegetation improvements or other potential obstacles to the use of easements shown upon the subdivision plat shall be placed at the risk of the property owner and may be subject to removal in the event of any interference with the use of said easements or drainage of other lots. Changes of yard elevations in easements from those established upon the subdivision plat or noted on plats submitted and approved when building permits are issued that adversely impact drainage of adjoining lots shall be subject to regrading at the owner's expense. All designated utility easements are also hereby dedicated as drainage easements.

FLOOD STATEMENT:
As taken from FEMA Flood Insurance Rate Map (FIRM), Community-Panel Number 18089C0117E, Effective Date January 18, 2012, this property is in Flood Zone X, areas determined to be outside the 0.2 % annual chance floodplain.

OUTLOT A & OUTLOT B (COMMON AREA):
Each Lot (Lots 1 through 7) shall have an unlimited, non-exclusive easement to Outlot A and Outlot B for the purpose of Ingress-Egress and parking.

TORRENGA ENGINEERING, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
Tel. No.: (219) 836-8918
website: www.torrenga.com

MAPLE LEAF CROSSING
A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA
FINAL PLAT

REVISIONS:
DATE: 06-05-2020

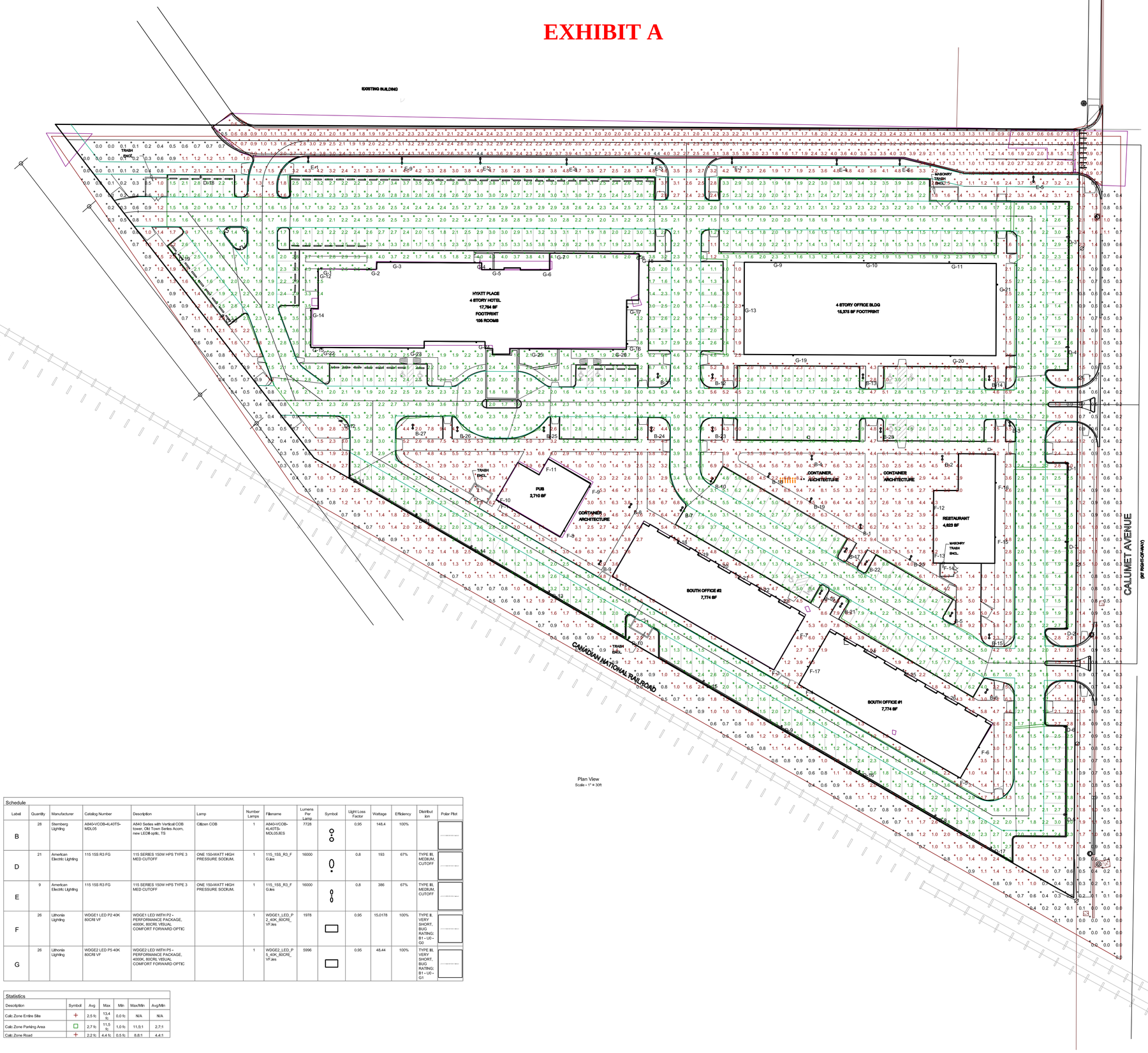
CLIENT:
Maple Leaf Crossing, LLC
400 Fisher Avenue
Munster, Indiana 46321

JOB NO: 2019-5052
SCALE: 1" = 40'

SHEET
1 of 1

FILE NO: Z:\2019-5052 Joy Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\Maple Leaf Crossing FP.dwg 6/5/2020 10:54:35 AM CDT

EXHIBIT A



Plan View
Scale = 1" = 30ft

Luminaire Locations

		Location			
No.	Label	X	Y	MH	Orientation
1	B	548.35	292.40	12.50	0.00
2	B	614.90	348.35	12.50	0.00
3	B	669.80	375.80	12.50	0.00
4	B	508.65	348.60	12.50	0.00
5	B	622.10	220.90	12.50	30.00
6	B	650.80	158.50	12.50	30.00
7	B	402.85	306.75	12.50	30.00
8	B	361.05	309.45	12.50	30.00
9	B	336.25	263.10	12.50	30.00
10	B	427.30	330.35	12.50	210.00
11	B	383.45	415.20	12.50	0.00
12	B	427.90	414.70	12.50	0.00
13	B	550.30	414.65	12.50	0.00
14	B	653.05	413.20	12.50	0.00
15	B	653.05	203.00	12.50	0.00
16	B	516.05	239.00	12.50	30.00
17	B	536.30	273.25	12.50	30.00
18	B	473.78	334.18	12.50	203.70
19	B	507.78	313.93	12.50	203.70
20	B	589.03	266.93	12.50	203.75
21	B	532.55	228.50	12.50	30.00
22	B	552.80	292.75	12.50	30.00
23	B	427.55	371.55	12.50	0.00
24	B	378.20	371.55	12.50	0.00
25	B	290.75	371.55	12.50	0.00
26	B	220.35	371.65	12.50	0.00
27	B	184.05	373.70	12.50	0.00
28	B	564.70	370.90	12.50	0.00
1	D	716.40	343.80	28.00	270.00
2	D	715.80	209.45	28.00	270.00
3	D	716.80	528.00	28.00	270.00
4	D	716.80	408.30	28.00	270.00
5	D	715.85	58.15	28.00	270.00
6	D	715.40	132.05	28.00	270.00
7	D	717.40	280.00	28.00	270.00
8	D	668.80	56.35	28.00	30.00
9	D	483.65	129.75	28.00	30.00
10	D	359.20	200.50	28.00	30.00
11	D	132.55	332.45	28.00	30.00
12	D	124.05	378.30	28.00	90.00
13	D	294.50	238.90	28.00	30.00
14	D	231.30	275.50	28.00	30.00
15	D	419.90	165.50	28.00	30.00
16	D	547.25	93.15	28.00	30.00
17	D	654.30	31.05	28.00	30.00
18	D	11.60	578.50	28.00	180.00
19	D	-9.99	513.49	28.00	53.09
20	D	28.41	463.29	28.00	53.09
21	D	186.05	300.00	28.00	30.00
1	E	99.00	591.00	28.00	0.00
2	E	239.00	590.00	28.00	0.00
3	E	379.00	590.00	28.00	0.00
4	E	529.00	589.00	28.00	0.00
5	E	689.00	575.00	28.00	0.00
6	E	580.25	589.00	28.00	0.00
7	E	443.75	590.25	28.00	0.00
8	E	309.25	589.25	28.00	0.00
9	E	175.25	590.00	28.00	0.00
1	F	254.00	312.50	12.00	210.00
2	F	350.50	249.00	12.00	210.00
3	F	474.50	177.00	12.00	210.00
4	F	502.00	161.25	12.00	210.00
5	F	627.50	87.75	12.00	210.00
6	F	645.00	112.50	12.00	120.00
7	F	497.50	207.75	12.00	120.00
8	F	307.50	288.75	12.00	120.00
9	F	328.25	324.50	12.00	120.00
10	F	253.25	317.75	12.00	300.00
11	F	290.75	342.75	12.00	300.00
12	F	606.50	311.50	12.00	270.00
13	F	606.75	272.50	12.00	270.00
14	F	614.25	262.25	12.00	180.00
15	F	658.25	263.75	12.00	90.00
16	F	658.75	328.00	12.00	90.00
17	F	505.25	178.50	12.00	300.00
18	F	397.00	283.50	12.00	30.00
19	F	414.25	273.50	12.00	30.00
20	F	430.50	264.00	12.00	30.00
21	F	447.00	254.50	12.00	30.00
22	F	464.00	244.75	12.00	30.00
23	F	479.50	235.50	12.00	30.00
24	F	550.50	194.75	12.00	30.00
25	F	583.25	175.75	12.00	30.00
26	F	615.75	156.75	12.00	30.00
1	G	109.50	502.75	36.00	0.00
2	G	148.50	502.25	36.00	0.00
3	G	166.00	508.00	36.00	0.00
4	G	234.50	507.50	36.00	0.00
5	G	247.00	502.25	36.00	0.00
6	G	288.00	501.50	36.00	0.00
7	G	299.50	515.25	36.00	0.00
8	G	364.00	514.75	36.00	0.00
9	G	475.75	509.00	36.00	0.00
10	G	551.00	508.75	36.00	0.00
11	G	620.50	507.75	36.00	0.00
12	G	106.75	500.00	36.00	270.00
13	G	452.50	472.25	36.00	270.00
14	G	101.00	468.25	36.00	270.00
15	G	100.75	440.00	36.00	270.00
16	G	358.75	441.00	36.00	90.00
17	G	359.00	471.00	36.00	90.00
18	G	369.00	512.50	36.00	90.00
19	G	493.50	431.50	36.00	180.00
20	G	621.50	431.00	36.00	180.00
21	G	659.75	489.25	36.00	90.00
22	G	109.50	437.25	36.00	180.00
23	G	180.25	436.75	36.00	180.00
24	G	235.75	442.25	36.00	180.00
25	G	279.00	436.00	36.00	180.00
26	G	347.00	436.00	36.00	180.00

Schedule

Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Symbol	Light Loss Factor	Wattage	Efficiency	Distribution	Polar Plot
B	26	Sternberg Lighting	A840-VCOB-4L40TS-MDL05	A840 Series with Vertical COB tower, CBJ Town Series Acorn, new LED8 optic; TS	Citizen COB	1	A840-VCOB-4L40TS-MDL05.IES	7728		0.95	148.4	100%		
D	21	American Electric Lighting	115 1SS R3 FG	115 SERIES 150W HPS TYPE 3 MED CUTOFF	ONE 150-WATT HIGH PRESSURE SODIUM.	1	115_1SS_R3_FG.ies	16000		0.8	193	67%	TYPE III, MEDIUM, CUTOFF.	
E	9	American Electric Lighting	115 1SS R3 FG	115 SERIES 150W HPS TYPE 3 MED CUTOFF	ONE 150-WATT HIGH PRESSURE SODIUM.	1	115_1SS_R3_FG.ies	16000		0.8	386	67%	TYPE III, MEDIUM, CUTOFF	
F	26	Lithonia Lighting	WDGE1 LED P2 40K 80CRI VF	WDGE1 LED WITH P2 - PERFORMANCE PACKAGE, 4000K, 80CRI, VISUAL COMFORT FORWARD OPTIC		1	WDGE1_LED_P2_40K_80CRI_VF.ies	1978		0.95	15.0178	100%	TYPE II, VERY SHORT, BUG RATING: B1 - U0 - G0	
G	26	Lithonia Lighting	WDGE2 LED P5 40K 80CRI VF	WDGE2 LED WITH P5 - PERFORMANCE PACKAGE, 4000K, 80CRI, VISUAL COMFORT FORWARD OPTIC		1	WDGE2_LED_P5_40K_80CRI_VF.ies	5996		0.95	48.44	100%	TYPE III, VERY SHORT, BUG RATING: B1 - U0 - G1	

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone Entire Site	+	2.5 fc	13.4 fc	0.0 fc	N/A	N/A
Calc Zone Parking Area	□	2.7 fc	11.5 fc	1.0 fc	11.5:1	2.7:1
Calc Zone Road	+	2.2 fc	4.4 fc	0.5 fc	8.8:1	4.4:1

KSA LIGHTING & CONTROLS

MAPLE LEAF CROSSING
MUNSTER, IN

Designer
D. MIROW
Date
06/24/2020
Scale
Scale as shown
Drawing No.
Summary

EXHIBIT B

DEVELOPMENTAL STANDARDS FOR THE

MAPLE LEAF CROSSING DEVELOPMENT AT THE

MUNSTER BUSINESS COMPLEX

PLANNED UNIT DEVELOPMENT

This document sets forth the developmental standards for the Planned Unit Development known as Maple Leaf Crossing, with street addresses 9352-9482 Calumet Avenue.

I. Planned Unit Development

Maple Leaf Crossing is hereby designated as a Planned Unit Development Special District ("SD-PUD") under Ordinance No. 1788.

A. Permitted uses shall include:

1. Hotel
2. Professional Office
3. Medical or Dental Office or Clinic
4. Alcoholic Beverage Retail Sales
5. Alcoholic Beverage- Serving Establishment
6. Bar or Tavern
7. Brewpub
8. Craftsman Establishment
9. Dry Cleaning without drive-through
10. Entertainment Facility
11. Financial Services without Drive-through
12. Hair, skin, nail care or day spa
13. Open air market, including container shops
14. Open Front or Open Lot Retail, including container shops
15. Pharmacy
16. Restaurant, and Restaurant with outdoor dining
17. Tailor or Seamstress Shop
18. Tasting Room
19. Theater or Performing Arts Venue
20. Ticket Office
21. Veterinary Office Clinic or Hospital

22. Warehouse/ retail
23. Civic space
24. Brewery
25. Distillery
26. Microbrewery/MicroDistillery/ Microwinery/ Nanobrewery
27. Winery
28. Food/ Refreshment Stand
29. Garden
30. Gift Shop
31. Massage Services by Indiana licensed masseuse, accessory to Spa or Salon
32. Parking Area
33. Patio
34. Such other uses as approved by the Plan Commission or Town Council

B. Temporary buildings for construction purposes for a period not to exceed the duration of the construction.

2. Use Conditions and Restrictions

A. Hours. Maple Leaf Crossing hours of operation shall be seven days per week as allowed for any like businesses in Commercial Districts in the Town of Munster.

3. Yards

Yards, roadways, walkways, parking and greenspace shall be as set forth in the Approved Development Plan attached hereto as Exhibit A and incorporated herein.

4. Height Regulations

No building shall exceed four stories in height and a maximum of 60 feet.

5. Screening of Mechanicals

All mechanical equipment will be screened as to not be visible by those at street level on all sides of the building.

6. Off-Street Parking Facilities

Off-street parking shall include approximately 358 parking spaces as set forth in the Approved Development Plan.

7. Lot Coverage

EXHIBIT B

Green space shall exceed 7.5% of the total area as set forth in the Approved Development Plan.

8. Pedestrian and Bicycle Access

Sidewalks and bicycle paths shall be located within and upon Maple Leaf Crossing as set forth in the Approved Development Plan.

II. Formula Business Regulations

Any Formula Business that desires to located within the Planned Unit Development must obtain a Special Use permit from the Board of Zoning Appeals. A "Formula Business" is defined as a restaurant or retail establishment which is required by contractual or other arrangements to operate with standardized menus, ingredients, architecture, décor, uniforms, appearance or signage.

The following findings, at a minimum, must be made prior to the issuance of a Special Use Permit for a Formula Business:

1. The Formula Business will be compatible with existing surrounding uses, and has been designed and will be operative in a non-obtrusive manner to preserve the community's distinctive character and ambiance;
2. The Formula Business will not result in an over-concentration of formula establishments in its immediate vicinity or the Town as a whole;
3. The Formula Business will promote diversity and variety to assure a balanced mix of commercial use available to serve both resident and visitor populations;
4. The Formula Business will contribute to an appropriate balance of local, regional or national-based businesses in the community;
5. The Formula Business will be mutually beneficial to and will enhance the economic health of surrounding uses in the district; and,
6. The Formula Business will contribute to an appropriate balance of small, medium and large-sized businesses in the community.

III. Building and Material Requirements

1. Building Design

All building designs and lot plans shall be submitted to the Plan Commission for building site plan approval in accordance with Section 26-6.804.G of the Town's Code of Ordinances. The overall image should be well coordinated, fully integrating components such as entries, displays and signage. Buildings shall comply with the

Approved Development Plan and the Development Standards for the Maple Leaf Crossing Planned Unit Development.

2. Materials and Details

Building materials shall consist primarily of glass, steel, brick, stone, and shipping containers for accents and small businesses as contemplated by the Development Agreement. Proposed materials and colors shall be submitted on a color material sample as a component of building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances..

3. Permitted Materials

The following is a list of permitted materials, subject to Town approval during the review process:

a. Painted aluminum or steel;
b. Stainless steel;
c. Solid brass, bronze, copper or pewter;
d. Enamel coated steel;
e. Textured or brushed stainless steel;
f. Galvanized, sandblasted or etched metals;
g. Natural stone;
h. Full size brick;
i. Painted or stained wood in limited amounts
j. Porcelain, ceramic or glass

4. Metals

High quality is expected for all metal applications. Metal such as shop-painted aluminum and steel, stainless steel, solid brass, bronze, copper, pewter, or enamel coated steel may be used for hardware, trim and panels when well designed and detailed.

a. Lap joints and seams must be even and straight and concealed when possible. Outside corners are to be mitered or continuous break shaped.
b. Fabrication must be either heavy gauge material or thinner gauge material shop laminated to solid backing. In no case are oil canning (resulting from light reflection from an uneven or buckled surface), scratches, warps, dents, occlusions, visible seams or other imperfections allowed.
c. Sealants on natural metals are required to prevent tarnishing.

d. Textured or brushed stainless steel, galvanized, sandblasted and etched metals are encouraged in creative applications. Unique treatments such as patina, rusted, etched and imprinted metals will be considered for special design objectives.
e. Polished metals should be solid, not plated and limited to accent trim.

5. Natural Stone
   a. Granite, marble, limestone, slate and other natural stone materials may be used in building applications. Stone may be polished, unpolished, sandblasted, flamed, honed, split face or caved. Careful, craftsman-like attention to detail is required at all connections and transitions to other materials.
   b. Edge details must prevent visible unfinished edges. Exposed edges must be quirk mitered, chamfered or polished to match adjacent surface finish.
   c. The transition between stone and adjoining materials must be defined by use of metal reveals.
   d. Stone use as a paving material must be flush when meeting other flooring materials.
   e. Natural stone must be protected against staining and discoloration by means of sealers appropriate to the material.

6. Wood
   a. Painted or stained wood may be used in many design applications, such as window frames, decorative trim or molding, and for solid areas, such as decorative bulkheads. In some cases, it may be used for larger architectural elements, such as columns and entablatures. Wood paneling and plank construction are not acceptable unless presented in a highly imaginative concept and approved by the Town.
      1. Wood used in the construction of the building must be kiln dried, mill quality, or marine grade hardwood and must meet local frame spread requirements.
      2. Painted wood must have a shop quality enamel finish.
      3. Wood without a paint finish must receive a clear, preservative sealant.
      4. Extensive use of natural wood finishes is discouraged.

7. Tile
   a. Tile may be used in diverse applications. Its use is encouraged to introduce light, decorative texture or graphic quality to a storefront.
      1. Porcelain ceramic or glass tiles in glazed or natural finishes may be used as accents and in limited field applications. Patterns used over large areas are expected t have a sophisticated, well executed design concept.

2. Small and intricate mosaic tile patterns may be utilized for detail and accent only.
3. All tiles must be carefully detailed at outside corners with bull nose edges or special corner trims. Lapped or butt joints are not permitted.

8. Glazing
   a. The creative use of glazing and other building front design elements is encouraged and must be carefully detailed.
      1. Large panes
      2. All glass
      3. Stained, leaded
      4. Glass block
      5. In frameless assemblies,
      6. Aluminum, metal or wood building
      7. All aluminum framing
      8. Tinted glass is permitted, however, reflective glass (including mirroring) is not permitted.
9. Lighting
   a. Lighting fixtures shall be high quality commercial grade. The fixtures shall be constructed and installed to be glare free and shall comply with all applicable code requirements.
   b. Recessed or appropriately styled surface mounted halogen incandescent, ceramic metal halide, or solid state (LED) sources are permitted. 2077 to 3000 k is the required color temperature range of these sources, with a minimum Color Rendering Index (CRI) of 80.
   c. Fluorescent fixtures are not permitted.
   d. The lighting plan shall be of the design and layout set forth in the Approved Development Plan.
   e. A detailed lighting plan for each building and lot shall be submitted for Plan Commission approval as a component of a site plan approval application in accordance with the procedure of Section 26-6.804.G of the Town's Code of Ordinances and the standards of the Development Plan and Development Standards.

10. Prohibited Materials
    1. The following is a list of prohibited materials. In rare instances, special consideration may be given for the use of a prohibited material if its application is highly original, creative and essential to the theme

or design concept of the building front. Exceptions may be granted by the Plan Commission solely at its discretion as a component of a building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances.: Plastic laminates, except for high pressure laminates such as Prodema and Trespa or similar.

2. Glossy, or large expanses of acrylic or Plexiglass
3. Pegboard
4. Mirror
5. Mirrored glass (but not tinted glass)
6. Vinyl, fabric or paper
7. Plywood or particle board
8. Sheet or modular vinyl
9. Luminous ceiling, including "egg crate"
10. Shingles, shakes, rustic siding
11. Drywall
12. Stucco, exterior insulation finishing system (EIFS) or similar products

IV. Signage Design Criteria

Signage shall be compliant with §26-6.701 unless a variance is obtained from the Board of Zoning Appeals.

V. Landscape Design Criteria

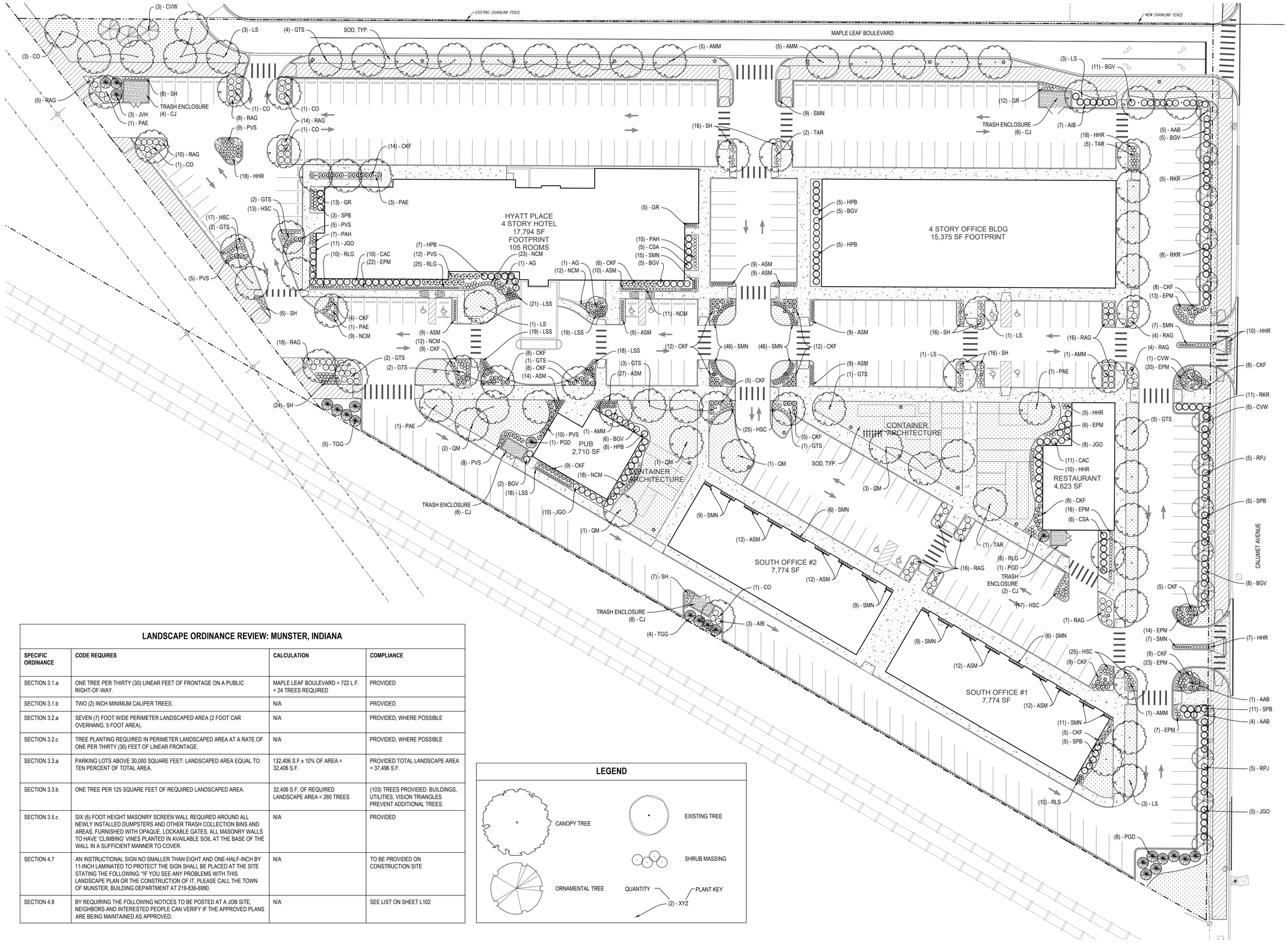
Landscaping for Maple Leaf Crossing shall generally be in accordance with the Landscaping Plan attached hereto as Exhibit C and incorporated herein. Other Developmental Standards

VI. Other Development Standards

The Approved Development Plan and Development Standards shall govern the development of Maple Leaf Crossing PUD. The development standards for zoning district CD-4.A set forth in Zoning Ordinance 1788, Table 26-6.405.A-6 shall apply to matters not addressed in the Approved Development Plan and Development Standards.

VII. All construction on the building sites on lots 1 through 7 of the Approved Development Plan are subject to approval by the Munster Plan Commission in accordance with the procedure set forth in Section 26-6.804.G of the Town's Code of Ordinances according to the terms and standards of the Approved Development Plan and Development Standards for Maple Leaf Crossing PUD or section VI above, if applicable.

EXHIBIT C



LANDSCAPE ORDINANCE REVIEW: MUNSTER, INDIANA

SPECIFIC ORDINANCE	CODE REQUIRES	CALCULATION	COMPLIANCE
SECTION 3.1.a	ONE TREE PER THIRTY (30) LINEAR FEET OF FRONTAGE ON A PUBLIC RIGHT-OF-WAY.	MAPLE LEAF BOULEVARD = 722 L.F. = 24 TREES REQUIRED	PROVIDED
SECTION 3.1.b	TWO (2) INCH MINIMUM CALIPER TREES.	N/A	PROVIDED
SECTION 3.2.a	SEVEN (7) FOOT WIDE PERIMETER LANDSCAPED AREA (2 FOOT CAR OVERHANG, 5 FOOT AREA).	N/A	PROVIDED, WHERE POSSIBLE
SECTION 3.2.c	TREE PLANTING REQUIRED IN PERIMETER LANDSCAPED AREA AT A RATE OF ONE PER THIRTY (30) FEET OF LINEAR FRONTAGE.	N/A	PROVIDED, WHERE POSSIBLE
SECTION 3.3.a	PARKING LOTS ABOVE 30,000 SQUARE FEET: LANDSCAPED AREA EQUAL TO TEN PERCENT OF TOTAL AREA.	132,406 S.F x 10% OF AREA = 32,406 S.F.	PROVIDED TOTAL LANDSCAPE AREA = 37,496 S.F.
SECTION 3.3.b	ONE TREE PER 125 SQUARE FEET OF REQUIRED LANDSCAPED AREA.	32,406 S.F. OF REQUIRED LANDSCAPE AREA = 260 TREES	(103) TREES PROVIDED. BUILDINGS, UTILITIES, VISION TRIANGLES PREVENT ADDITIONAL TREES.
SECTION 3.5.c	SIX (6) FOOT HEIGHT MASONRY SCREEN WALL REQUIRED AROUND ALL NEWLY INSTALLED DUMPSTERS AND OTHER TRASH COLLECTION BINS AND AREAS, FURNISHED WITH OPAQUE, LOCKABLE GATES. ALL MASONRY WALLS TO HAVE 'CLIMBING' VINES PLANTED IN AVAILABLE SOIL AT THE BASE OF THE WALL IN A SUFFICIENT MANNER TO COVER.	N/A	PROVIDED
SECTION 4.7	AN INSTRUCTIONAL SIGN NO SMALLER THAN EIGHT AND ONE-HALF-INCH BY 11-INCH LAMINATED TO PROTECT THE SIGN SHALL BE PLACED AT THE SITE STATING THE FOLLOWING: "IF YOU SEE ANY PROBLEMS WITH THIS LANDSCAPE PLAN OR THE CONSTRUCTION OF IT, PLEASE CALL THE TOWN OF MUNSTER, BUILDING DEPARTMENT AT 219-836-6990.	N/A	TO BE PROVIDED ON CONSTRUCTION SITE
SECTION 4.8	BY REQUIRING THE FOLLOWING NOTICES TO BE POSTED AT A JOB SITE, NEIGHBORS AND INTERESTED PEOPLE CAN VERIFY IF THE APPROVED PLANS ARE BEING MAINTAINED AS APPROVED.	N/A	SEE LIST ON SHEET L102

LEGEND

CANOPY TREE
EXISTING TREE
SHRUB MASSING
ORNAMENTAL TREE
QUANTITY — PLANT KEY
(2) - XYZ

PROJECT NAME:
MAPLE LEAF CROSSING
PLANNED UNIT DEVELOPMENT
MUNSTER, IN 46321

OWNER NAME:
MAPLE LEAF CROSSING, LLC.
400 FISHER AVENUE
MUNSTER, IN 46321

CONSULTANTS:
TORRENGA ENGINEERING, INC.
907 RIDGE ROAD
MUNSTER, IN 46321

PLANNED ENVIRONMENT ASSOCIATES
(219) 299.3383
www.plannvron.com
P.O. BOX 2255
CHESTERTON, IN 46304

SUBMITTAL & REVISIONS		
1	06/29/2020	SCHEMATIC DESIGN

N

0 30 60
15 feet

STAMP:
JON RUBLE
REGISTERED
No. LA21200029
STATE OF INDIANA
LANDSCAPE ARCHITECT
EXP: 12/31/2021

PRELIMINARY DRAWINGS
NOT FOR CONSTRUCTION

Know what's below. Call before you dig.

TITLE:
LANDSCAPE PLAN

SHEET:
L101

DRAWN BY: MD
CHECK BY: JR
PROJECT #: 20-027

G:\Shared drives\Projects\1st Metropolitan Builders\Maple Leaf Crossing\cad\MLC_landscape.dwg

EXHIBIT C

PLANTING NOTES

1. SEE SHEET L101 FOR PLANTING PLAN. SEE SHEET L201 FOR PLANTING DETAILS.
2. THE LANDSCAPE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES THAT MAY BE REQUIRED FOR HIS PORTION OF WORK.
3. ESTIMATED SCHEDULE FOR PLANTING IS FALL 2021.
4. IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE GRAPHIC SYMBOLS SHOWN ON THE PLAN SHALL DICTATE.
5. PLANT MATERIALS:
   - 5.1. ALL PLANT MATERIALS SHALL MEET OR EXCEED THE AMERICAN STANDARDS FOR NURSERY STOCK, 1986 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSERYMEN.
   - 5.2. PLANTS SHALL BE SOUND, HEALTHY, VIGOROUS, AND FREE FROM INSECT PESTS, PLANT DISEASES, AND INJURIES. PLANTS SHALL BE EQUAL TO OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST.
   - 5.3. TREES SHALL HAVE STRAIGHT TRUNK WITH LEADER INTACT, UNDAMAGED AND UNCUT. BRANCHING MUST BE WELL DEVELOPED.
   - 5.4. ALL PLANT MATERIAL AND SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION.
   - 5.5. NO SUBSTITUTIONS OF PLANT MATERIALS WILL BE ALLOWED. IF PLANTS ARE NOT AVAILABLE, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO BID IN WRITING. ALL PLANTS SHALL BE INSPECTED AND TAGGED WITH PROJECT I.D. AT NURSERY OR CONTRACTORS OPERATIONS PRIOR TO MOVING TO JOB SITE. PLANTS MAY BE INSPECTED AND APPROVED OR REJECTED ON THE JOB SITE BY LANDSCAPE ARCHITECT.
   - 5.6. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IN WRITING PRIOR TO BID DATE OF ANY PLANTS HE/SHE FEELS MAY NOT SURVIVE IN LOCATIONS NOTED ON PLANS
6. IRRIGATION:
   - 6.1. CONTRACTOR SHALL PROVIDE BID ALTERNATE FOR IRRIGATION SHALL BE PROVIDED PER IRRIGATION PERFORMANCE DRAWING AND NOTES.
   - 6.2. IF BID ALTERNATE OF IRRIGATION SYSTEM IS NOT SELECTED BY OWNER, CONTRACTOR RESPONSIBLE FOR ESTABLISHMENT WATERING THROUGH TEMPORARY FACILITIES, WATERING BAGS, ETC., AS APPROVED BY OWNER FOR PLANT WARRANTY.
7. TOPSOIL & PLANTING MIXTURES:
   - 7.1. CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
   - 7.2. SALVAGE TOPSOIL FROM THE EARTHWORK AREAS AS APPROPRIATE AND/OR AS DIRECTED BY LANDSCAPE ARCHITECT AND STOCKPILE FOR REUSE IN LOCATION APPROVED BY OWNER.
   - 7.3. TOPSOIL SHALL BE MATERIALS CONSISTING OF FERTILE, FRIABLE, FIND SANDY LOAM, UNIFORM IN COMPOSITION AND FREE OF SUBSOIL, STONES, LUMPS, CLODS OF HARD EARTH, PLANTS, PLANT ROOTS, STICKS, NOXIOUS WEEDS, SLAG, CINDERS, DEMOLITION DEBRIS OR OTHER EXTRANEOUS MATTER OVER 1" IN LARGEST DIMENSION.
   - 7.4. EXISTING TOPSOIL SHALL BE PREPARED BY THOROUGHLY MIXING IN ORGANIC MATTER AT THE RATE OF 1/3 VOLUME OF SOIL REPLACED.
     - 7.4.1. ADJUST SOIL TO A pH OF 6.0 TO 6.5.
     - 7.4.2. ORGANIC MATTER: 4% MIN, 10% MAX
     - 7.4.3. AVAILABLE PHOSPHORUS: 25 PPM, MIN
     - 7.4.4. EXCHANGEABLE POTASSIUM: 125 PPM, MIN
   - 7.5. PEATMOSS TO BE USED ON PROJECT SHALL BE DOMESTIC OR IMPORTED MATERIAL, CHOCOLATE BROWN IN COLOR AND COMPOSED OF PARTIALLY DECOMPOSED VEGETABLE MATERIAL. PEAT MOSS TO BE MILDLY ACIDIC IN CHARACTER AND SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
   - 7.6. SEED & SOD AREAS SHALL RECEIVE A MINIMUM OF 4" DEPTH OF TOPSOIL.
   - 7.7. PLANTING BEDS SHALL RECEIVE MINIMUM 6" DEPTH OF AMENDED TOPSOIL.
8. MULCH MATERIALS:
   - 8.1. ALL MULCH MATERIALS SHALL BE PROCESSED DOUBLE SHREDDED HARDWOOD BARK MULCH OF UNIFORM SIZE. NO UTILITY MULCH OR PROCESSED TREE TRIMMINGS WILL BE ALLOWED. SUBMIT SAMPLE TO ARCHITECT.
   - 8.2. MULCH SHALL BE 2-INCH THICKNESS MINIMUM COVERAGE IN ALL AREAS OF TREE PITS OR PLANTING BEDS, UNLESS OTHERWISE NOTED.
   - 8.3. MULCH SHALL BE HELD 1" BELOW SURFACE ELEVATION OF DOWNHILL SIDE OF WALK, SLAB, CURB, LAWN, ETC.
9. LANDSCAPE BED EDGING:
   - 9.1. ALL LANDSCAPE BED EDGING SHALL BE SHOVEL-CUT SPADE EDGE BETWEEN LAWN AREAS, UNLESS OTHERWISE NOTED.
10. STORAGE, INSTALLATION, MAINTENANCE & WARRANTY:
    - 10.1. CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
    - 10.2. EXISTING TREES FOUND ON SITE SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED OR ARE LOCATED IN AN AREA TO BE GRADED. NO VEHICLES OR EQUIPMENT ARE ALLOWED WITHIN THE DRIP LINE OF TREES TO BE PROTECTED. QUESTIONS REGARDING EXISTING PLANT MATERIAL SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO REMOVAL.
    - 10.3. PRUNING AND REMOVAL OF BRANCHES ON EXISTING TREES SHALL BE DIRECTED IN THE FIELD BY OWNER OR LANDSCAPE ARCHITECT.
    - 10.4. EQUIPMENT, PLANTS AND ALL OTHER MATERIALS TO BE STORED ON SITE WILL BE STORED OUTSIDE OF THE DRIPLINE OF TREES TO BE PROTECTED AND PLACED WHERE THEY WILL NOT CONFLICT W/ CONSTRUCTION OPERATIONS.
    - 10.5. NEW PLANTING AREAS ARE TO BE TREATED WITH HERBICIDE TO KILL ALL EXISTING GROUNDCOVER. THERE SHALL BE A MINIMUM OF TWO (2) APPLICATIONS SEPARATED BY 10 DAYS. IF ALL EXISTING GROUNDCOVER VEGETATION IS NOT KILLED WITHIN 10 DAYS OF 2ND APPLICATION, A 3RD APPLICATION IS REQUIRED.
    - 10.6. WHERE PROPOSED PLANTING ARE INDICATED IN EXISTING PAVING AREAS, CONTRACTOR SHALL EXCAVATE A MINIMUM OF 2'-0" BELOW PAVING SURFACE.
    - 10.7. FINAL PLACEMENT OF PLANT MATERIALS, ETC., SHALL BE APPROVED BY LANDSCAPE ARCHITECT BEFORE PLANTING OPERATIONS ARE TO PROCEED. ALL TREE LOCATIONS SHALL BE MARKED WITH A WOOD STAKE INDICATING VARIETY AND SIZE OF TREE. ALL GROUND COVER AND PLANTING BED LINES SHALL BE MARKED W/ HIGHLY VISIBLE PAINT LINES W/ OCCASIONAL WOOD STAKES FOR REFERENCE. ALL STAKES SHALL BE REMOVED FOLLOWING PLANTING OPERATIONS. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANT LOCATIONS ON SITE.
    - 10.8. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
    - 10.9. PRIOR TO FINAL PAYMENT, CONTRACTOR SHALL COORDINATE A FINAL INSPECTION WALK-THROUGH WITH OWNER AND LANDSCAPE ARCHITECT FOR OWNER ACCEPTANCE. THE LANDSCAPE ARCHITECT WILL PROVIDE A PUNCHLIST OF ANY DEFICIENCIES AND PROVIDE TO OWNER AND CONTRACTOR FOR REVIEW.
    - 10.10. INCLUDE PRICING WITH THE BID FOR A 60-DAY MAINTENANCE PERIOD OF ALL LANDSCAPE PLANTINGS FOLLOWING COMPLETE INSTALLATION AND FINAL INSPECTION BY LANDSCAPE ARCHITECT. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, CULTIVATING, MULCHING, MOWING, AND ALL OTHER NECESSARY OPERATIONS REQUIRED FOR PROPER ESTABLISHMENT OF LAWNS AND PLANTINGS.
    - 10.11. ALL LANDSCAPE PLANTINGS SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL INSPECTION BY LANDSCAPE ARCHITECT. AT THE END OF THIS PERIOD, PLANT MATERIAL TERMED DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE LANDSCAPE CONTRACTOR. THE REPLACEMENTS SHALL ALSO BE WARRANTED FOR 1 YEAR.

IRRIGATION NOTES:

1. CONTRACTOR SHALL PROVIDE DESIGN/BUILD IRRIGATION SYSTEM PER THE IRRIGATION NOTES BELOW:
   - 1.1. DESIGN GUIDELINES: CONTRACTOR TO VERIFY PRESSURE AND AVAILABLE WATER SERVICE SIZE
   - 1.2. EMISSION (LAWNS): HUNTER I-40 SPRAY ROTARS (OR APPROVED EQUAL)
   - 1.3. DRIP (BEDS): HUNTER HDL-CV (OR APPROVED EQUAL)
   - 1.4. QUICK COUPLER: HUNTER QCV - 3RC
   - 1.5. CONTROLLER: HUNTER HCC (OR APPROVED EQUAL)
   - 1.6. SENSOR: HUNTER SOLAR-SYNC & HC FLOW METER (OR APPROVED EQUAL)
   - 1.7. PIPING: PVC OR APPROVED EQUAL
2. CONTRACTOR SHALL PROVIDE A QUALIFIED IRRIGATION DESIGNER OR IRRIGATION CONSULTANT TO DESIGN THE SYSTEM FOR EFFICIENT AND UNIFORM DISTRIBUTION OF WATER. "QUALIFIED" MEANS CERTIFIED BY ONE THE FOLLOWING AGENCIES BELOW:
   - 2.1. CERTIFIED IRRIGATION CONTRACTOR (CIC)
   - 2.2. CERTIFIED LANDSCAPE IRRIGATION AUDITOR (CLIA)
   - 2.3. CERTIFIED LANDSCAPE IRRIGATION MANAGER (CLIM)
   - 2.4. CERTIFIED IRRIGATION DESIGNER (CID)
   - 2.5. CERTIFIED WATER CONSERVATION MANAGER-LANDSCAPE (CWCM)
3. SYSTEM DESIGN:
   - 3.1. THE SYSTEM SHALL BE COMPRISED OF EITHER:
     - 3.1.1. DRIP/MICRO-IRRIGATION COMPONENTS THAT ALLOW FOR HIGHER DISTRIBUTION UNIFORMITY AND LOWER EVAPORATION AND RUNOFF.
     - 3.1.2. THE DESIGN AND LAYOUT OF THE EMISSION DEVICES PROVIDES FOR ZERO OVERSPRAY ACROSS OR ONTO A STREET, PUBLIC DRIVEWAY OR SIDEWALK, PARKING AREA, BUILDING, FENCE OR ADJOINING PROPERTY. OVERSPRAY MAY OCCUR DURING THE OPERATION OF THE IRRIGATION SYSTEM DUE TO THE ACTUAL WIND CONDITION THAT DIFFER FROM THE DESIGN CRITERIA.
4. SYSTEM CONTROLLER:
   - 4.1. THE SYSTEM SHOULD USE A CONTROLLER THAT HAS MULTI-PROGRAM CAPABILITY WITH AT LEAST FOUR START TIMES(FOR MULTIPLE REPEAT SOAK CYCLES) AND RUN TIME ADJUSTMENT IN ONE MINUTE INCREMENTS. THE CONTROLLER PROGRAMMING (SCHEDULING) SHOULD BE MANAGED TO RESPOND TO THE CHANGING NEED FOR WATER IN THE LANDSCAPE.
5. DESIGN FEATURES:
   - 5.1. FOLLOW ALL ORDINANCES RELATING TO IRRIGATION SYSTEMS INCLUDING THE INSTALLATION OF BACKFLOW DEVICES.
   - 5.2. INSTALL A MASTER VALVE TO STOP UNSCHEDULED FLOW OF IRRIGATION WATER
   - 5.3. A DESIGN THAT RESULTS IN UNIFORM AND EFFICIENT COVERAGE. SPRINKLER HEAD SPACING SHOULD BE A MINIMUM OF "HEAD-TO-HEAD" (MINIMUM 50% OF DIAMETER) UNLESS THE COVERAGE IS DESIGNED FOR WIND DE-RATING. WIND DE-RATING SHOULD BE BASED ON AVERAGE NIGHTTIME WIND SPEED.
   - 5.4. A MINIMUM OF "HEAD-TO-HEAD" (MINIMUM OF 50% OF DIAMETER) UNLESS THE COVERAGE IS DESIGNED FOR WIND DE-RATING. WIND DE-RATING SHOULD BE BASED ON AVERAGE NIGHTTIME WIND SPEED. DESIGN TO AVOID OVERSPRAY ONTO HARDSCAPES, FENCES, BUILDINGS AND ADJOINING PROPERTY.
   - 5.5. HAVE SEPARATE STATIONS/ZONES (HYDROZONES) FOR AREAS WITH DISSIMILAR WATER OR SCHEDULING REQUIREMENTS
   - 5.6. PROVIDE SENSOR TO SUSPEND IRRIGATION DURING WET WEATHER CONDITIONS.
   - 5.7. PROVIDE FLOW METER FOR MONITORING FLOW CONDITIONS AND SAVING WATER.
   - 5.8. PROVIDE OWNER WITH WALKTHROUGH FOR SYSTEM OPERATIONS, PRIOR TO FINAL ACCEPTANCE. INCLUDE PROCEDURES FOR CONTROLLER PROGRAMMING, MAINTENANCE AND WINTERIZATION.

FOLLOWING TO BE POSTED ON-SITE PER SECTION 4.8

1. A COPY OF THE APPROVED LANDSCAPE PLAN:
   - 1.1. NO SMALLER THAN 11 INCHES BY 17 INCHES
   - 1.2. LAMINATED TO PROTECT THE PLAN
   - 1.3. SHOWING ALL PLANT TYPES, SIZES, AND LOCATIONS
2. AN INSTRUCTIONAL SIGN:
   - 2.1. NO SMALLER THAN 11 INCHES BY 17 INCHES
   - 2.2. LAMINATED TO PROTECT THE SIGN
   - 2.3. STATING THE FOLLOWING:
     - 2.3.1. "THE OWNER OF THIS SITE HAS AGREED TO INSTALL AND MAINTAIN THE REQUIRED LANDSCAPING ON THIS SITE IN ACCORDANCE WITH THE TOWN OF MUNSTER LANDSCAPE ORDINANCE. COMPLIANCE REQUIRES THE FOLLOWING:
     - 2.3.2. NEW TREES AND SHRUBS WILL BE WATERED FOR THE FIRST TWO YEARS UNTIL FIRMLY ESTABLISHED.
     - 2.3.3. NEW TREES AND SHRUBS WILL BE PRUNED TO REMOVE DEAD OR DAMAGED WOOD.
     - 2.3.4. MULCH IN PLANTING BEDS WILL BE MAINTAINED AT A DEPTH OF THREE INCHES.
     - 2.3.5. ALL PLANTING BEDS AND TREE MULCH CIRCLES WILL BE WEEDED REGULARLY.
     - 2.3.6. PERENNIALS AND HERBACEOUS SHRUBS WILL BE PRUNED BEFORE THE ONSET OF NEW SPRING GROWTH.
     - 2.3.7. ALL GRASS WILL BE MOWED REGULARLY (I.E. ONCE PER WEEK) DURING THE GROWING SEASON.
3. THE SIGN SHALL ALSO STATE: "IF YOU SEE ANY PROBLEMS WITH THE LANDSCAPING OF THIS SITE OR THE MAINTENANCE OF IT, PLEASE CALL THE TOWN OF MUNSTER, BUILDING DEPARTMENT AT 219-836-6990".

SWORN STATEMENT BY OWNER:

THE UNDERSIGNED ACKNOWLEDGES THAT THE LANDSCAPE PLANTING PLAN SHOWN ON THE ATTACHED LANDSCAPE PLAN(S) FOR THE MAPLE LEAF CROSSING PLANNED UNIT DEVELOPMENT, TOWN OF MUNSTER, INDIANA HAS TO THE BEST OF THE UNDERSIGNED APPLICANT'S KNOWLEDGE, BEEN DESIGNED AND WILL BE INSTALLED, MAINTAINED AND REPLACED AS REQUIRED BY CURRENT AND SUBSEQUENT OWNERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF MUNSTER MUNICIPAL CODE, THE LANDSCAPING STANDARDS OF THE TOWN OF MUNSTER ZONING ORDINANCE, AND THE GUIDE TO THE TOWN OF MUNSTER LANDSCAPE ORDINANCE.

EXISTING PARKWAY AND ON-SITE INTERIOR TREES ARE TO BE PROTECTED WHILE PROJECT IS UNDER CONSTRUCTION AND WILL BE REPLACED BY CURRENT AND SUBSEQUENT OWNER IF DAMAGED.

SWORN STATEMENT BY REGISTERED LANDSCAPE ARCHITECT:

THE UNDERSIGNED LANDSCAPE ARCHITECT, REGISTERED IN THE STATE OF INDIANA, ACKNOWLEDGES THAT THE LANDSCAPE PLANTING PLAN AND CONSTRUCTION DETAILS SHOWN ON THE ATTACHED LANDSCAPE PLAN(S) FOR THE MAPLE LEAF CROSSING PLANNED UNIT DEVELOPMENT, TOWN OF MUNSTER, INDIANA HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF MUNSTER MUNICIPAL CODE, THE LANDSCAPING STANDARDS OF THE TOWN OF MUNSTER ZONING ORDINANCE, AND THE GUIDE TO THE TOWN OF MUNSTER LANDSCAPE ORDINANCES.

PLANTING SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
DECIDUOUS TREES						
AMM	13	ACER MIYABEI 'MORTON'	STATE STREET MAPLE	2.5" CAL.		B&B SPECIMEN
CO	8	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5" CAL.		B&B SPECIMEN
GTS	23	GLEDITSIA TRIACANTHOS 'SKYCOLE'	SKYLINE HONEYLOCUST	2.5" CAL.		B&B SPECIMEN
LS	12	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2.5" CAL.		B&B SPECIMEN
PAE	7	PLATANUS X ACERFOLIA 'MORTON CIRCLE'	EXCLAMATION LONDON PLANE TREE	2.5" CAL.		B&B SPECIMEN
QM	8	QUERCUS MACROCARPA	BUR OAK	2.5" CAL.		B&B SPECIMEN
TAR	8	TILIA AMERICANA 'REDMOND'	REDMOND AMERICAN LINDEN	2.5" CAL.		B&B SPECIMEN
EVERGREEN TREES						
JVH	3	JUNIPERUS VIRGINIANA 'CUPRESSIFOLIA'	HILLSPIRE EASTERN REDCEDAR	6'-8' HT.	6' O.C.	B&B SPECIMEN
PGD	10	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	8'-10' HT.		B&B SPECIMEN
TGG	9	THUJA PLICATA x STANDISHII 'GREEN GIANT'	GREEN GIANT CEDAR	8'-10' HT.		B&B SPECIMEN
ORNAMENTAL TREES						
AG	2	ACER GRISEUM	PAPERBARK MAPLE	8' HT.		SINGLE-TRUNK SPECIMEN
AAB	10	AMELANCHIER 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8' HT.		MULTI-STEM SPECIMEN
CVW	10	CRATAEGUS VIRIDIS 'WINTER KING'	THORNLESS COCKSPUR HAWTHORN	8' HT.		MULTI-STEM SPECIMEN
DECIDUOUS SHRUBS						
AIB	10	ARONIA MELANOCARPA 'MORTON'	IROQUOIS BEAUTY CHOKEBERRY	#3 CONT.	36" O.C.	
CAC	21	CLETHRA ALNIFOLIA 'CALEB'	VANILLA SPICE SUMMERSWEET	#3 CONT.	48" O.C.	
CSA	11	CORNUS SERICEA 'FARROW'	ARCTIC FIRE DOGWOOD	#3 CONT.	48" O.C.	
HPB	25	HYDRANGEA PANICULATA 'BOBO'	BOBO HYDRANGEA	#3 CONT.	48" O.C.	
RAG	102	RHUS AROMATICA 'GRO LOW'	GRO-LOW SUMAC	#3 CONT.	48" O.C.	
RKR	24	ROSA 'RADRAZZ'	RADRAZZ KNOCKOUT ROSE	#3 CONT.	48" O.C.	
SPB	24	SYRINGA PENDA 'BLOOMERANG'	BLOOMERANG DWARF LILAC	#3 CONT.	36" O.C.	
EVERGREEN SHRUBS						
BGV	42	BUXUS 'GREEN VELVET'	GREEN VELVET BOXWOOD	#3 CONT.	48" O.C.	
JGO	34	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL COMPACT JUNIPER	#3 CONT.	48" O.C.	
RPJ	10	RHODODENDRON 'PJM'	PJM RHODODENDRON	#3 CONT.	48" O.C.	
ORNAMENTAL GRASSES						
CKF	144	CALAMOGROSTIS X 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#3 CONT.	36" O.C.	
PVS	49	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	#3 CONT.	36" O.C.	
PAH	17	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	#1 CONT.	24" O.C.	
SH	93	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	#1 CONT.	24" O.C.	
PERENNIALS & GROUNDCOVERS						
ASM	153	ALLIUM 'MILLENIUM'	MILLENIUM ALLIUM	#1 CONT.	18" O.C.	
CJ	28	CLEMATIS 'JACKMANII'	JACKMAN'S CLEMATIS	#1 CONT.	48" O.C.	TRAIN AS VINE
EPM	121	ECHINACEA 'CBG CONE2'	PIXIE MEADOWBRITE CONEFLOWER	#1 CONT.	24" O.C.	
GR	30	GERANIUM 'ROZANNE'	ROZANNE GERANIUM	#1 CONT.	24" O.C.	
HHR	68	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	#1 CONT.	24" O.C.	
HSC	97	HEMEROCALLIS 'STRAWBERRY CANDY'	STRAWBERRY CANDY DAYLILY	#1 CONT.	24" O.C.	
LSS	95	LEUCANTHEMUM SUPERBUM 'SNOWCAP'	SNOWCAP SHASTA DAISY	#1 CONT.	18" O.C.	
NCM	85	NEPETA 'CATS MEOW'	CAT'S MEOW NEPETA	#1 CONT.	24" O.C.	
RLG	53	RUDBECKIA 'LITTLE GOLDSTAR'	LITTLE GOLDSTAR BLACK-EYED SUSAN	#1 CONT.	18" O.C.	
SMN	174	SALVIA 'MAY NIGHT'	MAY NIGHT SALVIA	#1 CONT.	18" O.C.	

PRELIMINARY DRAWINGS — NOT FOR CONSTRUCTION

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

PROJECT NAME:
MAPLE LEAF CROSSING
PLANNED UNIT DEVELOPMENT
MUNSTER, IN 46321

OWNER NAME:
MAPLE LEAF CROSSING, LLC.
400 FISHER AVENUE
MUNSTER, IN 46321

CONSULTANTS:
TORRENGA ENGINEERING, INC.
907 RIDGE ROAD
MUNSTER, IN 46321

PLANNED ENVIRONMENT ASSOCIATES
(219) 299.3383
www.plannvron.com
P.O. BOX 2256
CHESTERTON, IN 46304

SUBMITTAL & REVISIONS

1	06/29/2020	SCHEMATIC DESIGN

STAMP:
JON RUBLE REGISTERED No. LA21200029 STATE OF INDIANA LANDSCAPE ARCHITECT
EXP: 12/31/2021

TITLE: **PLANTING LISTS & SPECIFICATIONS**

SHEET: L102

DRAWN BY: MD
CHECK BY: JR
PROJECT #: 20-027

G:\Shared drives\Projects\1st Metropolitan Builders\Maple Leaf Crossing\cad\MLC_landscape.dwg

EXISTING BUILDING

5' EASEMENT
ILLINOIS BELL TELEPHONE COMPANY
DOC. NO. 526075

PEPSI-COLA BOTTLERS, INC.

S 89°43'30" E 706.34'

10'-0" BIKE PATH

OVERHEAD LINES

NEW 3 WAY STOPLIGHT

PARKING AREA #10 (18 SPACES)

PARKING AREA #11 (68 SPACES)

PARKING AREA #12 (44 SPACES)

HYATT PLACE
4 STORY HOTEL
17,794 SF FOOTPRINT
105 ROOMS

PARKING AREA #8 (16 SPACES)

4 STORY OFFICE BLDG
15,375 SF FOOTPRINT

PARKING AREA #9 (15 SPACES)

PARKING AREA #6 (20 SPACES)

PARKING AREA #7 (38 SPACES)

52' RETAINING WALL EASEMENT

PUB
2,710 SF

OUTDOOR SEATING

CONTAINER ARCHITECTURE

RESTAURANT
3,850 SF

PARKING AREA #5 (15 SPACES)

PARKING AREA #3 (25 SPACES)

PARKING AREA #4 (48 SPACES)

SOUTH OFFICE #2
7,774 SF
(8 UNITS @ 19'-0" WIDE)

MASONRY TRASH ENCL

MASONRY TRASH ENCLOSURE

SOUTH OFFICE #1
7,774 SF
(8 UNITS @ 19'-0" WIDE)

PARKING AREA #1 (31 SPACES)

OUTDOOR SEATING

PARKING AREA #2 (10 SPACES)

CANADIAN NATIONAL RAILROAD

N 59°52'07" W ~ 336.24'

20' PUBLIC UTILITY EASEMENT

R=6561.12'
L=111.74'

S 00°26'30" W ~ 625.17'

CALUMET AVENUE

/Users/borderlinedesignllc/Desktop/BORDERLINE DESIGN LLC/ PROJECTS/2019/19015 Jay Lieser/Design/Large Office Building/2020 03 09 - SITE PLANS TO BE VOTED ON/2020 03 09 90 DEGREE.pln

SITE INFO:

LOT AREA: 306,788 SF

IMPERVIOUS SURFACES:

BUILDINGS:

NORTH OFFICE BUILDING:	15,375 SF FOOTPRINT (61,500 SF TOTAL, 4 STORY)
SOUTH OFFICE BUILDING #1:	7,774 SF FOOTPRINT
SOUTH OFFICE BUILDING #2:	7,774 SF FOOTPRINT
RESTAURANT:	4,623 SF FOOTPRINT
HOTEL:	17,794 SF FOOTPRINT (71,176 SF TOTAL, 4 STORY)
PUB:	2,710 SF FOOTPRINT
CONTAINER ARCHITECTURE:	2,802 SF FOOTPRINT
TOTAL:	58,852 SF (19.2%)

SURFACES

SIDEWALKS:	17,391 SF
OUTDOOR SEATING:	1,269 SF
BIKE PATH:	7,585 SF
GARBAGE AREA:	873 SF
ASPHALT PARKING / DRIVE:	173,478 SF
TOTAL:	205,612 SF (67%)

GREENSPACES (PERVIOUS SURFACES)

GREENSPACE:	41,762 SF (13.5%)

LANDSCAPING:

TYPE:	REQUIRED:	PROVIDED:
GREENSPACE:	17,278 SF (10% OF PAVED AREA)	41,762 SF TOTAL

PROPOSED SETBACKS:

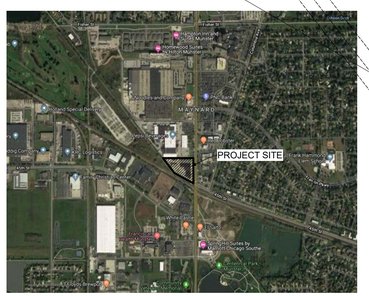
F.Y. SETBACK:	7'-6" (PARKING AREA)
S.Y. SETBACK:	1'-9"
REAR SETBACK:	11'-6"

REQUIRED PARKING:

NORTH OFFICE BUILDING (61,500 SF / 1,000) X 3.3 = 202.3	203 SPACES
SOUTH OFFICE BUILDING #1 (7,996 SF / 1,000) X 3.3 = 26.39	27 SPACES
SOUTH OFFICE BUILDING #2 (7,996 SF / 1,000) X 3.3 = 26.39	27 SPACES
RESTAURANT (3,850 / 300) X 5 = 64.2	65 SPACES
PUB: (2,710 / 300) X 5 = 45.17	46 SPACES
HOTEL (1.25 / ROOM X 105 RMS)	132 SPACES
CONTAINER PARK (RETAIL) (2,000 SF / 1,000) X 4.5 = 9	9 SPACES
TOTAL:	509 TOTAL REQUIRED

OFFICES: 3.3 SPACES / 1,000 SF
RETAIL: 4.5 SPACES / 1,000 SF
RESTAURANT: 5 SPACES / 300 SF
HOTEL: 1.25 SPACES / ROOM

PARKING AREA:	NO. STALLS:	ADA STALLS
PARKING #1	31	0
PARKING #2	10	0
PARKING #3	25	0
PARKING #4	48	2 (1 VAN)
PARKING #5	15	0
PARKING #6	20	4 (2 VAN)
PARKING #7	38	4 (2 VAN)
PARKING #8	16	0
PARKING #9	15	0
PARKING #10	18	0
PARKING #11	68	0
PARKING #12	44	0
TOTAL:	348	10 (4 van)



VICINITY MAP
SCALE: N.T.S.

N

PROPOSED SITE PLAN OPT #1
SCALE: 1" = 30'

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MAPLE LEAF CROSSING

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PROGRESS PRINTING

NO.	DESCRIPTION:	DATE:
	DESIGN REVIEW	03/09/2020

PROJECT NO: 19015
MODEL FILE:
2020 03 09 90 DEGREE.pln
DRAWN BY: J.A.H.
DATE: 08/01/2019

SHEET TITLE

Partial Site Plan

AS-001

SHEET 16 OF 53