

PRELIMINARY SITE PLANS FOR
2020 ROCHESTER RETAIL
 PART OF THE NE 1/4 SECTION 27, T.3N., R.11 E.,
 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

OWNER/APPLICANT/DEVELOPER:

RH INVESTMENTS LLC
 33477 WOODWARD AVENUE, SUITE 800
 BIRMINGHAM, MI 48009
 CONTACT: SCOTT BARBAT
 PHONE: (248) 914-0444

ARCHITECT:

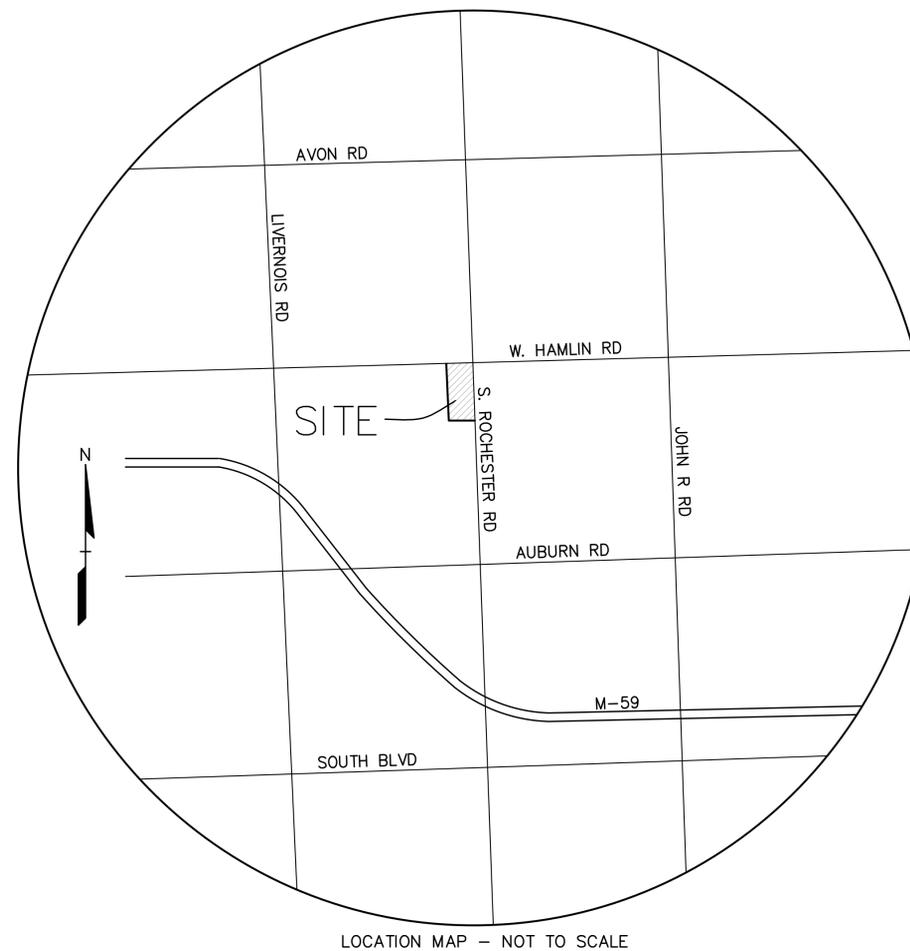
ABRO DESIGN GROUP
 30600 NORTHWESTERN HWY., SUITE 310
 FARMINGTON HILLS, MI 48334
 CONTACT: JOHN ABRO
 PHONE: (248) 254-3834

CIVIL ENGINEER:

PEA, Inc.
 2430 ROCHESTER CT, STE 100
 TROY, MI 48083-1872
 CONTACT: DOUG BRINKER, PE
 PROJECT ENGINEER
 PHONE: (248) 689-9090
 FAX: (248) 689-1044

LANDSCAPE ARCHITECT:

PEA, Inc.
 7927 NEMCO WAY, SUITE 115
 BRIGHTON, MI 48116
 CONTACT: KIMBERLY DIETZEL
 LANDSCAPE ARCHITECT
 PHONE: (517) 546-8583
 FAX: (517) 546-8973



LOCATION MAP - NOT TO SCALE

LEGAL DESCRIPTION
 (per Kern-Tec Topographic Survey, job #10-04408, dated 12/09/2010)

THE LAND SITUATED IN THE CITY OF ROCHESTER HILLS, COUNTY OF OAKLAND, STATE OF MICHIGAN IS DESCRIBED AS FOLLOWS:

THE EAST 130 FEET OF LOT 121 OF THE PLAT OF JUENGL'S ORCHARDS ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 72 OF PLATS, PAGE 32, OAKLAND COUNTY RECORDS.

LEGAL INFORMATION
 (PER TAX RECORD ID#: 15-27-226-012)
 T3N, R11E, SEC 27 JUENGL'S ORCHARDS E 130 FT OF LOT 121

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- C-4.0 PRELIMINARY UTILITY PLAN
- C-5.0 FIRE TRUCK ACCESS PLAN
- C-6.0 PRELIMINARY DETAILS SHEET
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- C-8.0 SIGHT DISTANCE PLAN
- L-1 PRELIMINARY LANDSCAPE PLAN

ARCHITECTURAL PLANS:

- A-110 EXTERIOR BUILDING ELEVATIONS AND FLOOR PLAN

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- 1 of 2 PHOTOMETRIC PLAN
- 2 of 2 PHOTOMETRIC DETAILS

NO.	DATE	DESCRIPTION
1	02/16/2016	REVISIONS PER PLANNING COMMISSION COMMENTS
2	02/17/2016	REVISIONS PER PLANNING COMMISSION COMMENTS
3	02/17/2016	REVISIONS PER PLANNING COMMISSION COMMENTS
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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 DETERMINING THE EXACT UTILITIES 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 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. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN CONTRACTORS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO OBTAIN NECESSARY 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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ABRO DESIGN GROUP
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 FARMINGTON HILLS, MI 48334

COVER SHEET
 2020 ROCHESTER RETAIL
 PART OF THE NORTHEAST 1/4 OF SECTION 27, T.3N., R.11E.,
 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES: DLB/DRW | SUR: DL | P.M. | JPB

ORIGINAL ISSUE DATE:
 FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE: 1" = 10'

DRAWING NUMBER:
C-0.0

FIRE DEPARTMENT NOTES:

- 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 BURNING PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 503.
- 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. NO STOPPING, STANDING, PARKING, FIRE LANE, AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 506.
- A KNOX KEY SYSTEM SHALL BE INSTALLED AT EACH BUILDING IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE KNOXBOX.COM." IFC 2006 SEC. 506

SIDEWALK RAMP LEGEND:

SIDEWALK RAMP 'TYPE P'

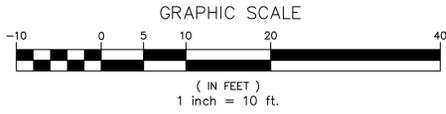
SIDEWALK RAMP 'TYPE R'

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

ACCESSIBLE DOOR LEGEND:

INDICATES ACCESSIBLE ACCESS DOOR

REFER TO ARCHITECTURAL PLANS FOR FURTHER DETAILS.



SIGN LEGEND:

'NO STOPPING STANDING PARKING'

'FIRE LANE' SIGN

'RIGHT TURN ONLY' SIGN

'BARRIER FREE PARKING' SIGN

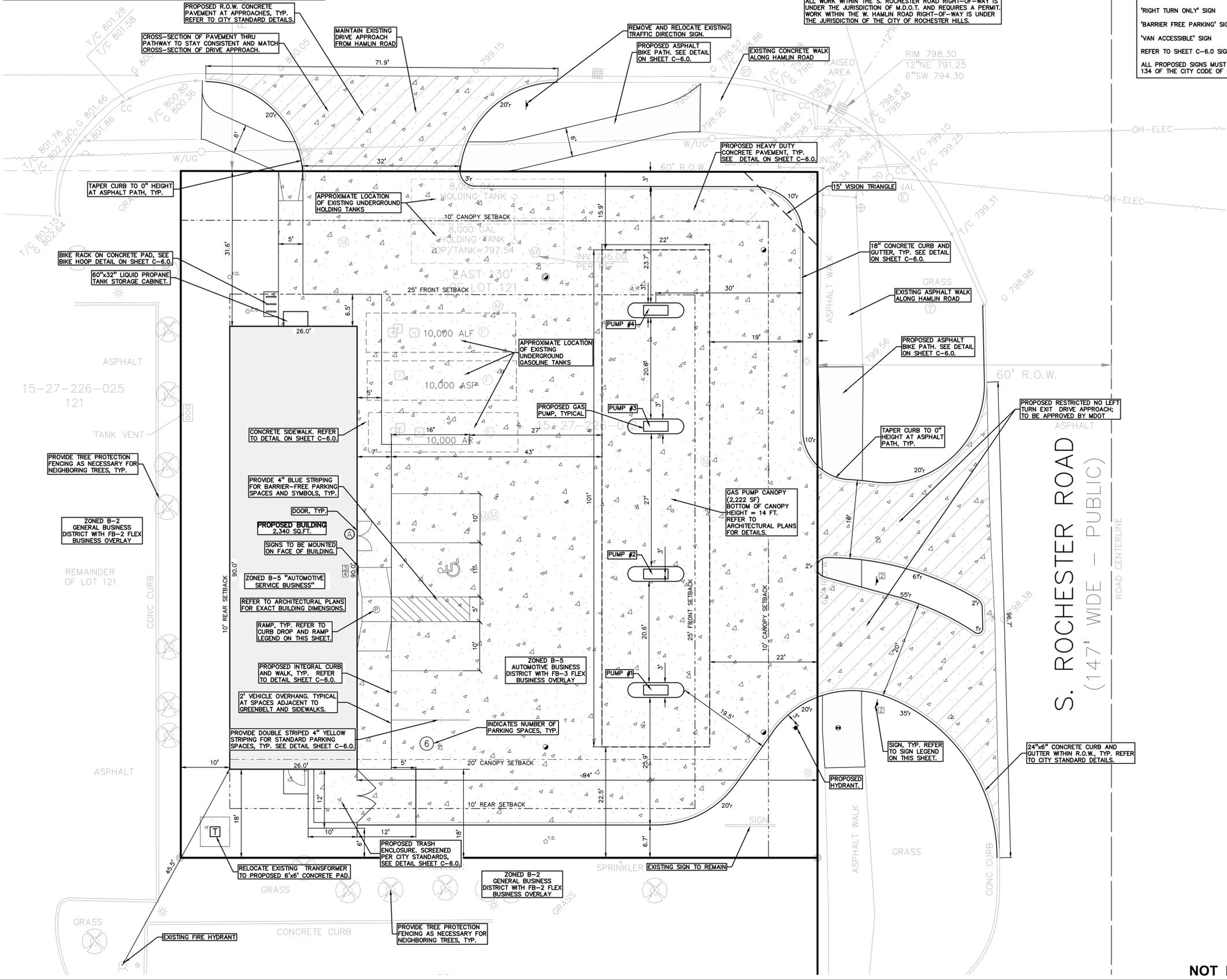
'VAN ACCESSIBLE' SIGN

REFER TO SHEET C-6.0 SIGN DETAILS

ALL PROPOSED SIGNS MUST MEET CHAPTER 134 OF THE CITY CODE OF ORDINANCES.

W. HAMLIN ROAD
(90' WIDE - PUBLIC)

NOTE:
ALL WORK WITHIN THE S. ROCHESTER ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF M.D.O.T. AND REQUIRES A PERMIT. WORK WITHIN THE W. HAMLIN ROAD RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF ROCHESTER HILLS.



LEGEND

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

EXISTING

- OH-ELEC-W-O: ELEC. PHONE OR CABLE TV G.H. LINE, POLE & GUY WIRE
- UG-CATV: UNDERGROUND CABLE TV, CATHY PEDESTAL
- UG-PHONE: TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- UG-ELEC: ELECTRIC U.G. CABLE, MANHOLE, METER & MANHOLE
- UG-GAS: GAS MAIN, VALVE & GAS LINE MARKER
- WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM SEWER, CLEANOUT & MANHOLE
- COMBINED SEWER & MANHOLE
- CATCH BASIN, INLET, YARD DRAIN
- POST INDICATOR VALVE
- WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
- MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- FUEL TANK, FUEL TANK ACCESS, MONITORING WELL
- TRAFFIC SIGNAL, PUBLIC PAY PHONE
- UNDEVELOPED STRUCTURE
- SPOT ELEVATION
- CONTOUR LINE
- FENCE
- GUARD RAIL
- STREET LIGHT
- SIGN

PROPOSED

- CONC: CONCRETE
- ASPH: ASPHALT
- GRAVEL: GRAVEL SHOULDER
- WETLAND
- STD HEAVY R.O.W. DUTY ONLY
- STD HEAVY DEEP DUTY ONLY
- STD HEAVY STRENGTH

REFERENCE DRAWINGS

KEM-TEC & ASSOCIATES TOPOGRAPHIC SURVEY #10-04408
AKO, INC. COMPANY AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981

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.
- ALL SIGNS MUST MEET SECTION 138-8.603 AND CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT.

SITE DATA TABLE:

SITE AREA: 0.42 ACRES (±18,128 SQ.FT.) NET AND GROSS

ZONING: B-5, AUTOMOTIVE SERVICE BUSINESS

PROPOSED USE: GAS STATION/RETAIL (2,700 SF)

BUILDING TYPE: II-B

BUILDING INFORMATION:
MAXIMUM ALLOWABLE BUILDING HEIGHT = 2 STORIES / 30 FEET
PROPOSED BUILDING HEIGHT = 1 STORY / 19 FEET

BUILDING FOOTPRINT AREA = 2,340 SQ.FT.

BUILDING SETBACK REQUIREMENTS:

B-5 ZONING DISTRICT:	FRONT SETBACK (EAST):	20 FEET REQUIRED	94' PROVIDED
	FRONT SETBACK (NORTH):	20 FEET REQUIRED	31.55' PROVIDED
	REAR SETBACK (SOUTH):	10 FEET REQUIRED	18' PROVIDED
	REAR SETBACK (WEST):	10 FEET REQUIRED	10' PROVIDED

CANOPY SETBACKS:

	FRONT SETBACK (EAST):	10 FEET REQUIRED	22' PROVIDED
	FRONT SETBACK (NORTH):	10 FEET REQUIRED	15.89' PROVIDED
	REAR SETBACK (SOUTH):	20 FEET REQUIRED	22.54' PROVIDED

MAXIMUM CANOPY COVERAGE ALLOWED = 40%
PROPOSED CANOPY COVERAGE = (2,222 / 18,128) = 12.3%
PROPOSED CANOPY HEIGHT = 14'

PARKING SETBACK: 10 FEET REQUIRED 18' PROVIDED

PARKING CALCULATIONS:
RETAIL = 1 SPACE PER 300 S.F. OF FLOOR AREA
TOTAL RETAIL PARKING REQUIRED = 2,340/300 = 8 SPACES
TOTAL PARKING REQUIRED = 8 SPACES
TOTAL PROPOSED PARKING SPACES = 14 SPACES INC. 1 H/C SPACES

REVISIONS

NO.	DATE	REVISIONS PER PLANNING COMMENTS
1	4/13/17	DRW. DATE
2	3/20/17	REVISED PLANS PER CITY COMMENTS
3	3/20/17	REVISED PLANS PER CITY COMMENTS
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CONTRACTOR CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERAL ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONDITIONS DURING THE COURSE OF CONSTRUCTION AND COMPLETE RESPONSIBILITY FOR JOB SITE AND PROPERTY THAT THIS AGREEMENT SHALL BE MADE TO APPLY CONTRACTORS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR CONTRACTOR SHALL BE RESPONSIBLE AND HOLD DESIGN PROFESSIONAL LIABILITY ARISING 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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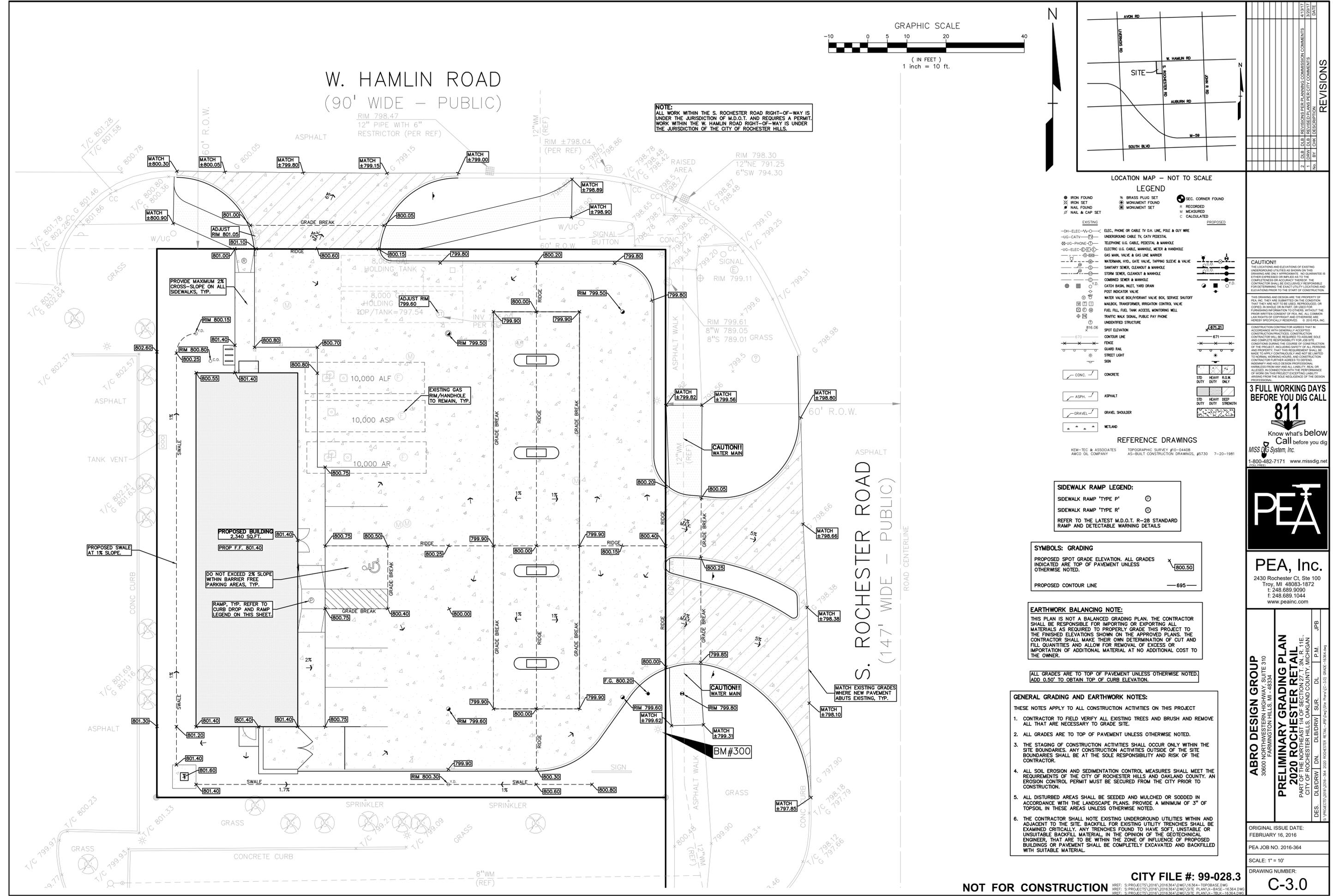
SCALE: 1" = 10'

DRAWING NUMBER: **C-2.0**

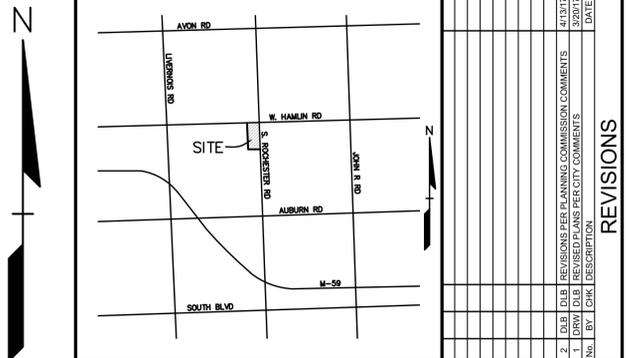
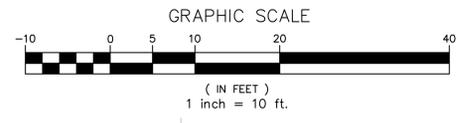
NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3

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XREF: S:\PROJECTS\2016\2016364\DWG\SITE PLAN.VL-TBL-16364.DWG



W. HAMLIN ROAD (90' WIDE - PUBLIC)



NOTE:
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3	6/1/17	REVISED PER PLANNING COMMISSION COMMENTS
4	6/1/17	REVISED PER PLANNING COMMISSION COMMENTS

LEGEND

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

— OH-ELEC—W—O—	ELEC. PHONE OR CABLE TV O.H. 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 & MANHOLE
— GAS—	GAS MAIN, VALVE & GAS LINE MARKER
— WATER—	WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
— SANITARY—	SANITARY SEWER, CLEANOUT & MANHOLE
— STORM—	STORM SEWER, CLEANOUT & MANHOLE
— COMB'D—	COMB'D SEWER & MANHOLE
— CATCH BASIN—	CATCH BASIN, INLET, WARD DRAIN
— POST INDICATOR—	POST INDICATOR VALVE
— WATER VALVE BOX—	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
— MALBOX—	MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
— FUEL TANK—	FUEL TANK, ACCESS, MONITORING WELL
— TRAFFIC SIGNAL—	TRAFFIC SIGNAL, PUBLIC PAY PHONE
— UNDETERMINED—	UNDETERMINED STRUCTURE
— SPOT ELEVATION—	SPOT ELEVATION
— CONTOUR LINE—	CONTOUR LINE
— FENCE—	FENCE
— GUARD RAIL—	GUARD RAIL
— STREET LIGHT—	STREET LIGHT
— SIGN—	SIGN
— CONC.—	CONCRETE
— ASPHL.—	ASPHALT
— GRAVEL—	GRAVEL SHOULDER
— WETLAND—	WETLAND

REFERENCE DRAWINGS

KEM-TEC & ASSOCIATES
LAND SURVEYING & ENGINEERING
TOPOGRAPHIC SURVEY #10-04408
AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981

SIDEWALK RAMP LEGEND:

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

SYMBOLS: GRADING

PROPOSED SPOT GRADE ELEVATION, ALL GRADES INDICATED ARE TOP OF PAVEMENT UNLESS OTHERWISE NOTED. 800.50

PROPOSED CONTOUR LINE 695

EARTHWORK BALANCING NOTE:

THIS PLAN IS NOT A BALANCED GRADING PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED. ADD 0.50' TO OBTAIN TOP OF CURB ELEVATION.

- ### GENERAL GRADING AND EARTHWORK NOTES:
- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT
- CONTRACTOR TO FIELD VERIFY ALL EXISTING TREES AND BRUSH AND REMOVE ALL THAT ARE NECESSARY TO GRADE SITE.
 - ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
 - THE STAGING OF CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY WITHIN THE SITE BOUNDARIES. ANY CONSTRUCTION ACTIVITIES OUTSIDE OF THE SITE BOUNDARIES SHALL BE AT THE SOLE RESPONSIBILITY AND RISK OF THE CONTRACTOR.
 - ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE CITY OF ROCHESTER HILLS AND OAKLAND COUNTY. AN EROSION CONTROL PERMIT MUST BE SECURED FROM THE CITY PRIOR TO CONSTRUCTION.
 - ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED OR SODDED IN ACCORDANCE WITH THE LANDSCAPE PLANS. PROVIDE A MINIMUM OF 3" OF TOPSOIL IN THESE AREAS UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. BACKFILL FOR EXISTING UTILITY TRENCHES SHALL BE EXAMINED CRITICALLY. ANY TRENCHES FOUND TO HAVE SOFT, UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF THE GEOTECHNICAL ENGINEER, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.

CAUTION!!
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**PRELIMINARY GRADING PLAN
2020 ROCHESTER RETAIL**
PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. DLEB/DW/ SUR. DL P.M.
DLEB/DW/ DN. DLEB/DW/ SUR. DL P.M.

ORIGINAL ISSUE DATE:
FEBRUARY 16, 2016

PEA JOB NO. 2016-364

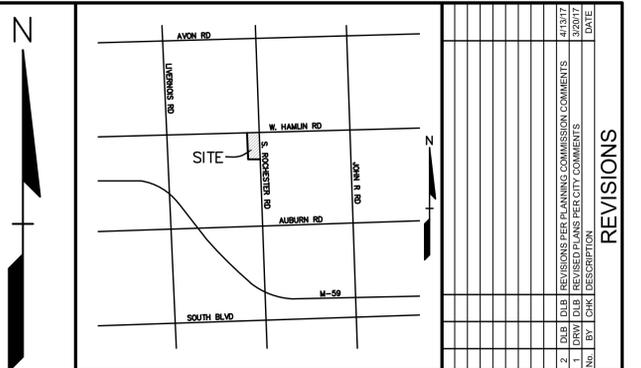
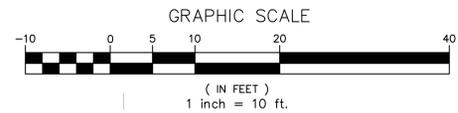
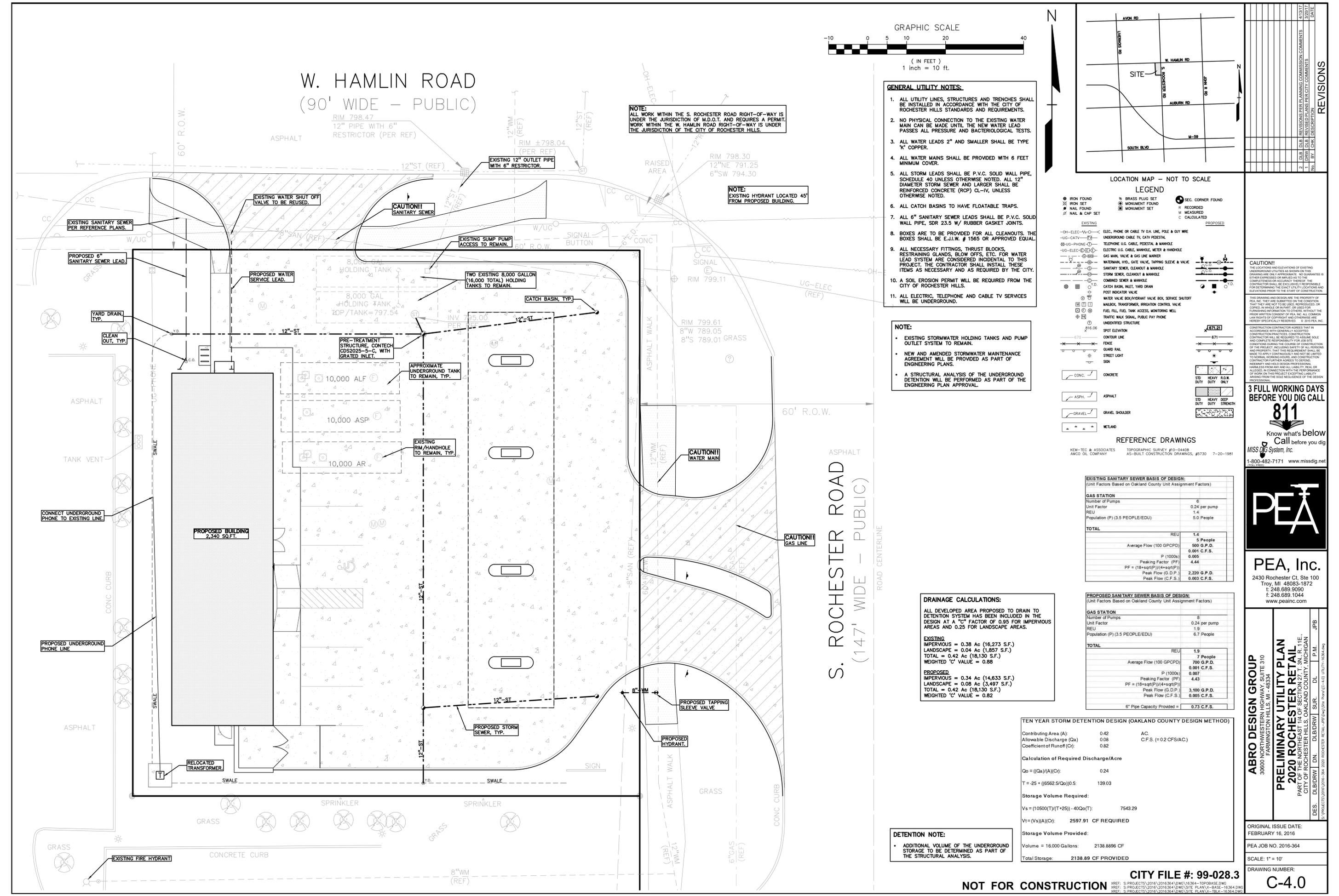
SCALE: 1" = 10'

DRAWING NUMBER:
C-3.0

NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3

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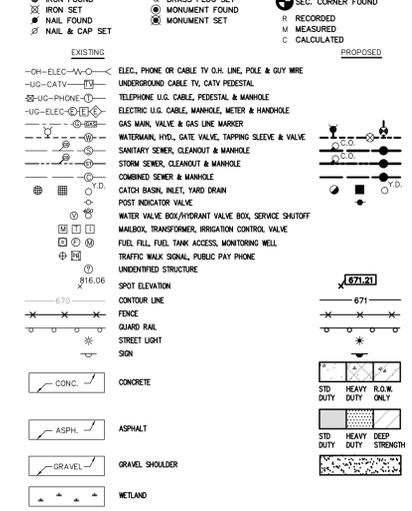
GENERAL UTILITY NOTES:

1. ALL UTILITY LINES, STRUCTURES AND TRENCHES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS STANDARDS AND REQUIREMENTS.
2. NO PHYSICAL CONNECTION TO THE EXISTING WATER MAIN CAN BE MADE UNTIL THE NEW WATER LEAD PASSES ALL PRESSURE AND BACTERIOLOGICAL TESTS.
3. ALL WATER LEADS 2" AND SMALLER SHALL BE TYPE "K" COPPER.
4. ALL WATER MAINS SHALL BE PROVIDED WITH 6 FEET MINIMUM COVER.
5. ALL STORM LEADS SHALL BE P.V.C. SOLID WALL PIPE, SCHEDULE 40 UNLESS OTHERWISE NOTED. ALL 12" DIAMETER STORM SEWER AND LARGER SHALL BE REINFORCED CONCRETE (RCP) CL-IV, UNLESS OTHERWISE NOTED.
6. ALL CATCH BASINS TO HAVE FLOATABLE TRAPS.
7. ALL 6" SANITARY SEWER LEADS SHALL BE P.V.C. SOLID WALL PIPE, SDR 23.5 W/ RUBBER GASKET JOINTS.
8. BOXES ARE TO BE PROVIDED FOR ALL CLEANOUTS. THE BOXES SHALL BE E.I.W. # 1565 OR APPROVED EQUAL.
9. ALL NECESSARY FITTINGS, THRUST BLOCKS, RESTRAINING GLANDS, BLOW OFFS, ETC. FOR WATER LEAD SYSTEM ARE CONSIDERED INCIDENTAL TO THIS PROJECT. THE CONTRACTOR SHALL INSTALL THESE ITEMS AS NECESSARY AND AS REQUIRED BY THE CITY.
10. A SOIL EROSION PERMIT WILL BE REQUIRED FROM THE CITY OF ROCHESTER HILLS.
11. ALL ELECTRIC, TELEPHONE AND CABLE TV SERVICES WILL BE UNDERGROUND.

NOTE:

- EXISTING STORMWATER HOLDING TANKS AND PUMP OUTLET SYSTEM TO REMAIN.
- NEW AND AMENDED STORMWATER MAINTENANCE AGREEMENT WILL BE PROVIDED AS PART OF ENGINEERING PLANS.
- A STRUCTURAL ANALYSIS OF THE UNDERGROUND DETENTION WILL BE PERFORMED AS PART OF THE ENGINEERING PLAN APPROVAL.

LEGEND



REFERENCE DRAWINGS

REM-TEC & ASSOCIATES TOPOGRAPHIC SURVEY #10-04408
 AKCO CO. COMPANY AS-BUILT CONSTRUCTION DRAWINGS #5730 7-20-1981

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

GAS STATION	
Number of Pumps	6
Unit Factor	0.24 per pump
REU	1.4
Population (P) (3.5 PEOPLE/EDU)	5.0 People
TOTAL	REU 1.4
Average Flow (100 GPCPD)	5 People
	500 G.P.D.
	0.001 C.F.S.
P (1000s)	0.005
Peaking Factor (PF)	4.44
PF = (18+sqrt(P))/(4+sqrt(P))	
Peak Flow (G.D.P.)	2,220 G.P.D.
Peak Flow (C.F.S.)	0.003 C.F.S.

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

GAS STATION	
Number of Pumps	6
Unit Factor	0.24 per pump
REU	1.9
Population (P) (3.5 PEOPLE/EDU)	6.7 People
TOTAL	REU 1.9
Average Flow (100 GPCPD)	7 People
	700 G.P.D.
	0.001 C.F.S.
P (1000s)	0.007
Peaking Factor (PF)	4.43
PF = (18+sqrt(P))/(4+sqrt(P))	
Peak Flow (G.D.P.)	3,100 G.P.D.
Peak Flow (C.F.S.)	0.005 C.F.S.
6" Pipe Capacity Provided =	0.73 C.F.S.

DRAINAGE CALCULATIONS:

ALL DEVELOPED AREA PROPOSED TO DRAIN TO DETENTION SYSTEM HAS BEEN INCLUDED IN THE DESIGN AT A "C" FACTOR OF 0.95 FOR IMPERVIOUS AREAS AND 0.25 FOR LANDSCAPE AREAS.

EXISTING
 IMPERVIOUS = 0.38 Ac (16,273 S.F.)
 LANDSCAPE = 0.04 Ac (1,857 S.F.)
 TOTAL = 0.42 Ac (18,130 S.F.)
 WEIGHTED "C" VALUE = 0.88

PROPOSED
 IMPERVIOUS = 0.34 Ac (14,833 S.F.)
 LANDSCAPE = 0.08 Ac (3,497 S.F.)
 TOTAL = 0.42 Ac (18,330 S.F.)
 WEIGHTED "C" VALUE = 0.82

TEN YEAR STORM DETENTION DESIGN (OAKLAND COUNTY DESIGN METHOD)

Contributing Area (A)	0.42	AC
Allowable Discharge (Qa)	0.08	C.F.S. (= 0.2 CFS/AC)
Coefficient of Runoff (C)	0.82	
Calculation of Required Discharge/Acre		
Qo = ((Qa)(A)(C))	0.24	
T = 25 + ((6562.5/Qo)0.5)	139.03	
Storage Volume Required:		
Vs = (10500(T)(T+25)) - 40Qo(T)	7543.29	
Vt = (Vs)(A)(C)	2597.91	CF REQUIRED
Storage Volume Provided:		
Volume = 16,000 Gallons:	2138.896	CF
Total Storage:	2138.89	CF PROVIDED

DETENTION NOTE:

- ADDITIONAL VOLUME OF THE UNDERGROUND STORAGE TO BE DETERMINED AS PART OF THE STRUCTURAL ANALYSIS.

REVISIONS

NO.	DATE	DESCRIPTION
1	4/13/17	REVISED PER PLANNING COMMENTS
2	5/20/17	REVISED PER PLANNING COMMENTS
3	6/15/17	REVISED PER PLANNING COMMENTS

CAUTION!
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CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERAL CONTRACTING PRACTICES, CONSTRUCTION CONDITIONS DURING THE COURSE OF CONSTRUCTION AND COMPLETE RESPONSIBILITY FOR JOB SITE SAFETY AND PROTECTION OF ALL PERSONS AND PROPERTY. THIS AGREEMENT SHALL BE MADE TO APPLY TO ALL CONTRACTORS AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING 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 EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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 2020 ROCHESTER RETAIL**
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 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. DLB/DWY SUR. DL P.M. JPB
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ORIGINAL ISSUE DATE:
 FEBRUARY 16, 2016

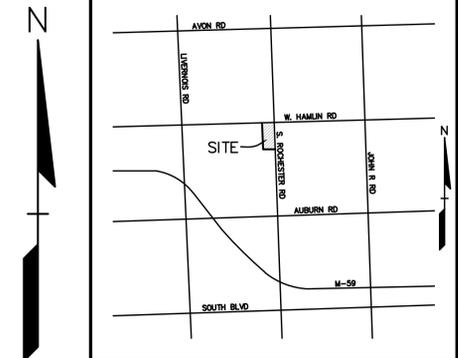
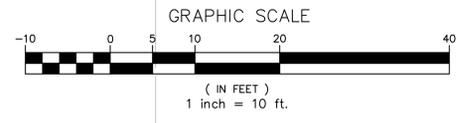
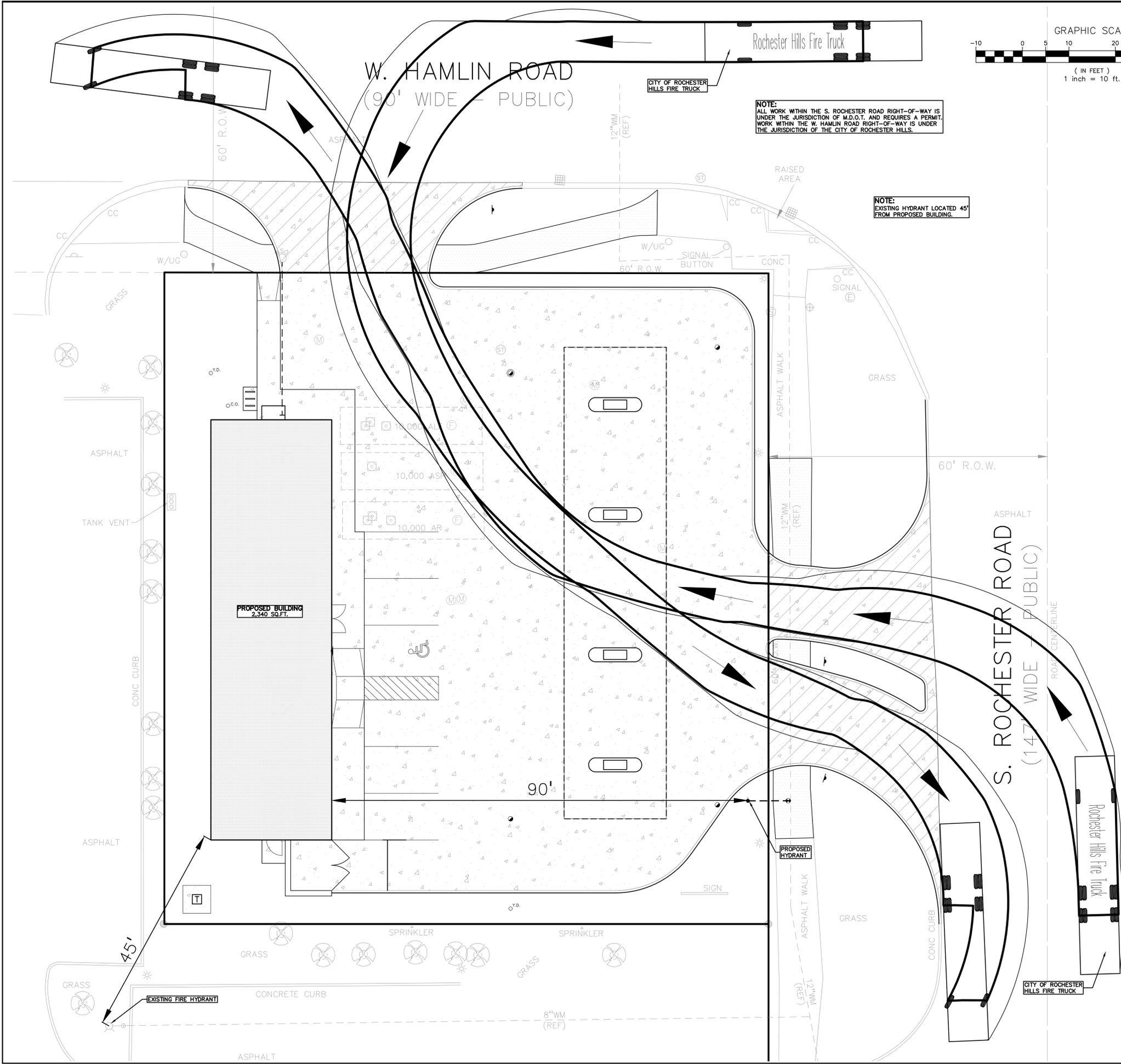
PEA JOB NO. 2016-364

SCALE: 1" = 10'

DRAWING NUMBER:

NOT FOR CONSTRUCTION CITY FILE #: 99-028.3

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LEGEND

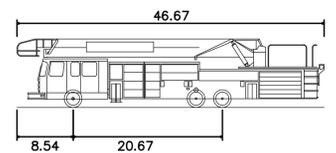
● IRON FOUND	⊗ BRASS PLUG SET	⊙ SEC. CORNER FOUND
⊗ NAIL SET	⊗ MONUMENT FOUND	⊙ RECORDED
⊗ NAIL & CAP SET	⊗ MONUMENT SET	⊙ MEASURED
		⊙ CALCULATED

EXISTING	PROPOSED
—OH—ELEC—W—C—	ELEC. PHONE OR CABLE TV O.H. 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 MARKER
—W—	WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
—S—	SANITARY SEWER, CLEANOUT & MANHOLE
—S—	STORM SEWER, CLEANOUT & MANHOLE
—C—	COMBINED SEWER & MANHOLE
—C—	CATCH BASIN, INLET, YARD DRAIN
—P—	POST INDICATOR VALVE
—W—	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
—M—	MALBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
—F—	FUEL TANK, FUEL TANK ACCESS, MONITORING WELL
—T—	TRAFFIC WALL SIGNAL, PUBLIC PAY PHONE
—U—	UNDERGROUND STRUCTURE
—S—	SPOT ELEVATION
—C—	CONTOUR LINE
—F—	FENCE
—G—	GUARD RAIL
—S—	STREET LIGHT
—S—	SIGN
—C—	CONCRETE
—A—	ASPHALT
—G—	GRAVEL SHOULDER
—W—	WETLAND

REFERENCE DRAWINGS

KEM-TEC & ASSOCIATES
LAND SURVEY COMPANY

TOPOGRAPHIC SURVEY #10-04408
AS-BUILT CONSTRUCTION DRAWINGS, #5730 7-20-1981



Rochester Hills Fire Truck

Overall Length 46.67ft
Overall Width 8.500ft
Min Wheel Radius 42.5ft

- 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.
 - ALL SIGNS MUST MEET SECTION 138-8.603 AND CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT.

- FIRE DEPARTMENT NOTES:**
- 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 BURNING PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 503.
 - 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, TWO STOPPING, STANDING, PARKING, FIRE LANE, AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. FIRE PREVENTION ORDINANCE CHAPTER 58, SECTION 506.
 - NO FIRE PROTECTION PROPOSED FOR BUILDING INTERIOR
 - EXISTING FIRE HYDRANTS ADJACENT TO SITE PROVIDE ADEQUATE PROTECTION COVERAGE PER ROCHESTER HILLS REQUIREMENTS.

REVISIONS

NO.	DATE	DESCRIPTION
1	4/13/17	REVISED PER PLANNING COMMENTS
2	3/20/17	REVISED PER PLANNING COMMENTS
3	3/20/17	REVISED PER PLANNING COMMENTS
4	3/20/17	REVISED PER PLANNING COMMENTS
5	3/20/17	REVISED PER PLANNING COMMENTS
6	3/20/17	REVISED PER PLANNING COMMENTS
7	3/20/17	REVISED PER PLANNING COMMENTS
8	3/20/17	REVISED PER PLANNING COMMENTS
9	3/20/17	REVISED PER PLANNING COMMENTS
10	3/20/17	REVISED PER PLANNING COMMENTS

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FIRE TRUCK ACCESS PLAN
2020 ROCHESTER RETAIL
PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
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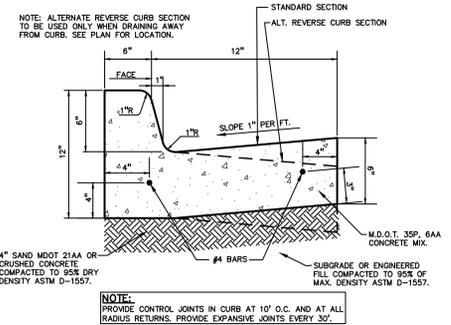
DES. DLB/DRW | DN. DLB/DRW | SUR. DL. P.M. | JPB

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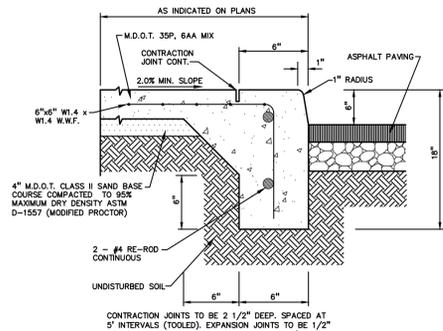
PEA JOB NO. 2016-364

SCALE: 1" = 10'

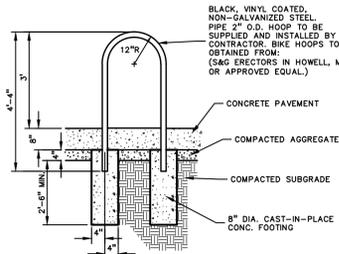
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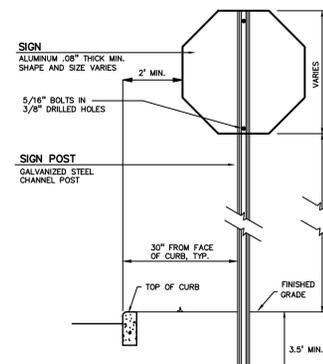
18"x6" STANDARD CONCRETE CURB AND GUTTER
NOT TO SCALE



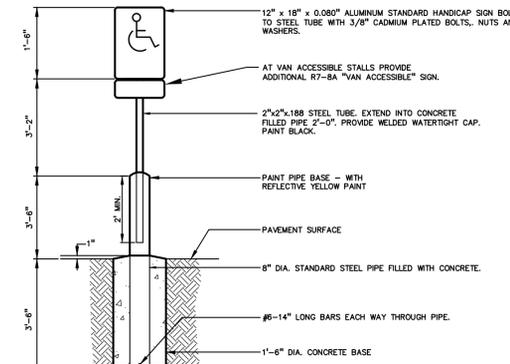
INTEGRAL CURB AND SIDEWALK
NOT TO SCALE



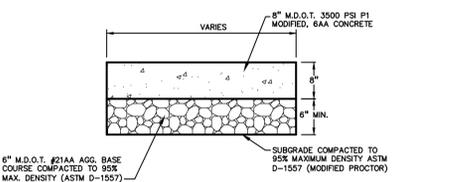
BIKE HOOP DETAIL
NOT TO SCALE



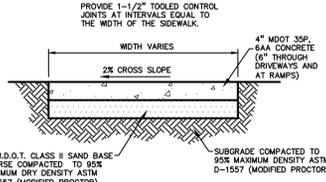
SIGN AND POST INSTALLATION IN LANDSCAPED AREAS
NOT TO SCALE



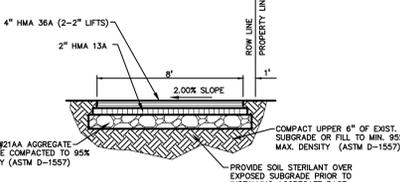
SIGN AND POST INSTALLATION IN PAVED AREAS
NOT TO SCALE



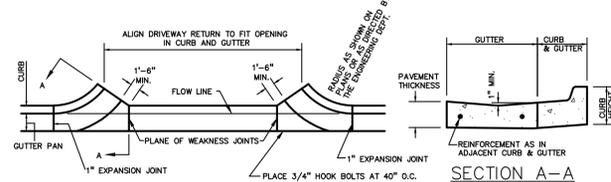
HEAVY DUTY CONCRETE DETAIL
NOT TO SCALE



CONCRETE SIDEWALK
NOT TO SCALE



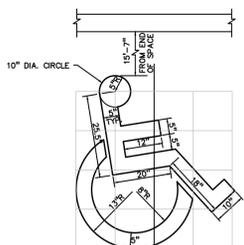
ASPHALT BIKE PATH DETAIL
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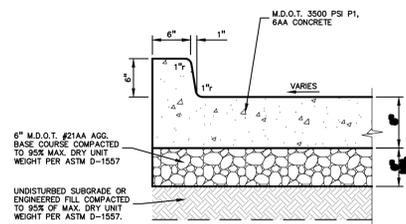
M.D.O.T. DRIVEWAY OPENING-DETAIL 'M'
NOT TO SCALE



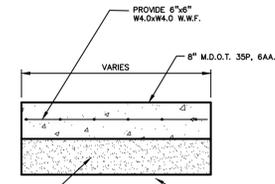
BARRIER FREE PARKING SIGN DETAIL
NOT TO SCALE



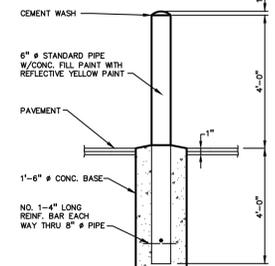
STANDARD "BARRIER FREE" SYMBOL FOR PARKING SPACE
NOT TO SCALE



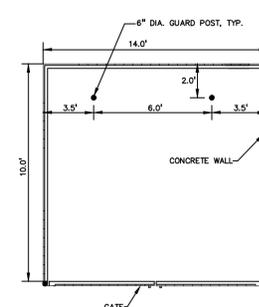
CONCRETE PAVEMENT WITH INTEGRAL CURB
NOT TO SCALE



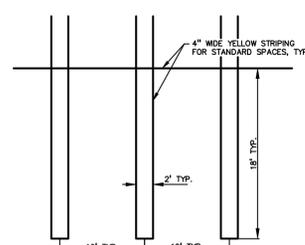
HEAVY DUTY CONCRETE PAD DETAIL
NOT TO SCALE



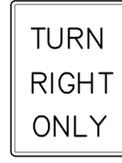
6" DIA. GUARD POST DETAIL
NOT TO SCALE



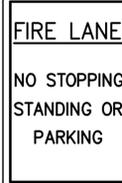
PLAN VIEW
NOT TO SCALE



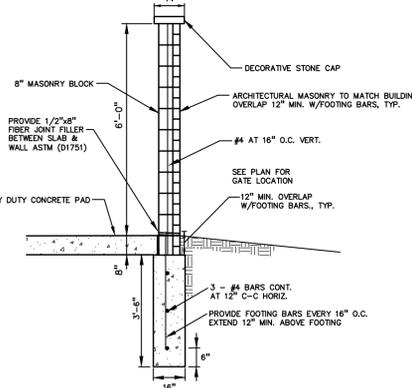
DOUBLE STRIPING DETAIL
NOT TO SCALE



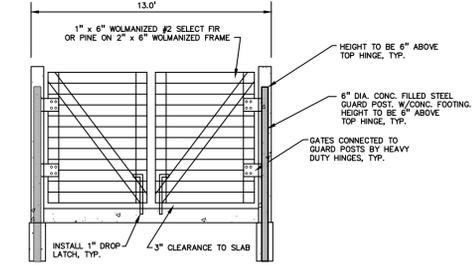
TURN RIGHT ONLY SIGN DETAIL
NOT TO SCALE



NO PARKING SIGN DETAIL
NOT TO SCALE



DUMPSTER ENCLOSURE WALL CROSS SECTION



TRASH ENCLOSURE GATE DETAIL
NOT TO SCALE

TRASH ENCLOSURE DETAILS
NOT TO SCALE

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PRELIMINARY DETAILS SHEET
2020 ROCHESTER RETAIL
PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES. DLB/DWJ SUR. DL P.M. JPB
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ORIGINAL ISSUE DATE:
FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE: 1" = 10'

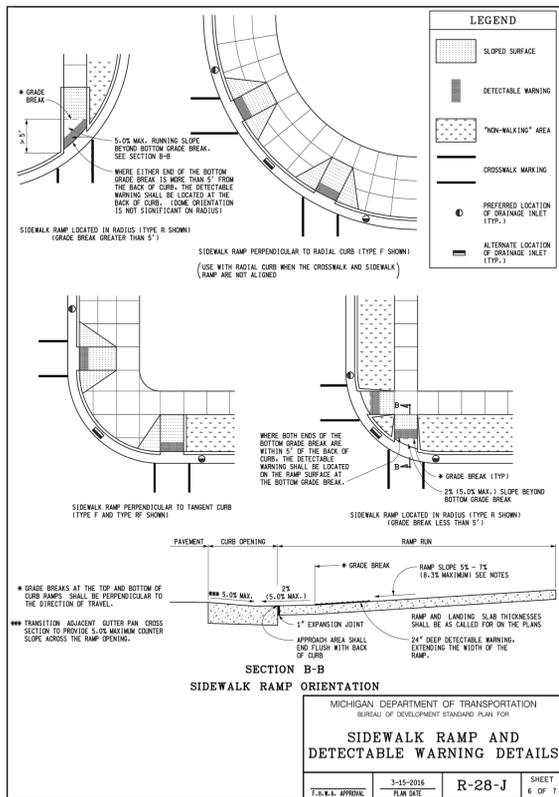
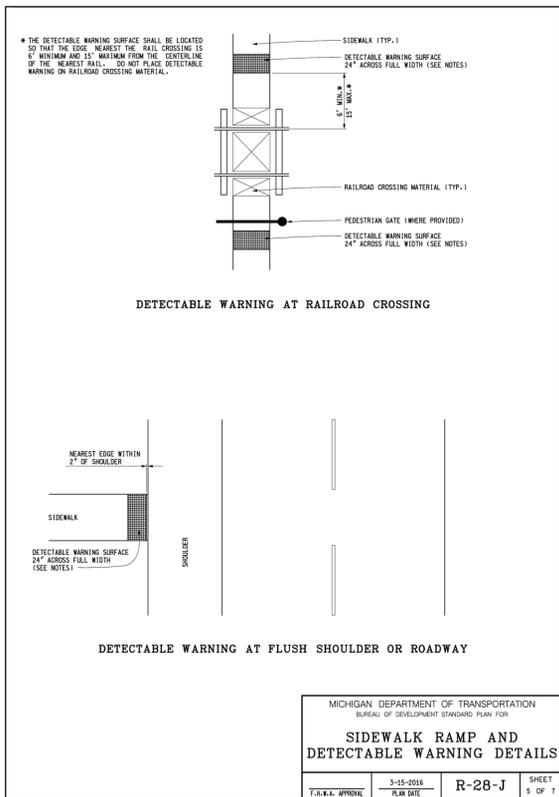
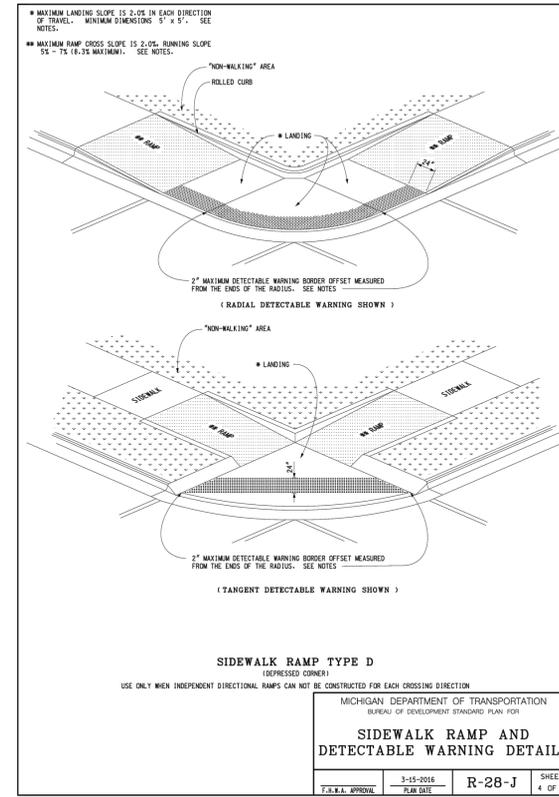
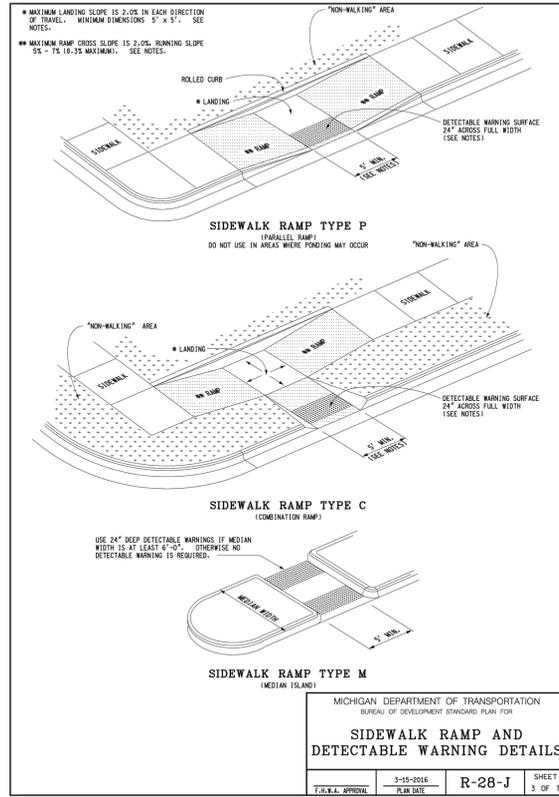
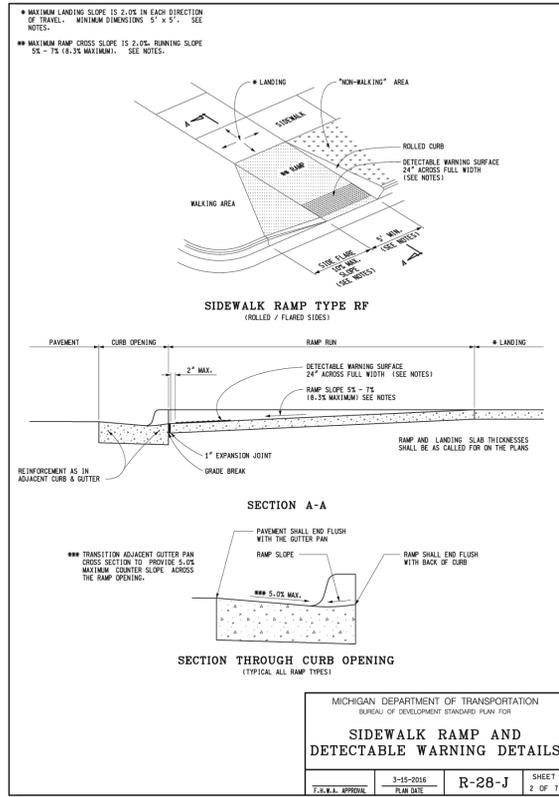
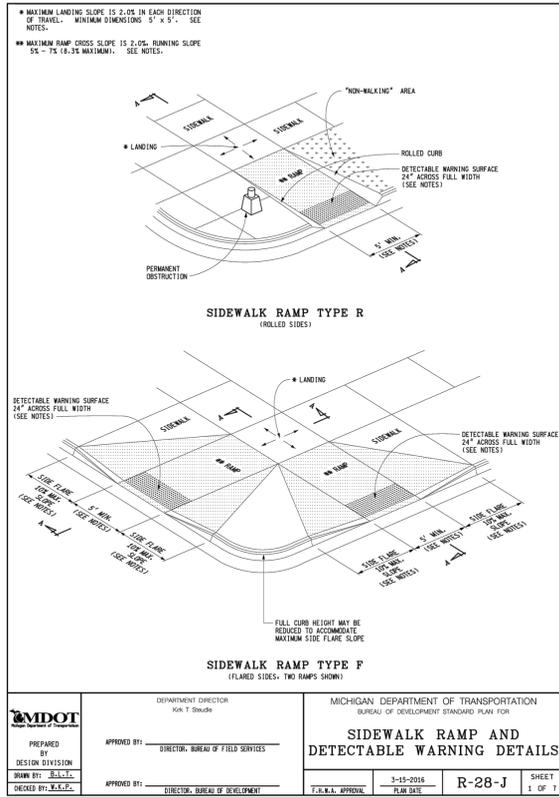
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C-6.0

NOT FOR CONSTRUCTION

CITY FILE #: 99-028.3

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NO.	DATE	REVISIONS
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2	4/13/17	REVISED PER PLANNING COMMENTS
3	4/13/17	REVISED PER PLANNING COMMENTS

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MDOT DETAILS
2020 ROCHESTER RETAIL
PART OF THE NORTHEAST 74 OF SECTION 27, T. 3N., R. 11E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

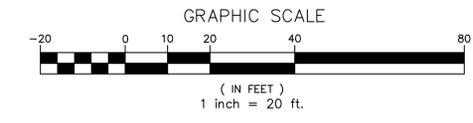
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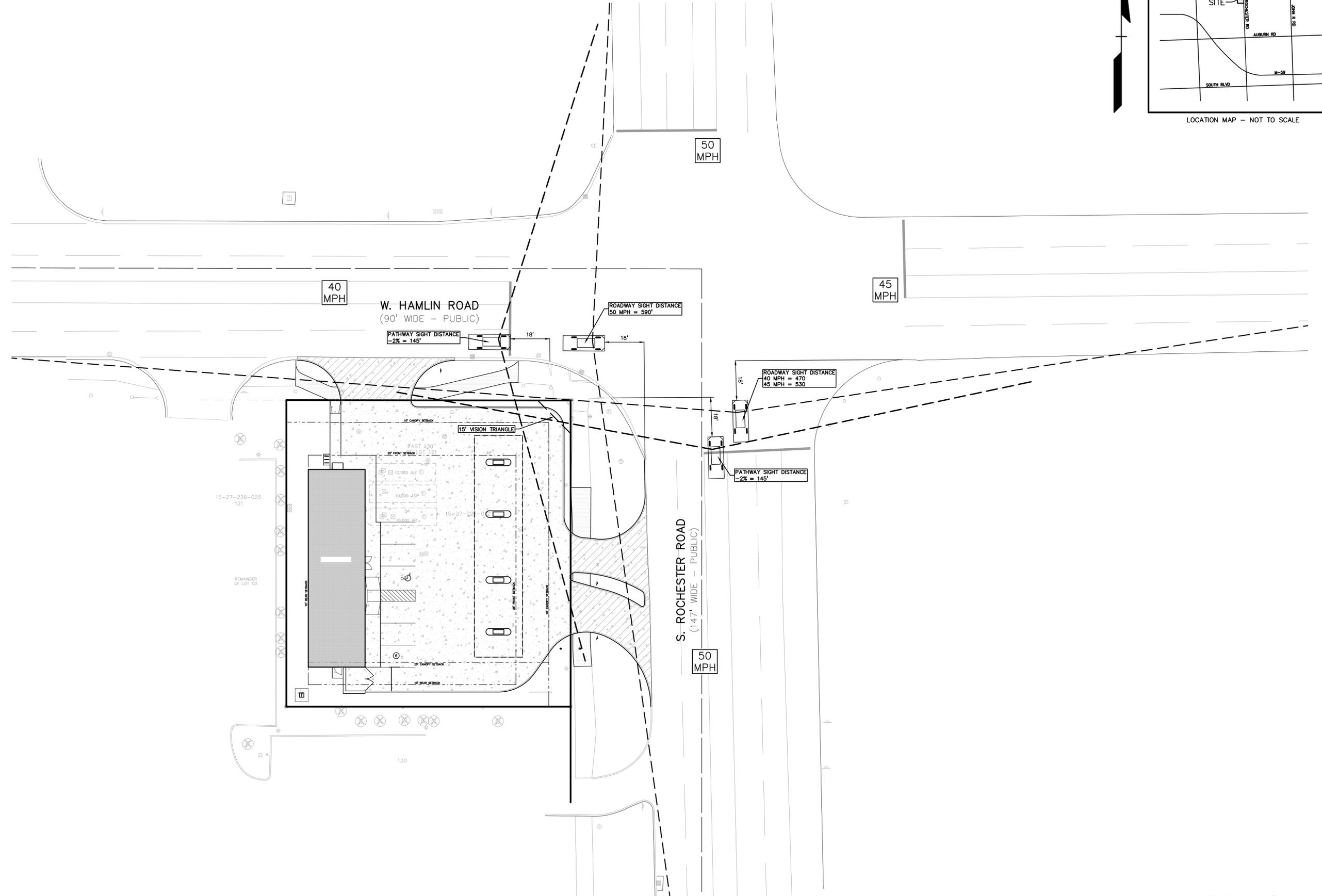
PEA JOB NO. 2016-364

SCALE: 1" = 10'

DRAWING NUMBER:
C-7.0



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ABRO DESIGN GROUP 30600 NORTHWESTERN HIGHWAY, SUITE 310 FARMINGTON HILLS, MI 48334	SIGHT DISTANCE PLAN 2020 ROCHESTER RETAIL PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN	DES. DLB/DRW SUR. DL P.M. JPB
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ORIGINAL ISSUE DATE:
FEBRUARY 16, 2016

PEA JOB NO. 2016-364

SCALE 1" = 10'

DRAWING NUMBER:
C-8.0

CITY OF ROCHESTER HILLS NOTES:

TREE PLANTING RESTRICTIONS:

Prior approval is required to plant any tree or shrub on the public right-of-way. All trees and shrubs must be planted at least 10' from the edge of the public road. Shade trees and ornamental trees must be planted at least 10' from the edge of the public roadway. No trees or shrubs may be planted within the triangular area formed at the intersection of any street right-of-way lines at a distance along each line of 25' from their point of intersection. No trees or shrubs may be planted in the triangular area formed at the intersection of any driveway with a public roadway at a distance along each line of 15' from their point of intersection. All trees and shrubs must be planted at least 10' from any fire hydrant. Shade and evergreen trees must be at least 15' away from the nearest overhead wire. Trees must be planted a minimum of 5' from an underground utility, unless the city's Landscape Architect requires a greater distance. These requirements are incorporated into the plan.

CLOSING COMMENT:

Prior to the release of the performance bond, the City of Rochester Hills Forestry Division needs to inspect all trees, existing or planted, to identify any that pose a hazard to the safe use of the public right-of-way. Forestry may require the developer to remove, and possibly replace, any such trees.

PER CITY OF ROCHESTER HILLS MAINTENANCE AGREEMENT:

Section 138-12.109 Maintenance

The owner of the property shall be responsible for all maintenance of site landscaping, as follows:

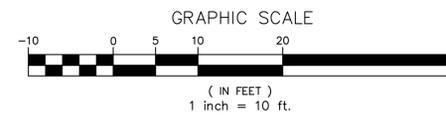
- Landscaping shall be kept in a neat, orderly and healthy growing condition, free from debris and refuse.
- Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to achieve their approved purpose.
- All dead, damaged, or diseased plant material shall be removed immediately and replaced within six (6) months after it dies or in the next planting season, whichever occurs first. For purposes of this Section, the planting season for deciduous plants shall be between March 1 and June 1 and from October 1 until the prepared soil becomes frozen. The planting season for evergreen plants shall be between March 1 and June 1. Plant material installed to replace dead or diseased material shall be as close as practical to the size of the material it is intended to replace. The City may notify property owners of the need to replace dead, damaged, or diseased material.
- The approved landscape plan shall be considered a permanent record and integral part of the Site Plan Approval. Unless otherwise approved in accordance with the aforementioned procedures, any revisions to or removal of plant materials, or non-compliance with the maintenance requirements of this Section 138-12.109 will place the parcel in non-conformity with the approved landscape plan and be a violation of this Ordinance.
- If protected trees are damaged, a fine shall be issued on an inch-by-inch basis at a monetary rate as defined by the Forestry Department.

DECIDUOUS TREE PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
1	AP3	Columnar Norway Maple	<i>Acer platanoides 'Columnare'</i>	3" Cal.	B&B
1	AR3	Armstrong Maple	<i>Acer rubrum 'Armstrong'</i>	3" Cal.	B&B
3	MR3	Red baron Crab	<i>Malus 'Red Baron' columnar</i>	3" Cal.	B&B
1	QB3	Regal Prince Oak	<i>Quercus robur x bicolor 'Long'</i>	3" Cal.	B&B
1	QR3	Crimson Spire Oak	<i>Quercus robur x alba 'Crimschmidt'</i>	3" Cal.	B&B
1	TC3	Greenspire Linden	<i>Tilia cordata 'Greenspire'</i>	3" Cal.	B&B

SHRUB PLANT LIST:

27	PO30	Abbotswood Potentilla	<i>Potentilla fruticosa 'Abbotswood'</i>	30" HL.	Cont.
10	PM36	Diablo Ninebark	<i>Physocarpus opulifolius 'Monlo'</i>	36" HL.	Cont.
36	SP30	Little Princess Japanese Spirea	<i>Spiraea japonica 'Little Princess'</i>	30" HL.	Cont.
18	SM36	Miss Kim Lilac	<i>Syringa patula 'Miss Kim'</i>	36" HL.	Cont.
12	TM30	Hicks Yew	<i>Taxus x media 'Hicksii'</i>	30" HL.	Cont.



LANDSCAPE CALCULATIONS:

PER CITY OF ROCHESTER HILLS ZONING ORDINANCE, ZONED B-5

STREET TREES RIGHT OF WAY LANDSCAPING

REQUIRED: 1 DEC. TREE/ 35 LF + 1 ORN. TREE/ 60 LF OF RIGHT OF WAY

HAMLIN ROAD: 130 LF/ 25 LF = 5 DEC. TREES & 2 ORN.

S. ROCHESTER ROAD: 139 LF/ 25 LF = 6 DEC. TREES & 2 ORN.

PROVIDED: 5 DEC. TREES, 3 ORN. TREES, AND 34 SHRUBS

*NOTE: DUE TO THE LOCATION OF THE OVERHEAD UTILITY LINE ALONG HAMLIN ROAD AND SETBACK REQUIREMENTS (BY THE CITY OF ROCHESTER HILLS) FROM PUBLIC SIDEWALKS, UTILITY LINES AND EASEMENTS TREE PLANTINGS ARE RELOCATED ELSEWHERE ON SITE WHERE ALL SETBACK REQUIREMENTS CAN BE MET. THE 6 DEC. AND 1 ORN. REMAINING REQUIRED TREES THAT DO NOT FIT ON SITE, FUNDS TO PUT INTO TREE FUND.

OUTDOOR AMENITY SPACE

REQUIRED: MINIMUM 2% GROSS LAND AREA OF THE DEVELOPMENT TO BE OUTDOOR AMENITY SPACE. GROSS LAND AREA: 18129 SF * 0.02 = 363 SF REQUIRED.

PROVIDED: 630 SF (3.5%) GREEN SPACE IN THE NORTHWEST CORNER OF THE SITE.

LANDSCAPING AND BUFFERING FOR B-5 ZONING

REQUIRED: 1.5 DEC. TREE/ 100 LF, 1 EVG. TREE/ 100 LF, AND 4 SHRUBS/ 100 LF OF PROPERTY LINE.

SOUTH: 130 LF/ 100 LF = 1.3 * 1.5 = 2 DEC., 1 EVG. TREE AND 4 SHRUBS

WEST: 139 LF/ 100 LF = 1.39 * 1.5 = 2 DEC., 1 EVG. TREE AND 4 SHRUBS.

PROVIDED: 8 SHRUBS.

*NOTE: DUE TO LACK OF SPACE ON SITE THE 4 DEC. AND 2 EVG. TREES REMAINING REQUIRED TREES THAT DO NOT FIT ON SITE, FUNDS TO PUT INTO TREE FUND.

LANDSCAPING AND BUFFERING FOR FB-3 OVERLAY DISTRICT

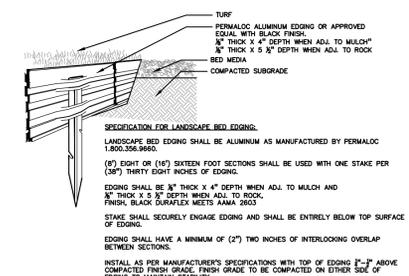
REQUIRED: 25' SETBACK FROM ARTERIAL STREETS WITH 10' BUFFER WIDTH. 2 DEC./100 LF, 4 ORN. TREES/100 LF, AND 12 SHRUBS/100 LF.

269/100 LF = 5 DEC., 11 ORN. TREES, AND 32 SHRUBS.

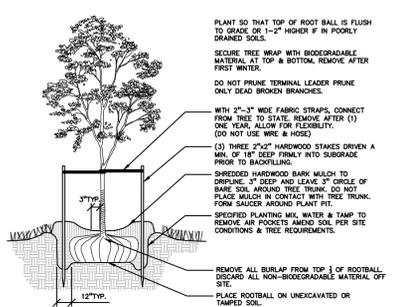
PROVIDED: 32 SHRUBS, 25 THAT DO NOT FIT BETWEEN PARKING LOT CURB AND SIDEWALK TO BE RELOCATED ELSEWHERE ON THE SITE (14 ALONG SOUTH PROPERTY AND 7 ALONG THE WEST).

*NOTE: DUE TO LACK OF SPACE ON SITE THE 5 DEC. AND 11 ORN. TREES REMAINING REQUIRED TREES THAT DO NOT FIT ON SITE, FUNDS TO PUT INTO TREE FUND.

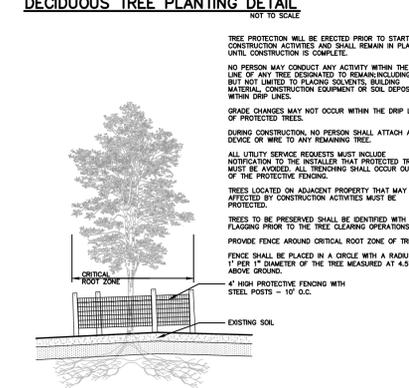
A TOTAL OF \$5,974 WILL BE CONTRIBUTED TO THE TREE FUND (AT \$206 PER TREE) IN LIEU OF 15 DEC., 12 ORN. AND 12 EVG. TREES THAT WILL NOT FIT ON SITE



ALUMINUM EDGE DETAIL



DECIDUOUS TREE PLANTING DETAIL

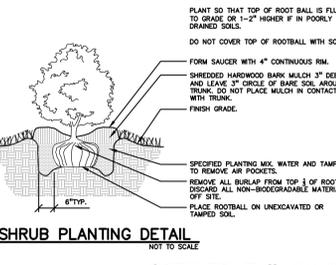


TREE PROTECTION DETAIL

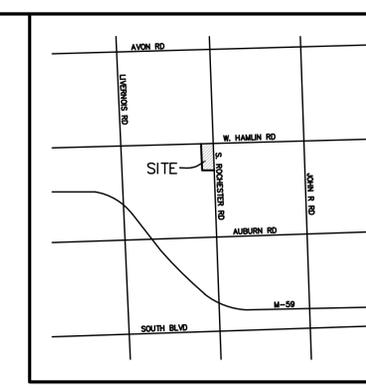
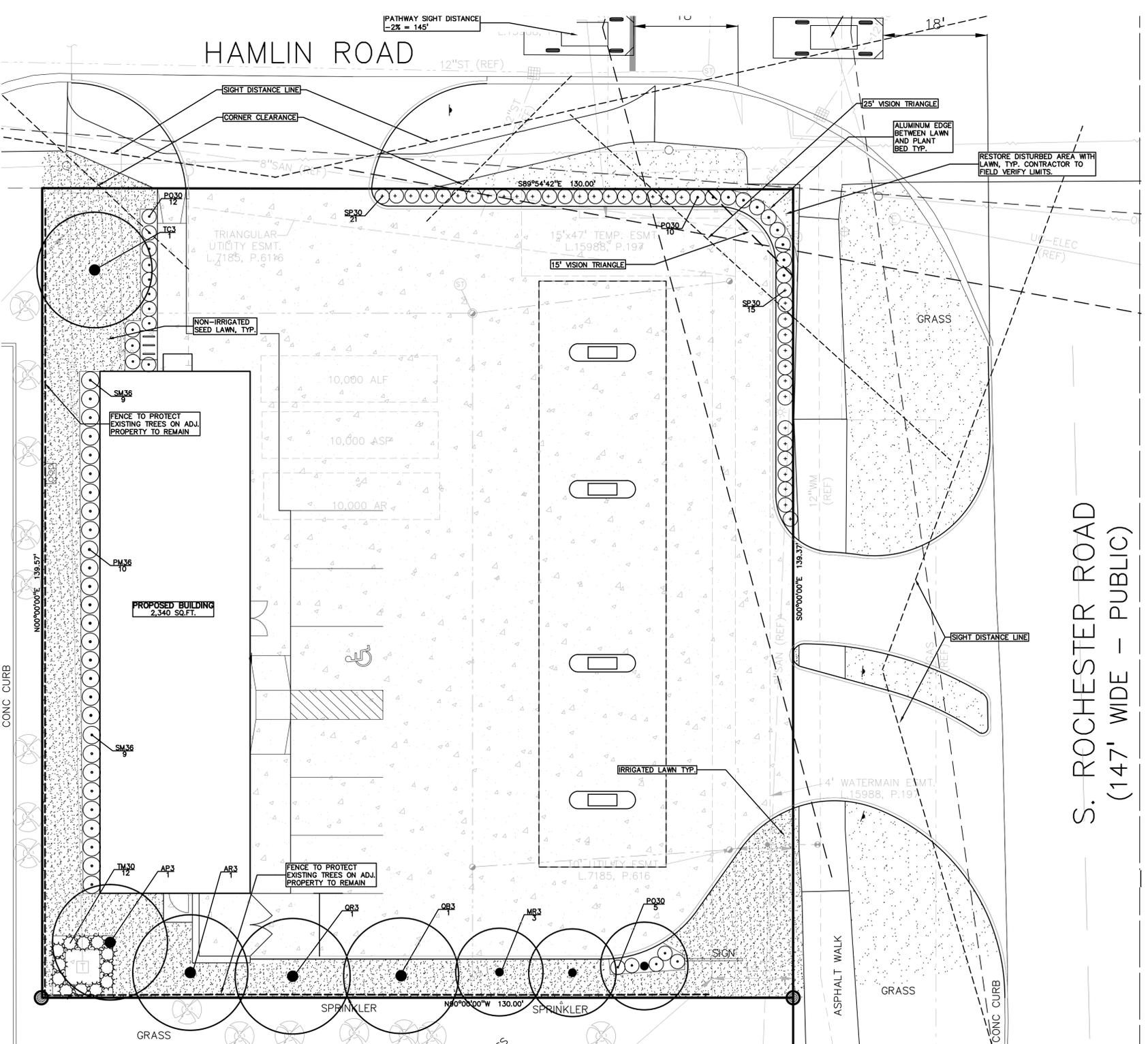


GENERAL PLANTING NOTES:

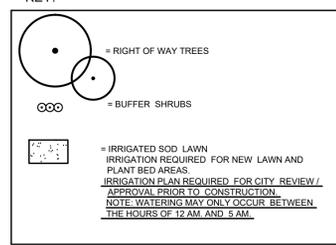
- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1 GRADE.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
- NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF EXISTING TREES.
- ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS.
- ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH, WITH PRE EMERGENT, SEE SPECIFICATIONS. SHREDDED PALLETTE AND DYED MULCH WILL NOT BE ACCEPTED.
- ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED TOPSOIL.
- SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.



SHRUB PLANTING DETAIL



KEY:



NO.	DATE	DESCRIPTION
1	04/13/17	ISSUED FOR PERMITS
2	04/13/17	REVISED PER PLANNING COMMENTS
3	04/13/17	REVISED PER PLANNING COMMENTS
4	04/13/17	REVISED PER PLANNING COMMENTS



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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ABRO DESIGN GROUP
30800 NORTHWESTERN HIGHWAY, SUITE 310
FARMINGTON HILLS, MI 48334
PRELIMINARY LANDSCAPE PLAN
2020 ROCHESTER RETAIL
PART OF THE NORTHEAST 1/4 OF SECTION 27, T. 3N., R. 11E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN
DES: DLB/DWJ/LDN DLB/DWJ/SUR DL P/M JPB

ORIGINAL ISSUE DATE:
FEBRUARY 16, 2016
PEA JOB NO. 2016-364
SCALE: 1" = 10'
DRAWING NUMBER:
L-1.0

CITY FILE #: 99-028.3
NOT FOR CONSTRUCTION

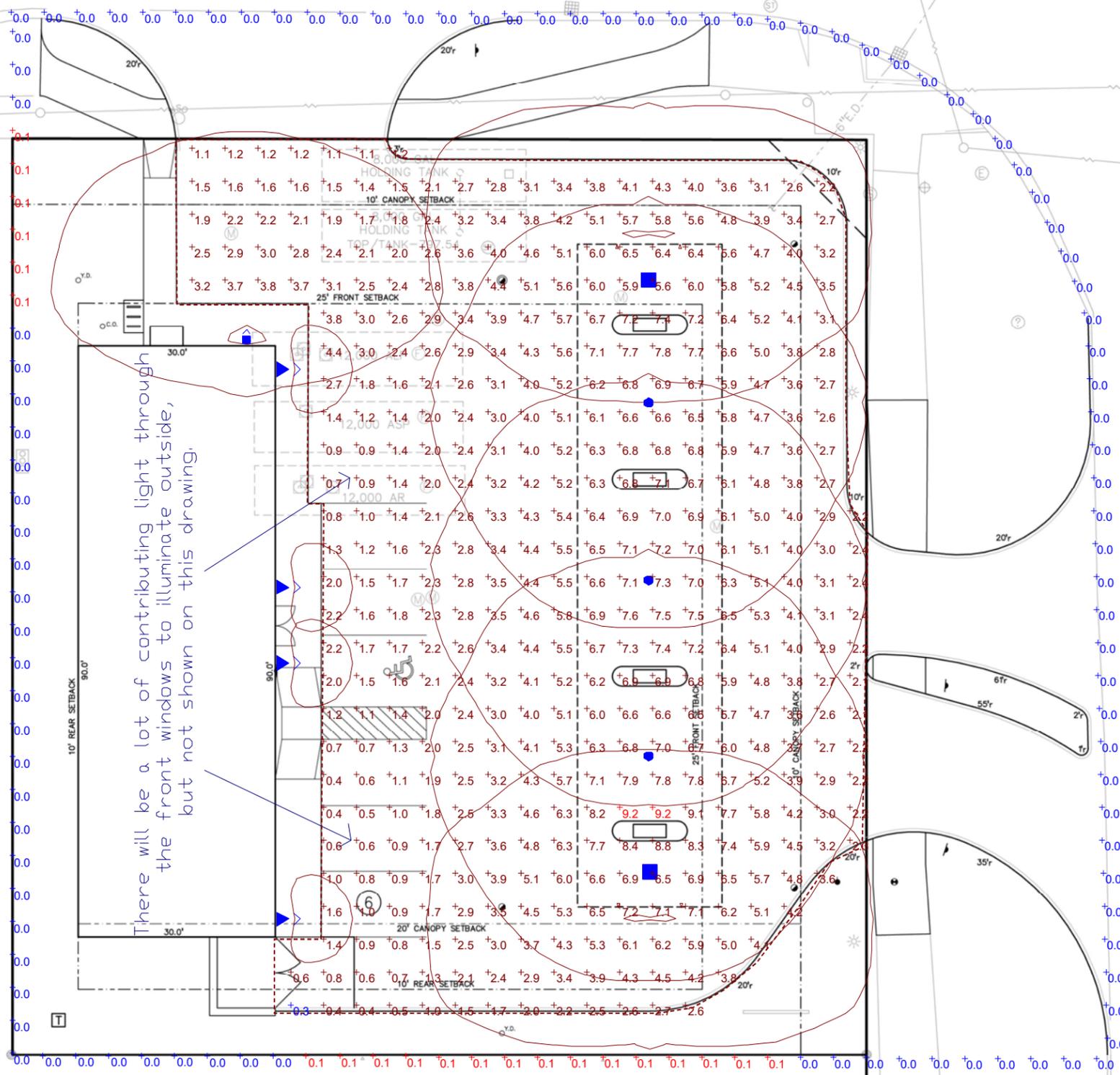
W. HAMLIN ROAD
(90' WIDE - PUBLIC)



2020 Rochester Road - Rochester Hills MI

Designer
A. Wood
Date
3/20/2017
Scale
As Shown
Drawing No.

Summary



S. ROCHESTER ROAD
(147' WIDE - PUBLIC)



2020 Rochester Road - Rochester Hills MI

Schedule									
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Lumens Per Lamp	Light Loss Factor	Wattage
	C3	2	PHILIPS GARDCO	SFC-3-80LA-CW	SFC WITH TYPE 3 OPTICS, NW, CLEAR GLASS LENS	LEDGINE 2.2 LIGHT ARRAY OF 48 LEDs (LUXEON R) DRIVEN AT 530mA	8198	0.95	80
	C5	3	PHILIPS GARDCO	SFC-5W-105LA-CW	SFC WITH TYPE 5W OPTICS, NW, CLEAR GLASS LENS	LEDGINE 2.2 LIGHT ARRAY OF 64 LEDs (LUXEON R) DRIVEN AT 530mA	10054	0.95	103.5
	WShb X	1	PHILIPS GARDCO	ECF-S-32L-530-CW-G2-4	EcoForm Area LED ECF - Small, 32 LEDs, 4000K, Type 4 Optics	(2) LEDGINE 3.1 LIGHT ARRAY OF 16 LEDs (LUXEON T) DRIVEN AT 530mA	6319	0.95	54
	WScnc	4	OCL ORIGINAL CAST LIGHTING INC - ST. LOUIS, MISSOURI	AUSW-18-7-X-1BQ-1	1/39W BIAX LAMP 4x6.75x18" VERTICAL WALL SCONCE LUMINAIRE ALUMINUM HOUSING w/WHITE REFLECTOR & ACRYLIC DIFFUSER UNIVERSAL BALLAST #C242UNVSE WATTS=31 REFL=88%		2850	0.85	31

Note

1. Canopy Lights at 14' above grade.
2. Wall mounted shoebox at 14' above grade.
3. Sconces at 6-8' above grade.

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking Lot	+	3.9 fc	9.2 fc	0.3 fc	30.7:1	13.0:1
Prop Line @ 5'	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A

Designer
A. Wood
Date
3/20/2017
Scale
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Drawing No.

Summary