

CAMDEN CROSSING

Submitted for Site Plan Review
9.36 ACRE DEVELOPMENT
Rochester Hills, Oakland County, Michigan

SECTION 22
TOWN 3 NORTH, RANGE 11 EAST

Site Data

THE CURRENT ZONING CLASSIFICATION IS R-3 WITH MIXED RESIDENTIAL OVERLAY
GROSS AREA 9.36 AC. NET AREA 9.36 AC.

LOT DENSITY

AREA = 9.36 AC
UNITS - 25 SINGLE FAMILY DETACHED CONDOMINIUMS
COVERAGE - 25/9.36 = 2.67 UNITS PER ACRE

SETBACKS

MR ZONING OVERLAY

FRONT: 35' FROM PROPERTY LINE
SIDE: 15' FROM PROPERTY LINE
REAR: 60' FROM PROPERTY LINE

SIDEWALK PROVIDED
ROADS ARE TO BE PRIVATE

LOCATION MAP



LOCATION MAP

LEGAL DESCRIPTION

15-22-451-029 LOT 15 EXCEPT THE NORTH 420.00 FT. OF "HAMLIN PLACE FARMS" A SUBDIVISION OF PART OF THE S.E. 1/4 OF SEC. 22 AND PART OF THE S.W. 1/4 OF SEC. 23, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN AS RECORDED IN L.15 OF PLATS, P.34, OAKLAND COUNTY RECORDS.

15-22-451-002 LOT 14 OF "HAMLIN PLACE FARMS" A SUBDIVISION OF PART OF THE S.E. 1/4 OF SEC. 22 AND PART OF THE S.W. 1/4 OF SEC. 23, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN AS RECORDED IN L.15 OF PLATS, P.34, OAKLAND COUNTY RECORDS.

PART OF 15-22-451-022 THE NORTH 404.00 FT. OF LOT 13 OF "HAMLIN PLACE FARMS" A SUBDIVISION OF PART OF THE S.E. 1/4 OF SEC. 22 AND PART OF THE S.W. 1/4 OF SEC. 23, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN AS RECORDED IN L.15 OF PLATS, P.34, OAKLAND COUNTY RECORDS.

SHEET INDEX

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C-02	SITE LAYOUT PLAN
C-03	GRADING PLAN
C-04	UTILITY PLAN
C-05	OVERALL DRAINAGE AREA PLAN
C-06	FIRE PROTECTION PLAN
C-07	DETAIL SHEET
C-08	DETAIL SHEET
C-09	ARCHITECTURAL DRAWINGS
C-10	ARCHITECTURAL DRAWINGS
C-11	ARCHITECTURAL DRAWINGS
LANDSCAPE SHEET INDEX	
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LA-1.0	LANDSCAPE CONCEPT & REQUIREMENTS
LA-1.1	LANDSCAPE PLANTING PLAN
LA-1.2	PATHWAY SIGHTLINE, CLEAR ZONE & PLANTING SETBACKS
LA-1.3	CAMDEN CROSSING PARKETTE
LA-1.4	AMENITIES
LA-1.5	SEEDING PLAN
LA-2.0	LANDSCAPE PLANTING DETAILS AND NOTES
LA-2.1	ADDITIONAL SPECS
IR-1.0	IRRIGATION PLAN - To be submitted at final

PROJECT TEAM

CLIENT / APPLICANT
M2J1, LLC.
JIM POLYZOIS
14955 Technology Dr.
SHELBY TWP, MICHIGAN 48315
PHONE: (586) 421-5729

PROJECT LANDSCAPE ARCHITECT/PLANNER
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PHONE: (248) 224-5933

CIVIL ENGINEER
ATWELL, LLC
ERIC LORD, P.E.
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SURVEYOR
REICHERT SURVEYING INC.
GEORGE H. REICHERT, P.S.
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HAMLIN RD.
SECTION 22, TOWN 3 NORTH, RANGE 11 EAST
ROCHESTER HILLS, MI

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14955 Technology Drive,
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Phone: (586)-421-5729

Date/Revisions
Date: 7/18/19 Preliminary Site Plan
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Designed/Drawn: RN / JN
Checked/Approved: JN / JN
Job #: N-01-38
N-01-38 LA Drawings Amenities + Specs.dwg



CITY REFERENCE NUMBER

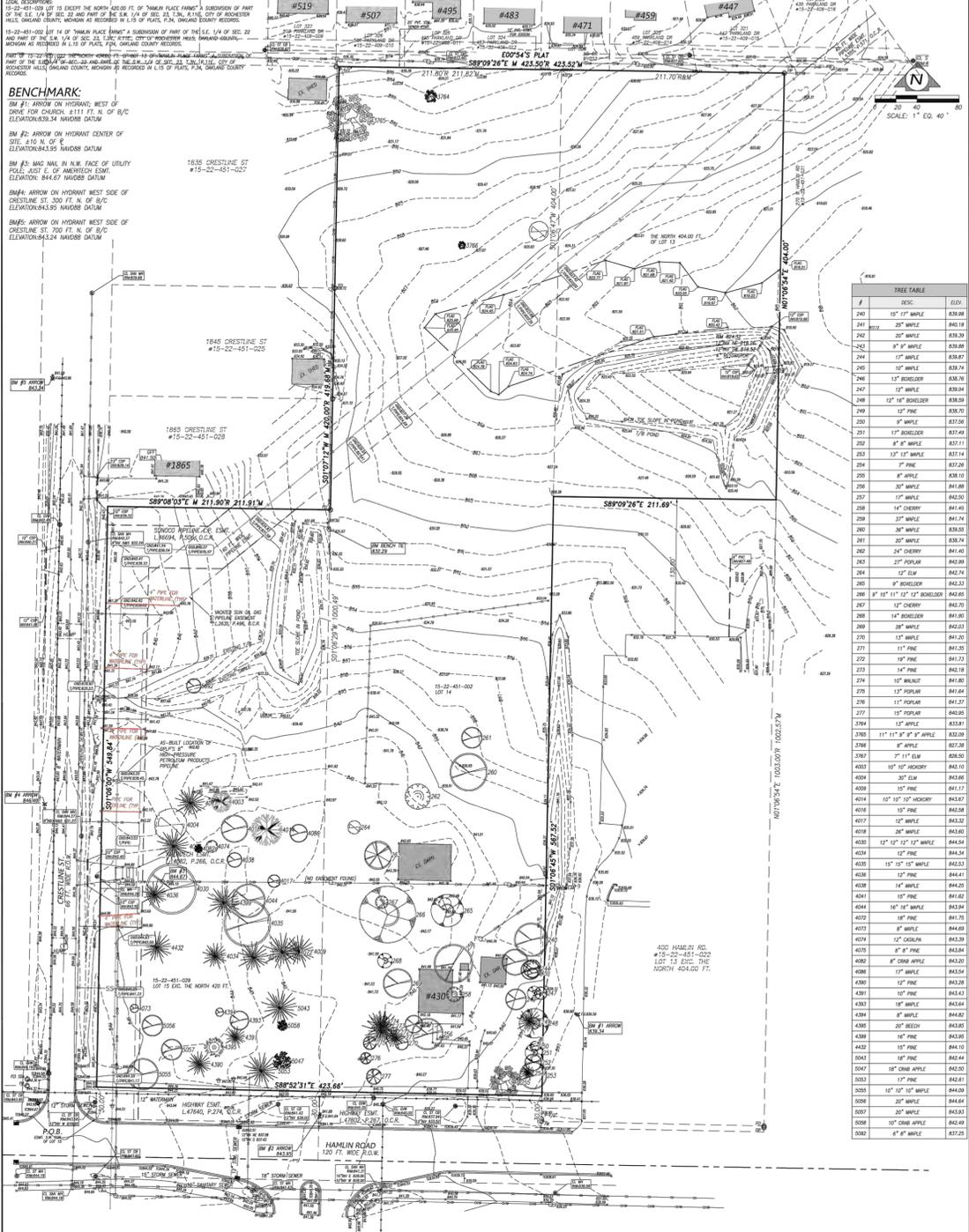
City File: #19-031 Section #: 22

COVER G-1.0

SHEET: 1
CITY FILE: #19-031
SECTION #: 22

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TOPOGRAPHICAL SURVEY



#	DESC.	ELEV.
240	15" 17" MAPLE	839.08
241	20" MAPLE	840.10
242	20" MAPLE	839.30
243	9" 8" MAPLE	839.88
244	17" MAPLE	839.87
245	10" MAPLE	839.74
246	12" BOXELDER	839.76
247	12" MAPLE	839.04
248	12" BOXELDER	839.09
249	12" PINE	839.70
250	9" MAPLE	837.90
251	17" BOXELDER	837.49
252	8" 8" MAPLE	837.11
253	13" 13" MAPLE	837.14
254	7" PINE	837.36
255	8" APPLE	836.10
256	30" MAPLE	841.88
257	17" MAPLE	842.00
258	14" CHERRY	841.40
259	20" MAPLE	841.74
260	30" MAPLE	839.05
261	20" MAPLE	838.74
262	24" CHERRY	841.40
263	27" BOXELDER	840.89
264	12" ELW	842.74
265	9" BOXELDER	842.33
266	8" 10" 11" 12" 13" BOXELDER	842.80
267	12" CHERRY	842.70
268	14" BOXELDER	841.90
269	20" MAPLE	842.03
270	12" MAPLE	841.20
271	17" PINE	841.30
272	10" PINE	841.73
273	14" PINE	842.18
274	10" MAPLE	841.80
275	12" PINE	841.60
276	12" POPLAR	842.37
277	15" POPLAR	841.95
278	12" MAPLE	841.80
279	12" POPLAR	842.10
280	20" ELW	842.90
281	10" 12" 13" 14" 15" 16" 17" 18" 19" 20" 21" 22" 23" 24" 25" 26" 27" 28" 29" 30" 31" 32" 33" 34" 35" 36" 37" 38" 39" 40" 41" 42" 43" 44" 45" 46" 47" 48" 49" 50" 51" 52" 53" 54" 55" 56" 57" 58" 59" 60" 61" 62" 63" 64" 65" 66" 67" 68" 69" 70" 71" 72" 73" 74" 75" 76" 77" 78" 79" 80" 81" 82" 83" 84" 85" 86" 87" 88" 89" 90" 91" 92" 93" 94" 95" 96" 97" 98" 99" 100"	842.10

LEGEND:

- EXISTING CONCRETE
- EXISTING PAPER STONE
- EXISTING BUILDING
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING LANDSCAPED AREA
- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING WATER SHUT OFF
- EXISTING GATE VALVE
- EXISTING HYDRANT
- EXISTING WATERMAIN
- EXISTING GAS SHUT OFF
- EXISTING SANITARY STRUCTURE
- EXISTING STORM STRUCTURE
- EXISTING DOWN SPOUT
- EXISTING UTILITY PEDESTAL
- EXISTING BOULDER RET. WALL
- EXISTING WELL
- EXISTING GRADE
- EXISTING SANITARY STRUCTURE
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED SILT FENCE
- PROP. DRAINAGE ARROW
- PROP. MAJOR CONTOURS
- PROP. MINOR CONTOURS

3 FULL WORKING DAYS BEFORE YOU DIG CALL 811

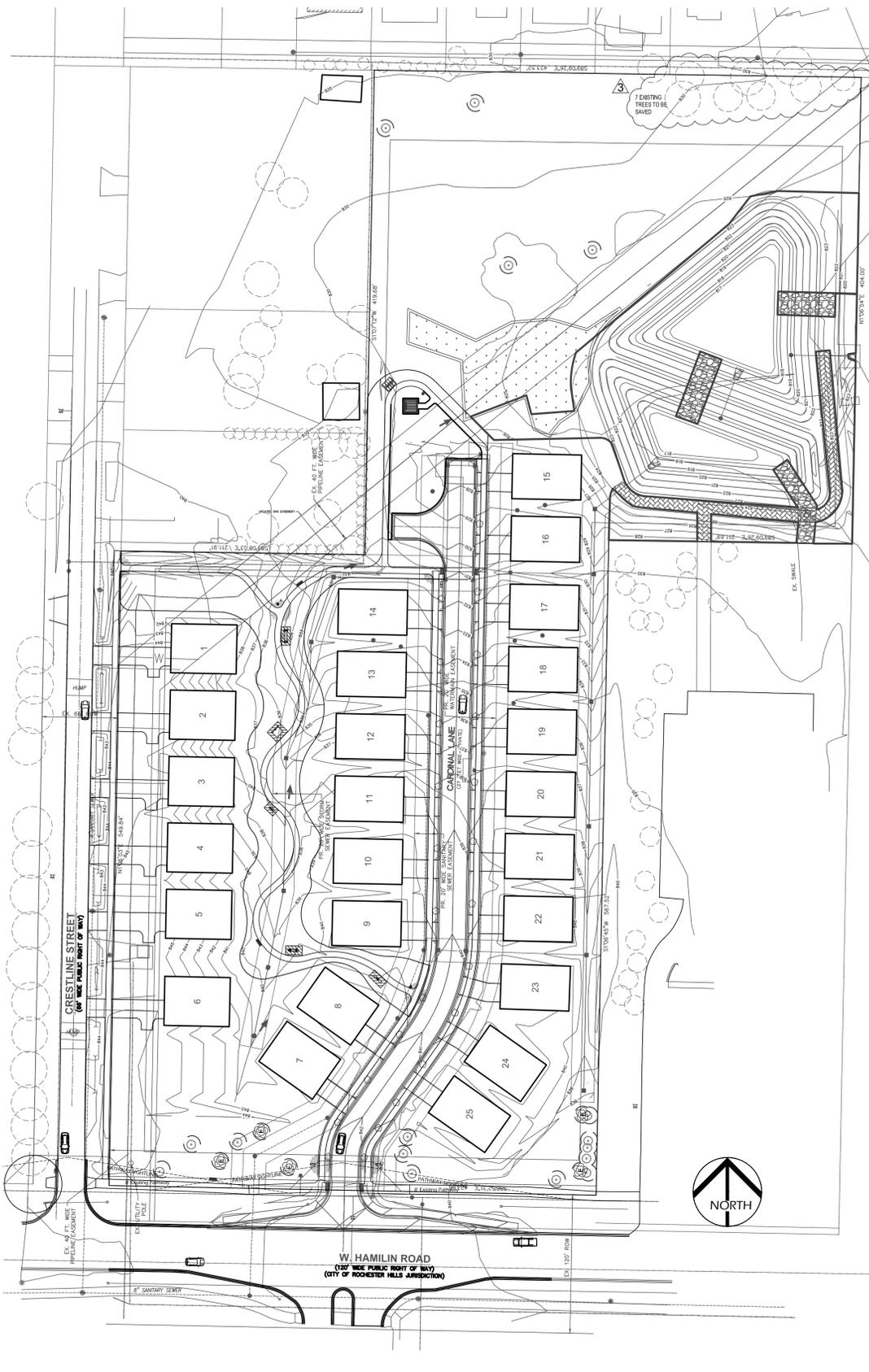
Know what's below
Call before you dig
MISSISSIPPI STATE, INC.
1.800.452.7171 www.missig.net

DATE: 4-19-19 SCALE: 1"=40' DRAWN: B.G.R.
JOB # 602-009 SHEET: 1 OF 1 CHECK: G.H.R.

PREPARED FOR:
CRESTLINE HAMLIN LLC
140 FLUMERFELT LANE
ROCHESTER, MI 48306
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GEORGE H. REICHERT
PROFESSIONAL SURVEYOR
No. 10826



#	Description
248	12" 16" Boxelder
249	12" Pine
250	9" Maple
251	17" Boxelder
252	8" 8" Maple
253	13" 13" Maple
254	7" Pine
255	8" Apple
275	13" Poplar
276	11" Poplar
277	15" Poplar
3764	13" Apple
3765	11" 11" 9" 9" 9" Apple
3766	8" Apple
3767	7" 11" Elm
4390	12" Pine
4391	10" Pine
4395	20" Beech
5053	17" Pine
5055	10" 10" 10" Maple
5057	20" Maple

THE SITE WAS SUBMITTED PRIOR TO THE ADOPTION OF THE LATEST TREE PRESERVATION ORDINANCE

TREE SYMBOL LEGEND:

- Deciduous Tree - Saved Tree Protection Fencing
- Evergreen Tree - Saved Tree Protection Fencing
- Existing Trees - Located from aerial

TREE PRESERVATION: LIST OF TREES SAVED ON SITE

#	Description
248	12" 16" Boxelder
249	12" Pine
250	9" Maple
251	17" Boxelder
252	8" 8" Maple
253	13" 13" Maple
254	7" Pine
255	8" Apple
275	13" Poplar
276	11" Poplar
277	15" Poplar
3764	13" Apple
3765	11" 11" 9" 9" 9" Apple
3766	8" Apple
3767	7" 11" Elm
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4391	10" Pine
4395	20" Beech
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5055	10" 10" 10" Maple
5057	20" Maple



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PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

M2J1, LLC
Jim Polyzois
14955 Technology Drive,
Shelby Twp., MI 48315
Phone: (586)-421-5729

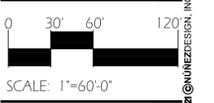
Date/Revisions

Date: 7/18/19 Preliminary Site Plan

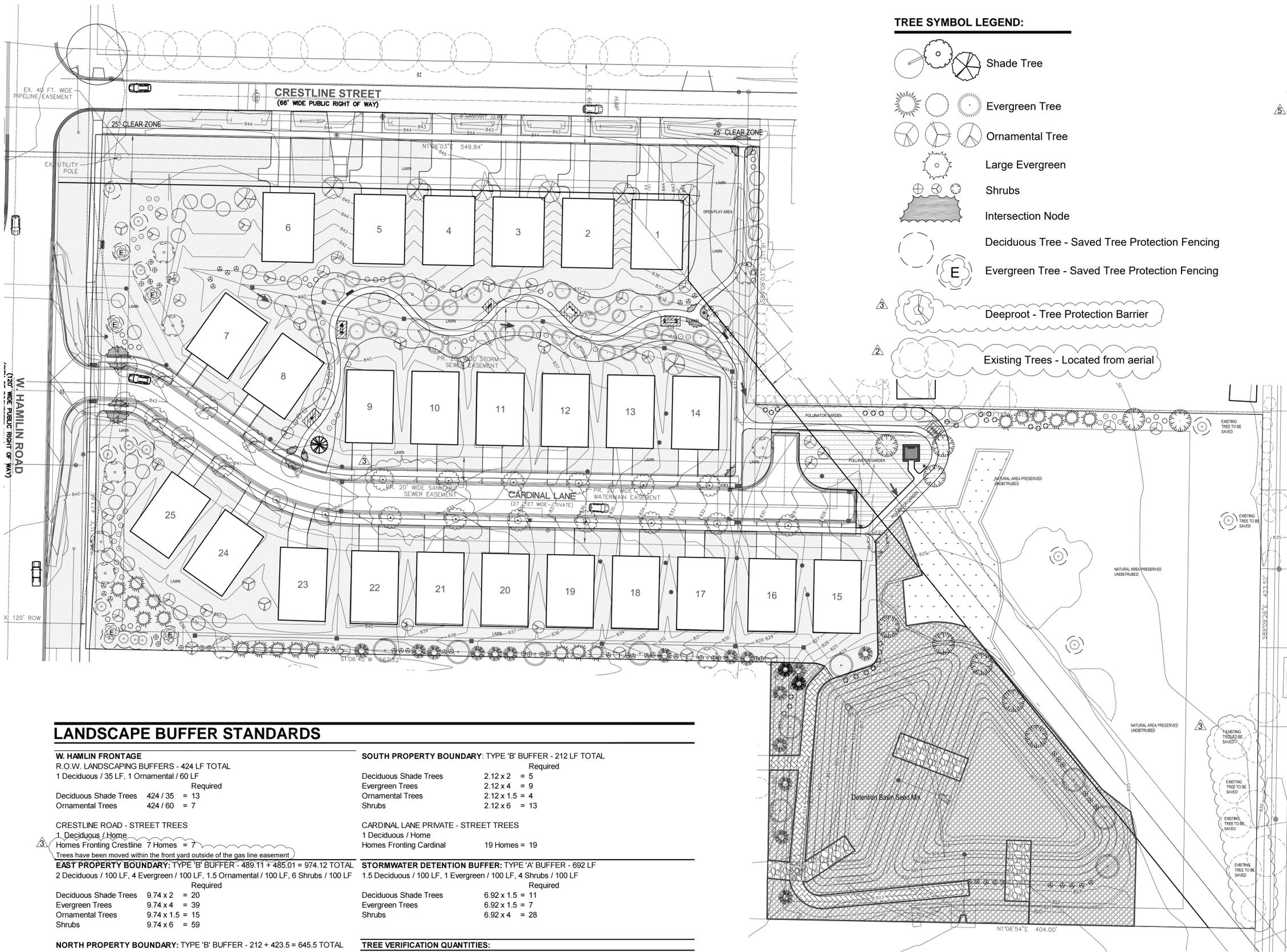
1	6/15/2020 PC Submittal
2	1/7/2021 PC Submittal
3	7/19/2021 PC Submittal - Preliminary Site Review #3
4	9/23/2021 PC Submittal - Preliminary & Final
5	11/1/2021 PC Comments



Designed/Drawn: RN / JN
Checked/Approved: JN / JN
Job #: 21-01-38
N-01-98 LA PC Revisions.dwg



SHEET:
CITY FILE: #19-031
SECTION #: 22



TREE SYMBOL LEGEND:

- Shade Tree
- Evergreen Tree
- Ornamental Tree
- Large Evergreen
- Shrubs
- Intersection Node
- Deciduous Tree - Saved Tree Protection Fencing
- Evergreen Tree - Saved Tree Protection Fencing
- Deeproot - Tree Protection Barrier
- Existing Trees - Located from aerial

OPEN SPACE REQUIRED:

ACTIVE OPEN SPACE = 5% OF GROSS SITE
 AREA 9.36 AC. = 407,721.6 S.F. x 5%
 Required = 20,386 S.F.

ACTIVE SPACE AREA
 Provided = 40,630 S.F.

**CITY OF ROCHESTER HILLS
 PLANT MATERIAL REQUIREMENTS:**

PLANTS	REQUIRED
DECIDUOUS SHADE TREES	3 CALIPER INCHES
EVERGREEN TREES	10' HEIGHT AND 5' SPREAD
ORNAMENTAL TREES	2 CALIPER INCHES OR 6" OVERALL HT.
SHRUBS	30" HEIGHT, 24" SPREAD
SHRUBS	When used for screening or buffering purposes, 3 GALLON CONTAINED SIZE WHEN USED FOR OTHER PURPOSES
GROUNDCOVERS	SHALL BE FROM FLATS

DECIDUOUS TREES AND SHRUBS MINIMUM DISTANCE FROM PUBLIC WALK IS 5 FEET
 EVERGREEN TREES AND ORNAMENTAL TREES MINIMUM DISTANCE FROM PUBLIC WALK IS 10 FEET

FOUNDATION LANDSCAPE DESIGN WILL BE PROVIDED BY THE HOME BUYER

COST ESTIMATE AND IRRIGATION PLANS ARE PROVIDED

IF REQUIRED TREES CANNOT BE PLANTED DUE TO INFRASTRUCTURE CONFLICTS, A PAYMENT IN LIEU OF MAY BE MADE TO THE CITY'S TREE FUND AT A RATE OF \$304.00 PER TREE

PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTINGS

AN AUTOMATIC IRRIGATION SYSTEM IS INCLUDED FOR ALL LANDSCAPE AREAS AS REQUIRED BY THE CITY OF ROCHESTER HILLS

ALL LAWN AND PLANT BED AREAS TO BE IRRIGATED BETWEEN THE HOURS OF 12 AM AND 5 AM ONLY

IRRIGATION OVERSPRAY SHALL NOT BROADCAST ONTO THE CITY PATHWAY

TREE REPLACEMENT QUALIFICATIONS

THE SITE WAS SUBMITTED PRIOR TO THE ADOPTION OF THE LATEST TREE PRESERVATION ORDINANCE

LANDSCAPE BUFFER STANDARDS

W. HAMLIN FRONTAGE

R.O.W. LANDSCAPING BUFFERS - 424 LF TOTAL
 1 Deciduous / 35 LF, 1 Ornamental / 60 LF

Required
 Deciduous Shade Trees 424 / 35 = 13
 Ornamental Trees 424 / 60 = 7

CRESTLINE ROAD - STREET TREES

1 Deciduous / Home
 Homes Fronting Crestline - 7 Homes = 7
 Trees have been moved within the front yard outside of the gas line easement

EAST PROPERTY BOUNDARY: TYPE 'B' BUFFER - 489.11 + 485.01 = 974.12 TOTAL
 2 Deciduous / 100 LF, 4 Evergreen / 100 LF, 1.5 Ornamental / 100 LF, 6 Shrubs / 100 LF

Required
 Deciduous Shade Trees 9.74 x 2 = 20
 Evergreen Trees 9.74 x 4 = 39
 Ornamental Trees 9.74 x 1.5 = 15
 Shrubs 9.74 x 6 = 59

NORTH PROPERTY BOUNDARY: TYPE 'B' BUFFER - 212 + 423.5 = 645.5 TOTAL

Required
 Deciduous Shade Trees 6.45 x 2 = 13
 Evergreen Trees 6.45 x 4 = 26
 Ornamental Trees 6.45 x 1.5 = 10
 Shrubs 6.45 x 6 = 29

WEST PROPERTY BOUNDARY: TYPE 'B' BUFFER - 420 TOTAL

Required
 Deciduous Shade Trees 4.2 x 2 = 9
 Evergreen Trees 4.2 x 4 = 17
 Ornamental Trees 4.2 x 1.5 = 7
 Shrubs 4.2 x 6 = 26

SOUTH PROPERTY BOUNDARY: TYPE 'B' BUFFER - 212 LF TOTAL

Required
 Deciduous Shade Trees 2.12 x 2 = 5
 Evergreen Trees 2.12 x 4 = 9
 Ornamental Trees 2.12 x 1.5 = 4
 Shrubs 2.12 x 6 = 13

CARDINAL LANE PRIVATE - STREET TREES

1 Deciduous / Home
 Homes Fronting Cardinal 19 Homes = 19

STORMWATER DETENTION BUFFER: TYPE 'A' BUFFER - 692 LF
 1.5 Deciduous / 100 LF, 1 Evergreen / 100 LF, 4 Shrubs / 100 LF

Required
 Deciduous Shade Trees 6.92 x 1.5 = 11
 Evergreen Trees 6.92 x 1.5 = 7
 Shrubs 6.92 x 4 = 28

TREE VERIFICATION QUANTITIES:

	Required	Existing Trees	Proposed Trees	Totals On Plan (Existing + Proposed)
TOTAL Deciduous Shade Trees	97	16	84	100
TOTAL Evergreen Trees	98	5	94	99
TOTAL Ornamental Trees	43	-	43	43
TOTAL Shrubs	155	-	155	155



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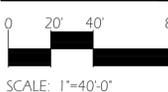
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 Jim Polyzois
 14955 Technology Drive,
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 Phone: (586)-421-5729

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Designed/Drawn: RN / JN
 Checked/Approved: JN / JN
 Job #: N-01-38
 N-01-38 LA PC Revisions.dwg



SHEET:
 LA -1.0



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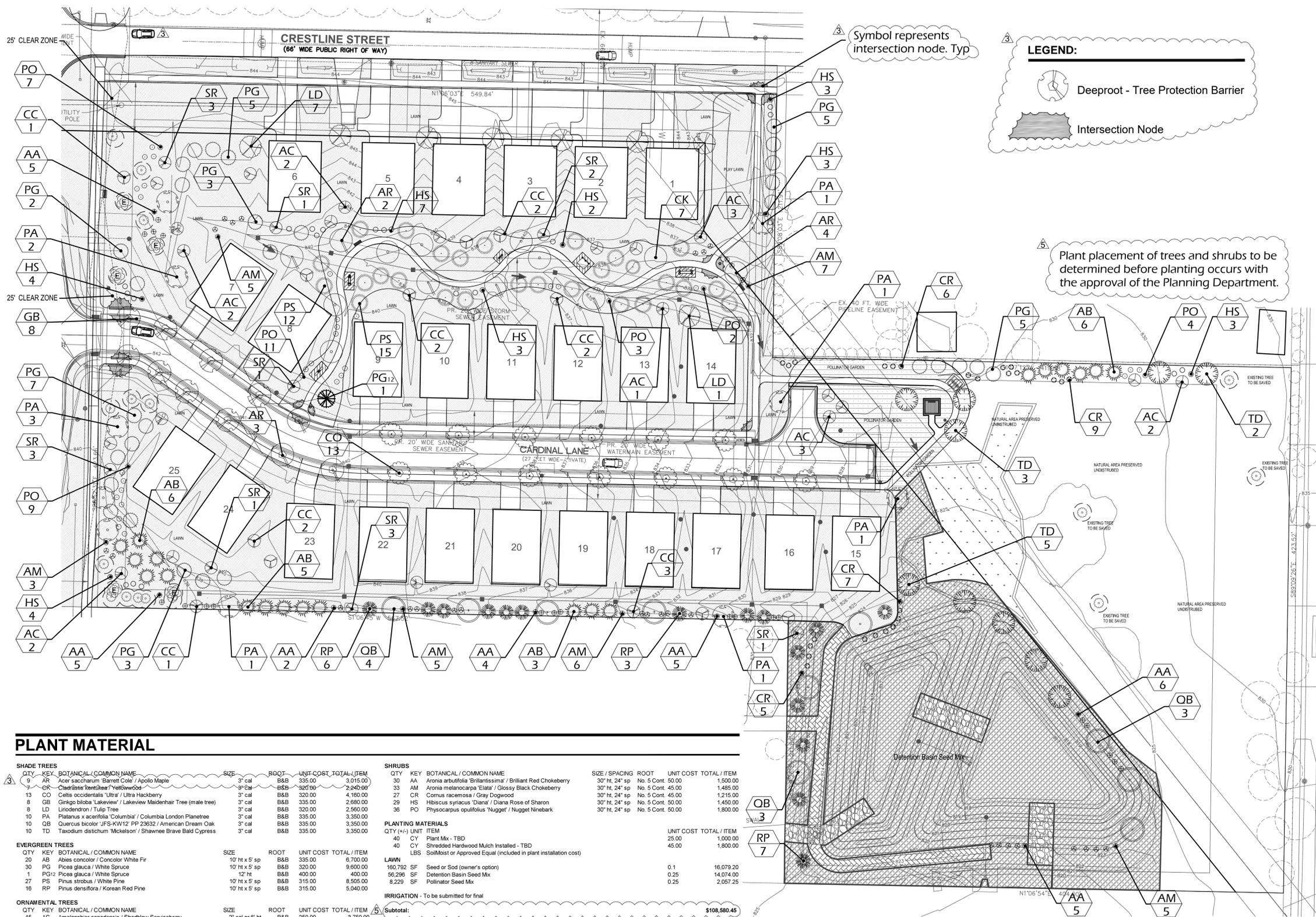
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 Checked/Approved: JN / JN
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 N-01-08 LA PC Revisions.dwg



SCALE: 1"=40'-0"

SHEET:
 LA -1.1

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.



LEGEND:

- Deeproot - Tree Protection Barrier
- Intersection Node

Plant placement of trees and shrubs to be determined before planting occurs with the approval of the Planning Department.

**CITY OF ROCHESTER HILLS
 PLANT MATERIAL REQUIREMENTS:**

PLANTS	REQUIRED
DECIDUOUS SHADE TREES	3 CALIPER INCHES
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PLANT MATERIAL

SHADE TREES			
QTY	KEY BOTANICAL / COMMON NAME	SIZE	ROOT UNIT COST TOTAL / ITEM
9	AR Acer saccharum 'Barrett Cole' / Apollo Maple	3" cal B&B	335.00 3,015.00
7	CR Chaetothus 'Hartwegii' / Yellow Dogwood	3" cal B&B	320.00 2,240.00
13	CO Celtis occidentalis 'Ultra' / Ultra Hackberry	3" cal B&B	320.00 4,160.00
8	GB Ginkgo biloba 'Lakeview' / Lakeview Maidenhair Tree (male tree)	3" cal B&B	335.00 2,680.00
8	LD Liriodendron / Tulip Tree	3" cal B&B	320.00 2,560.00
10	PA Platanus x acerifolia 'Columbia' / Columbia London Planetree	3" cal B&B	335.00 3,350.00
10	QB Quercus bicolor 'JFS-KW12' PP 23632 / American Dream Oak	3" cal B&B	335.00 3,350.00
10	TD Taxodium distichum 'Mckelson' / Shawnee Brave Bald Cypress	3" cal B&B	335.00 3,350.00
EVERGREEN TREES			
QTY	KEY BOTANICAL / COMMON NAME	SIZE	ROOT UNIT COST TOTAL / ITEM
20	AB Abies concolor / Concolor White Fir	10' ht x 5' sp B&B	335.00 6,700.00
30	PG Picea glauca / White Spruce	10' ht x 5' sp B&B	320.00 9,600.00
1	PG12 Picea glauca / White Spruce	12" ht B&B	400.00 400.00
27	PS Pinus strobus / White Pine	10' ht x 5' sp B&B	315.00 8,505.00
16	RP Pinus densiflora / Korean Red Pine	10' ht x 5' sp B&B	315.00 5,040.00
ORNAMENTAL TREES			
QTY	KEY BOTANICAL / COMMON NAME	SIZE	ROOT UNIT COST TOTAL / ITEM
15	AC Amelanchier canadensis / Shadblow Serviceberry	2" cal or 6" ht B&B	250.00 3,750.00
13	CC Cercis canadensis / Eastern Redbud	2" cal or 6" ht B&B	265.00 3,445.00
15	SR Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	2" cal or 6" ht B&B	265.00 3,975.00
SHRUBS			
QTY	KEY BOTANICAL / COMMON NAME	SIZE / SPACING	ROOT UNIT COST TOTAL / ITEM
30	AA Aronia arbutifolia 'Brilliantissima' / Brilliant Red Chokeberry	30" ht, 24" sp No. 5 Cont.	50.00 1,500.00
33	AM Aronia melanocarpa 'Elate' / Glossy Black Chokeberry	30" ht, 24" sp No. 5 Cont.	45.00 1,485.00
27	CR Cornus racemosa / Gray Dogwood	30" ht, 24" sp No. 5 Cont.	45.00 1,215.00
29	HS Hibiscus syriacus 'Diana' / Diana Rose of Sharon	30" ht, 24" sp No. 5 Cont.	50.00 1,450.00
36	PO Physocarpus opulifolius 'Nugget' / Nugget Ninebark	30" ht, 24" sp No. 5 Cont.	50.00 1,800.00
PLANTING MATERIALS			
QTY (+/-)	UNIT	ITEM	UNIT COST TOTAL / ITEM
40	CY	Plant Mx - TBD	25.00 1,000.00
40	CY	Shredded Hardwood Mulch Installed - TBD	45.00 1,800.00
180,792	SF	Seed or Sod (owner's option)	0.1 16,079.20
56,296	SF	Detention Basin Seed Mx	0.25 14,074.00
8,229	SF	Pollinator Seed Mx	0.25 2,057.25
IRRIGATION - To be submitted for final			
Subtotal:			\$108,580.45



ALL SIGNS MUST MEET THE REQUIREMENTS OF THE CITY AND BE APPROVED UNDER SEPARATE PERMITS ISSUED BY THE BUILDING DEPARTMENT

NO LARGE SHRUBS OR TREES TO BE PLANTED WITHIN THE VISIBILITY SIGHTLINES FOR THE PEDESTRIAN PATHWAY, PUBLIC WALK OR WITHIN THE VISIBILITY SIGHTLINE FOR VEHICULAR TRAFFIC.

THE MATURE MAXIMUM HEIGHT FOR ALL GROUNDCOVERS AND PLANTINGS WITHIN THE 25' CLEAR ZONE IS 30" IN HEIGHT UNMAINTAINED.

A CITY RIGHT-OF-WAY PERMIT IS REQUIRED FOR WORK WITHIN W. HAMLIN ROAD AND CRESTLINE STREET.

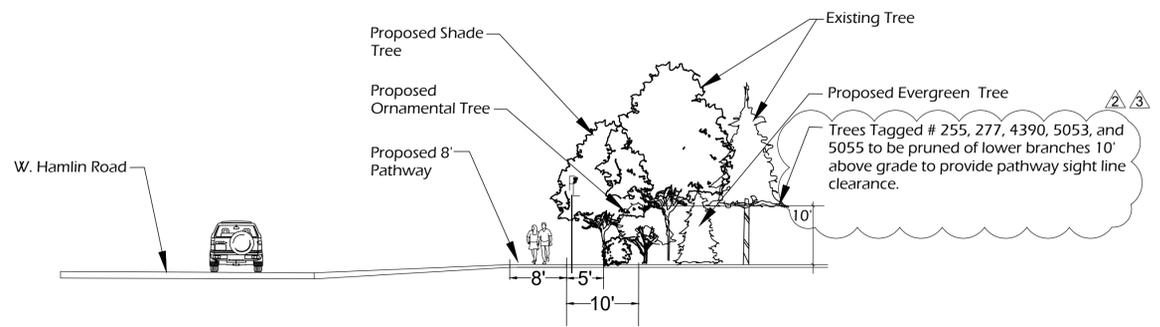
CITY SHALL FURNISH AND PLACE ALL PERMANENT R.O.W. STREET SIGNS WITH MONIES PAID BY DEVELOPER.

PLANTING SETBACK REQUIREMENTS:

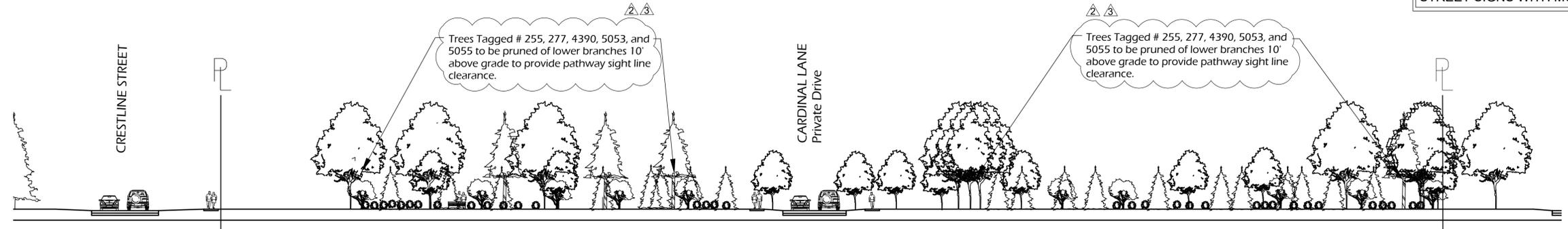
15' PLANTING SETBACK LINE FROM PROPOSED OVERHEAD UTILITY LINE AND EXISTING OVERHEAD UTILITY LINE. ALL EVERGREEN AND DECIDUOUS TREES MUST BE FIELD VERIFIED AND PLANTED A MINIMUM OF 15' FROM OVERHEAD UTILITY LINES.

10' PLANTING SETBACK LINE
 ORNAMENTAL TREES AND EVERGREEN TREES MUST BE PLANTED A MINIMUM OF 10' FROM A WALK OR PEDESTRIAN PATHWAY

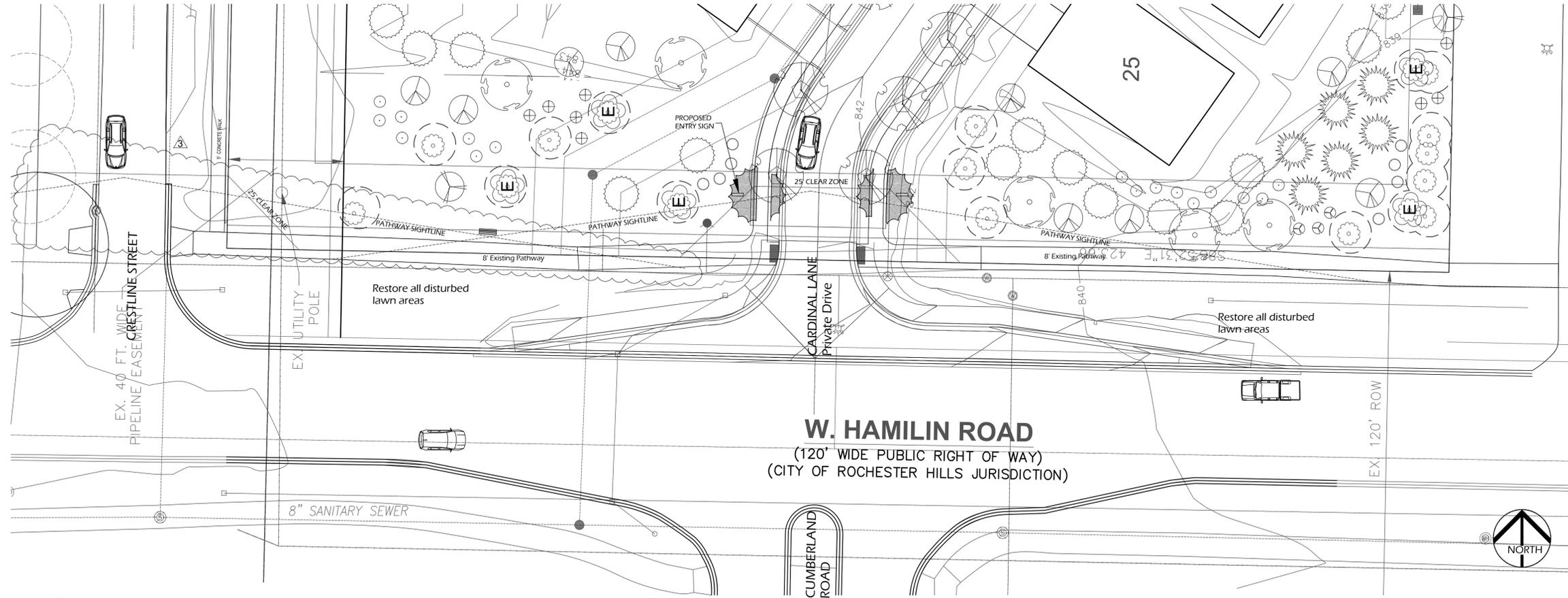
5' PLANTING SETBACK FOR SHRUBS AND DECIDUOUS TREES FROM A PUBLIC WALK OR PEDESTRIAN PATHWAY.
 (5' SETBACK APPLIES TO DECIDUOUS TREES IF NO OVERHEAD UTILITIES EXIST)



3 W. HAMLIN ROAD LANDSCAPE FRONTAGE SECTION NTS
 LA-1.2



2 W. HAMLIN ROAD LANDSCAPE ELEVATION SCALE 1" = 20'-0"
 LA-1.2

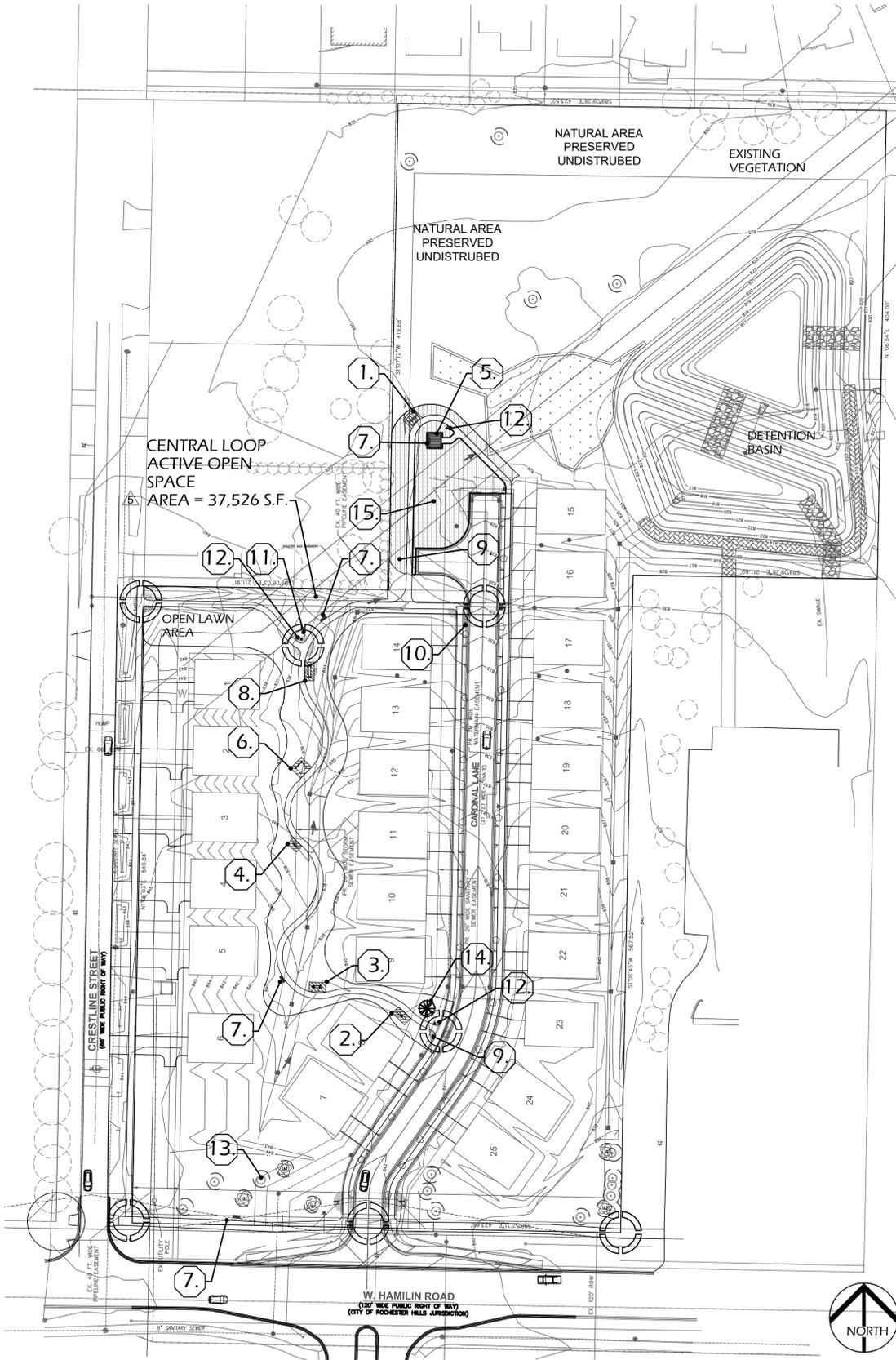


1 W. HAMLIN ROAD LANDSCAPE FRONTAGE SCALE 1" = 20'-0"
 LA-1.2

TREE SYMBOL LEGEND:

- Shade Tree
- Evergreen Tree
- Ornamental Tree
- Large Evergreen
- Shrubs
- Intersection Node
- Deciduous Tree - Saved
- Tree Protection Fencing
- Evergreen Tree - Saved
- Tree Protection Fencing
- Existing Trees - Located from aerial

Date/Revisions
7/18/19 Preliminary Site Plan
5/15/2020 PC Submittal
1/7/2021 PC Submittal
7/19/2021 PC Submittal - Preliminary Site Review #3
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1 LA-1.3 PARKETTE AMENITY PLAN

CAMDEN CROSSING PARKETTE:

ACTIVE OPEN SPACE
 AREA PROVIDED = 40,630 S.F.

5% Required = 20,386 S.F.

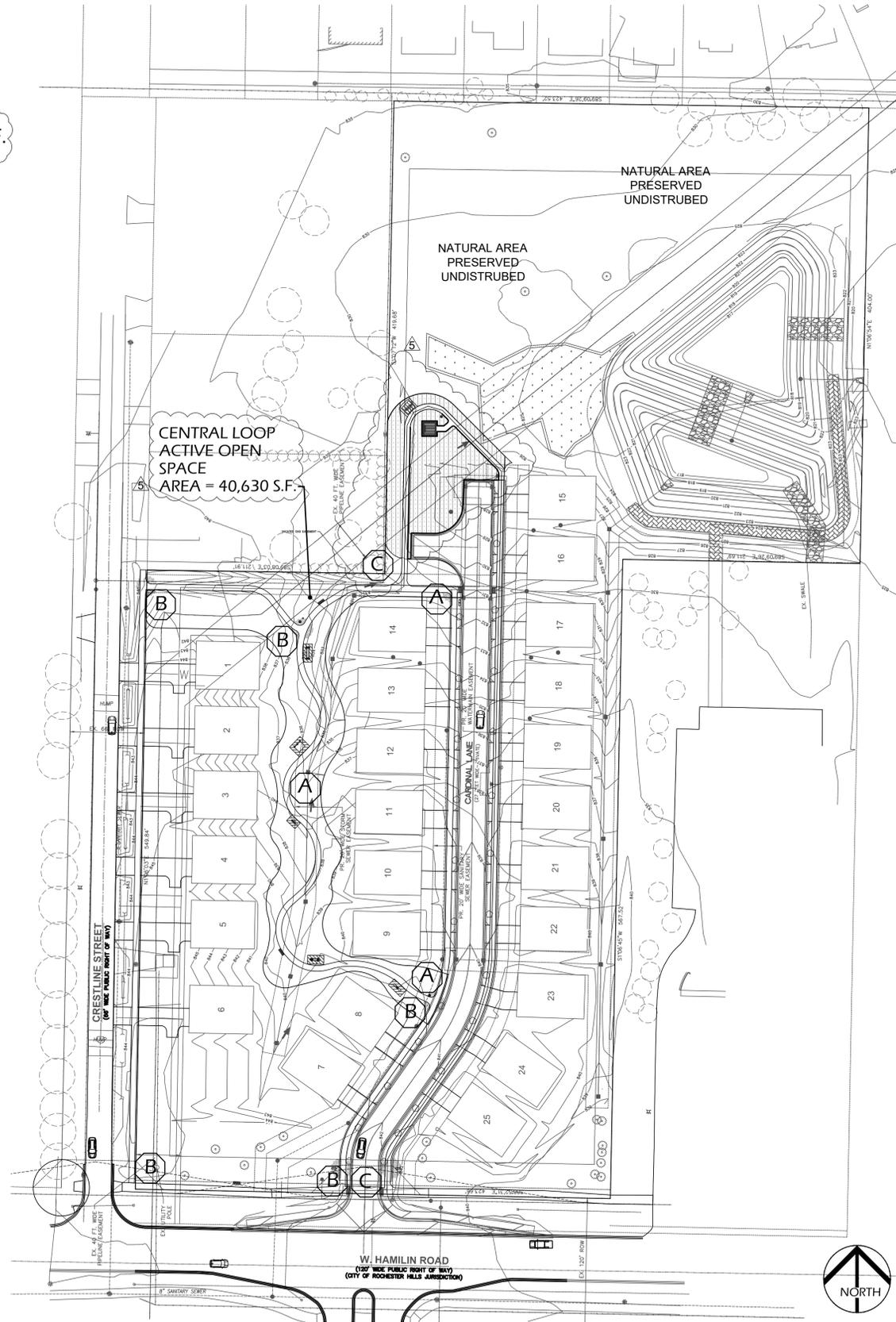
LEGEND: PARKETTE

1. BENCH SWING
 2. KNEE LIFT STATION
 3. SIT-UP STATION
 4. BALANCE PLANK STATION
 5. 12' x 12' PERGOLA
 6. PUSH-UP STATION
 7. BENCH
 8. PARALLEL BAR STATION
 9. WOODEN BIRD HOUSE
 10. MAILBOXES
 11. DOG WASTE STATION
 12. TRASH RECEPTACLE
 13. BAT HOUSE
 14. HOLIDAY TREE
 15. POLLINATOR GARDEN
- PARKETTE ACCESS

NOTE: REFER TO SHEET LA-1.4 FOR AMENITY DETAILS

LEGEND: CIRCULATION

- 1,020 L.F.
- 1,540 L.F.
- 1,983 L.F.



2 LA-1.3 PEDESTRIAN CIRCULATION PLAN



1 BENCH SWING
LA-1.4



2 KNEE LIFT STATION
LA-1.4



3 SIT-UP STATION
LA-1.4



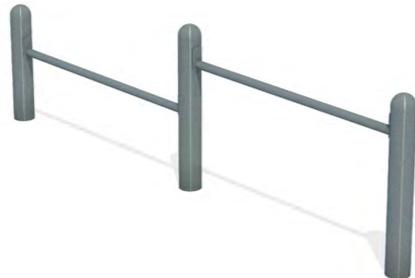
4 BALANCE PLANK STATION
LA-1.4



5 12' x 12' PERGOLA
LA-1.4



6 PUSH-UP STATION
LA-1.4



7 BENCH
LA-1.4



8 PARALLEL BAR STATION
LA-1.4



9 BIRDHOUSES
LA-1.4



10 MAILBOX DETAIL
LA-1.4



11 PET WASTE STATION
LA-1.4



12 TRASH RECEPTACLE
LA-1.4



13 BAT HOUSE
LA-1.4

SITE AMENITIES

KEY	ITEM	MANUFACTURER	PRODUCT #	COLOR	QTY.
1	Steel Contour Swing Bench	Belson Outdoors	967-VW6	Black	1
2	Knee Lift Station	GameTime	13574	Black	1
3	Sit-Up Station	GameTime	13570	Black	1
4	Balance Plank Station	GameTime	13279	Black	1
5	12' x 12' Wooden Pergola	Yardistry	YM12775	Wood	1
6	Push-Up Station	GameTime	13571	Black	1
7	Green Brook Park Bench	OCC Outdoors	GB-BEN-6	Black	4
8	Parallel Bar Station	GameTime	13572	Black	1
9	Heartwood Birdwampus Bird House	bestnest.com	HW-247D	Turquoise	1
9	Heartwood Lord of the Wing Bird House	bestnest.com	HW-195A	Blue	1
9	Heartwood Prairie Home Bird House	bestnest.com	HW-183B	Blue	1
10	Cluster Mailbox	Florence Corporation	1570-13	Black	2
11	Dog Waste Station	Dog Waste Depot	Depot 022	Black	2
12	Trash Receptacle	OCC Outdoors	Rec-S8292A-04	Dark Granite 174	3
13	Bat House	batsbirdyard.com		Cedar	2

OR APPROVED EQUAL ON ALL AMENITY LISTINGS



CAMDEN CROSSING
HAMLIN RD.
SECTION 22, TOWN 3 NORTH, RANGE 11 EAST
ROCHESTER HILLS, MI

M2J1, LLC
Jim Polyzois
14955 Technology Drive,
Shelby Twp., MI 48315
Phone: (586)-421-5729

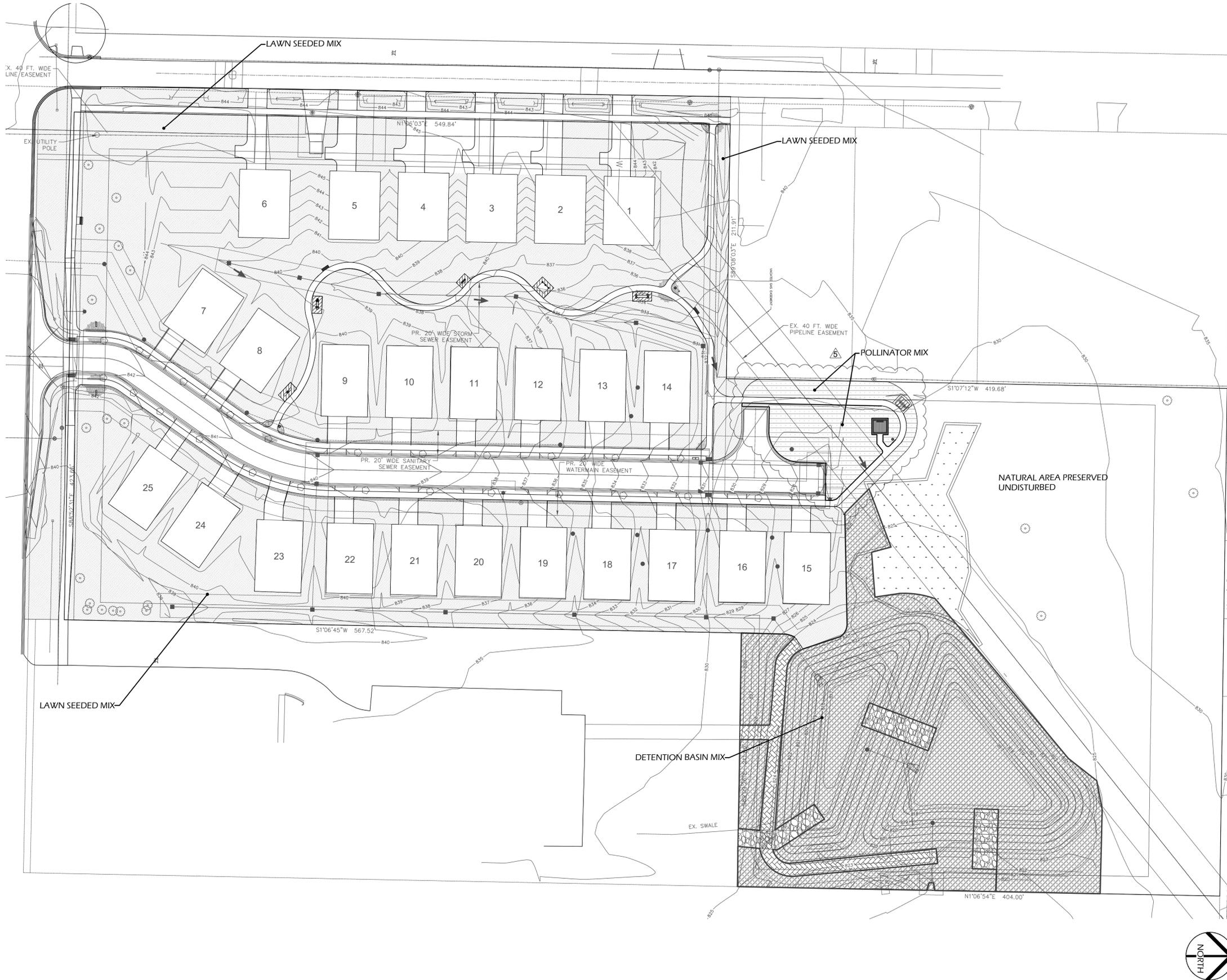
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NÚÑEZ DESIGN
LANDSCAPE ARCHITECTURE + URBAN DESIGN
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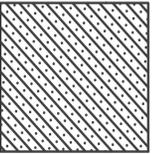
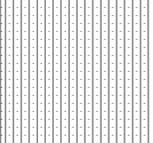
Designed/Drawn: RNL/JLN
Checked/Approved: JLN/JLN
Job #: N-01-38
N-01-38 LA Drawings Amenities + Specs.dwg



PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.



LEGEND:

-  Lawn Seeded Area Hatch
-  Detention Basin & Raingarden Hatch
-  Pollinator Hatch

MICHIGAN WILDFLOWER FARM
Detention Basin Mix
 40% Forbs and 60% Grass/Sedge/Rush
 Seeding Rate: 3 oz./1000 s.f. or 6 lbs./acre
 \$16.50/oz. or \$264/lb.

Scientific name	Common Name	% by wt.
FORBS		
Anemone canadensis	Canada Anemone	3.00
Angelica atropurpurea	Angelica	5.00
Asclepias incarnata	Swamp Milkweed	4.00
Eupatorium maculatum	Joe-Pye Weed	4.00
Eupatorium perfoliatum	Boneset	4.00
Helenium autumnale	Sneezeweed	4.00
Iris virginica	Wild Blue Flag	3.00
Lobelia siphilitica	Great Blue Lobelia	1.00
Rudbeckia fulgida	Sweet Black-eyed Susan	1.00
Solidago graminifolia	Grassleaved Goldenrod	1.00
Solidago patula	Swamp Goldenrod	1.00
Symphotrichum puniceum	Swamp Aster	3.00
Verbena hastata	Blue Vervain	3.00
Veronica missurica	Ironweed	3.00
Total Forbs		40.00
GRASSES		
Carex spp.	Carex species	8.00
Elymus virginicus	Virginia Wild Rye	40.00
Scirpus spp.	Scirpus species	10.00
Sparganium eurycarpum	Common Bur Reed	2.00
Total Grasses		60.00

1 DETENTION BASIN & RAINGARDEN SEED MIX

MICHIGAN WILDFLOWER FARM 2020
Pollinator Mix
 70% Forbs and 30% Grasses
 Seeding rate: 5 oz/1000 s.f. or 10 lbs/acre
 \$16.50/oz. or \$264/lb.

Scientific Name	Common Name
FORBS	
Aquilegia canadensis	Wild Columbine
Asclepias incarnata	Swamp Milkweed
Asclepias syriaca	Common Milkweed
Asclepias tuberosa	Butterfly Weed
Coreopsis lanceolata	Sand Tickseed
Desmodium canadense	Showy Tick-Trefoil
Echinacea purpurea	Purple Coneflower
Lespedeza capitata	Round Headed Bush-Clover
Liatris aspera	Rough Blazing Star
Monarda fistulosa	Wild Bergamot
Monarda punctata	Horsemint
Penstemon digitalis	Foxglove Beard-tongue
Ratibida pinnata	Yellow Coneflower
Rudbeckia hirta	Black-eyed Susan
Rudbeckia triloba	Three-lobed Coneflower
Solidago rigida	Stiff Goldenrod
Symphotrichum laeve	Smooth Aster
Symphotrichum novae-angliae	New England Aster
Symphotrichum oolentangensis	Prairie Heart-leaved Aster
Zizia aurea	Golden Alexander
GRASSES	
Elymus canadensis	Canada Wild Rye
Schizachyrium scoparius	Little Bluestem
Sorghastrum nutans	Indian Grass

2 POLLINATOR SEED MIX



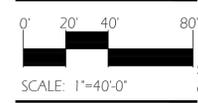
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M2J1, LLC
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 nunezdesigninc@gmail.com



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GENERAL NOTES

CITY NOTES

1. ALL PLANT MATERIAL SHALL MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN AND APPROVED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC.

2. ALL PLANT MATERIAL SHALL BE TRUE TO NAME IN CONFORMANCE TO THE CURRENT EDITION OF STANDARDIZED PLANT NAMES ESTABLISHED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE, OR OTHER SOURCE ACCEPTED BY THE CITY.

3. ALL PLANT MATERIAL SHALL BE NURSERY GROWN IN A NORTHERN CLIMATE; HARDY TO THE CLIMATE OF MICHIGAN; APPROPRIATE FOR THE SOIL; CLIMATIC AND ENVIRONMENTAL CONDITIONS; AND RESISTANT TO DISEASE AND INSECT ATTACK.

4. A MINIMUM FOUR (4) INCHES OF TOPSOIL SHALL BE PROVIDED FOR ALL LAWN AREAS, GROUND COVERS, AND PLANTING BEDS.

5. ARTIFICIAL PLANT MATERIAL IS PROHIBITED AND SHALL NOT BE USED TO MEET THE REQUIREMENTS OF THIS ARTICLE.

6. LAWN AREAS SHALL BE PLANTED IN SPECIES OF GRASS NORMALLY GROWN IN MICHIGAN. GRASS MAY BE SODDED OR HYDRO-SEEDED, PROVIDED THAT ADEQUATE MEASURES ARE TAKEN TO MINIMIZE SOIL EROSION. SOD OR SEED SHALL BE CLEAN AND FREE OF WEEDS AND NOXIOUS PESTS OR DISEASE.

7. A MINIMUM 4-INCH LAYER OF SHREDDED HARDWOOD BARK SHALL BE PLACED IN ALL PLANTER BEDS CONTAINING TREES OR SHRUBS AND AROUND THE BASE OF ALL TREES PLANTED WITHIN LAWN AREAS. ALL SHRUBS PLANTED WITHIN LAWN AREAS ARE TO BE PLANTED IN GROUPS AND MULCHED AS A GROUP, AND HEDGEROWS ARE TO BE MULCHED AS ONE CONTINUOUS STRIP.

8. LIVE GROUNDCOVERS SUCH AS MYRTLE, BLUE RUG JUNIPERS, BALTIC IVY AND OTHER SIMILAR VINES AND PLANT MATERIAL SHALL BE MULCHED WITH A 2-INCH LAYER OF SHREDDED HARDWOOD BARK. ANY DEVIATIONS MUST BE APPROVED BY THE CITY'S LANDSCAPE ARCHITECT.

9. PLANT MATERIALS SHALL NOT BE PLACED CLOSER THAN FOUR FEET FROM THE FENCE LINE OR PROPERTY LINE.

10. DECIDUOUS AND ALL SHRUBS MAY NOT BE PLANTED WITHIN 5 FEET, AND EVERGREEN TREES MAY NOT BE PLANTED WITHIN TEN (10) FEET OF ANY CURB OR PUBLIC WALKWAY.

11. TREES AND SHRUBS MAY NOT BE PLANTED WITHIN 10 FEET OF A FIRE HYDRANT.

12. WHERE PLANT MATERIALS ARE PLANTED IN TWO OR MORE ROWS, PLANTING SHALL BE STAGGERED IN ROWS.

13. WHERE SHRUB PLANTINGS ARE REQUIRED TO FORM A CONTINUOUS HEDGE, THE PLANTS SHALL NOT BE SPACED OUT MORE THAN 36 INCHES ON CENTER AT PLANTING AND SHALL HAVE A MINIMUM HEIGHT AND SPREAD OF 30 INCHES AT PLANTING. SHRUBS THAT WILL NOT ATTAIN SUFFICIENT WIDTH TO FORM A COMPLETE HEDGE SPACED 36 INCHES ON CENTER SHALL BE PLANTED AT A SPACING THAT WILL ALLOW THEM TO FORM A COMPLETE HEDGE WITHIN TWO YEARS OF PLANTING.

RESPONSIBILITY NOTES

1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.

2. 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.

3. CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY 4" TOPSOIL DEPTH IN ALL PLANTING BEDS AND 4" TOPSOIL DEPTH IN ALL LAWN AREAS USING MATERIAL FROM SPOIL PILE.

4. ACCEPTANCE OF GRADING AND SOD SHALL BE BY THE LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE AND AS DETERMINED BY THE CITY. THE CONTRACTOR SHALL ASSUME MAINTENANCE RESPONSIBILITY FOR A MINIMUM OF TWO (2) YEARS. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REPLACEMENTS OF WASHOUTS AND OTHER OPERATIONS NECESSARY TO KEEP SOD IN A THRIVING CONDITION. UPON FINAL ACCEPTANCE BY LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE AND AS DETERMINED BY THE CITY, THE OWNER SHALL ASSUME ALL MAINTENANCE RESPONSIBILITIES.

5. THE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPING FOR A PERIOD OF TWO (2) YEARS BEGINNING AFTER APPROVAL BY THE CITY OF ROCHESTER HILL'S LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE DURING AND AT THE END OF THE GUARANTEE PERIOD, ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE CITY OF ROCHESTER HILL'S LANDSCAPE ARCHITECT, WITHOUT COST TO THE OWNER.

6. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.

LANDSCAPING NOTES

1. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTING INCLUDING BUT NOT LIMITED TO EXISTING TREES, REPLACEMENT TREES, BUFFER PLANTINGS, AND PARKING LOT ISLANDS. THE RIGHT-OF-WAY WILL BE INSPECTED BY THE FORESTRY DIVISION TO IDENTIFY ANY PLANTINGS NEW OR EXISTING THAT POSE A HAZARD TO THE SAFE USE OF THE RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE AND POSSIBLY REPLACE ANY SUCH TREES.

2. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC R.O.W. SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED AT LEAST 15' FROM THE NEAREST OVERHEAD WIRE AND AT LEAST 10' FROM THE NEAREST UNDERGROUND UTILITY.

3. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY AT A DISTANCE 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 WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION.

4. PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB IN THE PUBLIC RIGHT-OF-WAY.

5. NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE DEVELOPER AND THE CITY OF ROCHESTER HILLS.

6. THE DEVELOPER AND/OR THE CITY OF ROCHESTER HILL SHALL HAVE THE RIGHT, AT ANY STAGE OF THE INSTALLATION, TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS OR SPECIFICATIONS.

7. REPLACEMENT TREES MAY NOT BE PLANTED WITHIN THE DRIP LINE OF EXISTING TREES.

8. NO PLANT SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT AND THE CITY'S PLANNING DEPARTMENT. ALL REQUESTS WILL BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING. THE REQUEST WILL INCLUDE THE REASON FOR THE REQUESTED CHANGE ALONG WITH THE PROPOSED SUBSTITUTION AND HOW IT MEETS THE ORIGINAL DESIGN INTENT, SIZE, COLOR, ETC. THE LANDSCAPE ARCHITECT WILL EITHER MAKE RECOMMENDATIONS, APPROVE OR REJECT REQUESTS. IF THE SUBSTITUTION IS NEEDED AND APPROVED, THE LANDSCAPE ARCHITECT WILL FORWARD THE REQUEST AND HIS APPROVAL TO THE CITY FOR THEIR APPROVAL. FAILURE TO DO SO WILL RESULT IN PLANTS BEING REJECTED AND REPLACED AT CONTRACTOR'S EXPENSE.

9. TREES MUST BE AT LEAST 10' FROM UNDERGROUND UTILITIES AND 15' FROM OVERHEAD UTILITIES.

10. THESE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.

CITY OF ROCHESTER HILLS NOTES

1. ALL LANDSCAPE AREAS MUST BE IRRIGATED. WATERING WILL ONLY OCCUR BETWEEN THE HOURS OF 12 AM AND 5 AM. IRRIGATION PLAN TO BE PROVIDED AT FINAL SUBMITTAL.

2. IRRIGATION OVERSPRAY SHALL NOT BROADCAST ONTO THE CITY PATHWAY.

3. SIGNS SHALL MEET THE REQUIREMENTS OF CHAPTER 134 OF THE CITY'S CODE OF ORDINANCES.

4. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE DRAWINGS.

TREE PROTECTION NOTES

1. THE TREE PROTECTION FENCING (TPF) SHALL BE ERRECTED PER THE PLANS APPROVED BY THE CITY OF ROCHESTER HILLS PLANNING DEPARTMENT. THE TPF MUST BE IN PLACE AND BE INSPECTED BY THE CITY OF ROCHESTER HILLS PRIOR TO THE START OF ANY EARTHWORK OR CONSTRUCTION OPERATIONS. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE A TPF INSPECTION. THE TPF SHALL REMAIN IN PLACE THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS OR UNTIL THE CITY AUTHORIZES THE REMOVAL OR ISSUES A FINAL CERTIFICATE OF OCCUPANCY, WHICHEVER OCCURS FIRST.

2. UPON COMPLETION OF GRADING AND THE INSTALLATION OF THE INFRASTRUCTURE A SECOND INSPECTION OF THE TPF AND THE TREES DESIGNATED FOR PRESERVATION IS REQUIRED BY THE CITY OF ROCHESTER HILLS PRIOR TO THE START OF ANY ADDITIONAL CONSTRUCTION. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS TPF INSPECTION.

3. UPON COMPLETION OF ALL CONSTRUCTION AND PRIOR TO THE REMOVAL OF THE CITY OF ROCHESTER HILLS MUST INSPECT ALL TREES DESIGNATED TO BE PRESERVED. THE LANDSCAPE PERFORMANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS INSPECTION.

4. A FINAL INSPECTION BY THE CITY OF ROCHESTER HILLS IS REQUIRED AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD. THE LANDSCAPE MAINTENANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS INSPECTION.

5. THE TREE CONSERVATION ORDINANCE PROHIBITS ANY CONSTRUCTION OR DEVELOPMENT ACTIVITIES WITHIN THE DRIP LINE OF AND REGULATED TREES NOT APPROVED FOR REMOVAL, INCLUDING BUT NOT LIMITED TO LAND CLEARING, GRUBBING, TRENCHING, GRADING OR FILLING, NO PERSON SHALL PLACE ANY SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, SOIL DEPOSITS, OR HARMFUL MATERIALS WITHIN THE DRIP LINE LIMIT OF TREES DESIGNATED FOR PRESERVATION.

6. PROPOSED GRADES ARE TO MATCH THE EXISTING ELEVATIONS OUTSIDE THE LIMITS OF THE TPF. NO GRADING EITHER CUT OR FILL IS PERMITTED WITHIN THE DRIP LINE OF ANY TREE DESIGNATED FOR PRESERVATION.

7. DURING THE CONSTRUCTION PROCESS NO PERSON SHALL ATTACH ANY DEVICE OR WIRE/CABLE/CORD/ROPE TO AN EXISTING TREE DESIGNATED TO BE PRESERVED.

8. ALL UTILITY SERVICE REQUEST MUST INCLUDED NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE THE TPF.

9. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINE OF THE ANY TREE DESIGNATED FOR PRESERVATION. SWALES SHALL BE CONSTRUCTED SO AS NOT TO DIRECT ANY ADDITIONAL FLOW INTO THE DRIP LINE A TREE DESIGNATED FOR PRESERVATION.

10. IF TREE PROTECTION CANNOT BE MAINTAINED FOR A TREE THROUGHOUT ENTIRE PERIOD REQUIRED, THE REPLACEMENT OF THAT TREE WILL BE REQUIRED ON AND INCH FOR INCH BASIS PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

11. REGULATED TREES LOCATED OFF-SITE ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION OPERATIONS MUST BE PROTECTED AS DEFINED HERE IN.

12. THE TPF SHALL CONSIST OF 4 FOOT HIGH ORANGE SNOW FENCING TO BE INSTALLED AROUND THE DRIP LINE OF ALL TREE DESIGNATED TO BE SAVED. THIS FENCING SHALL BE SUPPORTED BY 6 FOOT METAL T-BAR POSTS 5 FEET ON CENTER AND DRIVEN A MINIMUM OF 24" INTO GROUND. THE TPF FENCING SHALL REMAIN UPRIGHT AND SECURELY IN PLACE FOR THE REQUIRED TIME AS SPECIFIED ABOVE.

CITY OF ROCHESTER HILLS MAINTENANCE NOTES 138-12-109

1. LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.

2. PRUNING SHALL BE MINIMAL AT TIME OF INSTALLATION. ONLY TO REMOVE DEAD OR DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.

3. ALL DEAD, DAMAGED, OR DISEASED PLANT MATERIAL SHALL BE REMOVED IMMEDIATELY AND REPLACED WITHIN (6) SIX MONTHS AFTER IT DIES OR IN THE NEXT PLANTING SEASON, WHICH EVER COMES FIRST. THE PLANTING SEASON FOR THE DECIDUOUS 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.

4. THE APPROVED LANDSCAPE PLAN SHALL BE CONSIDERED A PERMANENT RECORD AND INTEGRAL PART OF THE SITE PLAN APPROVAL. UNLESS OTHERWISE APPROVED, ANY REVISIONS OR REMOVAL OF PLANT MATERIALS, OR NON-COMPLIANCE WITH THE MAINTENANCE REQUIREMENTS OF SECTION 138-12.109 WILL PLACE THE PARCEL IN NON-COMFORMITY WITH THE APPROVED LANDSCAPE PLAN AND BE A VIOLATION OF THE ORDINANCE.

5. 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.

PLANT WARRANTY

A. WARRANTED PLANT MATERIAL TO REMAIN ALIVE AND BE IN HEALTHY, VIGOROUS CONDITION FOR A PERIOD OF 2 YEARS AFTER COMPLETION AND ACCEPTANCE OF ENTIRE PROJECT. INSPECTION OF PLANTS WILL BE MADE BY THE LANDSCAPE ARCHITECT OR CLIENT'S REPRESENTATIVE AT COMPLETION OF PLANTING.

B. REPLACE, IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ALL PLANTS THAT ARE DEAD OR, AS DETERMINED BY THE LANDSCAPE ARCHITECT OR CLIENT'S REPRESENTATIVE, ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AND HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES, OR OTHER CAUSES DUE TO THE CONTRACTOR'S NEGLIGENCE. THE COST OF SUCH REPLACEMENT(S) IS AT CONTRACTOR'S EXPENSE. WARRANTY ALL REPLACEMENT PLANTS FOR 1 YEAR AFTER INSTALLATION.

C. WARRANTY SHALL NOT INCLUDE DAMAGE OR LOSS OF TREES, PLANTS, OR GROUND COVERS CAUSED BY FIRES, FLOODS, FREEZING RAINS, LIGHTNING STORMS, OR WINDS OVER 75 MILES PER HOUR, WINTER KILL CAUSED BY EXTREME COLD AND SEVERE WINTER CONDITIONS NOT TYPICAL OF PLANTING AREA; ACTS OF VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.

CITY OF ROCHESTER HILLS FORESTRY NOTES

1. 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 SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY.

2. 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. ALL TREES AND SHRUBS MUST BE AT LEAST 10' FROM ANY 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.

3. 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 PUBLIC RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

PLANTING NOTES:

1. INSTALL AND MAINTAIN ALL LANDSCAPING ACCORDING TO ROCHESTER HILLS STANDARDS. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.

2. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK. PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. CONTRACTOR TO SUPPLY NURSERY SOURCES FOR ALL PURCHASED MATERIAL. NO BARE ROOT OR PARK GRADE MATERIAL WILL BE ACCEPTED.

3. SOD: IF OWNER SELECTS THIS OPTION, CONTRACTOR WILL INSTALL SOD IN ALL AREAS INDICATED AS LAWN ON PLAN. SOD TO BE WELL ESTABLISHED. MINERAL GROWTH SOD BLEND SHALL CONSIST OF A MINIMUM OF THREE (3) IMPROVED VARIETIES OF BLUEGRASS. ACCEPTANCE AND GUARANTEE NOTES SHALL APPLY TO ALL SOD.

4. EDGING SHALL BE A SHOVEL EDGE.

5. ALL TREE PITS MUST BE TESTED FOR PROPER DRAINAGE PRIOR TO PLANTING TREES. A DRAINAGE SYSTEM MUST BE INSTALLED IF PLANTING PIT DOES NOT DRAIN SUFFICIENTLY (REQUIRED IN HEAVY CLAY SOILS).

6. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.

7. STAKES USED FOR TREE SUPPORTS SHALL POINT AWAY FROM ANY CIRCULATION ROUTES.

8. MULCHING AND WATERING OF ALL PLANTS AND TREES SHALL BE IMMEDIATELY OR WITHIN 16 HOURS AFTER INSTALLATION.

9. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.

10. REMOVE ALL TREE STAKES AND GUY WIRES AFTER ONE WINTER.

11. USE GRADE "A" DOUBLE SHREDDED HARDWOOD BARK.

12. DIG SHRUB PITS 1" LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2" LARGER THAN ROOT BALLS. BACK FILL WITH ONE PART TOPSOIL AND ONE PART SOIL FROM THE EXCAVATED PLANTING HOLE. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE PLANTED AT THE NURSERY. IF WET, CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER.

13. REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TOP 1/3 OF TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS.

14. LAWN TREES ARE TO BE MULCHED WITH A MINIMUM OF 4' WIDE BY 4" DEEP SHREDDED BARK FOR TRUNK PROTECTION. ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.

15. SHRUB BEDS ARE TO BE MULCHED WITH SHREDDED BARK MULCH TO A MINIMUM DEPTH OF 4". ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.

16. BACKFILL DIRECTLY BEHIND ALL CURBS AND ALONG SIDEWALKS AND COMPACT TO THE TOP OF CURB OR WALK TO SUPPORT VEHICLE AND PEDESTRIAN WEIGHT WITHOUT SETTLING.

17. ALL LANDSCAPE AREAS, SPECIAL PARKING LOT ISLANDS AND LANDSCAPE BEDS NEXT TO BUILDINGS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A DEPTH OF 12"-18" AND BACK-FILLED WITH GOOD, MEDIUM TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY). ADD 4"-6" OF TOPSOIL/OVERFILL MATERIAL AND CROWN A MINIMUM OF 6" ABOVE TOP OF CURBS AND/OR WALKS AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON THE LANDSCAPE PLAN.

18. CONVERSION OF ALL ASPHALT AND GRAVEL AREAS TO LANDSCAPE SHALL BE DONE IN THE FOLLOWING MANNER:
A. REMOVE ALL ASPHALT, GRAVEL AND COMPACTED EARTH TO A DEPTH OF 6"-18" DEPENDING ON THE DEPTH OF THE SUB-BASE AND DISPOSE OF OFF-SITE.
B. REPLACE EXCAVATED MATERIAL WITH GOOD, MEDIUM TEXTURES PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) TO A MINIMUM OF 2" ABOVE TOP F CURB AND SIDEWALK. ADD 4"-6" OF TOPSOIL AND CROWN TO A MINIMUM OF 6" ABOVE ADJACENT CURB AND WALK AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON THE LANDSCAPE PLAN.
IF CONVERSION TO LANDSCAPE OCCURS IN AN EXISTING (OR BETWEEN) LANDSCAPE AREA(S), REPLACE EXCAVATED MATERIAL TO 4"-6" BELOW ADJACENT EXISTING GRADES WITH GOOD MEDIUM TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) AND ADD 4"-6" OF TOPSOIL TO MEET EXISTING GRADES AFTER EARTH SETTLING.

19. ALL PLANT MATERIAL TO RECEIVE SOILMOIST SUPER ABSORBENT POLYMER OR APPROVED EQUAL BY LANDSCAPE ARCHITECT, FLOW MANUFACTURER'S SPECIFICATIONS.

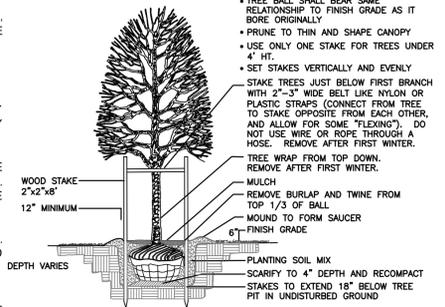
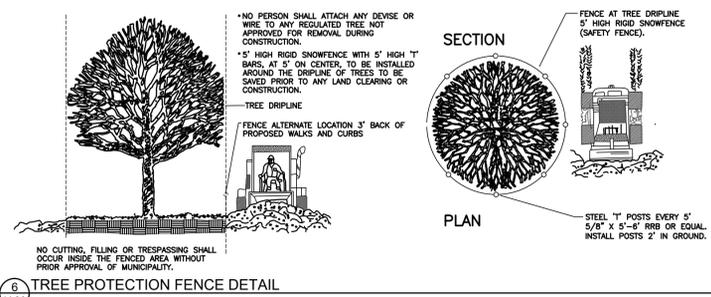
MAINTENANCE NOTES

1. THE CLEAR ZONE SHALL BE MAINTAINED AT ALL INTERSECTIONS THAT INGRESS AND EGRESS TO THE SITE. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN THE PLANT MATERIAL AT A HEIGHT OF NOT OVER THIRTY (30) INCHES ABOVE PAVEMENT AND PROVIDE UNOBSTRUCTED SIGHT DISTANCE FOR DRIVERS IN VEHICLES APPROACHING THE INTERSECTION.

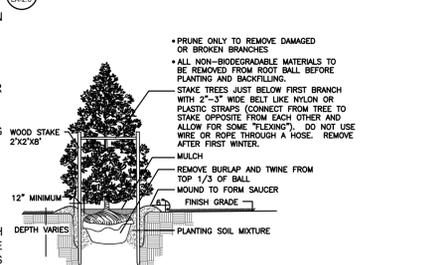
2. VERTICAL CLEARANCE OF AT LEAST EIGHTY (80) INCHES MUST BE PROVIDED ABOVE WALKS AT ALL TIMES. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN TREES AND OTHER OVERHANGING OBJECTS TO PROVIDE ADEQUATE HEADROOM TO COMPLY WITH ADA GUIDELINES.

IMPORTANT:

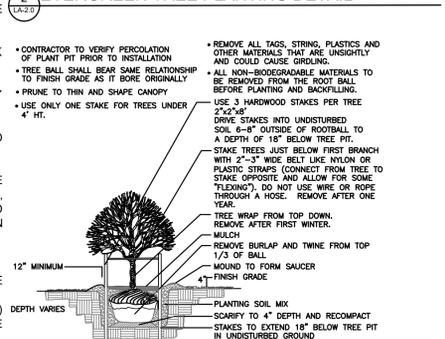
ALL TREES ON ADJACENT PROPERTIES MUST BE PROTECTED. THE TREE PROTECTIVE FENCING MAY BE PLACED ALONG THE ACTUAL PROPERTY LINE IF THE BRANCHES OF THE TREES ON THE ADJACENT PROPERTIES DO NOT OVERHANG ONTO THE SITE BEING DEVELOPED. IF THE BRANCHES OVERHANG ONTO THE AREA OF THE SITE BEING DEVELOPED THE TREE PROTECTIVE FENCING MUST BE PLACED AT THE ACTUAL DRIP LINE OF THESE TREES. IT SHOULD ALSO BE NOTED THAT THE SILT FENCING MUST BE PLACED ON THE DEVELOPMENT SIDE OF THE TREE PROTECTIVE FENCING. THE SILT FENCING MAY NOT BE PLACED BETWEEN THE TREE BEING PRESERVED AND THE TREE PROTECTIVE FENCING. IF ANY REGULATED TREES ARE DAMAGED ON THE ADJACENT PROPERTIES THE DAMAGED TREES WILL BE EITHER REPLACED ON THE OWNERS PROPERTY ON AN INCH FOR INCH BASIS OR A FINE IN THE SUM \$122.00 PER CALIPER INCH WILL BE ISSUED AGAINST THE DEVELOPMENT. THIS FINE WILL BE DUE PRIOR THE BUILDING PERMITS BEING ISSUED. IF YOU HAVE ANY QUESTIONS OR NEED ADDITIONAL INFORMATION CALL THE CITY'S PLANNING DEPARTMENT 248-646-4660.



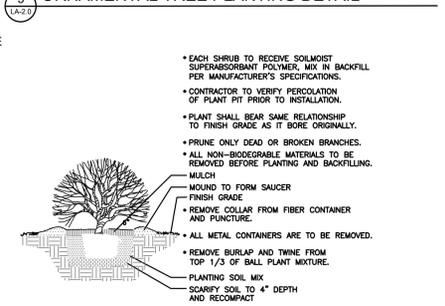
1 DECIDUOUS TREE PLANTING DETAIL



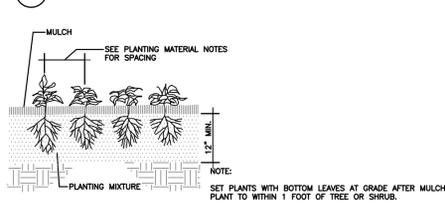
2 EVERGREEN TREE PLANTING DETAIL



3 ORNAMENTAL TREE PLANTING DETAIL



4 SHRUB PLANTING DETAIL



5 ANNUAL, PERENNIAL, GROUND COVER PLANTING DETAIL



CAMDEN CROSSING

HAMLIN RD.
SECTION 22, TOWN 3 NORTH, RANGE 11 EAST
ROCHESTER HILLS, MI

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

CLIENT:

M2J1, LLC
Jim Polyzois
14955 Technology Drive,
Shelby Twp., MI 48315
Phone: (586)-421-5729

Date/Revisions
01/15/2020 PC Submittal
07/20/2021 PC Submittal
07/20/2021 PC Submittal - Preliminary Site Review #3
02/23/2021 PC Submittal - Preliminary # Final
11/10/2021 PC Comments



Designed/Drawn: RN / JN

Checked/Approved: JN / JN

Job #: N-01-38

N-01-38 LA Drawings Amenities + Specs.ctb

811

SHEET:

LA-2.0

CITY FILE #19-031 SECTION # 22



TREGATOR® ORIGINAL SLOW RELEASE WATERING BAG FOR SHADE TREES

BENEFITS:

- Ideal for newly planted shade or street trees.
- Reduces transplant and drought shock.
- 100% water absorption with no run-off.
- Install and fill in minutes with no tools required.
- Deep water saturation with every fill.
- Fill just 1 to 2 times per week, or as needed.**
- Promotes deep root growth.
- Non-invasive design will not harm existing landscape.
- Can be used with nutrient / chemical additives.**
- Zip multiple bags together to accommodate large trees.
- Made in the U.S.A. with a 5-year limited warranty.

**REFER TO WATERING CAPACITY / FREQUENCY CHART SHOWN BELOW

DESCRIPTION:

If you plant shade trees, you need a Tregator® Original Slow Release Watering Bag! Golf courses, parks, cities, nurseries, landscapers, DOT's, resorts and homeowners all love its simple, affordable patented tree watering technology. Makes anyone a watering professional. Perfect for newly planted or established trees up to 8" in caliper, with branches beginning at least 25 inches from the ground or higher. Save time, water, effort and trees!

SPECS:

Single bag fits min. 1 inch to max. 4 inch caliper tree with branches at least 25" from the ground or higher. Use a Double Bag setup (2 single bags zipped together back-to-back) to water 4 inch to 8 inch caliper trees. Made of green polyethylene with scrim reinforcement, black polypro straps and nylon zippers. 2 water release points per bag. Bag is empty in approximately 5 to 9 hours. UV stabilized to withstand exposure to sunlight. Fill opening fits up to 3" diameter hose.

DIRECTIONS FOR USE:

Place around tree trunk, with the zippers on uphill side of tree. Wrap both sides around trunk until zippers meet and zip together from bottom to top. Lift tag to expose fill opening at top of bag. Insert hose into fill opening and begin filling with water. Fill bag to 1/4 capacity. Gently lift up on straps at top of bag to expand bottom. Fill to desired level and let empty. Continuously waters for approximately 5 to 9 hours.

MEASUREMENTS:

Full - 30" tall x 18" wide (at base)

WATERING CAPACITY / FREQUENCY CHART:

Tregator® Original Bag Setup	Trunk Caliper (diameter)	Approx. Water Capacity (per single bag)	Recommended Fills per Week
Single Bag Setup	1 to 2 inch (2 to 5 cm)	15 gallons (56.76 liters)	1 Fill per Week
Single Bag Setup	2 to 3 inch (5 to 8 cm)	14.75 to 14.25 gallons (55.84 to 53.94 liters)	2 Fills per Week
Double Bag Setup* (2 single bags)	0.00 inch (stand-alone)	25 gallons (94.63 liters)	Varies based on application
Double Bag Setup*	4 to 5 inch (10 to 13 cm)	23.50 gallons (89.51 liters)	1 Fill per Week
Double Bag Setup*	5 to 8 inch (13 to 20 cm)	22.75 to 21.5 gallons (86.11 to 81.38 liters)	2 Fills per Week

*Double Bag setup is two (2) single Tregator® Original bags zipped together back-to-back. **When watering older established trees with fully developed root systems, a Double Bag setup can also be used as a stand-alone watering solution (i.e. not zipped around a trunk).

Surround Style Planting with Deeproot Universal Barriers

When selecting the Surround style planting application you will have the greatest success by following these simple steps as illustrated below:

A. Prepare the initial planting hole as illustrated below. This is based upon the combination of desired barrier diameter and depth. Consider if drainage devices or amendments are needed to correct any adverse soil or planting conditions in the backfill area.

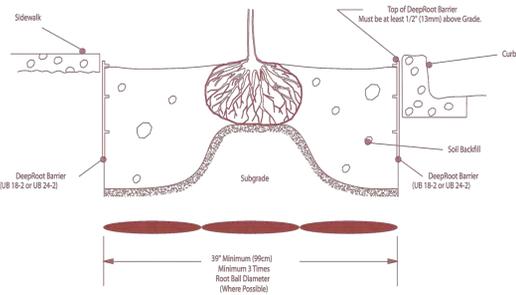
B. Assemble the appropriate number of Deeproot Universal Barrier panels. The vertical root deflecting ribs on the panel must face inward, toward the root ball. (This is very important, otherwise the roots will become girdled by traveling around the smooth walled surface)

C. Next place the barrier in the center of the planting hole, keeping in mind that the double top edge of the barrier should be positioned approximately 1/2" (13mm) above grade. This helps retard potential root overgrowth. Failing to position the top edge above grade can allow root overgrowth which can lead to uprooted hardwoods.

D. Backfill and compact with soil inside the barrier to the level where the bottom of the root ball will be when positioned correctly with the crown of the root ball approximately 1" (25mm) above grade.

E. Remove the tree from its container, or cut away the top portion of burlap and position in the center of the barrier. Complete the backfill of the soil. Distribute evenly to maintain the shape of the barrier and compact the backfill every 4"-6" (10cm-15cm). Roots will die quickly if left exposed to the elements so keep exposure of the roots to a minimum.

A Typical Surround Planting Installation Using Deeproot Universal Barrier



2 DEEPROOT - SURROUND PLANTING DETAIL

F. If staking or guying is required we recommend using the soft, safe and economical alternative to traditional wire and hose, ArborTie (see www.deeproot.com for details)

G. If the tree(s) will be subject to maintenance work such as lawn mowing or weed trimming we strongly recommend the installation of ArborGuard™ Tree Trunk Protectors which are placed around the base of young trees to protect them from damage by weed trimmers, lawn mowers and small rodents. (See www.deeproot.com)

H. Water and follow proper tree maintenance practices.

Trees do require care and nurturing after planting. Consult with your local supplier for proper care procedures for the species you are planting. The planting instructions given here are by no means a comprehensive guide. Rather they are general guidelines to planting with DeepRoot Barriers and a survey of current planting methods. Conditions will vary however and it is recommended that an Arborist be consulted before planting.

For additional information please visit our website at www.deeproot.com.

For information regarding distributors please call: 1 800 LV ROOT (458.7666). For help with drainage or other difficult installation questions please call DeepRoot Technical Support at: 1 800 ROOT TEK (766.8833).

UB 24-2 TECH SHEET

This 24" high by 24" wide barrier is for linear, surround, and root pruning applications. It is ideal for protection from aggressive, invasive roots in sidewalks, curbs and gutters, driveways, and patios, as well as many other planting situations.

UB 24-2	SPECIFICATIONS + FEATURES
	<p>USES</p> <ul style="list-style-type: none"> • Redirect tree roots down and away from hardscapes. <p>MATERIALS</p> <ul style="list-style-type: none"> • High-quality 75% reprocessed recycled injection molded co-polymer polypropylene. Manufactured in ISO 9001:2008 registered factories. <p>SIZES & PACKAGING</p> <ul style="list-style-type: none"> • Each panel is 24" (61 cm) x 24" (61 cm) • 20 Panels (40 linear feet / 12.2 m) per carton, 20 cartons per pallet, approximately 43 lbs. (19.5 kg) per carton <p>FEATURES</p> <ul style="list-style-type: none"> • 90° ribs redirect root growth down and away from hardscapes • Instant assembly: panels slide together with a zipper joining system • Patented double top edge for strength, safety, appearance and root overgrowth protection • Added UV inhibitors prevent breakdown from sun exposure • Rounded edges for safety in handling • Made in the USA
<p>APPLICATIONS</p> <p>LINEAR</p> <p>SURROUND</p> <p>ROOT PRUNING</p>	<p>LINEAR</p> <p>Provide maximum hardscape protection while utilizing all available rooting space for improved tree health by placing guides in a straight line directly along the hardscape to be protected.</p> <p>SURROUND</p> <p>Protect hardscapes that surround a planting on all four sides. Plan to line the perimeter of the planting area with the panels—this provides the maximum available uncompact soil volume for immediate root growth.</p> <p>ROOT PRUNING</p> <p>Root pruning can help save existing trees and prevent future damage to paving. Disruptive roots are cleanly cut and removed; linear Root Barrier is then installed. There are limitations to root pruning and an ISA Certified Arborist should be consulted.</p> <p>HOW TO SPECIFY:</p> <ol style="list-style-type: none"> 1. Determine linear, surround, root pruning or specialty application. 2. Pick appropriate barrier depth for application and site. 3. Calculate number of panels required. 4. For details on these or any other installation instructions, please refer to our Specification and Installation Manual, or visit www.deeproot.com. <p>ZIPPER JOINING SYSTEM</p> <p>Each panel has a built-in zipper joiner along one edge, making assembly of the panels in the field quick and easy.</p> <p>DOUBLE TOP EDGE</p> <p>Patented double top edge adds strength, safety, and root overgrowth protection.</p>

DeepRoot Green Infrastructure, LLC
 Corporate Office: 530 Washington Street, San Francisco, CA 94111
 ☎ 415.619.1007 (415.7666) 📠 415.619.2774 (415) 📧 www.deeproot.com
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3 DEEPROOT - UB 24-2 TECH SHEET

UB 24-2 Specifications 24" DeepRoot® Tree Root Barrier

Specified tree root barrier is a mechanical barrier and root deflector used to prevent tree roots from damaging hardscapes and landscapes. Assembled in 24" (609 mm) long modules to create varying lengths for linear applications, or perimeter surround applications in varying sizes.

A. Materials

1. The contractor shall furnish and install tree root barrier as specified. The tree root barrier shall be either product #UB 24-2 as manufactured by DeepRoot® Green Infrastructure, LLC, 530 Washington Street, San Francisco, CA, www.deeproot.com (800.458.7668).

2. Root barrier shall be recyclable, black, injection molded panels with 0.80" (2.03 mm) wall thickness in modules 24" (609 mm) long and 24" (609 mm) deep.

3. Root barrier shall be manufactured with 75% reprocessed polypropylene with added ultraviolet inhibitors.

4. Root barrier shall be comprised of 24" (60.96 cm) panels. Each panel shall have no less than four (4) Molded Integral Vertical Root Directing Ribs of a minimum 0.075" (1.90 mm) thickness, protruding 1/2" (12.7 mm) at 90° from interior of the barrier panel, spaced 6" (152.4 mm) apart. (See Details A & D)

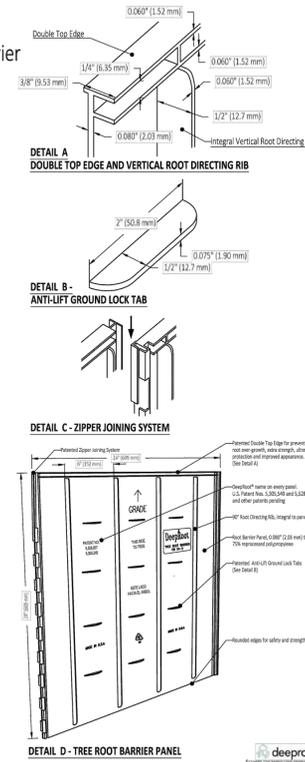
5. Root barrier shall have a Double Top Edge consisting of two parallel, integral, horizontal ribs at the top of the panel at 0.060" (1.52 mm) thickness, 3/8" (9.53 mm) wide and 1/4" (6.35 mm) apart with the lower rib attached to the vertical Root Directing Ribs (See Detail A).

6. Root barrier shall have a minimum of twelve (12) Anti-Lift Ground Lock Tabs consisting of integral horizontal ridges of minimum 0.075" (1.90 mm) thickness in the shape of a segment of an oval, the 2" (50.8 mm) chord of the segment joining the panel wall and the segment, protruding 3/8" (9.53 mm) from the panel. The twelve ground locks on each panel shall be about equally spaced between each of the vertical root directing ribs (four (4) between each set of ribs, see Details B & D).

7. Root barrier shall have an integrated Zipper Joining System for assembly by sliding one panel into another (See Detail C).

U.S. Patents: 5,305,548; and 5,528,857. Other Patents Pending.

Properties	Typical Value	ASTM Test Method
Tensile strength @ yield - Wall	2,324 PSI	D638
Tensile strength @ yield - Hinge	2,846 PSI	D638
Yield Elongation - Wall	7.44%	D638
Yield Elongation - Hinge	7.01%	D638
Flexural Modulus	119,625 PSI	D790B
Notched Izod Impact - Wall	3.84 (ft-lbs)	D256A
Rockwell Hardness r. scale - Wall	84.4	D785A



4 DEEPROOT - UB 24-2 SPECS

1 TREGATOR BAG

LA-2.1



CAMDEN CROSSING
 HAMLIN RD.
 SECTION 22, TOWN 3 NORTH, RANGE 11 EAST
 ROCHESTER HILLS, MI

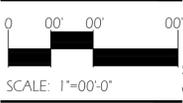
PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

M2J1, LLC
 Jim Polyzois
 14955 Technology Drive,
 Shelby Twp., MI 48315
 Phone: (586)-421-5729

Date/Revisions
Date: 7/18/19 Preliminary Site Plan
1 9/15/2020 PC Submittal
2 1/7/2021 PC Submittal
3 7/19/2021 PC Submittal - Preliminary Site Review #3
4 9/23/2021 PC Submittal - Preliminary & Final
5 11/1/2021 PC Comments

NÚÑEZ DESIGN
 LANDSCAPE ARCHITECTURE + URBAN DESIGN
 249 Park Street
 Troy, Michigan 48063
 P: 248.224.5933
 nunezdesigninc@gmail.com

Designed/Drawn: RN / JN
 Checked/Approved: JN / JBN
 Job #: N-01-38
 N-01-38 LA Drawings Amenities + Specs.dwg



SHEET:
 LA -2.1

CITY FILE: #19-031 SECTION #: 22

ADDITIONAL SPECS

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