

PRELIMINARY SITE – PLANS FOR

# JENOPTIK ROCHESTER HILLS

PART OF THE SOUTH 1/4 OF SECTION 21, T3N, R11E  
ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

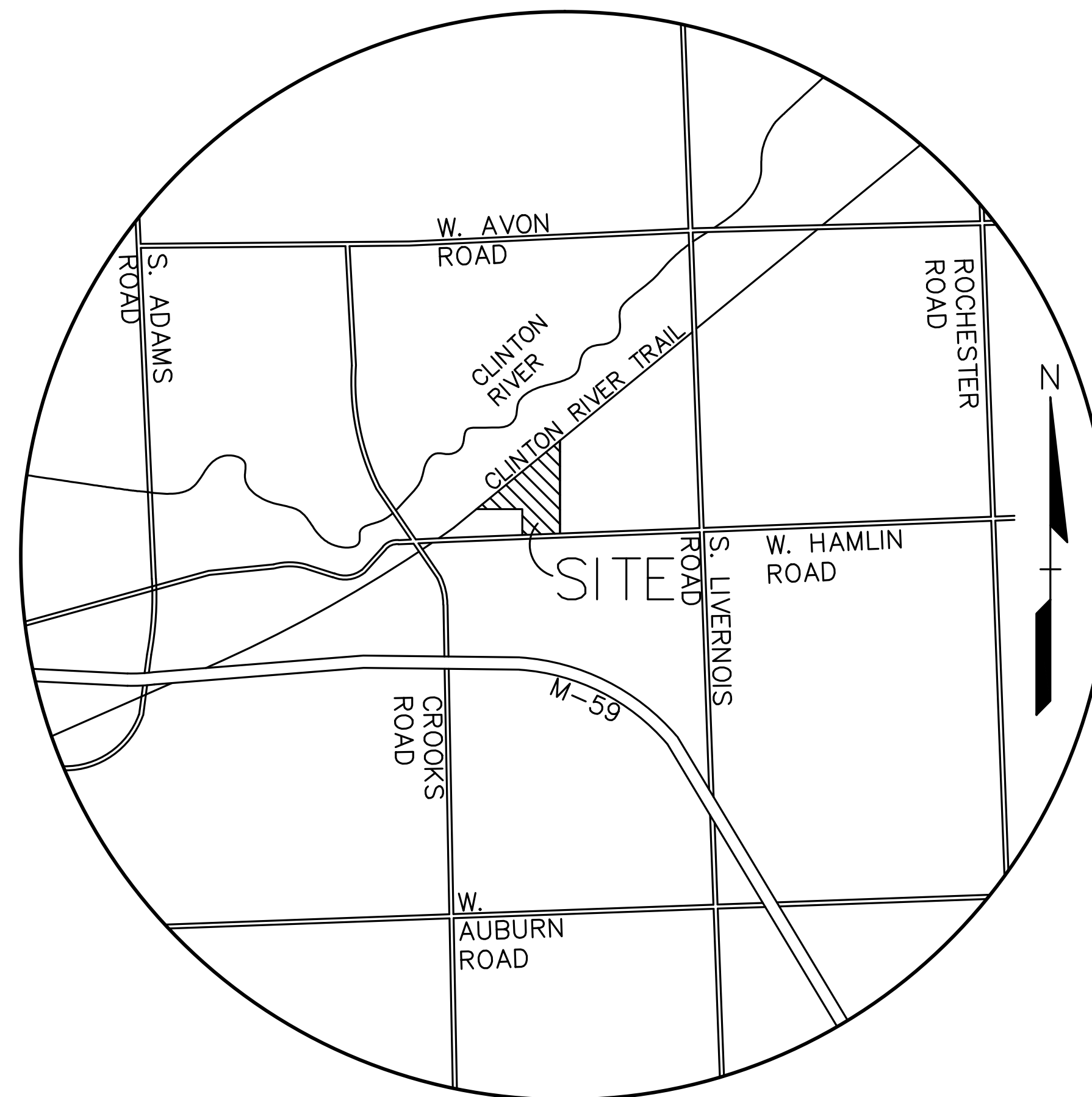
**OWNERS REPRESENTATIVE:**  
 FARBMAN FORUM  
 4036 TELEGRAPH, SUITE 200  
 BLOOMFIELD HILLS, MI 48302  
 CONTACT: MICHAEL ZIECIK  
 PHONE: (248) 331-0203  
 EMAIL: ZIECIK@FORUMGROUPLLC.COM

**DEVELOPER:**  
 J.B. DONALDSON COMPANY  
 37610 HILLS TECH DRIVE  
 FARMINGTON HILLS, MI 48331  
 CONTACT: JUSTIN JERIS  
 PHONE: (248) 344-9045  
 FAX: (248) 536-2353  
 EMAIL: JJERIS@JBDONALDSON.COM

**ARCHITECT:**  
 HARLEY ELLIS DEVEREAUX (HED)  
 26913 NORTHWESTERN HWY, SUITE 200  
 SOUTHFIELD, MI 48033  
 CONTACT: TIMOTHY GAWEL  
 PHONE: (248) 233-0159  
 EMAIL: TGAWEL@GED.DESGIN

**CIVIL ENGINEER:**  
 PEA, INC.  
 2430 ROCHESTER CT, SUITE 100  
 TROY, MI 48083  
 CONTACT: RACHEL L. SMITH, PE, LEED AP, CFM  
 PHONE: (248) 689-9090 EXT. 111  
 FAX: (248) 689-1044  
 EMAIL: RACHEL.SMITH@PEAINC.COM

**LANDSCAPE ARCHITECT:**  
 PEA, INC.  
 7927 NEMCO WAY, SUITE 115  
 BRIGHTON, MI 48116  
 CONTACT: JEFF SMITH, R.L.A., LEED AP  
 PHONE: (517) 546-8583  
 FAX: (517) 546-8973  
 EMAIL: JSMITH@PEAINC.COM



**LOCATION MAP**  
NO SCALE

**INDEX OF DRAWINGS:**

- C-1.0 COVER SHEET
- C-2.0 OVERALL TOPOGRAPHIC SURVEY
- C-2.1 TOPOGRAPHIC SURVEY (S)
- C-2.2 TOPOGRAPHIC SURVEY (N)
- C-2.3 TOPOGRAPHIC SURVEY (W)
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- C-3.3 TRUCK ACCESS PLAN
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- TREE-1.1 TREE PRESERVATION PLAN (S)
- TREE-1.2 TREE PRESERVATION PLAN (N)
- TREE-1.3 TREE PRESERVATION PLAN (W)
- L-1.1 LANDSCAPE PLAN (S)
- L-1.2 LANDSCAPE PLAN (N)
- L-1.3 LANDSCAPE PLAN (W)

PHOTOMETRIC PLAN

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- AG-01 TITLE SHEET
- AG-21 CODE SUMMARY
- AP-01 FIRST FLOOR & MEZZANINE PLAN
- A2-01 EXTERIOR BUILDING ELEVATIONS

No.	BY	CHK	DESCRIPTION	DATE

**REVISIONS**

**CAUTION!**  
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS OTHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITIES AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

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CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERAL ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY TO CONTRACTORS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO HOLD, INDEMNIFY AND HOLD DESIGN PROFESSIONAL WORKERS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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 f: 248.689.1044  
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<b>J B DONALDSON COMPANY</b> 37610 HILLS TECH DRIVE FARMINGTON HILLS, MI 48331	<b>COVER SHEET</b> <b>JENOPTIK ROCHESTER HILLS</b> PART OF THE SOUTH 1/4 OF SECTION 21, T3N, R11E ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN
DES. RLS. DN. RLS. SUR. D.L.C. P.M. SAS	S:\PROJECTS\2016\2016029\DWG\SITE PLANS\K-BASE-16029.DWG

ORIGINAL ISSUE DATE:  
MARCH 2, 2016

PEA JOB NO. 2016-029

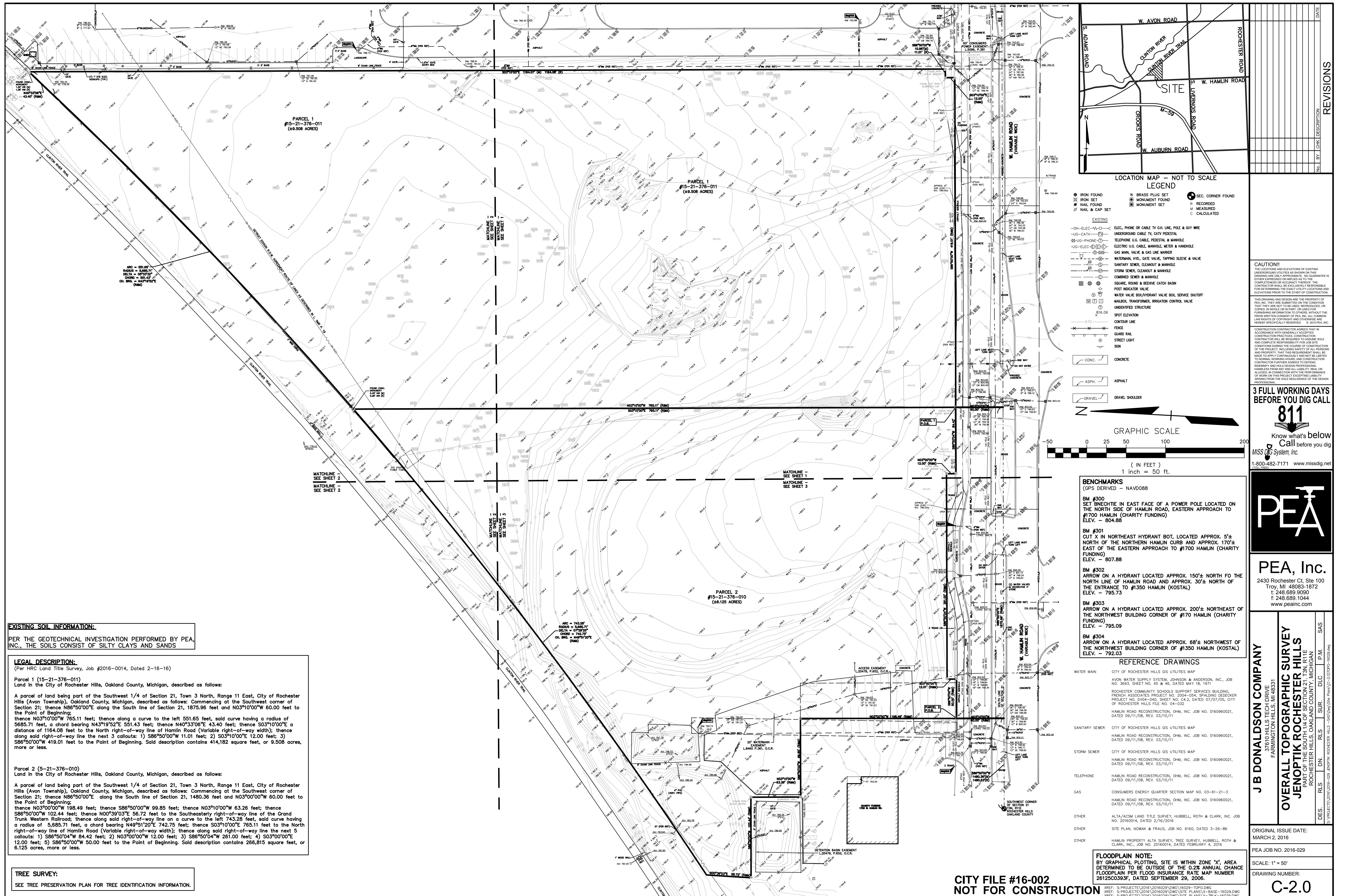
SCALE: NTS

DRAWING NUMBER:

**C-1.0**

**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**

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NO.	BY	CHK	DESCRIPTION	DATE

**REVISIONS**

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 37610 HILLS TECH DRIVE  
 FARMINGTON HILLS, MI 48331

**OVERALL TOPOGRAPHIC SURVEY**  
**JENOPTIK ROCHESTER HILLS**  
 PART OF THE SOUTH 1/4 OF SECTION 21, T3N, R16E  
 ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

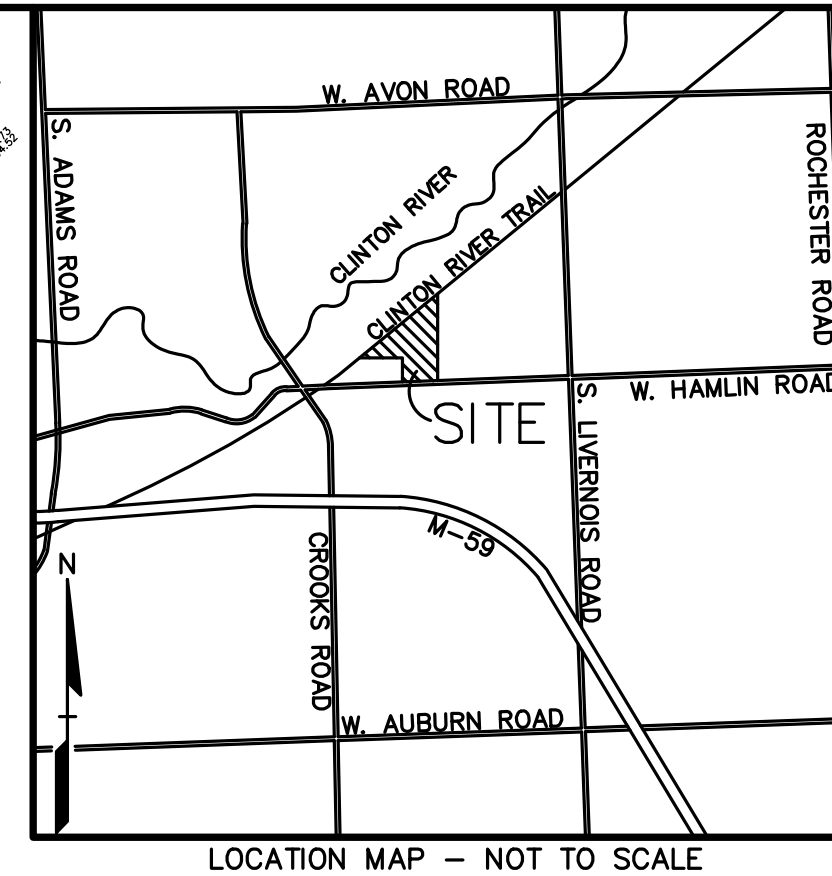
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ORIGINAL ISSUE DATE:  
 MARCH 2, 2016

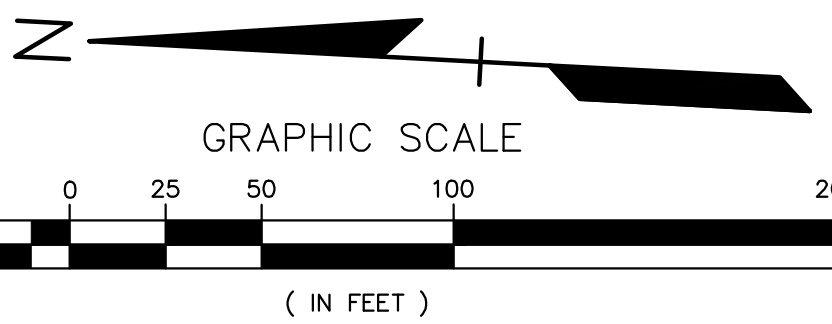
PEA JOB NO. 2016-029

SCALE: 1" = 50'

DRAWING NUMBER:  
**C-2.0**



- LEGEND**
- IRON FOUND
  - ⊗ IRON SET
  - ⊗ NAIL FOUND
  - ⊗ NAIL & CAP SET
  - ⊗ BRASS PLUG SET
  - ⊗ MONUMENT FOUND
  - ⊗ MONUMENT SET
  - ⊗ SEC. CORNER FOUND
  - ⊗ RECORDED
  - ⊗ MEASURED
  - ⊗ CALCULATED
- EXISTING**
- OH-ELEC-A-C- ELEC. PHONE OR CABLE TV OH. LINE, POLE & GUY WIRE
  - UG-CATV- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
  - UG-UG-PHONE- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
  - UG-ELEC- ELEC. U.G. CABLE, MANHOLE, METER & HANDHOLE
  - GAS- GAS MAIN, VALVE & GAS LINE WARDER
  - WATER- WATER MAIN, VALVE, GATE VALVE, TAPPING SLAVE & VALVE
  - SEWER- SANITARY SEWER, CLEANOUT & MANHOLE
  - STORM- STORM SEWER, CLEANOUT & MANHOLE
  - COMB- COMBINED SEWER & MANHOLE
  - SQUARE, ROAD & BEDDING CATCH BASIN
  - POST- POST INDICATOR VALVE
  - WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
  - MBOX- MBOX, TRANSFORMER, BRIGATION CONTROL VALVE
  - UNID- UNIDENTIFIED STRUCTURE
  - ⊗ SPOT ELEVATION
  - ⊗ CONTOUR LINE
  - ⊗ FENCE
  - ⊗ GUARD RAIL
  - ⊗ STREET LIGHT
  - ⊗ SIGN
  - CONC. CONCRETE
  - ASPH. ASPHALT
  - GRAVEL GRAVEL SHOULDER



- BENCHMARKS**  
 (GPS DERIVED - NAVD08)
- BM #300 SET BENCHMARK IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. - 804.88
  - BM #301 CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. - 807.88
  - BM #302 ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH OF THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL) ELEV. - 795.73
  - BM #303 ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #1700 HAMLIN (CHARITY FUNDING) ELEV. - 795.09
  - BM #304 ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL) ELEV. - 792.03

- REFERENCE DRAWINGS**
- WATER MAIN CITY OF ROCHESTER HILLS GIS UTILITIES MAP AVON WATER SUPPLY SYSTEM, JOHNSON & ANDERSON, INC., JOB NO. 3693, SHEET NO. 45 & 46, DATED MAY 18, 1971
  - ROCHESTER COMMUNITY SCHOOLS SUPPORT SERVICES BUILDING, FRENCH ASSOCIATES PROJECT NO. 2004-054, SPALDING ODECKER PROJECT NO. DIV-040, SHEET NO. C4-2, DATED 07/07/05, CITY OF ROCHESTER HILLS FILE NO. 04-032
  - HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
  - CITY OF ROCHESTER HILLS GIS UTILITIES MAP
  - HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
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  - CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3 HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
  - ALTA/ACSM LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016
  - SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86
  - HAMLIN PROPERTY ALTA SURVEY, TREE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED FEBRUARY 4, 2016

**EXISTING SOIL INFORMATION:**  
 PER THE GEOTECHNICAL INVESTIGATION PERFORMED BY PEA, INC., THE SOILS CONSIST OF SILTY CLAYS AND SANDS

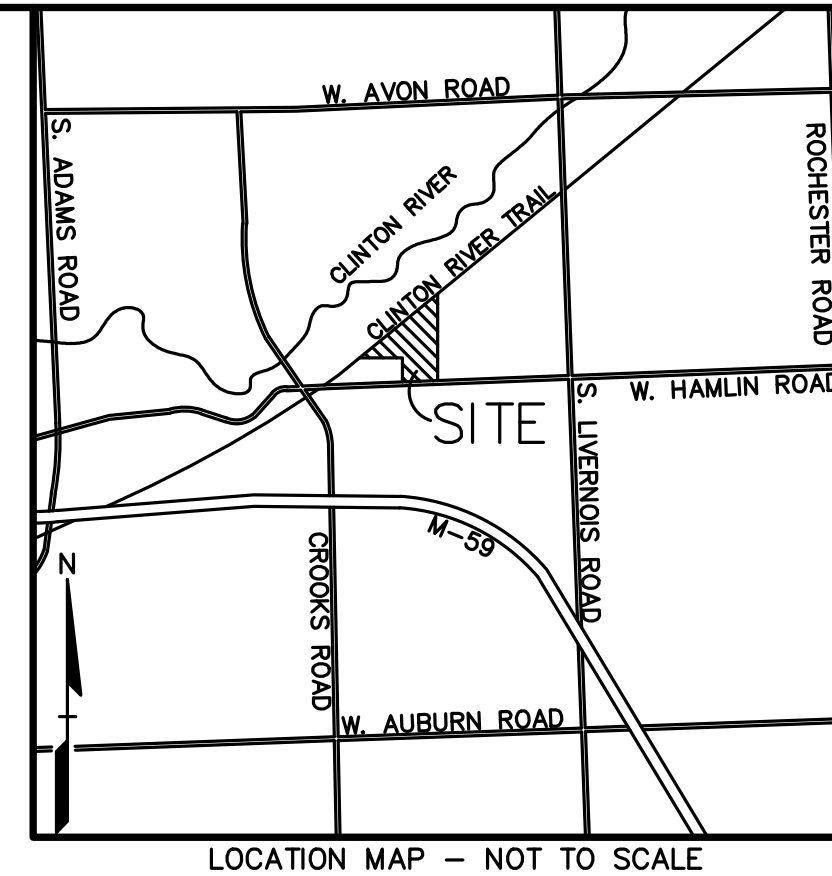
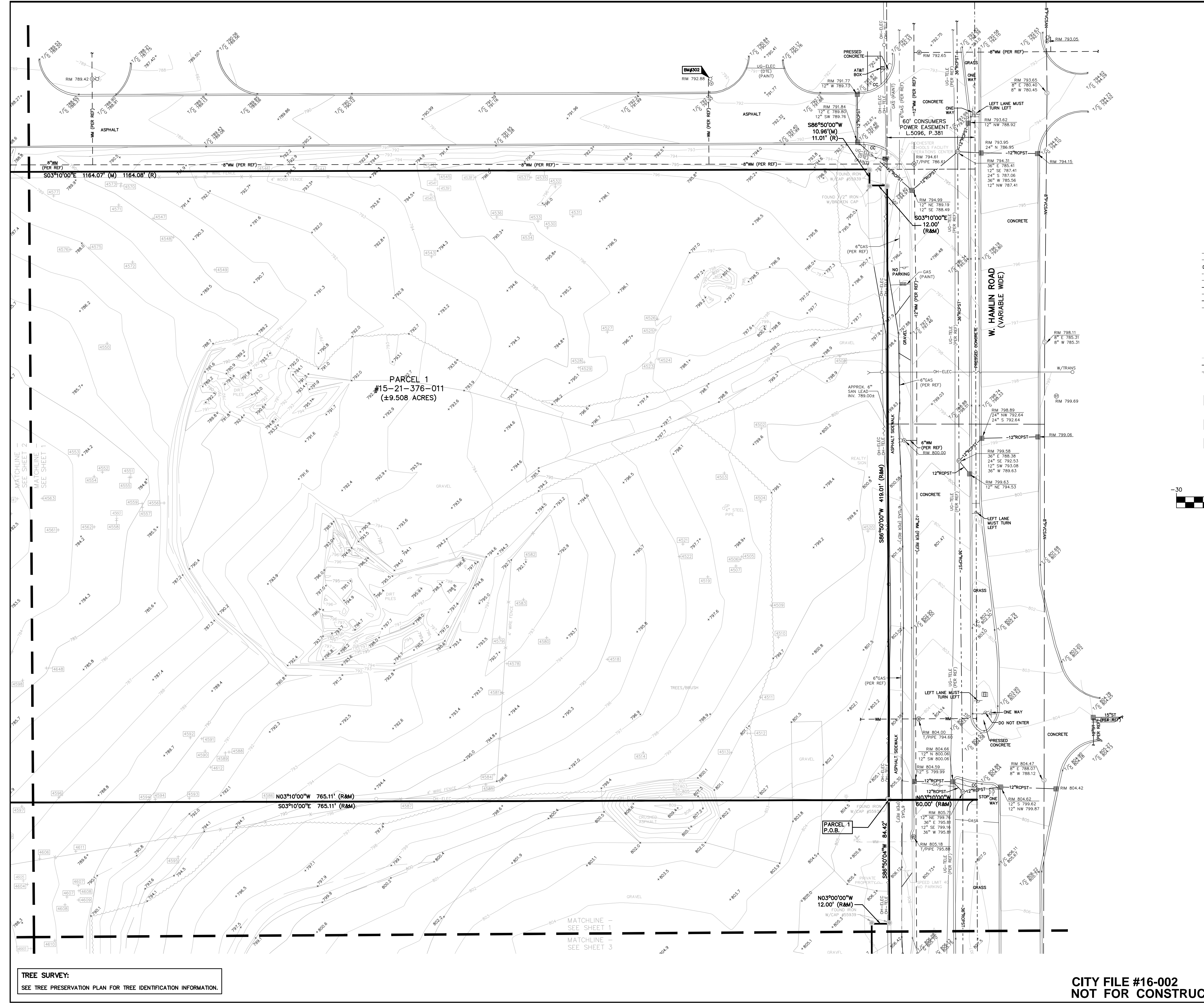
**LEGAL DESCRIPTION:**  
 (Per HRC Land Title Survey, Job #2016-0014, Dated 2-16-16)

**Parcel 1 (15-21-376-011)**  
 Land in the City of Rochester Hills, Oakland County, Michigan, described as follows:  
 A parcel of land being part of the Southwest 1/4 of Section 21, Town 3 North, Range 11 East, City of Rochester Hills (Avon Township), Oakland County, Michigan, described as follows: Commencing at the Southwest corner of Section 21; thence N86°50'00"E along the South line of Section 21, 1875.56 feet and N03°10'00"W 60.00 feet to the Point of Beginning; thence N03°10'00"W 765.11 feet; thence along a curve to the left 551.65 feet, said curve having a radius of 5685.71 feet, a chord bearing N43°19'52"E 551.43 feet; thence N40°33'06"E 43.40 feet; thence S03°10'00"E a distance of 1164.08 feet to the North right-of-way line of Hamlin Road (Variable right-of-way width); thence along said right-of-way line the next 3 callouts: 1) S86°50'00"W 11.01 feet; 2) S03°10'00"E 12.00 feet; 3) S86°50'00"W 419.01 feet to the Point of Beginning. Said description contains 414,182 square feet, or 9.508 acres, more or less.

**Parcel 2 (5-21-376-010)**  
 Land in the City of Rochester Hills, Oakland County, Michigan, described as follows:  
 A parcel of land being part of the Southwest 1/4 of Section 21, Town 3 North, Range 11 East, City of Rochester Hills (Avon Township), Oakland County, Michigan, described as follows: Commencing at the Southwest corner of Section 21; thence N86°50'00"E along the South line of Section 21, 1480.36 feet and N03°10'00"W 60.00 feet to the Point of Beginning; thence N03°10'00"W 198.49 feet; thence S86°50'00"W 99.85 feet; thence N03°10'00"W 63.26 feet; thence S86°50'00"W 102.44 feet; thence N00°39'03"E 56.72 feet to the Southeasterly right-of-way line of the Grand Trunk Western Railroad; thence along said right-of-way line on a curve to the left 743.28 feet; said curve having a radius of 5,685.71 feet, a chord bearing N49°51'20"E 742.75 feet; thence S03°10'00"E 765.11 feet to the North right-of-way line of Hamlin Road (Variable right-of-way width); thence along said right-of-way line the next 5 callouts: 1) S86°50'00"W 84.42 feet; 2) N03°10'00"W 12.00 feet; 3) S86°50'00"W 261.00 feet; 4) S03°10'00"E 12.00 feet; 5) S86°50'00"W 50.00 feet to the Point of Beginning. Said description contains 266,815 square feet, or 6.125 acres, more or less.

**TREE SURVEY:**  
 SEE TREE PRESERVATION PLAN FOR TREE IDENTIFICATION INFORMATION.

**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**



**LEGEND**

● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ IRON SET	⊗ MONUMENT FOUND	⊗ RECORDED
⊗ NAIL FOUND	⊗ MONUMENT SET	⊗ MEASURED
⊗ NAIL & CAP SET		⊗ CALCULATED

**EXISTING**

- OH-ELEC-A-C ELEC. PHONE OR CABLE TV OH. LINE, POLE & GUY WIRE
- UG-CATV UNDERGROUND CABLE TV, CITY PEDESTAL
- UG-PHONE TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- UG-ELEC-ELEC. U.G. CABLE, MANHOLE, METER & HANDHOLE
- UG-ELEC-GAS MAN, VALVE & GAS LINE WARDER
- WATERMAIN W.D. GATE VALVE, SPRING SLEEVE & VALVE
- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM SEWER, CLEANOUT & MANHOLE
- COMBINED SEWER & MANHOLE
- SQUARE, ROUND & BEEHIVE CATCH BASIN
- POST INDICATOR VALVE
- WATER VALVE, BOX/GRABMATE VALVE, BOX, SERVICE SHUTOFF
- MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- UNIDENTIFIED STRUCTURE
- SPOT ELEVATION
- CONTOUR LINE
- FENCE
- GUARD RAIL
- STREET LIGHT
- SIEN
- CONC. CONCRETE
- ASPH. ASPHALT
- GRAVEL GRAVEL SHOULDER

**GRAPHIC SCALE**  
1 inch = 30 ft.

NO.	BY	DATE	DESCRIPTION

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**TREE SURVEY:**  
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**BENCHMARKS**  
(GPS DERIVED - NAVD08)

**BM #300**  
SET BENCHMARK IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 804.88

**BM #301**  
CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 807.88

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ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH OF THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL)  
ELEV. - 795.73

**BM #303**  
ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 795.09

**BM #304**  
ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL)  
ELEV. - 792.03

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SANITARY SEWER	CITY OF ROCHESTER HILLS GIS UTILITIES MAP HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
STORM SEWER	CITY OF ROCHESTER HILLS GIS UTILITIES MAP HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
TELEPHONE	HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
GAS	CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3 HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
OTHER	ALTA/ACSM LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016
OTHER	SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86
OTHER	HAMLIN PROPERTY ALTA SURVEY, TREE SURVEY, HUBBELL, ROTH & CLARK, INC., JOB NO. 20160014, DATED FEBRUARY 4, 2016

**FLOODPLAIN NOTE:**  
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X'. AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0393F, DATED SEPTEMBER 29, 2006.

XREF: S:\PROJECTS\2016\20160229\DWG\16029-TOP0.DWG  
XREF: S:\PROJECTS\2016\20160229\DWG\SITE\_PLANS\XV-BASE-16029.DWG  
XREF: S:\PROJECTS\2016\20160229\DWG\SITE\_PLANS\XV-TB-K-16029.DWG



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**TOPOGRAPHIC SURVEY (S)**  
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PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R16E  
ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES.	RLS	DN.	RLS	SUR.	DLC	P.M.	SAS

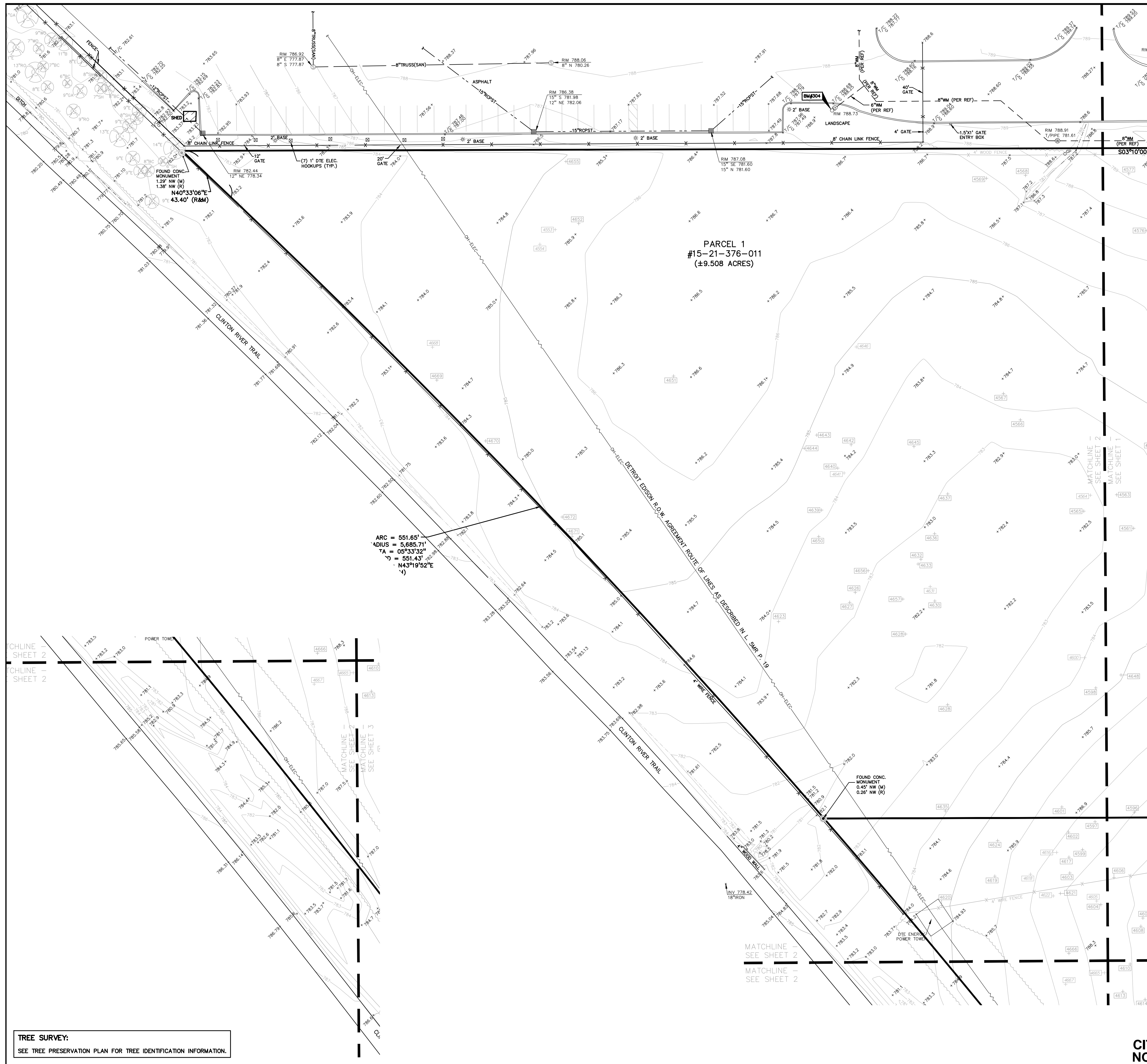
ORIGINAL ISSUE DATE:  
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PEA JOB NO. 2016-029

SCALE: 1" = 30'

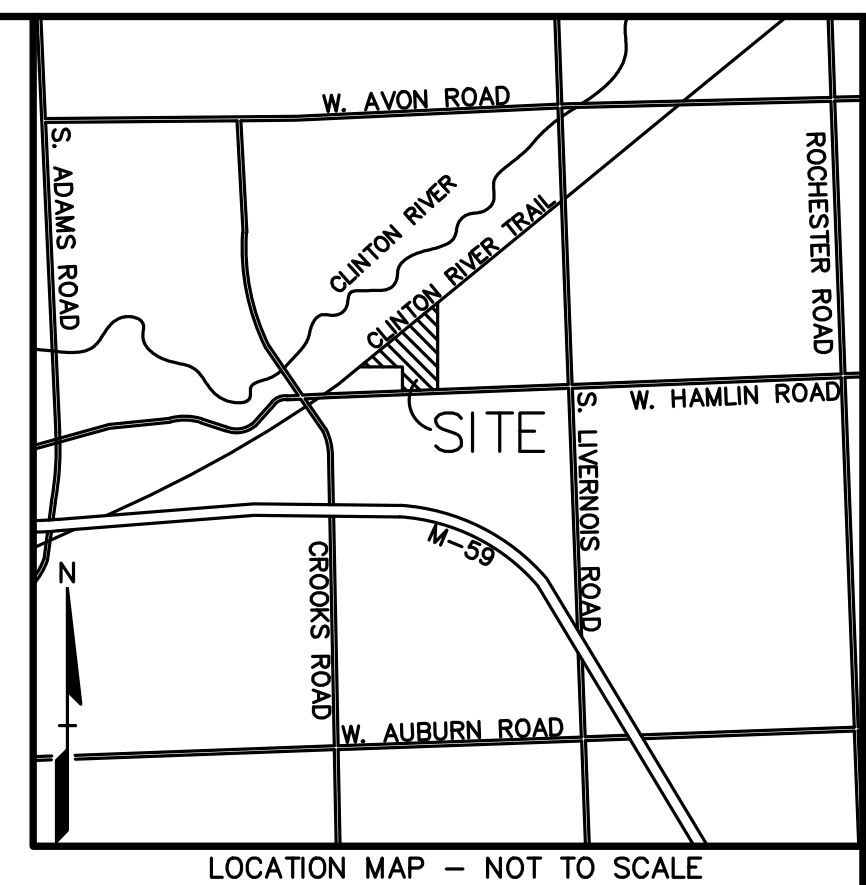
DRAWING NUMBER:  
**C-2.1**

**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**



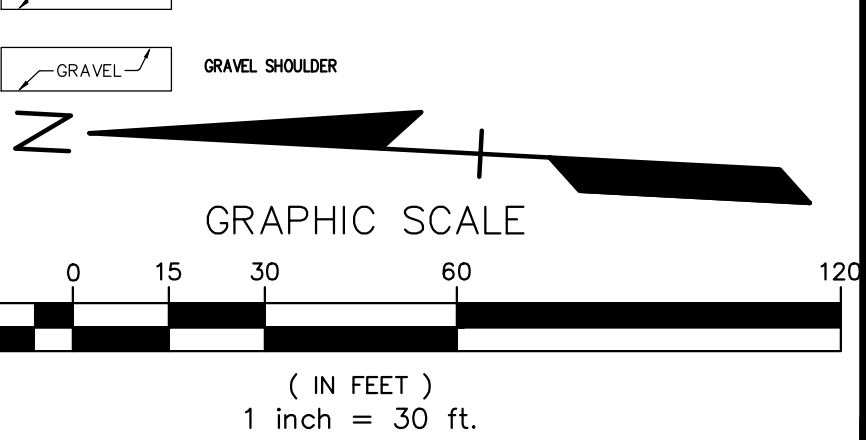
PARCEL 1  
#15-21-376-011  
(±9.508 ACRES)

ARC = 551.65'  
RADIUS = 5,665.71'  
ΔA = 05°33'32"  
ΔD = 551.43'  
Δ = N43°19'52"E



LOCATION MAP - NOT TO SCALE

- LEGEND**
- IRON FOUND
  - ⊗ IRON SET
  - ⊗ NAIL FOUND
  - ⊗ NAIL & CAP SET
  - ⊗ BRASS PLUG SET
  - ⊗ MONUMENT FOUND
  - ⊗ MONUMENT SET
  - ⊗ SEC. CORNER FOUND
  - R RECORDED
  - M MEASURED
  - C CALCULATED
- EXISTING**
- OH-ELEC-A-C- ELEC. PHONE OR CABLE TV OH. LINE, POLE & GUY WIRE
  - UG-CATV- UNDERGROUND CABLE TV, CATV PEDESTAL
  - UG-PHONE- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
  - UG-ELEC- ELEC. U.G. CABLE, MANHOLE, METER & HANDHOLE
  - GAS- GAS MAIN, VALVE & GAS LINE MARKER
  - WATER- WATERMAIN, HYD. GATE VALVE, SERVICE SLEEVE & VALVE
  - SEWER- SANITARY SEWER, CLEANOUT & MANHOLE
  - STORM- STORM SEWER, CLEANOUT & MANHOLE
  - COMB- COMBINED SEWER & MANHOLE
  - SQUARE- SQUARE, ROAD & BEHIVE CATCH BASIN
  - POST- POST INDICATOR WALL
  - WATER- WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
  - MBOX- MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
  - UNID- UNIDENTIFIED STRUCTURE
  - SPOT ELEVATION
  - CONTOUR LINE
  - FENCE
  - GUARD RAIL
  - STREET LIGHT
  - SDN
  - CONCRETE
  - ASPH.
  - GRAVEL



GRAPHIC SCALE  
( IN FEET )  
1 inch = 30 ft.

- BENCHMARKS**  
(GPS DERIVED - NAVD08)
- BM #300 SET BENCHMARK IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. - 804.88
  - BM #301 CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. - 807.88
  - BM #302 ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH OF THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL) ELEV. - 795.73
  - BM #303 ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #170 HAMLIN (CHARITY FUNDING) ELEV. - 795.09
  - BM #304 ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL) ELEV. - 792.03

- REFERENCE DRAWINGS**
- WATER MAIN CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
AVON WATER SUPPLY SYSTEM, JOHNSON & ANDERSON, INC., JOB NO. 3693, SHEET NO. 45 & 46, DATED MAY 18, 1971  
ROCHESTER COMMUNITY SCHOOLS SUPPORT SERVICES BUILDING, FRENCH ASSOCIATES PROJECT NO. 2004-054, SPALDING ODECKER PROJECT NO. DWG-040, SHEET NO. C4.2, DATED 07/07/05, CITY OF ROCHESTER HILLS FILE NO. 04-032  
HAMLIN ROAD RECONSTRUCTION, D.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
  - SANITARY SEWER CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
HAMLIN ROAD RECONSTRUCTION, D.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
  - STORM SEWER CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
HAMLIN ROAD RECONSTRUCTION, D.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
  - TELEPHONE HAMLIN ROAD RECONSTRUCTION, D.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
  - GAS CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3  
HAMLIN ROAD RECONSTRUCTION, D.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
  - OTHER ALTA/ACSM LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016
  - OTHER SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86
  - OTHER HAMLIN PROPERTY ALTA SURVEY, TREE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED FEBRUARY 4, 2016

**FLOODPLAIN NOTE:**  
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X'. AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0393F, DATED SEPTEMBER 29, 2006.

NO.	BY	DATE	DESCRIPTION

**CAUTION!**  
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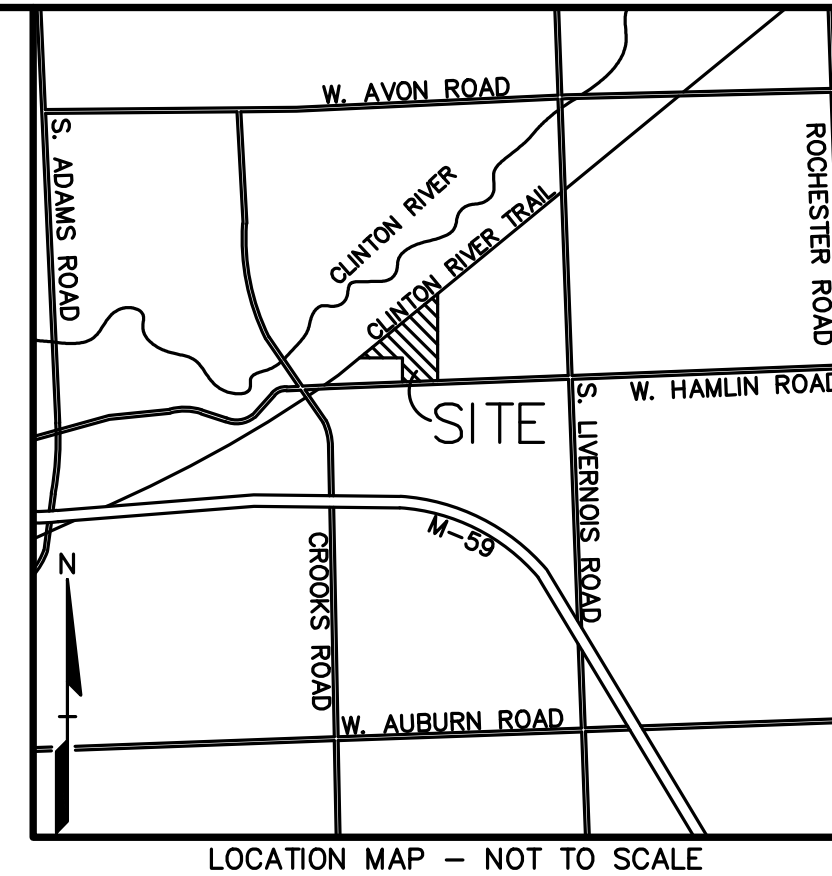
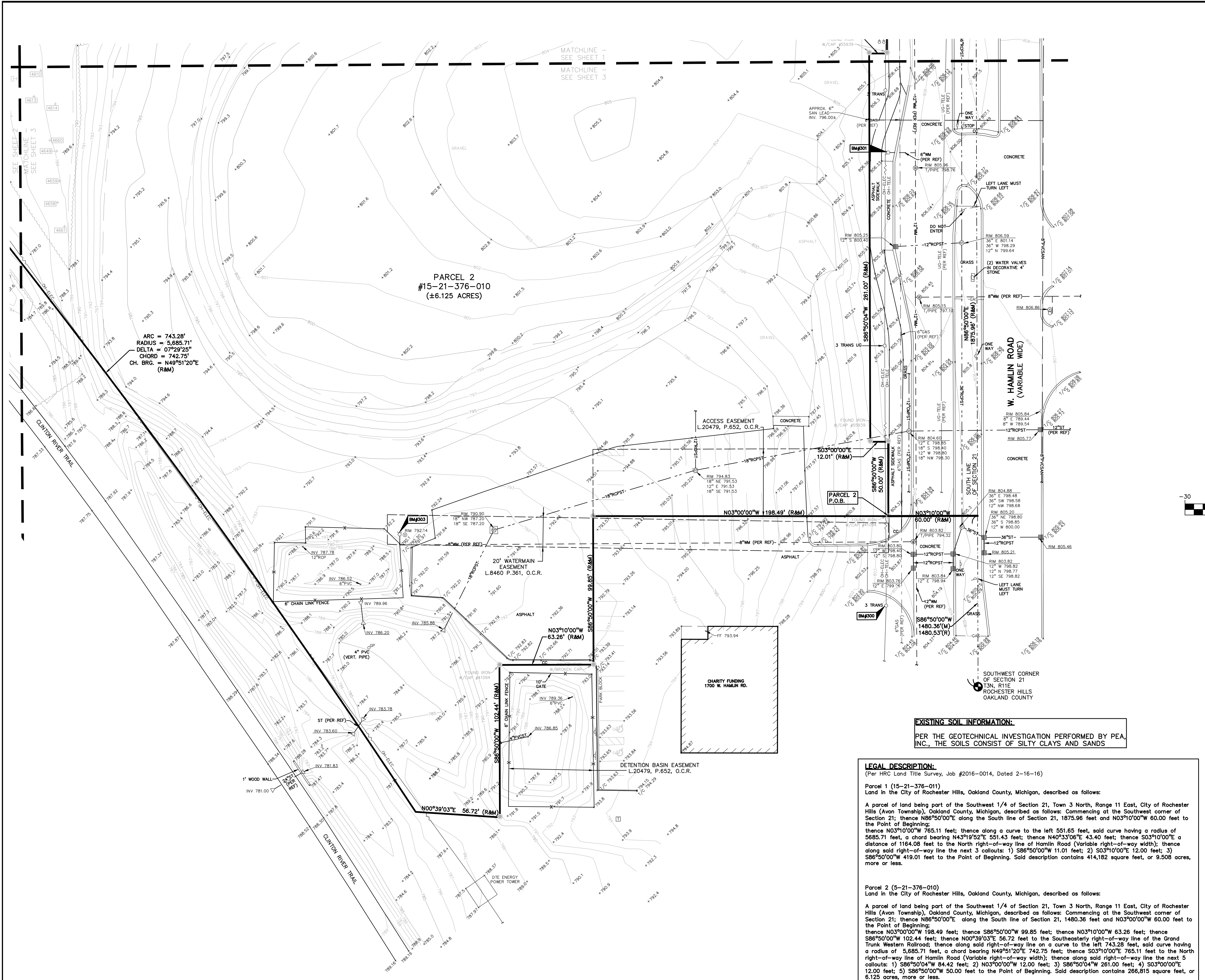
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f: 248.689.1044  
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DES.	RLS	DN	RLS	SUR	DLC	P.M.	SAS
<b>J B DONALDSON COMPANY</b> 37610 HILLS TECH DRIVE FARMINGTON HILLS, MI 48331 <b>TOPOGRAPHIC SURVEY (N)</b> <b>JENOPTIK ROCHESTER HILLS</b> PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R1E ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN S:\PROJECTS\2016\20160229\DWG\SITE PLANS\X-BASE-16029.DWG S:\PROJECTS\2016\20160229\DWG\SITE PLANS\X-BASE-16029.DWG S:\PROJECTS\2016\20160229\DWG\SITE PLANS\X-BASE-16029.DWG							
ORIGINAL ISSUE DATE: MARCH 2, 2016							
PEA JOB NO. 2016-029							
SCALE: 1" = 30'							
DRAWING NUMBER: <b>C-2.2</b>							

**TREE SURVEY:**  
SEE TREE PRESERVATION PLAN FOR TREE IDENTIFICATION INFORMATION.

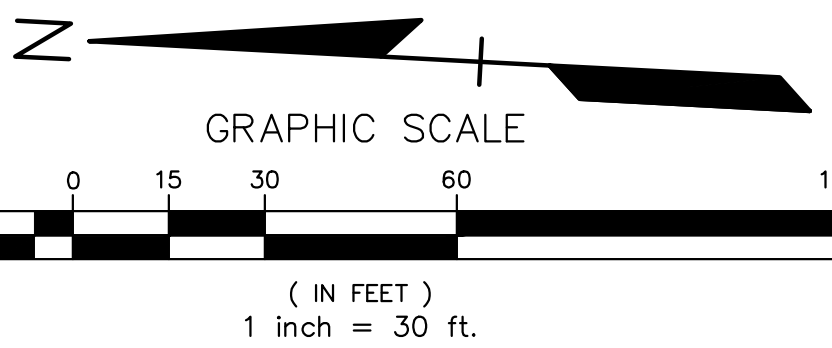
**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**



LOCATION MAP - NOT TO SCALE

LEGEND

- IRON FOUND
  - ⊗ IRON SET
  - ⊗ NAIL FOUND
  - ⊗ NAIL & CAP SET
  - ⊗ BRASS PLUG SET
  - ⊗ MONUMENT FOUND
  - ⊗ MONUMENT SET
  - ⊗ SEC. CORNER FOUND
  - ⊗ R RECORDED
  - ⊗ M MEASURED
  - ⊗ C CALCULATED
- EXISTING
- OH-ELEC-A-C- ELEC. PHONE OR CABLE TV OH. LINE, POLE & GUY WIRE
  - UG-CATV- UG. CATV
  - UG-UG- UG. CABLE, MANHOLE, METER & MANHOLE
  - UG-ELEC- UG. ELECTRIC U.G. CABLE, MANHOLE, METER & MANHOLE
  - UG-WM- UG. WATER MAIN, VALVE & GAS LINE MARKER
  - UG-SS- UG. STORM SEWER, CLEANOUT & MANHOLE
  - UG-TS- UG. TELEPHONE, SANITARY SEWER, CLEANOUT & MANHOLE
  - UG-CP- UG. COMBINED SEWER & MANHOLE
  - UG-R&B- UG. SQUARE, ROUND & BEHIVE CATCH BASIN
  - UG-WV- UG. WATER VALVE, BOX/VALVE, SERVICE SHUTOFF
  - UG-M&B- UG. MANHOLE, BOX/VALVE, SERVICE SHUTOFF
  - UG-IR- UG. IDENTIFIED STRUCTURE
  - UG-S- UG. SPOT ELEVATION
  - UG-C- UG. CONTOUR LINE
  - F- FENCE
  - G- GUARD RAIL
  - S- STREET LIGHT
  - S- SIGN
  - C- CONCRETE
  - A- ASPHALT
  - GS- GRAVEL SHOULDER



GRAPHIC SCALE  
( IN FEET )  
1 inch = 30 ft.

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(GPS DERIVED - NAVD08)
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**REFERENCE DRAWINGS**

WATER MAIN	CITY OF ROCHESTER HILLS GIS UTILITIES MAP AVON WATER SUPPLY SYSTEM, JOHNSON & ANDERSON, INC., JOB NO. 3693, SHEET NO. 45 & 46, DATED MAY 18, 1971 ROCHESTER COMMUNITY SCHOOLS SUPPORT SERVICES BUILDING, FRENCH ASSOCIATES PROJECT NO. 2004-054, SPALDING/CHECKER PROJECT NO. DVM-040, SHEET NO. C4.2, DATED 07/07/05, CITY OF ROCHESTER HILLS FILE NO. 04-032
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GAS	CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3 HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
OTHER	ALTA/ACSM LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016
OTHER	SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86
OTHER	HAMLIN PROPERTY ALTA SURVEY, TREE SURVEY, HUBBELL, ROTH & CLARK, INC., JOB NO. 20160014, DATED FEBRUARY 4, 2016

**LEGAL DESCRIPTION:**  
(Per HRC Land Title Survey, Job #2016-0014, Dated 2-16-16)

**Parcel 1 (15-21-376-011)**  
Land in the City of Rochester Hills, Oakland County, Michigan, described as follows:  
A parcel of land being part of the Southwest 1/4 of Section 21, Town 3 North, Range 11 East, City of Rochester Hills (Avon Township), Oakland County, Michigan, described as follows: Commencing at the Southwest corner of Section 21; thence N86°50'00"E along the South line of Section 21, 1875.96 feet and N03°10'00"W 60.00 feet to the Point of Beginning; thence N03°10'00"W 765.11 feet; thence along a curve to the left 551.65 feet, said curve having a radius of 5685.71 feet, a chord bearing N43°19'52"E 551.43 feet; thence N40°33'06"E 43.40 feet; thence S03°10'00"E a distance of 1184.08 feet to the North right-of-way line of Hamlin Road (Variable right-of-way width); thence along said right-of-way line the next 3 callouts: 1) S86°50'00"W 11.01 feet; 2) S03°10'00"E 12.00 feet; 3) S86°50'00"W 419.01 feet to the Point of Beginning. Said description contains 414,182 square feet, or 9.508 acres, more or less.

**Parcel 2 (5-21-376-010)**  
Land in the City of Rochester Hills, Oakland County, Michigan, described as follows:  
A parcel of land being part of the Southwest 1/4 of Section 21, Town 3 North, Range 11 East, City of Rochester Hills (Avon Township), Oakland County, Michigan, described as follows: Commencing at the Southwest corner of Section 21; thence N86°50'00"E along the South line of Section 21, 1480.36 feet and N03°10'00"W 60.00 feet to the Point of Beginning; thence N03°10'00"W 198.49 feet; thence S86°50'00"W 99.85 feet; thence N03°10'00"W 63.26 feet; thence S86°50'00"W 102.44 feet; thence N00°39'03"E 56.72 feet to the Southeasterly right-of-way line of the Grand Trunk Western Railroad; thence along said right-of-way line on a curve to the left 743.28 feet, said curve having a radius of 5,685.71 feet, a chord bearing N49°51'20"E 742.75 feet; thence S03°10'00"E 785.11 feet to the North right-of-way line of Hamlin Road (Variable right-of-way width); thence along said right-of-way line the next 5 callouts: 1) S86°50'04"W 84.42 feet; 2) N03°00'00"W 12.00 feet; 3) S86°50'04"W 261.00 feet; 4) S03°00'00"E 12.00 feet; 5) S86°50'00"W 50.00 feet to the Point of Beginning. Said description contains 266,815 square feet, or 6.125 acres, more or less.

**TREE SURVEY:**  
SEE TREE PRESERVATION PLAN FOR TREE IDENTIFICATION INFORMATION.

**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**

NO.	BY	CHK	DESCRIPTION	DATE

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**J B DONALDSON COMPANY**  
3760 HILLS TECH DRIVE  
FARMINGTON HILLS, MI 48331

**TOPOGRAPHIC SURVEY (W)**  
**JENOPTIK ROCHESTER HILLS**  
PART OF THE SOUTH 1/4 OF SECTION 21, T3N, R11E  
ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

ORIGINAL ISSUE DATE:  
MARCH 2, 2016

PEA JOB NO. 2016-029

SCALE: 1" = 30'

DRAWING NUMBER:  
**C-2.3**

**C-2.3**

NO.	BY	DATE	DESCRIPTION

REVISIONS



NOTE: ALL WORK WITHIN THE HAMLIN ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF ROCHESTER HILLS AND REQUIRES A PERMIT.

W. HAMLIN ROAD (VARIABLE WIDE)

W. HAMLIN ROAD (VARIABLE WIDE)

ZONED REC-W "REGIONAL EMPLOYMENT CENTER-WORKPLACE" DISTRICT

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SITE DATA TABLE:

LAND AREA:

PARCEL #15-21-376-011: 9.51 ACRES  
 GROSS & NET = 9.51 ACRES

PARCEL #15-21-376-010: 6.13 ACRES  
 GROSS & NET = 6.13 ACRES  
 TOTAL ACREAGE = 15.64 ACRES

PROPOSED BUILDING AREA:

PHASE 1  
 TOTAL BUILDING AREA = 100,000 S.F. (80,000 S.F. NET)  
 OFFICE AREA = 38,000 S.F. (30,400 S.F. NET)  
 MANUFACTURING AREA = 47,000 S.F. (37,600 S.F. NET)  
 WAREHOUSE AREA = 15,000 S.F. (12,000 S.F. NET)

FUTURE PHASE 2  
 TOTAL BUILDING AREA = 45,000 S.F. (36,000 S.F. NET)  
 OFFICE AREA = 15,000 S.F. (12,000 S.F. NET)  
 MANUFACTURING AREA = 20,000 S.F. (16,000 S.F. NET)  
 WAREHOUSE AREA = 10,000 S.F. (8,000 S.F. NET)

FUTURE PHASE 3  
 TOTAL BUILDING AREA = 60,000 S.F. (48,000 S.F. NET)  
 OFFICE AREA = 20,000 S.F. (16,000 S.F. NET)  
 MANUFACTURING AREA = 30,000 S.F. (24,000 S.F. NET)  
 WAREHOUSE AREA = 10,000 S.F. (8,000 S.F. NET)

PARKING REQUIRED:

OFFICE: 1 SPACE/350 SF OF FLOOR AREA  
 MANUFACTURING: 1 SPACE/500 SF OF FLOOR AREA  
 WAREHOUSE: 1 SPACE/1700 SF OF FLOOR AREA

PHASE 1  
 OFFICE: 30,400 / 350 = 87 SPACES  
 MANUFACTURING: 37,600 / 500 = 75 SPACES  
 WAREHOUSE: 12,000 / 1700 = 7 SPACES  
 TOTAL PHASE 1: 169 SPACES

FUTURE PHASE 2  
 OFFICE: 12,000 / 350 = 34 SPACES  
 MANUFACTURING: 16,000 / 500 = 32 SPACES  
 WAREHOUSE: 8,000 / 1700 = 5 SPACES  
 TOTAL PHASE 2: 71 SPACES

PHASE 1 & 2  
 TOTAL REQ'D PHASE 1 & 2 = 240 SPACES

FUTURE PHASE 3  
 OFFICE: 16,000 / 350 = 46 SPACES  
 MANUFACTURING: 24,000 / 500 = 48 SPACES  
 WAREHOUSE: 8,000 / 1700 = 5 SPACES  
 TOTAL PHASE 3: 99 SPACES

PARKING PROVIDED:

PHASE 1:  
 STANDARD SPACES: 194 SPACES  
 HC SPACES: 10 SPACES  
 TOTAL PHASE 1: 204 SPACES

FUTURE PHASE 2:  
 STANDARD SPACES: 36 SPACES  
 HC SPACES: 6 SPACES  
 TOTAL PHASE 2: 42 SPACES

TOTAL PHASE 1 AND 2: 246 SPACES

FUTURE PHASE 3:  
 STANDARD SPACES: 107 SPACES  
 HC SPACES: 6 SPACES  
 TOTAL PHASE 3: 113 SPACES

ZONING INFO:  
 ORT - OFFICE, RESEARCH AND TECHNOLOGY

BUILDING SETBACKS:

FRONT (HAMLIN)	REQUIRED:	PROVIDED:
30'	30'	50.00'
SIDE (EAST)	0'	58.00'
SIDE (WEST)	0'	168.64'
REAR (CLINTON RIVER TRAIL)	30'	120.19' (PH.2)

Notes:

- Maximum building height allowed is 3 stories/40 feet.
- All roof and ground mounted mechanical equipment shall be screened from adjacent roads and properties.
- Fire lanes shall be designated by the fire code official, and shall be conspicuously posted on both sides of the fire lane, with fire lane signs spaced not more than 100 feet apart, and in conformance with the MUTCD.
- All pedestrian walkways and required egress doors shall comply with Michigan Barrier Free Design Criteria.
- Building Construction Type IIB.

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OVERALL PRELIMINARY SITE PLAN  
 JENOPTIK ROCHESTER HILLS  
 PART OF THE SOUTH 1/4 OF SECTION 21, T3N, R11E  
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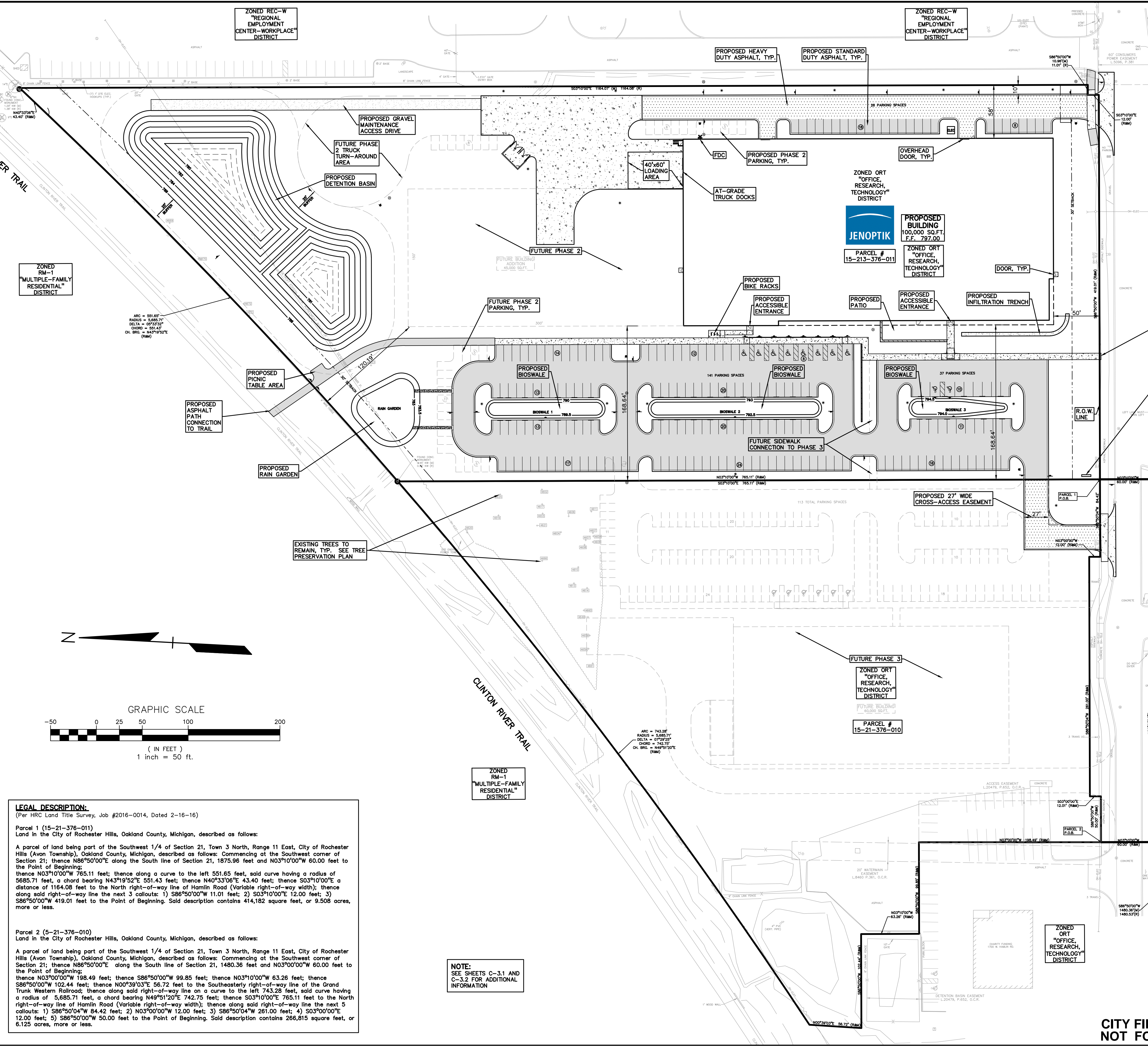
DES.	RLS	DN.	RLS	SUR.	DLC	P.M.	SAS

ORIGINAL ISSUE DATE: MARCH 2, 2016

PEA JOB NO. 2016-029

SCALE: 1" = 50'

DRAWING NUMBER: C-3.0



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ZONED REC-W "REGIONAL EMPLOYMENT CENTER-WORKPLACE" DISTRICT

ZONED RM-1 "MULTIPLE-FAMILY RESIDENTIAL" DISTRICT

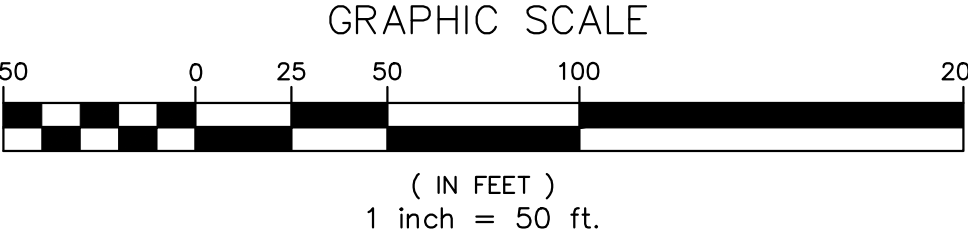
ZONED RM-1 "MULTIPLE-FAMILY RESIDENTIAL" DISTRICT

ZONED ORT "OFFICE, RESEARCH, TECHNOLOGY" DISTRICT

LEGAL DESCRIPTION:  
 (Per HRC Land Title Survey, Job #2016-0014, Dated 2-16-16)

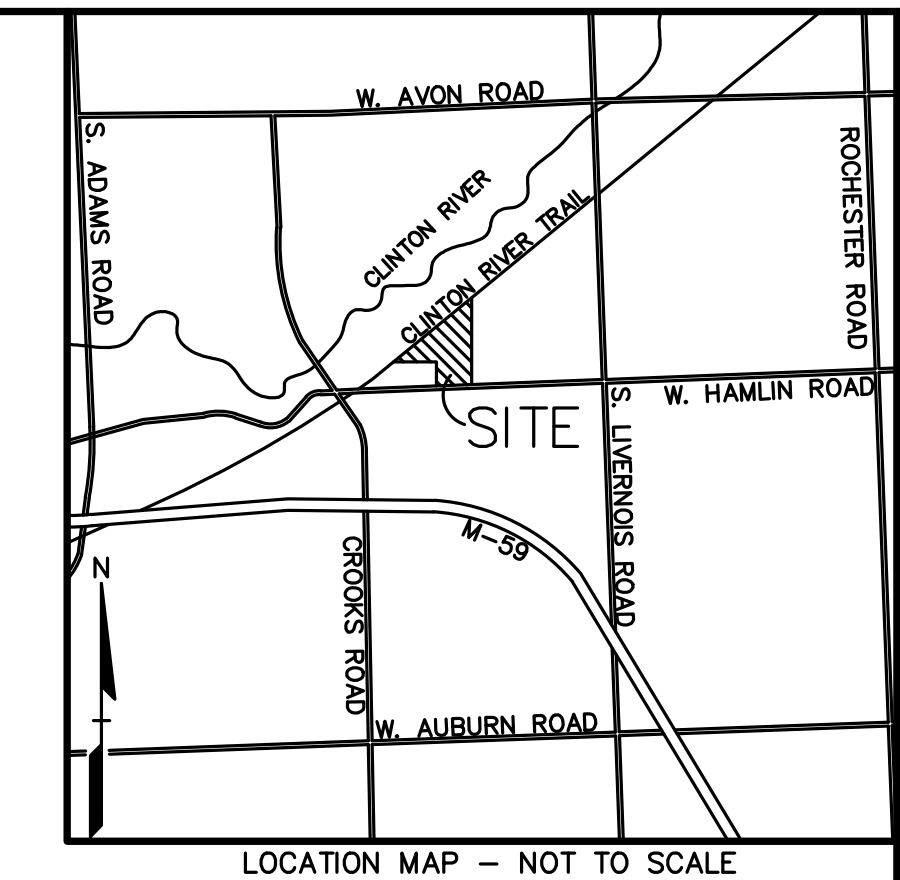
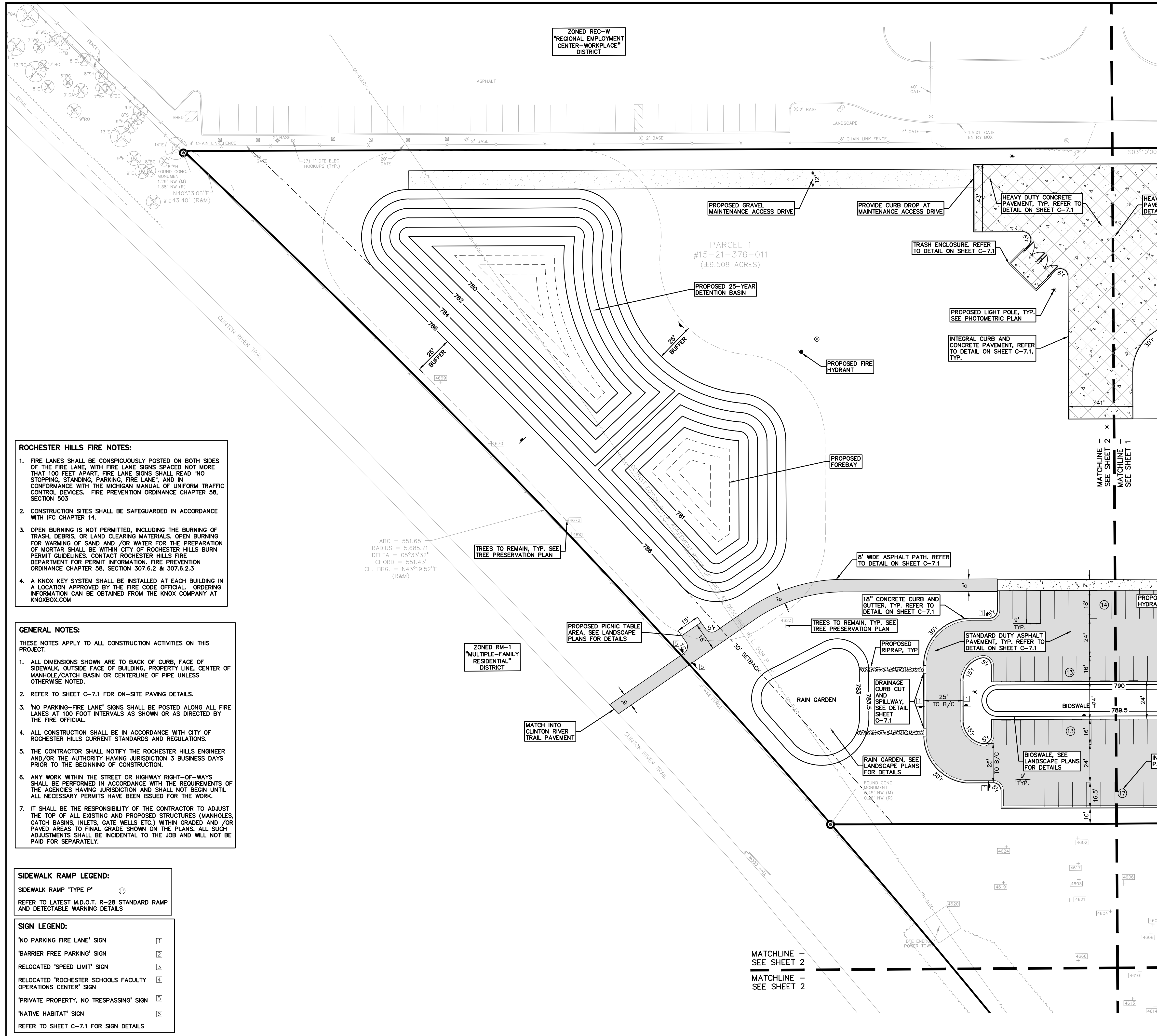
Parcel 1 (15-21-376-011)  
 Land in the City of Rochester Hills, Oakland County, Michigan, described as follows:  
 A parcel of land being part of the Southwest 1/4 of Section 21, Town 3 North, Range 11 East, City of Rochester Hills (Avon Township), Oakland County, Michigan, described as follows: Commencing at the Southwest corner of Section 21; thence N86°50'00"E along the South line of Section 21, 1875.96 feet and N03°10'00"W 60.00 feet to the Point of Beginning; thence N03°10'00"W 765.11 feet; thence along a curve to the left 551.65 feet, said curve having a radius of 5685.71 feet, a chord bearing N43°19'52"E 551.43 feet; thence N40°33'08"E 43.40 feet; thence S03°10'00"E a distance of 1164.08 feet to the North right-of-way line of Hamlin Road (Variable right-of-way width); thence along said right-of-way line the next 3 callouts: 1) S86°50'00"W 11.01 feet; 2) S03°10'00"E 12.00 feet; 3) S86°50'00"W 419.01 feet to the Point of Beginning. Said description contains 414,182 square feet, or 9.508 acres, more or less.

Parcel 2 (15-21-376-010)  
 Land in the City of Rochester Hills, Oakland County, Michigan, described as follows:  
 A parcel of land being part of the Southwest 1/4 of Section 21, Town 3 North, Range 11 East, City of Rochester Hills (Avon Township), Oakland County, Michigan, described as follows: Commencing at the Southwest corner of Section 21; thence N86°50'00"E along the South line of Section 21, 1480.36 feet and N03°10'00"W 60.00 feet to the Point of Beginning; thence N03°10'00"W 198.49 feet; thence S86°50'00"W 99.85 feet; thence N03°10'00"W 63.26 feet; thence S86°50'00"W 102.44 feet; thence N00°39'03"E 56.72 feet to the Southeastly right-of-way line of the Grand Trunk Western Railroad; thence along said right-of-way line on a curve to the left 743.28 feet, said curve having a radius of 5,685.71 feet, a chord bearing N49°51'20"E 742.75 feet; thence S03°10'00"E 765.11 feet to the North right-of-way line of Hamlin Road (Variable right-of-way width); thence along said right-of-way line the next 5 callouts: 1) S86°50'04"W 84.42 feet; 2) N03°00'00"W 12.00 feet; 3) S86°50'04"W 261.00 feet; 4) S03°00'00"E 12.00 feet; 5) S86°50'00"W 50.00 feet to the Point of Beginning. Said description contains 266,815 square feet, or 6.125 acres, more or less.



NOTE: SEE SHEETS C-3.1 AND C-3.2 FOR ADDITIONAL INFORMATION





**LEGEND**

● IRON FOUND	● BRASS PLUG SET	● SEC. CORNER FOUND
⊗ IRON SET	⊗ MONUMENT FOUND	○ RECORDED
⊗ NAIL FOUND	⊗ MONUMENT SET	○ MEASURED
⊗ NAIL & CAP SET		○ CALCULATED

**EXISTING**

-OH-ELEC-M-C-	ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
-UG-CATV-	UNDERGROUND CABLE TV, CATV PEDESTAL
⊗-UG-PHON-	TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
⊗-UG-ELEC-	ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
⊗-UG-GAS-	GAS MAIN, VALVE & GAS LINE WARDER
⊗-WATER-	WATERMAIN, HDL. GATE VALVE, TAPPING SLEEVE & VALVE
⊗-SEWER-	SANITARY SEWER, CLEANOUT & MANHOLE
⊗-STORM-	STORM SEWER, CLEANOUT & MANHOLE
⊗-COMB-	COMBINED SEWER & MANHOLE
⊗-SQ. BAS-	SQUARE, ROUND & BEHIVE CATCH BASIN
⊗-POST IND-	POST INDICATOR VALVE
⊗-WATER VALVE BOX/IRRIGATION VALVE BOX, SERVICE SHUTOFF	
⊗-UNIDENTIFIED STRUCTURE	
⊗-SPOT ELEVATION	
⊗-CONTOUR LINE	
⊗-FENCE	
⊗-GUARD RAIL	
⊗-STREET LIGHT	
⊗-SIGN	
⊗-CONC.	CONCRETE
⊗-ASPH.	ASPHALT
⊗-GRAVEL	GRAVEL SHOULDER

**PROPOSED**

⊗-S/D	S/D HEAVY DUTY
⊗-S/D	S/D HEAVY DEEP DUTY STRENGTH

**REVISIONS**

NO.	BY	DATE	DESCRIPTION
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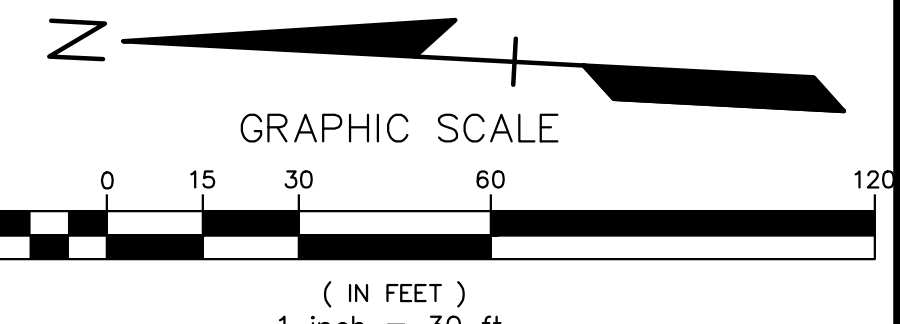
**CAUTION!**  
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS GIVEN FOR THE ACCURACY OF THESE UTILITIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, DEPTH AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

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CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL BE MADE TO APPLY TO CONTRACTORS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FOR OTHER REASONS TO OBTAIN INDEMNITY AND HOLD DESIGN PROFESSIONAL HARBOR FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONALS.

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**ROCHESTER HILLS FIRE NOTES:**

- FIRE LANES SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS SPACED NOT MORE THAN 100 FEET APART, FIRE LANE SIGNS SHALL READ 'NO STOPPING, STANDING, PARKING, FIRE LANE', AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 503.
- CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC CHAPTER 14.
- OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 307.6.2.3
- A KNOX KEY SYSTEM SHALL BE INSTALLED AT EACH BUILDING IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION CAN BE OBTAINED FROM THE KNOX COMPANY AT KNOXBOX.COM

**GENERAL NOTES:**

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
- REFER TO SHEET C-7.1 FOR ON-SITE PAVING DETAILS.
- 'NO PARKING-FIRE LANE' SIGNS SHALL BE POSTED ALONG ALL FIRE LANES AT 100 FOOT INTERVALS AS SHOWN OR AS DIRECTED BY THE FIRE OFFICIAL.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF ROCHESTER HILLS CURRENT STANDARDS AND REGULATIONS.
- THE CONTRACTOR SHALL NOTIFY THE ROCHESTER HILLS ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND/OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.

**SIDEWALK RAMP LEGEND:**

SIDEWALK RAMP 'TYPE P'

REFER TO LATEST M.D.O.T. R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

**SIGN LEGEND:**

'NO PARKING FIRE LANE' SIGN	1
'BARRIER FREE PARKING' SIGN	2
RELOCATED 'SPEED LIMIT' SIGN	3
RELOCATED 'ROCHESTER SCHOOLS FACULTY OPERATIONS CENTER' SIGN	4
'PRIVATE PROPERTY, NO TRESPASSING' SIGN	5
'NATIVE HABITAT' SIGN	6

REFER TO SHEET C-7.1 FOR SIGN DETAILS

**TREE SURVEY:**

SEE TREE PRESERVATION PLAN FOR TREE IDENTIFICATION INFORMATION.

**BENCHMARKS**  
(GPS DERIVED - NAVD08)

**BM #300**  
SET BENCHMARK IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 804.88

**BM #301**  
CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 807.88

**BM #302**  
ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH OF THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL)  
ELEV. - 795.73

**BM #303**  
ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #170 HAMLIN (CHARITY FUNDING)  
ELEV. - 795.09

**BM #304**  
ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL)  
ELEV. - 792.03

**REFERENCE DRAWINGS**

**WATER MAIN**  
CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
AVON WATER SUPPLY SYSTEM, JOHNSON & ANDERSON, INC., JOB NO. 3693, SHEET NO. 45 & 46, DATED MAY 18, 1971  
ROCHESTER COMMUNITY SCHOOLS SUPPORT SERVICES BUILDING, FRENCH ASSOCIATES PROJECT NO. 2004-054, SPALDING/CEDERBERG PROJECT NO. DVM-040, SHEET NO. C4.2, DATED 07/07/05, CITY OF ROCHESTER HILLS FILE NO. 04-032  
HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

**SANITARY SEWER**  
CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

**STORM SEWER**  
CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

**TELEPHONE**  
HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

**GAS**  
CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3  
HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

**OTHER**  
ALTA/ACSM LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016  
SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86  
HAMLIN PROPERTY ALTA SURVEY, TREE SURVEY, HUBBELL, ROTH & CLARK, INC., JOB NO. 20160014, DATED FEBRUARY 4, 2016

**FLOODPLAIN NOTE:**  
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X'. AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0393F, DATED SEPTEMBER 29, 2006.

**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**

**PEA, Inc.**  
2430 Rochester Ct, Ste 100  
Troy, MI 48063-1872  
T: 248-689-9090  
F: 248-639-1044  
www.peainc.com

**J B DONALDSON COMPANY**  
37610 HILLS TECH DRIVE  
FARMINGTON HILLS, MI 48331

**PRELIMINARY SITE PLAN (N)**  
**JENOPTIK ROCHESTER HILLS**  
PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R1E  
ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. RLS. DN. RLS. SUR. D.L.C. P.M. S.A.S.

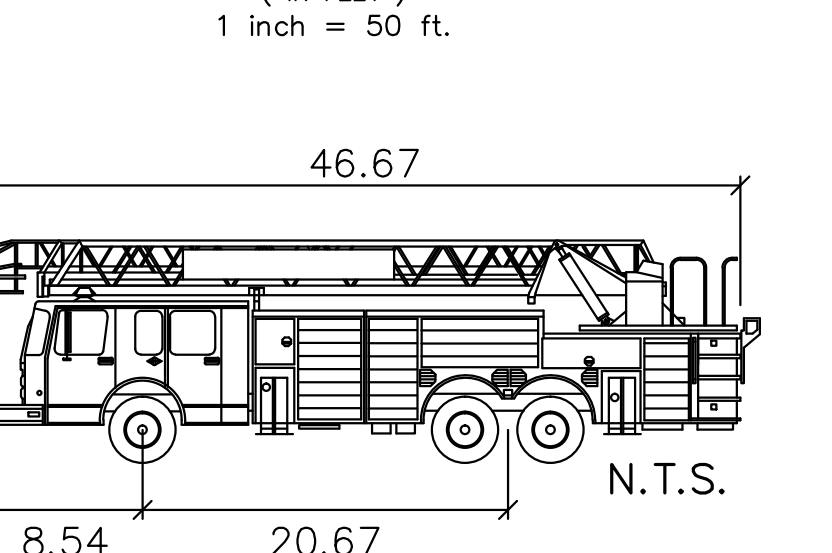
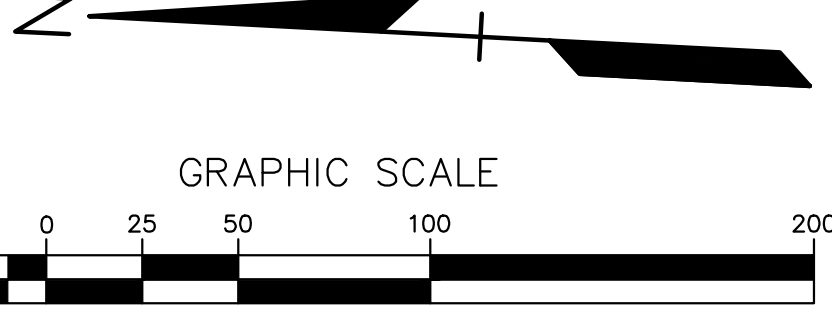
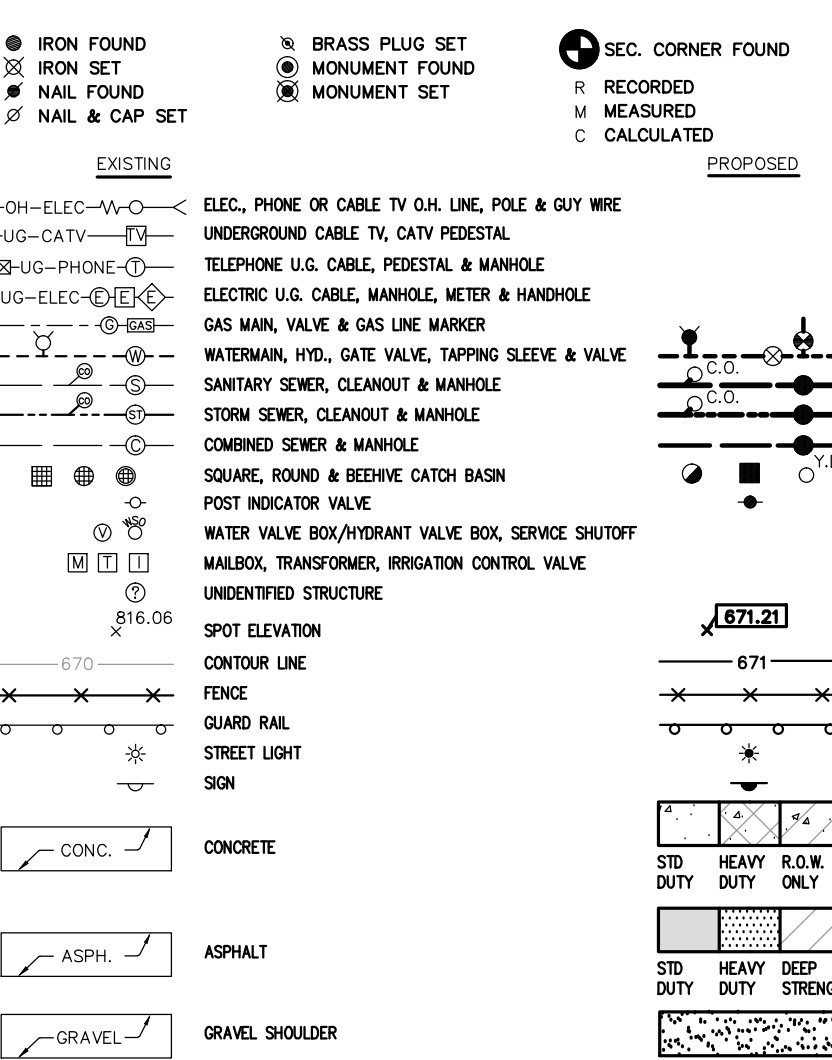
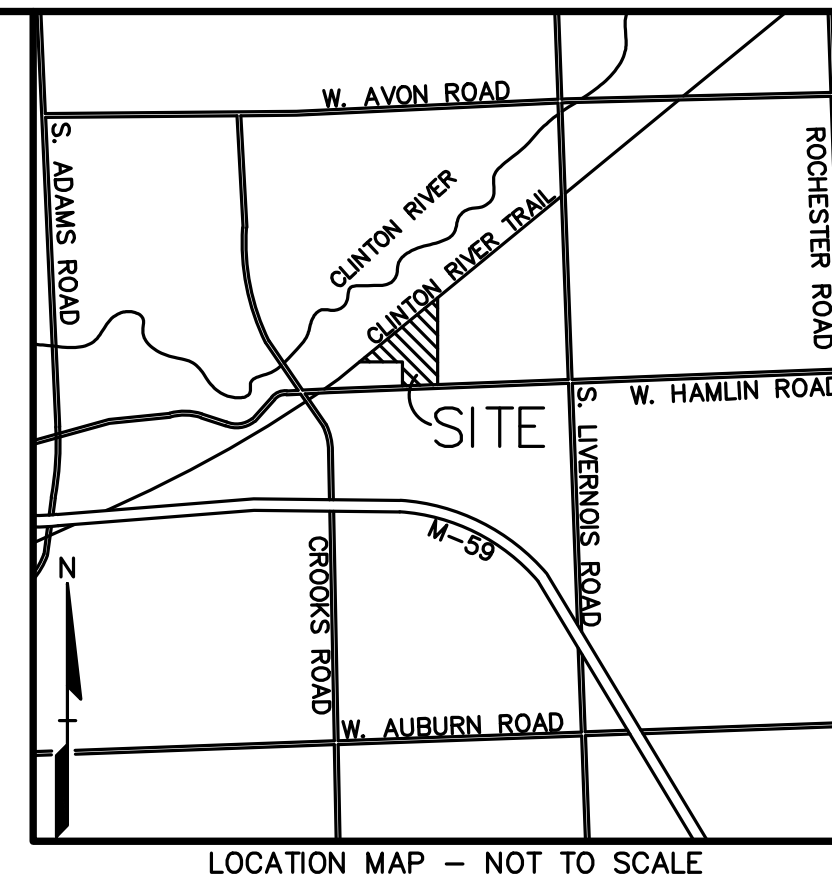
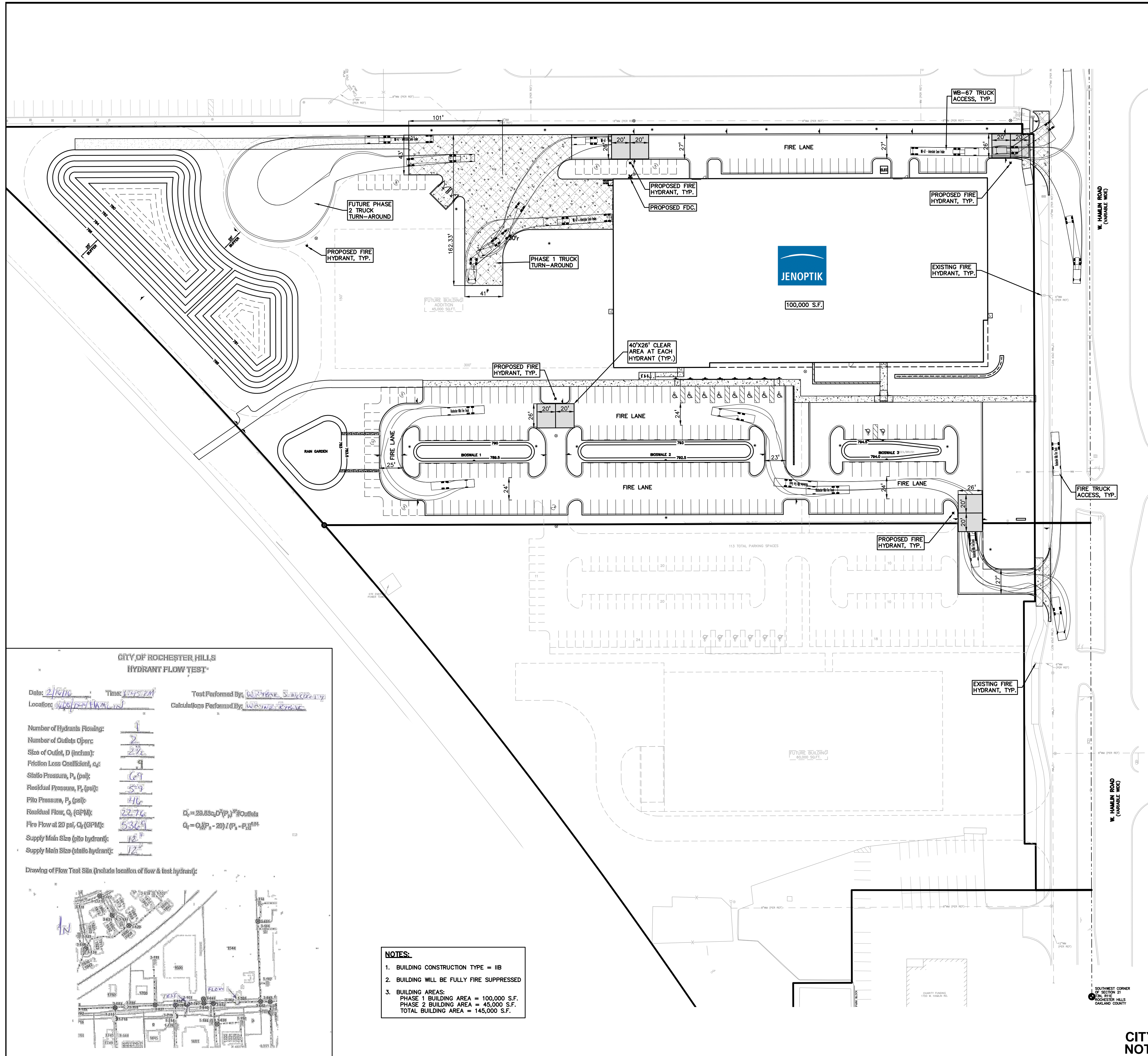
ORIGINAL ISSUE DATE:  
MARCH 2, 2016

PEA JOB NO. 2016-029

SCALE: 1" = 30'

DRAWING NUMBER:  
**C-3.2**





Rochester Hills Fire Truck	
Width	: 8.50
Track	: 7.61
Lock to Lock Time	: 5.0
Steering Angle	: 40.0

- ROCHESTER HILLS FIRE NOTES:**
- FIRE LANES SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS SPACED NOT MORE THAN 100 FEET APART. FIRE LANE SIGNS SHALL READ "NO STOPPING, STANDING, PARKING, FIRE LANE", AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 503
  - CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC CHAPTER 14.
  - OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 307.6.2 & 307.6.2.3
  - A KNOX KEY SYSTEM SHALL BE INSTALLED AT EACH HYDRANT IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION CAN BE OBTAINED FROM THE KNOX COMPANY AT KNOXBOX.COM

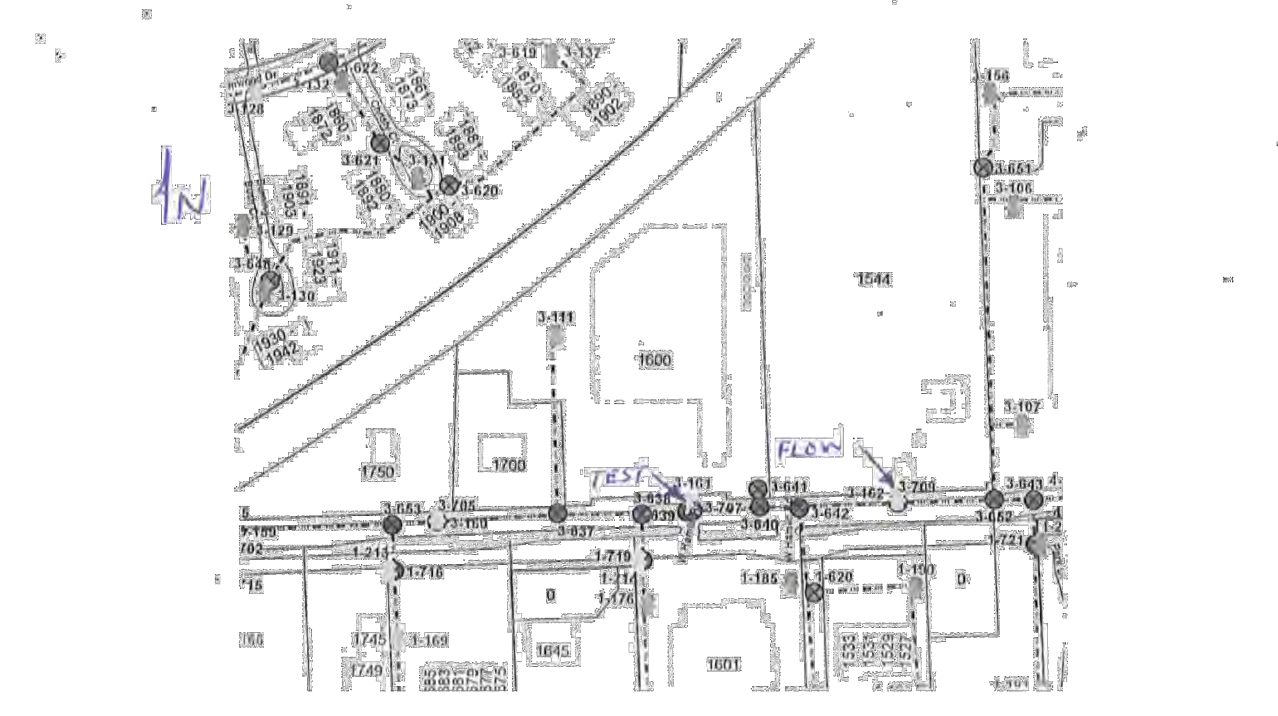
- GENERAL NOTES:**
- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
  - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF ROCHESTER HILLS CURRENT STANDARDS AND REGULATIONS.
  - THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
  - ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.

**CITY OF ROCHESTER HILLS  
HYDRANT FLOW TEST\***

Date: 2/16/16 Time: 13:45:14 Test Performed By: WALTER S. BARNETT  
Location: 113 TOTAL PARKING SPACES Calculations Performed By: WALTER S. BARNETT

Number of Hydrants Flowing:	1
Number of Outlets Open:	2
Size of Outlet, D (Inches):	2 1/2
Friction Loss Coefficient, c <sub>f</sub> :	9
Static Pressure, P <sub>s</sub> (psi):	69
Residual Pressure, P <sub>r</sub> (psi):	59
Pitot Pressure, P <sub>p</sub> (psi):	116
Residual Flow, Q <sub>r</sub> (GPM):	2276
Fire Flow at 20 psi, Q <sub>f</sub> (GPM):	5329
Supply Main Size (pito hydrant):	12"
Supply Main Size (static hydrant):	12"

$Q_r = 29.83 \cdot D^{2.87} \cdot (P_p)^{0.84}$   
 $Q_f = Q_r \cdot (P_r - 20) / (P_s - P_r)^{0.84}$



- NOTES:**
- BUILDING CONSTRUCTION TYPE = IIB
  - BUILDING WILL BE FULLY FIRE SUPPRESSED
  - BUILDING AREAS:  
PHASE 1 BUILDING AREA = 100,000 S.F.  
PHASE 2 BUILDING AREA = 45,000 S.F.  
TOTAL BUILDING AREA = 145,000 S.F.

NO.	BY	CHK	DESCRIPTION	DATE

**CAUTION!**  
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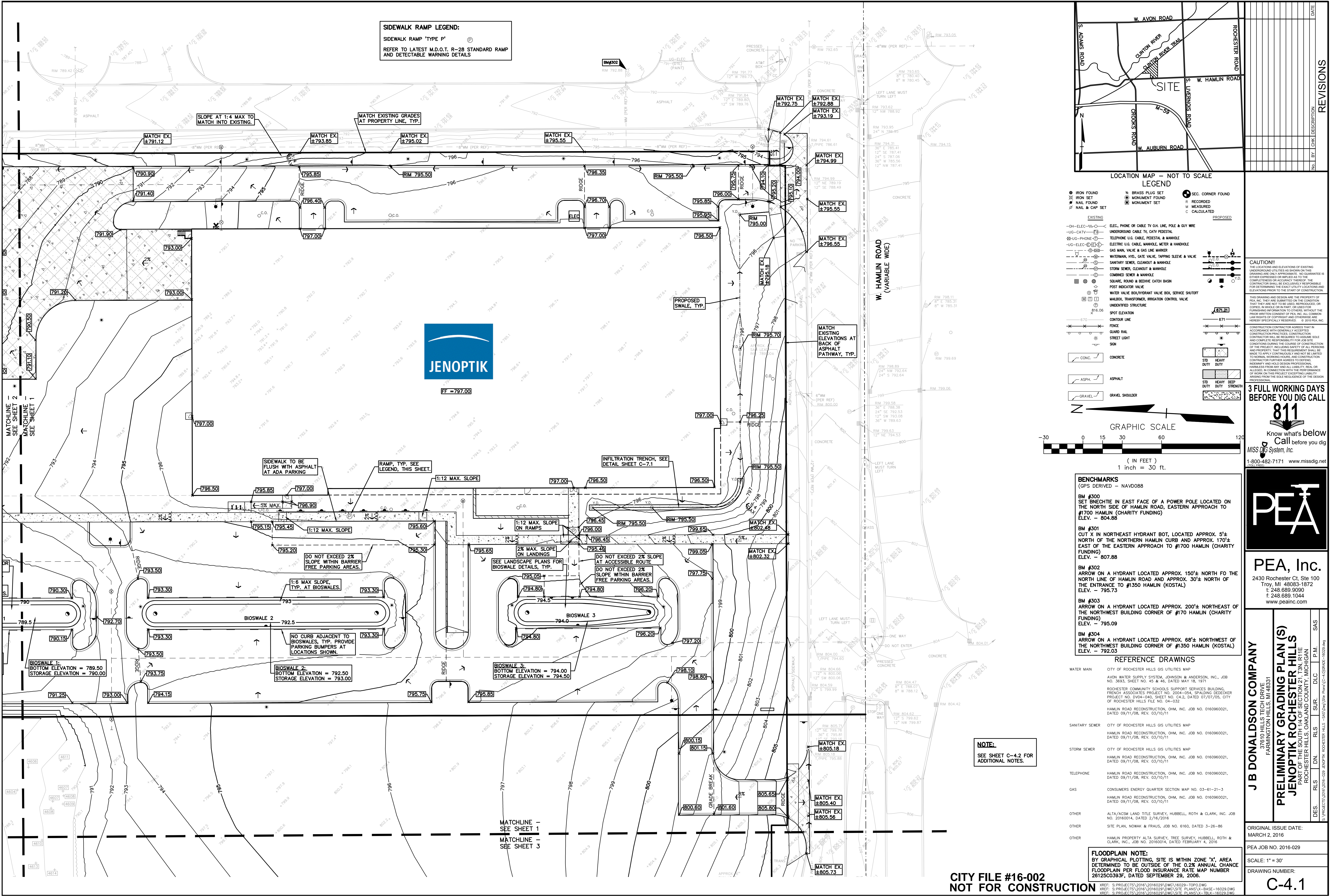


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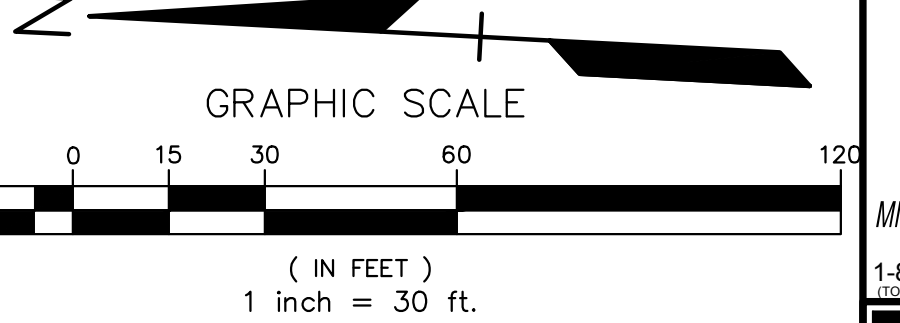
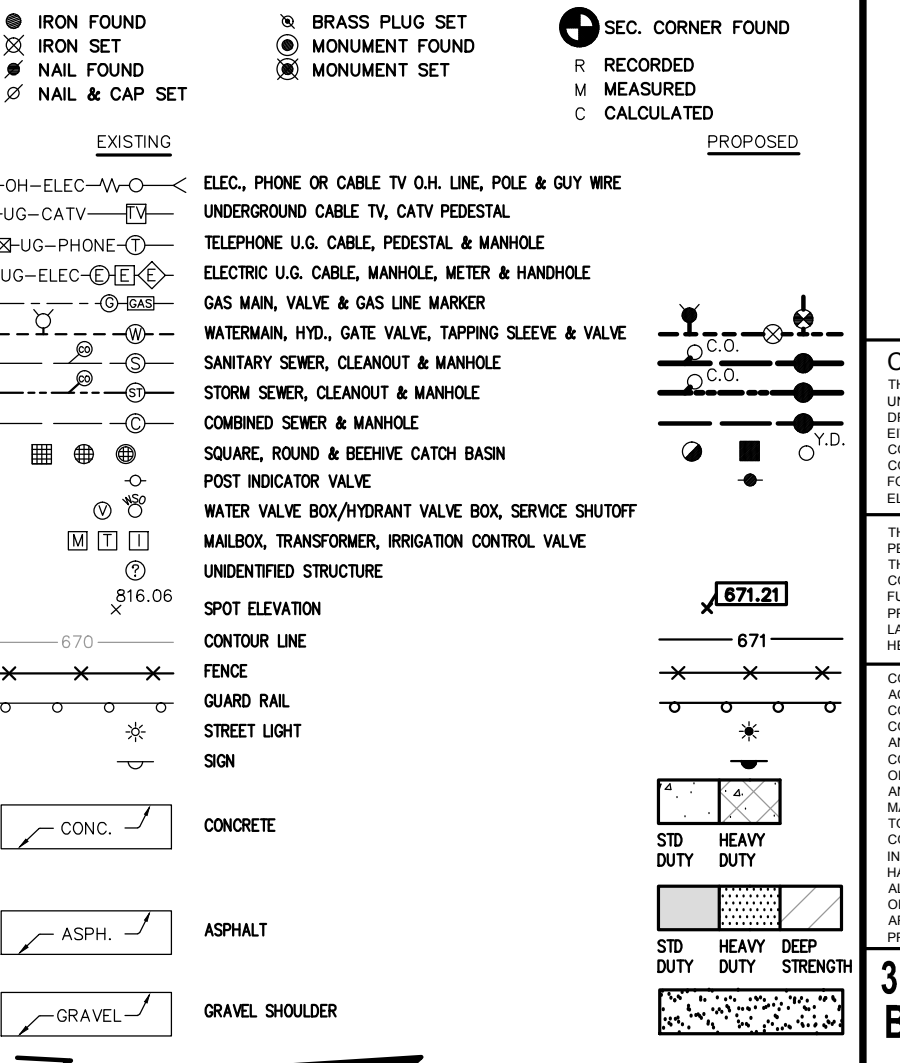
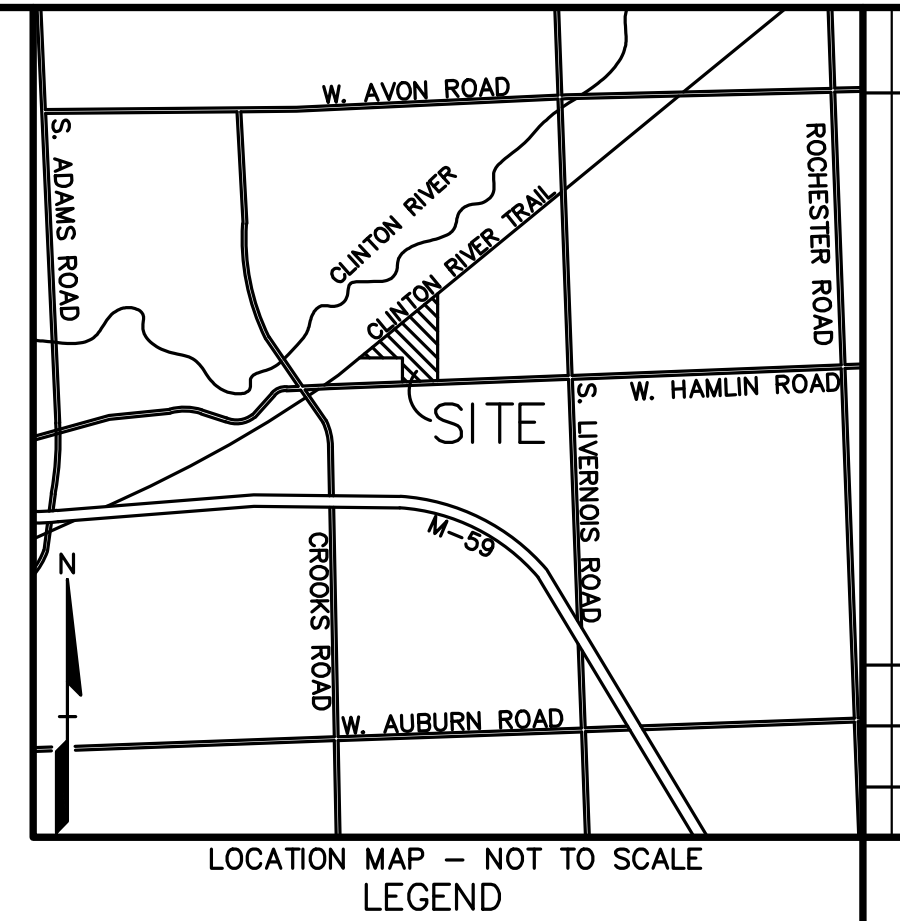
DES.	RLS	DN	RLS	SUR	DLG	P.M	SAS
	RLS	DN	RLS	SUR	DLG	P.M	SAS
<b>J B DONALDSON COMPANY</b> 37610 HILLS TECH DRIVE FARMINGTON HILLS, MI 48331 <b>TRUCK ACCESS PLAN</b> <b>JENOPTIK ROCHESTER HILLS</b> PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R1E ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN S:\PROJECTS\2016\20160229\DWG\SITE PLANS\JK-BASE-16029.DWG							
ORIGINAL ISSUE DATE: MARCH 2, 2016							
PEA JOB NO. 2016-029							
SCALE: 1" = 50'							
DRAWING NUMBER: <b>C-3.3</b>							

**CITY FILE #16-002  
NOT FOR CONSTRUCTION**

S:\PROJECTS\2016\20160229\DWG\TOPD.DWG  
S:\PROJECTS\2016\20160229\DWG\SITE PLANS\JK-BASE-16029.DWG  
S:\PROJECTS\2016\20160229\DWG\SITE PLANS\JK-TB-K-16029.DWG



**SIDEWALK RAMP LEGEND:**  
 SIDEWALK RAMP "TYPE P"  
 REFER TO LATEST M.D.O.T. R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS



**BENCHMARKS**  
 (GPS DERIVED - NAVD08)

**BM #300**  
 SET BENCHMARK IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
 ELEV. = 804.88

**BM #301**  
 CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
 ELEV. = 807.88

**BM #302**  
 ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH TO THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL)  
 ELEV. = 795.73

**BM #303**  
 ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #1700 HAMLIN (CHARITY FUNDING)  
 ELEV. = 795.09

**BM #304**  
 ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL)  
 ELEV. = 792.03

**REFERENCE DRAWINGS**

UTILITY	DESCRIPTION
WATER MAIN	CITY OF ROCHESTER HILLS GIS UTILITIES MAP AVON WATER SUPPLY SYSTEM, JOHNSON & ANDERSON, INC., JOB NO. 3693, SHEET NO. 45 & 46, DATED MAY 18, 1971 ROCHESTER COMMUNITY SCHOOLS SUPPORT SERVICES BUILDING, FRENCH ASSOCIATES PROJECT NO. 2004-054, SPALDING OCECKER PROJECT NO. 0164-040, SHEET NO. C-2, DATED 07/07/05, CITY OF ROCHESTER HILLS FILE NO. 04-032 HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
SANITARY SEWER	CITY OF ROCHESTER HILLS GIS UTILITIES MAP HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
STORM SEWER	CITY OF ROCHESTER HILLS GIS UTILITIES MAP HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
TELEPHONE	HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
GAS	CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3 HAMLIN ROAD RECONSTRUCTION, OHM, INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
OTHER	ALTA/ACSM LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016
OTHER	SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86
OTHER	HAMLIN PROPERTY ALTA SURVEY, TREE SURVEY, HUBBELL, ROTH & CLARK, INC., JOB NO. 20160014, DATED FEBRUARY 4, 2016

**FLOODPLAIN NOTE:**  
 BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE "X", AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0393F, DATED SEPTEMBER 29, 2006.

XREF: S:\PROJECTS\2016\20160229\DWG\16029-TOP0.DWG  
 XREF: S:\PROJECTS\2016\20160229\DWG\SITE\_PLAN\SV-BASE-16029.DWG  
 XREF: S:\PROJECTS\2016\20160229\DWG\SITE\_PLAN\SV-TB-C-16029.DWG

**NOTE:**  
 SEE SHEET C-4.2 FOR ADDITIONAL NOTES.

NO.	BY	CHK	DESCRIPTION	DATE

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 37610 HILLS TECH DRIVE  
 FARMINGTON HILLS, MI 48331

**PRELIMINARY GRADING PLAN (S)  
 JENOPTIK ROCHESTER HILLS**  
 PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R1E  
 ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES.	RLS	DN.	RLS	SUR.	DLC	P.M.	SAS

ORIGINAL ISSUE DATE:  
 MARCH 2, 2016

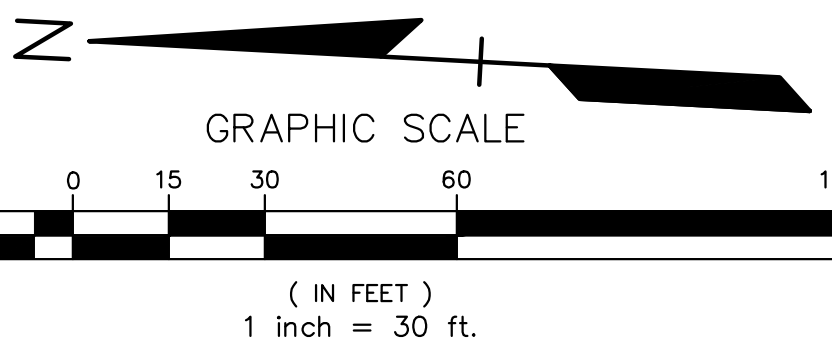
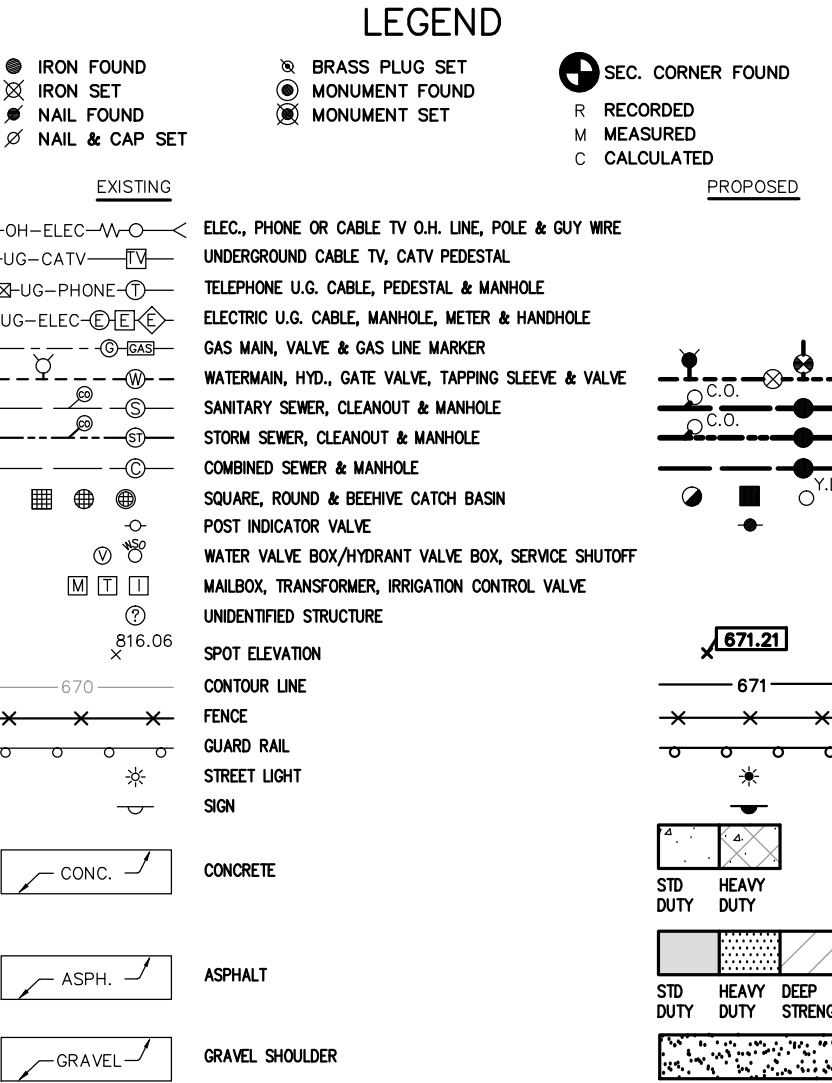
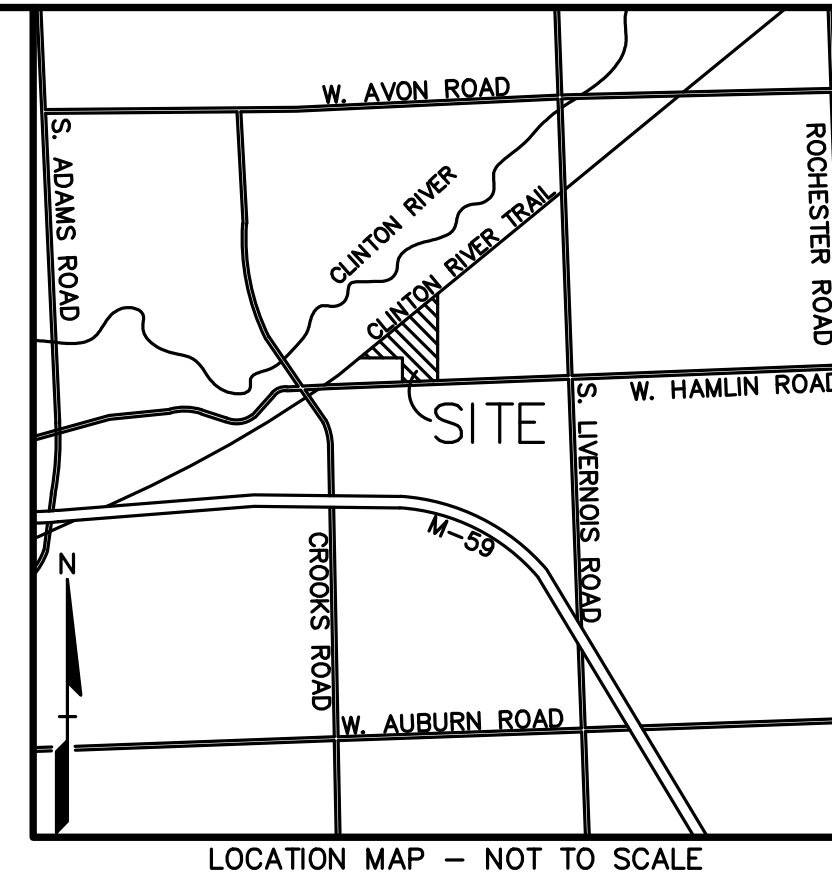
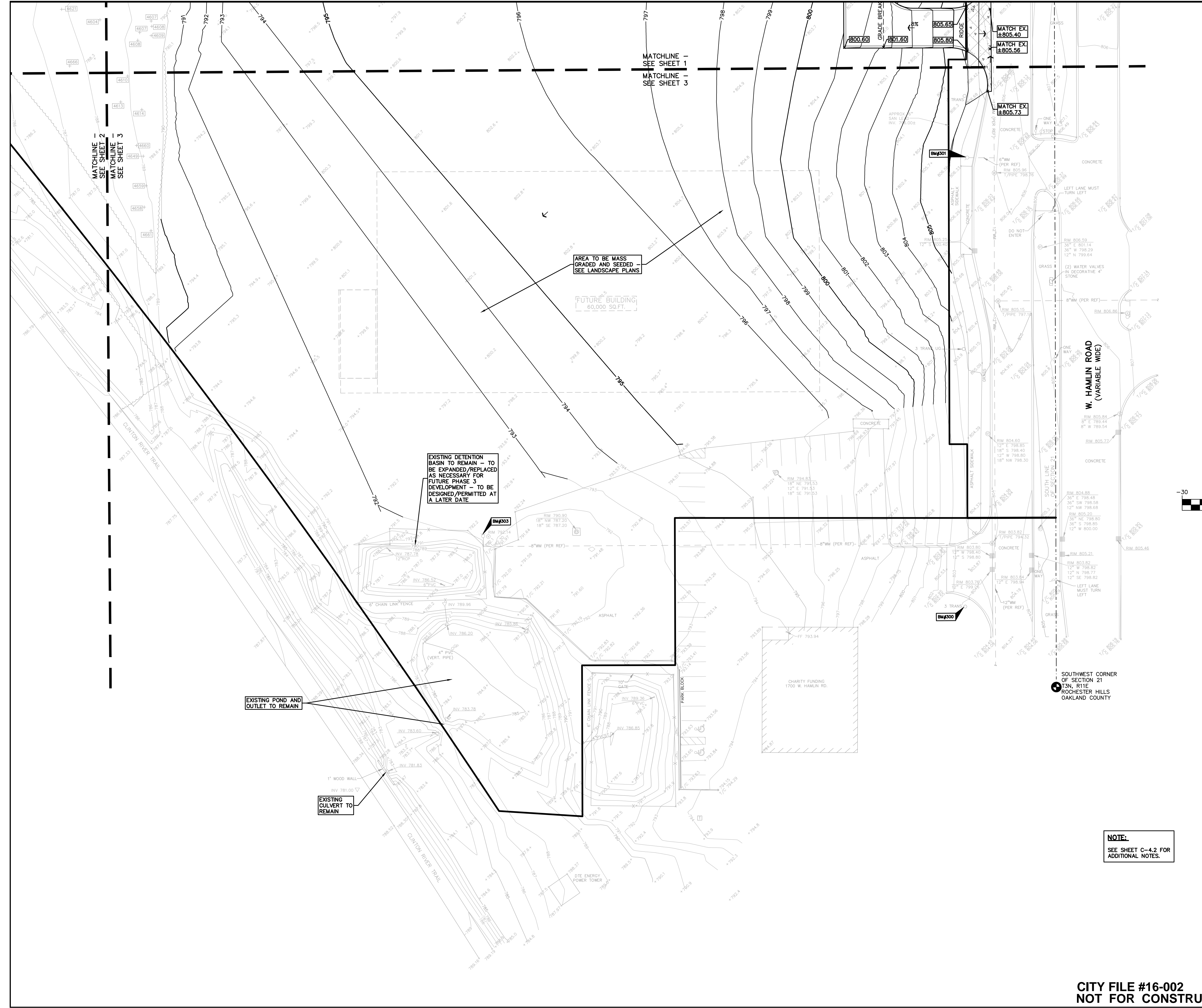
PEA JOB NO. 2016-029

SCALE: 1" = 30'

DRAWING NUMBER:  
**C-4.1**

**CITY FILE #16-002  
 NOT FOR CONSTRUCTION**





**BENCHMARKS**  
(GPS DERIVED - NAVD08)

BM #300  
SET BENCHMARK IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 804.88

BM #301  
CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 807.88

BM #302  
ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH OF THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL)  
ELEV. - 795.73

BM #303  
ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #1700 HAMLIN (CHARITY FUNDING)  
ELEV. - 795.09

BM #304  
ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL)  
ELEV. - 792.03

**REFERENCE DRAWINGS**

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XREF: S:\PROJECTS\2016\20160229\DWG\16029-TOPO.DWG  
XREF: S:\PROJECTS\2016\20160229\DWG\SITE\_PLANS\XV-BASE-16029.DWG  
XREF: S:\PROJECTS\2016\20160229\DWG\SITE\_PLANS\XV-TB-K-16029.DWG

NO.	BY	CHK	DESCRIPTION	DATE

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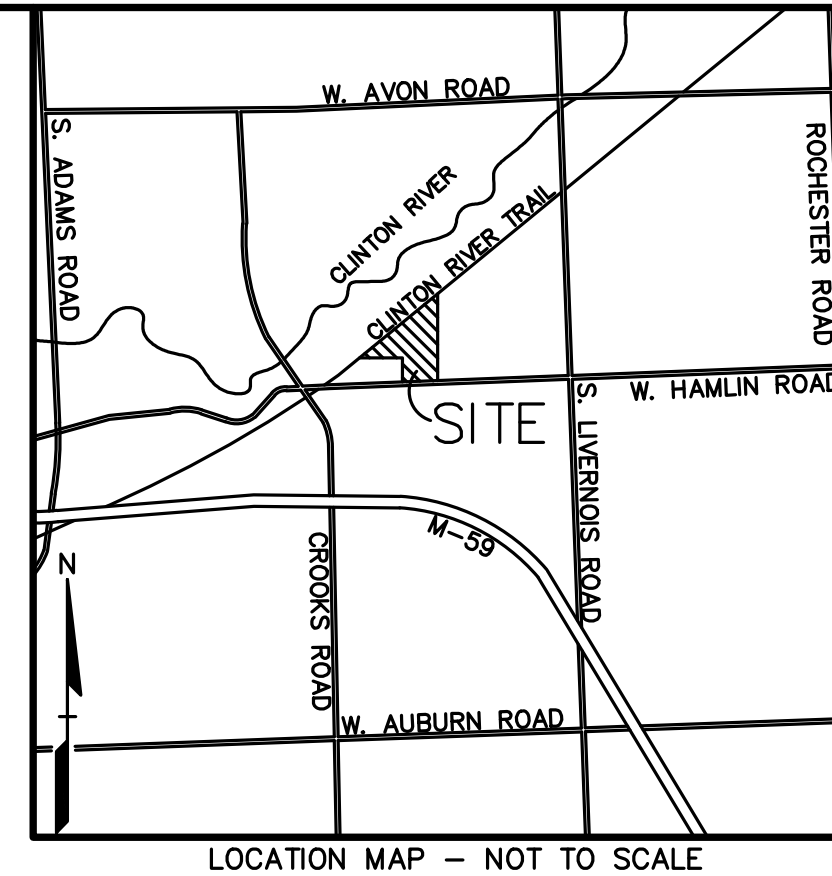
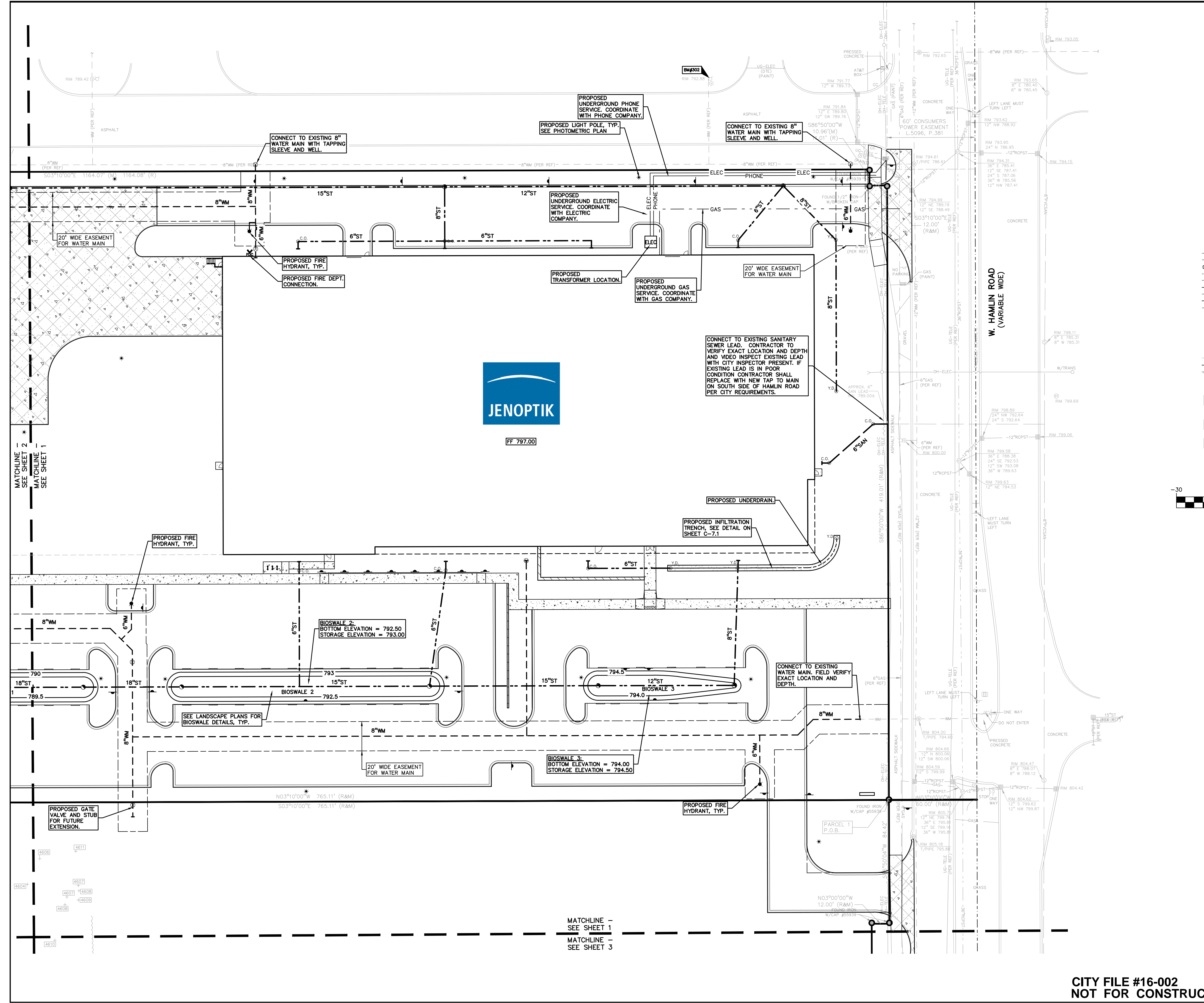
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<b>J B DONALDSON COMPANY</b> 37610 HILLS TECH DRIVE FARMINGTON HILLS, MI 48331	<b>PRELIMINARY GRADING PLAN (W)</b> <b>JENOPTIK ROCHESTER HILLS</b> PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R1E ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN	DES.	RLS	DN.	RLS	SUR.	DLC	P.M.	SAS
ORIGINAL ISSUE DATE: MARCH 2, 2016		PEA JOB NO. 2016-029		SCALE: 1" = 30'		DRAWING NUMBER: <b>C-4.3</b>			

**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**



**LEGEND**

● IRON FOUND	⊙ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊙ NAIL FOUND	⊙ MONUMENT SET	⊙ MEASURED
⊙ NAIL & CAP SET		⊙ CALCULATED

**EXISTING**

- OH-ELEC-A-C- ELEC. PHONE OR CABLE TV OH. LINE, POLE & GUY WIRE
- UG-CATV- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- UG-ELEC- ELEC. U.G. CABLE, MANHOLE, METER & HANDHOLE
- GAS- GAS MAIN, VALVE & GAS LINE WARDER
- WATER- WATER MAIN, VALVE, GATE VALVE, TAPPING SLEEVE & VALVE
- SS- SANITARY SEWER, CLEANOUT & MANHOLE
- S- STORM SEWER, CLEANOUT & MANHOLE
- C- COMBINED SEWER & MANHOLE
- S&B- SQUARE, ROAD & BEDDING CATCH BASIN
- P- POST INDICATOR VALVE
- WV- WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
- U- UNIDENTIFIED STRUCTURE
- SPT- SPOT ELEVATION
- CL- CONTOUR LINE
- F- FENCE
- G- GUARD RAIL
- S- STREET LIGHT
- S- SIGN

**PROPOSED**

- CONC- CONCRETE
- ASPH- ASPHALT
- GRAVEL- GRAVEL SHOULDER
- S3D- S3D HEAVY DUTY
- S4D- S4D HEAVY DEEP DUTY
- S5D- S5D HEAVY DEEP DUTY STRENGTH

**GRAPHIC SCALE**  
1 inch = 30 ft.

**BENCHMARKS**  
(GPS DERIVED - NAVD08)

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ELEV. - 795.73

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ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #170 HAMLIN (CHARITY FUNDING)  
ELEV. - 795.09

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ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL)  
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XREF: S:\PROJECTS\2016\20160229\DWG\SITE PLANS\X-V-BASE-16029.DWG  
XREF: S:\PROJECTS\2016\20160229\DWG\SITE PLANS\X-V-TB-K-16029.DWG

**REVISIONS**

NO.	BY	CHK	DESCRIPTION	DATE

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**PRELIMINARY UTILITY PLAN (S)  
JENOPTIK ROCHESTER HILLS**  
PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R16E  
ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES.	RLS	DN.	RLS	SUR.	DLG	P.M.	SAS

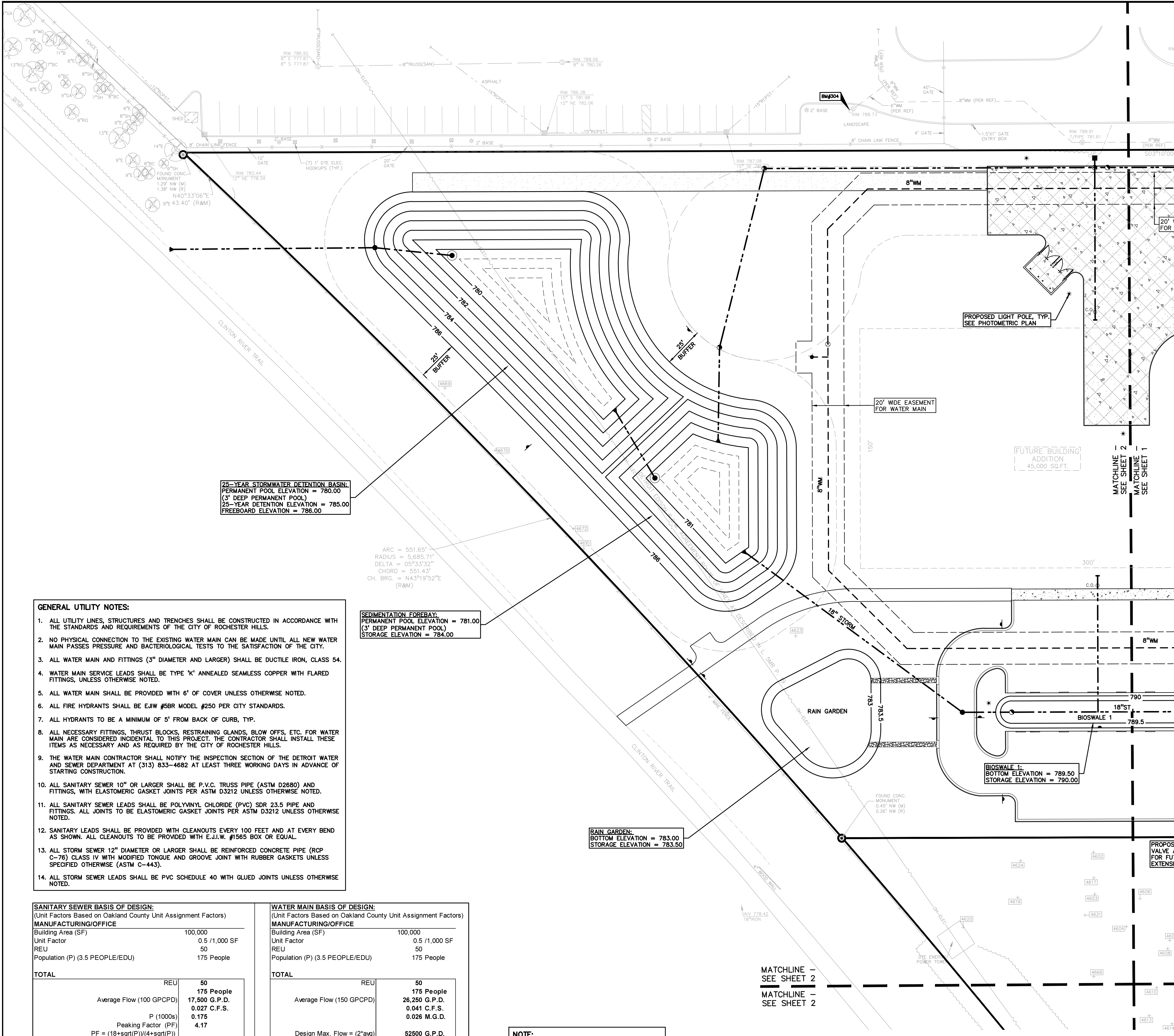
ORIGINAL ISSUE DATE:  
MARCH 2, 2016

PEA JOB NO. 2016-029

SCALE: 1" = 30'

DRAWING NUMBER:  
**C-5.1**

**CITY FILE #16-002  
NOT FOR CONSTRUCTION**



**25-YEAR STORMWATER DETENTION BASIN:**  
 PERMANENT POOL ELEVATION = 780.00  
 (3' DEEP PERMANENT POOL)  
 25-YEAR DETENTION ELEVATION = 785.00  
 FREEBOARD ELEVATION = 786.00

**SEDIMENTATION FOREBAY:**  
 PERMANENT POOL ELEVATION = 781.00  
 (3' DEEP PERMANENT POOL)  
 STORAGE ELEVATION = 784.00

**RAIN GARDEN:**  
 BOTTOM ELEVATION = 783.00  
 STORAGE ELEVATION = 783.50

**PROPOSED LIGHT POLE, TYP.**  
 SEE PHOTOMETRIC PLAN

**FUTURE BUILDING ADDITION**  
 45,000 SQ.FT.

**BIOSWALE 1L:**  
 BOTTOM ELEVATION = 789.50  
 STORAGE ELEVATION = 790.00

- GENERAL UTILITY NOTES:**
1. ALL UTILITY LINES, STRUCTURES AND TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE CITY OF ROCHESTER HILLS.
  2. NO PHYSICAL CONNECTION TO THE EXISTING WATER MAIN CAN BE MADE UNTIL ALL NEW WATER MAIN PASSES PRESSURE AND BACTERIOLOGICAL TESTS TO THE SATISFACTION OF THE CITY.
  3. ALL WATER MAIN AND FITTINGS (3" DIAMETER AND LARGER) SHALL BE DUCTILE IRON, CLASS 54.
  4. WATER MAIN SERVICE LEADS SHALL BE TYPE 'K' ANNEALED SEAMLESS COPPER WITH FLARED FITTINGS, UNLESS OTHERWISE NOTED.
  5. ALL WATER MAIN SHALL BE PROVIDED WITH 6' OF COVER UNLESS OTHERWISE NOTED.
  6. ALL FIRE HYDRANTS SHALL BE E.I.W. #58R MODEL #250 PER CITY STANDARDS.
  7. ALL HYDRANTS TO BE A MINIMUM OF 5' FROM BACK OF CURB, TYP.
  8. ALL NECESSARY FITTINGS, THRUST BLOCKS, RESTRAINING GLANDS, BLOW OFFS, ETC. FOR WATER MAIN ARE CONSIDERED INCIDENTAL TO THIS PROJECT. THE CONTRACTOR SHALL INSTALL THESE ITEMS AS NECESSARY AND AS REQUIRED BY THE CITY OF ROCHESTER HILLS.
  9. THE WATER MAIN CONTRACTOR SHALL NOTIFY THE INSPECTION SECTION OF THE DETROIT WATER AND SEWER DEPARTMENT AT (313) 833-4882 AT LEAST THREE WORKING DAYS IN ADVANCE OF STARTING CONSTRUCTION.
  10. ALL SANITARY SEWER 10" OR LARGER SHALL BE P.V.C. TRUSS PIPE (ASTM D2680) AND FITTINGS, WITH ELASTOMERIC GASKET JOINTS PER ASTM D3212 UNLESS OTHERWISE NOTED.
  11. ALL SANITARY SEWER LEADS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 23.5 PIPE AND FITTINGS. ALL JOINTS TO BE ELASTOMERIC GASKET JOINTS PER ASTM D3212 UNLESS OTHERWISE NOTED.
  12. SANITARY LEADS SHALL BE PROVIDED WITH CLEANOUTS EVERY 100 FEET AND AT EVERY BEND AS SHOWN. ALL CLEANOUTS TO BE PROVIDED WITH E.J.I.W. #1565 BOX OR EQUAL.
  13. ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE REINFORCED CONCRETE PIPE (RCP C-76) CLASS IV WITH MODIFIED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443).
  14. ALL STORM SEWER LEADS SHALL BE PVC SCHEDULE 40 WITH GLUED JOINTS UNLESS OTHERWISE NOTED.

**SANITARY SEWER BASIS OF DESIGN:**  
 (Unit Factors Based on Oakland County Unit Assignment Factors)

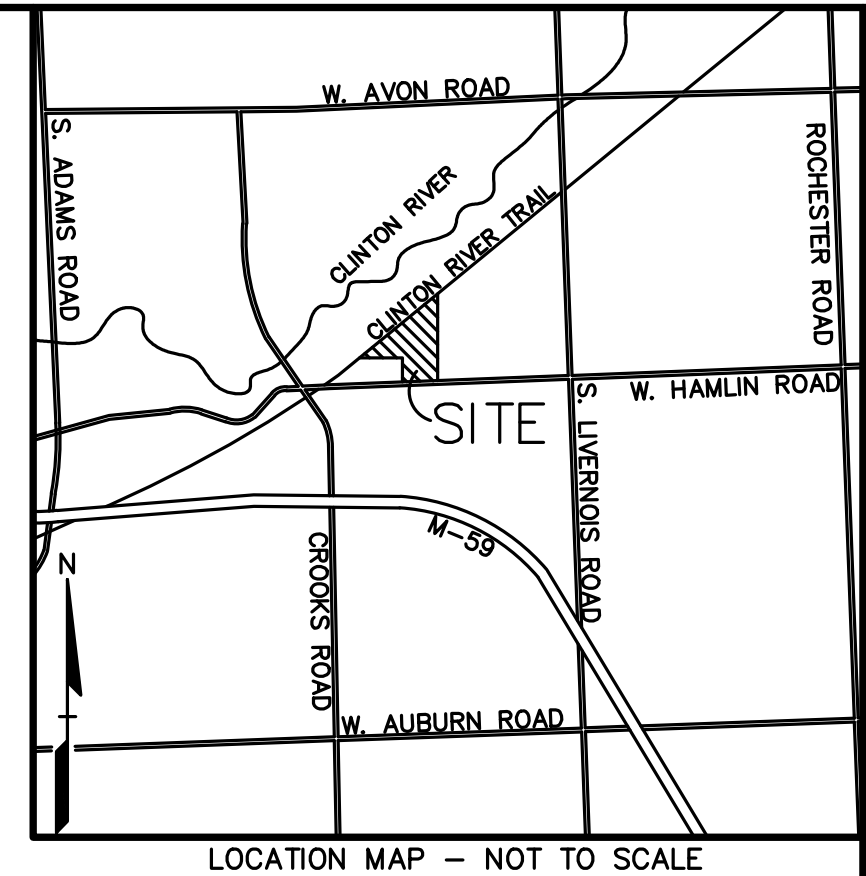
Building Area (SF)	100,000
Unit Factor	0.5 / 1,000 SF
REU	50
Population (P) (3.5 PEOPLE/EDU)	175 People
<b>TOTAL</b>	
REU	50
Average Flow (100 GPCPD)	175 People
	17,500 G.P.D.
	0.027 C.F.S.
P (1000s)	0.175
Peaking Factor (PF)	4.17
PF = (18+sqrt(P))/(4+sqrt(P))	
Peak Flow (G.D.P.)	72,951 G.P.D.
Peak Flow (C.F.S.)	0.113 C.F.S.
6" Pipe Capacity Provided =	0.73 C.F.S.

**WATER MAIN BASIS OF DESIGN:**  
 (Unit Factors Based on Oakland County Unit Assignment Factors)

Building Area (SF)	100,000
Unit Factor	0.5 / 1,000 SF
REU	50
Population (P) (3.5 PEOPLE/EDU)	175 People
<b>TOTAL</b>	
REU	50
Average Flow (150 GPCPD)	175 People
	26,250 G.P.D.
	0.041 C.F.S.
	0.026 M.G.D.
Design Max. Flow = (2*avg)	52,500 G.P.D.
	0.081 C.F.S.
	0.053 M.G.D.
Building Type =	IIB
Required Fire Flow =	4,000 psi for 2 hours

**NOTE:**  
 SEE SHEET C-6.0 FOR DETENTION CALCULATIONS

MATCHLINE - SEE SHEET 2  
 MATCHLINE - SEE SHEET 2



**LEGEND**

● IRON FOUND	⊕ BRASS PLUG SET	⊕ SEC. CORNER FOUND
⊕ IRON SET	⊕ MONUMENT FOUND	⊕ RECORDED
⊕ NAIL & CAP SET	⊕ MONUMENT SET	⊕ MEASURED
		⊕ CALCULATED

**EXISTING**

- OH-ELEC-A-C- ELEC. PHONE OR CABLE TV OH. LINE, POLE & GUY WIRE
- UG-CATV- UNDERGROUND CABLE TV, CATV PEDESTAL
- UG-PHONE- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- UG-ELEC- ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
- GAS- GAS MAIN, VALVE & GAS LINE WARDER
- WATER- WATER MAIN, HDL. GATE VALVE, WAPPING SLEEVE & VALVE
- SEWER- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM- STORM SEWER, CLEANOUT & MANHOLE
- COMB- COMBINED SEWER & MANHOLE
- SQUARE- SQUARE, ROUND & BERTHE CATCH BASIN
- POST- POST INDICATOR VALVE
- WATER- WATER VALVE, BOX/GRANT VALVE BOX, SERVICE SHUTOFF
- UNID- UNIDENTIFIED STRUCTURE
- SPOT- SPOT ELEVATION
- CONTOUR- CONTOUR LINE
- FENCE- FENCE
- GUARD- GUARD RAIL
- STREET- STREET LIGHT
- SIGN- SIGN
- CONC- CONCRETE
- ASPH- ASPHALT
- GRAVEL- GRAVEL SHOULDER

**PROPOSED**

- 24-24- 24" DUCTILE IRON PIPE
- 18-18- 18" DUCTILE IRON PIPE
- 12-12- 12" DUCTILE IRON PIPE
- 8-8- 8" DUCTILE IRON PIPE
- 6-6- 6" DUCTILE IRON PIPE
- 4-4- 4" DUCTILE IRON PIPE
- 3-3- 3" DUCTILE IRON PIPE
- 2-2- 2" DUCTILE IRON PIPE
- 1.5-1.5- 1.5" DUCTILE IRON PIPE
- 1-1- 1" DUCTILE IRON PIPE
- 0.75-0.75- 0.75" DUCTILE IRON PIPE
- 0.5-0.5- 0.5" DUCTILE IRON PIPE
- 0.25-0.25- 0.25" DUCTILE IRON PIPE
- 12-12- 12" CONCRETE PIPE
- 8-8- 8" CONCRETE PIPE
- 6-6- 6" CONCRETE PIPE
- 4-4- 4" CONCRETE PIPE
- 3-3- 3" CONCRETE PIPE
- 2-2- 2" CONCRETE PIPE
- 1.5-1.5- 1.5" CONCRETE PIPE
- 1-1- 1" CONCRETE PIPE
- 0.75-0.75- 0.75" CONCRETE PIPE
- 0.5-0.5- 0.5" CONCRETE PIPE
- 0.25-0.25- 0.25" CONCRETE PIPE
- 18-18- 18" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 12-12- 12" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 8-8- 8" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 6-6- 6" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 4-4- 4" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 3-3- 3" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 2-2- 2" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 1.5-1.5- 1.5" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 1-1- 1" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 0.75-0.75- 0.75" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 0.5-0.5- 0.5" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 0.25-0.25- 0.25" POLYETHYLENE GLASS REINFORCED PLASTIC PIPE
- 12-12- 12" POLYETHYLENE TEREPHTHALATE PIPE
- 8-8- 8" POLYETHYLENE TEREPHTHALATE PIPE
- 6-6- 6" POLYETHYLENE TEREPHTHALATE PIPE
- 4-4- 4" POLYETHYLENE TEREPHTHALATE PIPE
- 3-3- 3" POLYETHYLENE TEREPHTHALATE PIPE
- 2-2- 2" POLYETHYLENE TEREPHTHALATE PIPE
- 1.5-1.5- 1.5" POLYETHYLENE TEREPHTHALATE PIPE
- 1-1- 1" POLYETHYLENE TEREPHTHALATE PIPE
- 0.75-0.75- 0.75" POLYETHYLENE TEREPHTHALATE PIPE
- 0.5-0.5- 0.5" POLYETHYLENE TEREPHTHALATE PIPE
- 0.25-0.25- 0.25" POLYETHYLENE TEREPHTHALATE PIPE

**GRAPHIC SCALE**  
 1 inch = 30 ft.

- BENCHMARKS**  
 (GPS DERIVED - NAVD08)
- BM #300 SET BENCHMITE IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. = 804.88
  - BM #301 CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. = 807.88
  - BM #302 ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH OF THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL) ELEV. = 795.73
  - BM #303 ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #170 HAMLIN (CHARITY FUNDING) ELEV. = 795.09
  - BM #304 ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL) ELEV. = 792.03

**REFERENCE DRAWINGS**

WATER MAIN	CITY OF ROCHESTER HILLS GIS UTILITIES MAP AVON WATER SUPPLY SYSTEM, JOHNSON & ANDERSON, INC., JOB NO. 3693, SHEET NO. 45 & 46, DATED MAY 18, 1971 ROCHESTER COMMUNITY SCHOOLS SUPPORT SERVICES BUILDING, FRENCH ASSOCIATES PROJECT NO. 2004-054, SPALDING ODECKER PROJECT NO. DWG-040, SHEET NO. C4-2, DATED 07/07/05, CITY OF ROCHESTER HILLS FILE NO. 04-032 HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
SANITARY SEWER	CITY OF ROCHESTER HILLS GIS UTILITIES MAP HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
STORM SEWER	CITY OF ROCHESTER HILLS GIS UTILITIES MAP HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
TELEPHONE	CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3 HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11
GAS	ALTA/ACSM LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016
OTHER	SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86
OTHER	HAMLIN PROPERTY ALTA SURVEY, TREE SURVEY, HUBBELL, ROTH & CLARK, INC., JOB NO. 20160014, DATED FEBRUARY 4, 2016

**FLOODPLAIN NOTE:**  
 BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X'. AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0393F, DATED SEPTEMBER 29, 2006.

**REVISIONS**

NO.	BY	DATE	DESCRIPTION

**CAUTION!**  
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OF THESE UTILITIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

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CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE TO ASSURE SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL BE MADE TO APPLY TO CONTRACTORS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO OBTAIN NECESSARY AND HOLD DESIGN PROFESSIONAL LIABILITY INSURANCE FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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 37610 HILLS TECH DRIVE  
 FARMINGTON HILLS, MI 48331

**PRELIMINARY UTILITY PLAN (N)**  
**JENOPTIK ROCHESTER HILLS**  
 PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R1E  
 ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. RLS. DN. RLS. SUR. D.L.C. P.M. S.A.S.  
 S:\PROJECTS\2016\20160229\DWG\SITE PLANS\N\BASE-16029.DWG

ORIGINAL ISSUE DATE:  
 MARCH 2, 2016

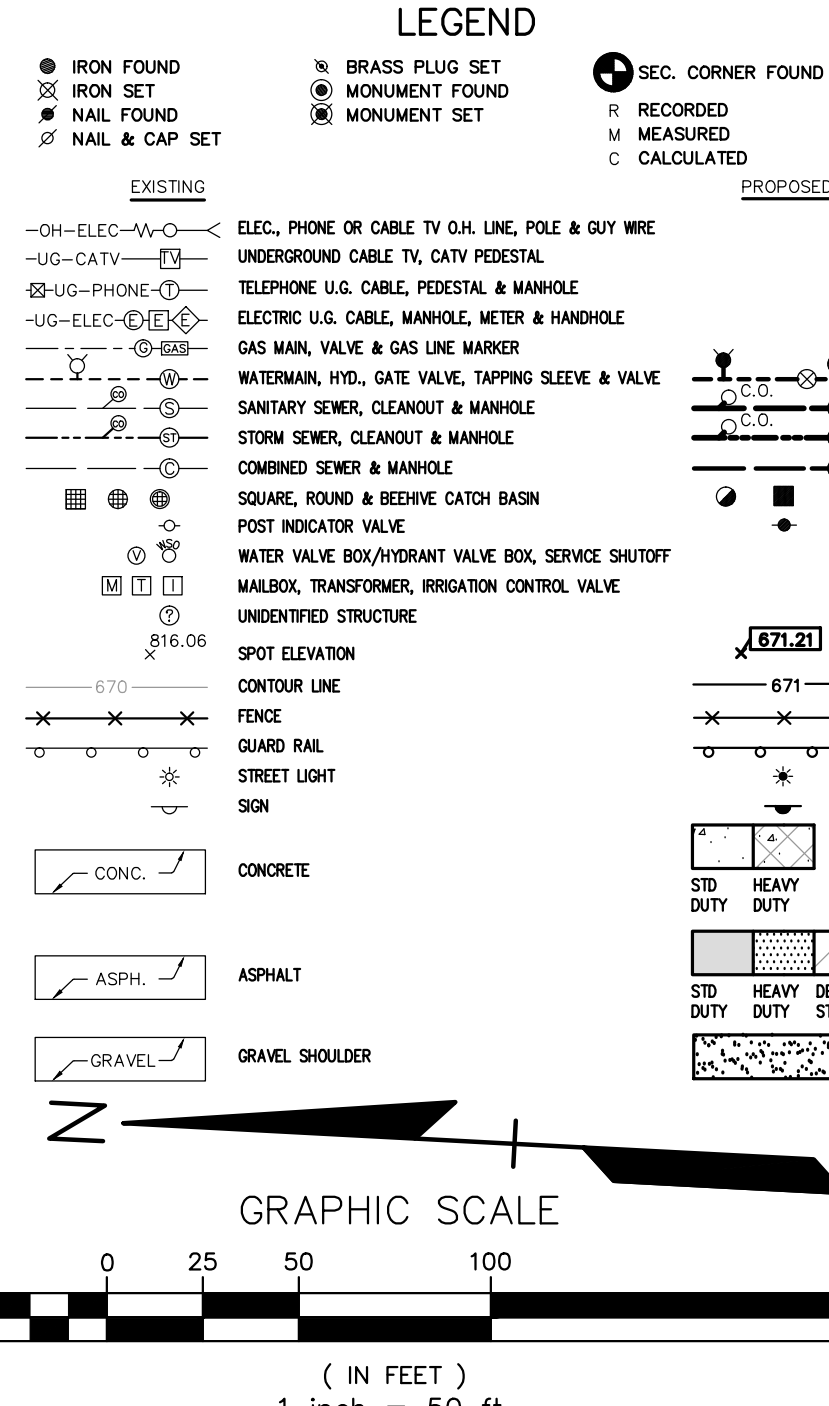
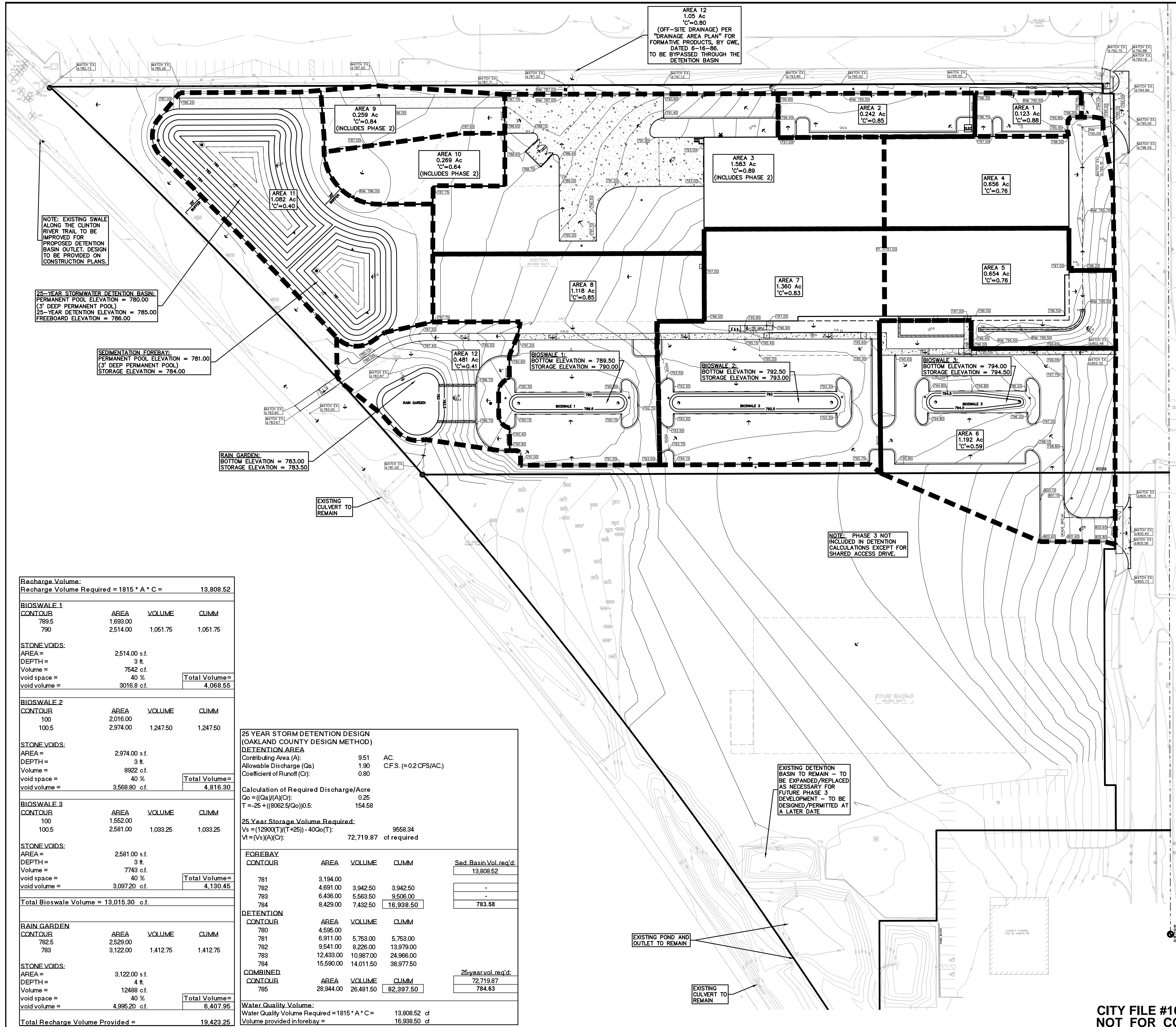
PEA JOB NO. 2016-029

SCALE: 1" = 30'

DRAWING NUMBER:  
**C-5.2**

**CITY FILE #16-002**  
**NOT FOR CONSTRUCTION**

SRF: S:\PROJECTS\2016\20160229\DWG\16029-TOP.DWG  
 XREF: S:\PROJECTS\2016\20160229\DWG\SITE PLANS\N\BASE-16029.DWG  
 XREF: S:\PROJECTS\2016\20160229\DWG\SITE PLANS\N\TB-K-16029.DWG



NO.	BY	DATE	DESCRIPTION

**CAUTION!**  
THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES ARE SHOWN ON THIS DRAWING AS ONLY APPROXIMATE. NO GUARANTEE IS GIVEN FOR THE ACCURACY OF THESE UTILITIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO THE START OF CONSTRUCTION.

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CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL BE MADE TO APPLY TO CONTRACTORS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INDEMNITY AND HOLD DESIGN PROFESSIONAL LIABILITY FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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<b>Recharge Volume:</b>			
Recharge Volume Required = 1815 * A * C =		13,808.52	
<b>BIOSWALE 1</b>			
CONTOUR	AREA	VOLUME	CUMM
789.5	1,693.00		
790	2,514.00	1,051.75	1,051.75
<b>STONE VOIDS:</b>			
AREA =	2,514.00 s.f.		
DEPTH =	3 ft.		
Volume =	7542 c.f.		
void space =	40 %		
void volume =	3016.8 c.f.	<b>Total Volume =</b>	<b>4,068.55</b>
<b>BIOSWALE 2</b>			
CONTOUR	AREA	VOLUME	CUMM
100	2,016.00		
100.5	2,974.00	1,247.50	1,247.50
<b>STONE VOIDS:</b>			
AREA =	2,974.00 s.f.		
DEPTH =	3 ft.		
Volume =	8922 c.f.		
void space =	40 %		
void volume =	3,568.80 c.f.	<b>Total Volume =</b>	<b>4,816.30</b>
<b>BIOSWALE 3</b>			
CONTOUR	AREA	VOLUME	CUMM
100	1,552.00		
100.5	2,581.00	1,033.25	1,033.25
<b>STONE VOIDS:</b>			
AREA =	2,581.00 s.f.		
DEPTH =	3 ft.		
Volume =	7743 c.f.		
void space =	40 %		
void volume =	3,097.20 c.f.	<b>Total Volume =</b>	<b>4,130.45</b>
<b>Total Bioswale Volume = 13,015.30 c.f.</b>			
<b>RAIN GARDEN</b>			
CONTOUR	AREA	VOLUME	CUMM
782.5	2,529.00		
783	3,122.00	1,412.75	1,412.75
<b>STONE VOIDS:</b>			
AREA =	3,122.00 s.f.		
DEPTH =	4 ft.		
Volume =	12488 c.f.		
void space =	40 %		
void volume =	4,995.20 c.f.	<b>Total Volume =</b>	<b>6,407.95</b>
<b>Total Recharge Volume Provided = 19,423.25</b>			

**25 YEAR STORM DETENTION DESIGN (OAKLAND COUNTY DESIGN METHOD)**

**DETENTION AREA**

Contributing Area (A): 9.51 AC.  
Allowable Discharge (Qa): 1.90 C.F.S. (=0.2 CFS/AC)  
Coefficient of Runoff (Cr): 0.80

Calculation of Required Discharge/Acre  
Qo = (Qa)(A)(Cr) = 0.25  
T = 25 + ((8062.5/Qo)0.5) = 154.58

**25 Year Storage Volume Required:**  
Vs = (12900(T)(T+25)) - 40Qo(T) = 9558.34  
Vl = (Vs)(A)(Cr) = 72,719.87 cf required

FOREBAY CONTOUR	AREA	VOLUME	CUMM	Sed. Basin Vol. req'd
781	3,194.00			13,808.52
782	4,691.00	3,942.50	3,942.50	-
783	6,436.00	5,563.50	9,506.00	-
784	8,429.00	7,432.50	16,938.50	783.58

DETENTION CONTOUR	AREA	VOLUME	CUMM
780	4,595.00		
781	6,911.00	5,753.00	5,753.00
782	9,541.00	8,226.00	13,979.00
783	12,433.00	10,967.00	24,966.00
784	15,590.00	14,011.50	38,977.50

COMBINED CONTOUR	AREA	VOLUME	CUMM	25-year vol. req'd
785	28,944.00	26,481.50	82,397.50	72,719.87

**Water Quality Volume:**  
Water Quality Volume Required = 1815 \* A \* C = 13,808.52 cf  
Volume provided in forebay = 16,938.50 cf

**BENCHMARKS**  
(GPS DERIVED - NAVD08)

BM #300 SET BENCHMARK IN EAST FACE OF A POWER POLE LOCATED ON THE NORTH SIDE OF HAMLIN ROAD, EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. - 804.88

BM #301 CUT X IN NORTHEAST HYDRANT BOT, LOCATED APPROX. 5'± NORTH OF THE NORTHERN HAMLIN CURB AND APPROX. 170'± EAST OF THE EASTERN APPROACH TO #1700 HAMLIN (CHARITY FUNDING) ELEV. - 807.88

BM #302 ARROW ON A HYDRANT LOCATED APPROX. 150'± NORTH OF THE NORTH LINE OF HAMLIN ROAD AND APPROX. 30'± NORTH OF THE ENTRANCE TO #1350 HAMLIN (KOSTAL) ELEV. - 795.73

BM #303 ARROW ON A HYDRANT LOCATED APPROX. 200'± NORTHEAST OF THE NORTHWEST BUILDING CORNER OF #1700 HAMLIN (CHARITY FUNDING) ELEV. - 795.09

BM #304 ARROW ON A HYDRANT LOCATED APPROX. 68'± NORTHWEST OF THE NORTHWEST BUILDING CORNER OF #1350 HAMLIN (KOSTAL) ELEV. - 792.03

**REFERENCE DRAWINGS**

WATER MAIN CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
AVON WATER SUPPLY SYSTEM, JOHNSON & ANDERSON, INC., JOB NO. 3693, SHEET NO. 45 & 46, DATED MAY 18, 1971  
ROCHESTER COMMUNITY SCHOOLS SUPPORT SERVICES BUILDING, FRENCH ASSOCIATES PROJECT NO. 2004-054, SPALDING DESIGNER PROJECT NO. DW-04-00, SHEET NO. C4-2, DATED 07/07/05, CITY OF ROCHESTER HILLS FILE NO. 04-032  
HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

SANITARY SEWER CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

STORM SEWER CITY OF ROCHESTER HILLS GIS UTILITIES MAP  
HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

TELEPHONE HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

GAS CONSUMERS ENERGY QUARTER SECTION MAP NO. 03-61-21-3  
HAMLIN ROAD RECONSTRUCTION, O.H.M. INC. JOB NO. 0160960021, DATED 09/11/08, REV. 03/10/11

OTHER ALTA/ACLS LAND TITLE SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED 2/16/2016

OTHER SITE PLAN, NOWAK & FRAUS, JOB NO. 6160, DATED 3-26-86

OTHER HAMLIN PROPERTY ALTA SURVEY, HUBBELL, ROTH & CLARK, INC. JOB NO. 20160014, DATED FEBRUARY 4, 2016

**FLOODPLAIN NOTE:**  
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X'. AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0393F, DATED SEPTEMBER 29, 2006.

XREF: S:\PROJECTS\2016\20160228\DWG\16029-TOP0.DWG  
XREF: S:\PROJECTS\2016\20160228\DWG\SITE PLANS\X-BASE-16029.DWG  
XREF: S:\PROJECTS\2016\20160228\DWG\SITE PLANS\X-TB-K-16029.DWG

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**PRELIMINARY DRAINAGE PLAN  
JENOPTIK ROCHESTER HILLS**  
PART OF THE SOUTH 1/4 OF SECTION 21, T8N, R1E  
ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. RLS. DN. RLS. SUR. D.L.C. P.M. SAS  
S:\PROJECTS\2016\20160228\DWG\Site Plans\C-6-0\JBD-16029.dwg

ORIGINAL ISSUE DATE:  
MARCH 2, 2016

PEA JOB NO. 2016-029

SCALE: 1" = 50'

DRAWING NUMBER:  
**C-6.0**

**CITY FILE #16-002  
NOT FOR CONSTRUCTION**