

REPLACEMENT TREE CREDIT TABLE

Tree Type and Size	Replacement Credits
2" Caliper Shade Tree	1 Credit
2.5" Caliper Shade Tree	1.5 Credits
3" Caliper Shade Tree	2 Credits
4" Caliper Shade Tree	3 Credits
8' Evergreen Trees	1 Credit
9' Evergreen Trees	1.5 Credits
10' Evergreen Trees	2 Credits
12' Evergreen Trees	3 Credits

REPLACEMENT TREE CALCULATION:

Total Number of Trees Surveyed	1,380
Minus Off-Site Trees	- 26
Minus Ash & Dead Trees	- 49
Minus R.O.W. Trees	- 4
Total Number of Regulated Trees Onsite	1,301 [100%]
Total Number of Regulated Trees Removed	- 656 [50.6%]
Total Number of Regulated Trees Saved	645 [49.6%]

BUFFER PLANT CALCULATION - TOTAL:

Buffer Frontage (Type 'B') - 2,220LF:	Required	Provided
Deciduous shade trees =	45	45
Evergreen trees =	45	45
Ornamental trees =	34	34
Shrubs 48" Height =	89	91
Buffer Frontage (Type 'C') - 800LF:	Required	Provided
Deciduous shade trees =	14	14
Evergreen trees =	28	28
Ornamental trees =	11	11
Shrubs 48" Height =	42	42
Total	308	310

REPLACEMENT TREE CALCULATION:

Total Number of Tree Credits Provided:

- 22 - 2" caliper trees = 22
- 130 - 3" caliper trees = 260
- 112 - 12' tall trees = 336
- 28 - 12' tall trees (buffer) = 56

TOTAL = 674 Credits Provided

Refer to LA-1.1 & LA-1.3 for Replacement Credit Plantings
Refer to LA-1.2 & LA-1.4 for Replacement Credit Plantings
Amount due to City Tree Fund = \$0.00

NOTE: ALL TREE PROTECTION FENCING MUST BE INSTALLED, INSPECTED AND APPROVED BY CITY STAFF, PRIOR TO ISSUANCE OF A LAND IMPROVEMENT PERMIT.

WETLAND SEED MIX - (For Impacted Wetland Areas)

Northeast Wetland Forest Herb Mix
Code: STCMX-11
\$16000 Per Pound

1 pound will cover 14,500 sq. ft. @ 90+ seeds per sq. ft.

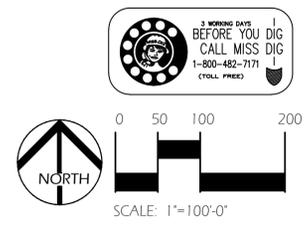
This mix is intended to add diversity to the herbaceous layer of forested wetland plantings. Twenty nine species commonly found in various wetland forest habitats are included; shade tolerant forest floor species typical of floodplains are well represented. Species have been selected that do not form a turf thus minimizing competition with planted trees and shrubs. The grasses and forbs in this mix will shade the soil surface, provide enhanced diversity, and yield important wildlife habitat early in the development of the forest system. The mix is produced using hand collected seed from western New York and northwestern Pennsylvania; only a limited amount is available. We recommend a seeding rate of 3 pounds per acre and that no additional grasses be planted with it.

Percent by No. of seeds (Gwt. weight)	Scientific Name	Common Name
25.96%	N Scirpus atrovirens	Green Bulrush
25.41%	N Scirpus cyperinus	Wool Grass
8.33%	N Carex vulpinoidea	Fox Sedge
7.68%	N Glycyria canadensis	Canada Mannagrass
7.63%	N Verbena hastata	Blue Vervain
6.02%	N Glycyria grandis	Reed Meadowgrass
5.70%	N Glycyria striata	Fowl Mannagrass
2.12%	N Panicum clandestinum	Deertongue
1.53%	N Verbena urticifolia	White Vervain
1.51%	N Glycyria melicaria	Melic Mannagrass
0.94%	N Boehmeria cylindrica	False Nettle
0.94%	N Urtica dioica	Stinging Nettle
0.85%	N Solidago gigantea	Giant Goldenrod
0.85%	N Solidago rugosa	Wrinkled Goldenrod
0.75%	N Cinna arundinacea	Wood Reed
0.62%	N Leersia virginica	Whitegrass
0.57%	N Dephalanthus occidentalis	Buttonbush
0.45%	N Elymus canadensis	Wild Rye
0.38%	N Sium suave	Water Parsnip
0.32%	N Elymus virginicus	Virginia Wild Rye
0.29%	N Polygonum pennsylvanicum	Pennsylvania Smartweed
0.24%	N Geum macrophyllum	Large-Leaf Avens
0.22%	N Elymus riparius	Riverbank Wild Rye
0.19%	N Rumex verticillatus	Water Dock
0.16%	N Asclepias incarnata	Swamp Milkweed
0.09%	N Carex turida	Shallow Sedge
0.09%	N Lillium superbum	Turk's Cap Lily
0.09%	N Rubus allegheniensis	Blackberry
0.07%	N Carex lupulina	Hop Sedge

* All landscape areas to have an automatic irrigation system. Irrigation Plan will be provided by John Deere Irrigation Distributor for the final PUD approval.

Irrigation will occur between the hours of midnight and 5 a.m. Irrigation of all landscape areas including buffer areas and street trees.

- NOTES:**
- The notation I.V.O. is Intermittent Visual Obstruction, as defined by the City of Rochester Hills Ordinance.
 - Subject to city and agency reviews and modifications.
 - Plant material to be planted as Buffer Plantings will meet the minimum sizes and standards set forth by the City of Rochester Hills Ordinance.
 - Plant material is subject to modification.
 - Placement of street trees to be adjusted for underground utilities and driveway placements.
 - All landscape areas to have an automatic irrigation system.
 - Plant material for concept only and is subject to municipal review. Landscape contractor to verify and provide all plant materials as shown on the drawings.
 - All trees being retained will be identified by painting, flagging or some other approved method.
 - Trees to be located a minimum of 6' from underground utilities, transformers, or fire hydrants and 15' from overhead utilities.
 - When protective barriers are required, they will be erected prior to commencement of work.
 - All new lawn areas to be either seed/sod, depending on location, over 4' topsoil using material from existing spoil pile.
 - 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.
 - When planting buffer material, care should be taken to be sure that all buffer plantings are to be shifted as far away from the stormwater line as available area permits.



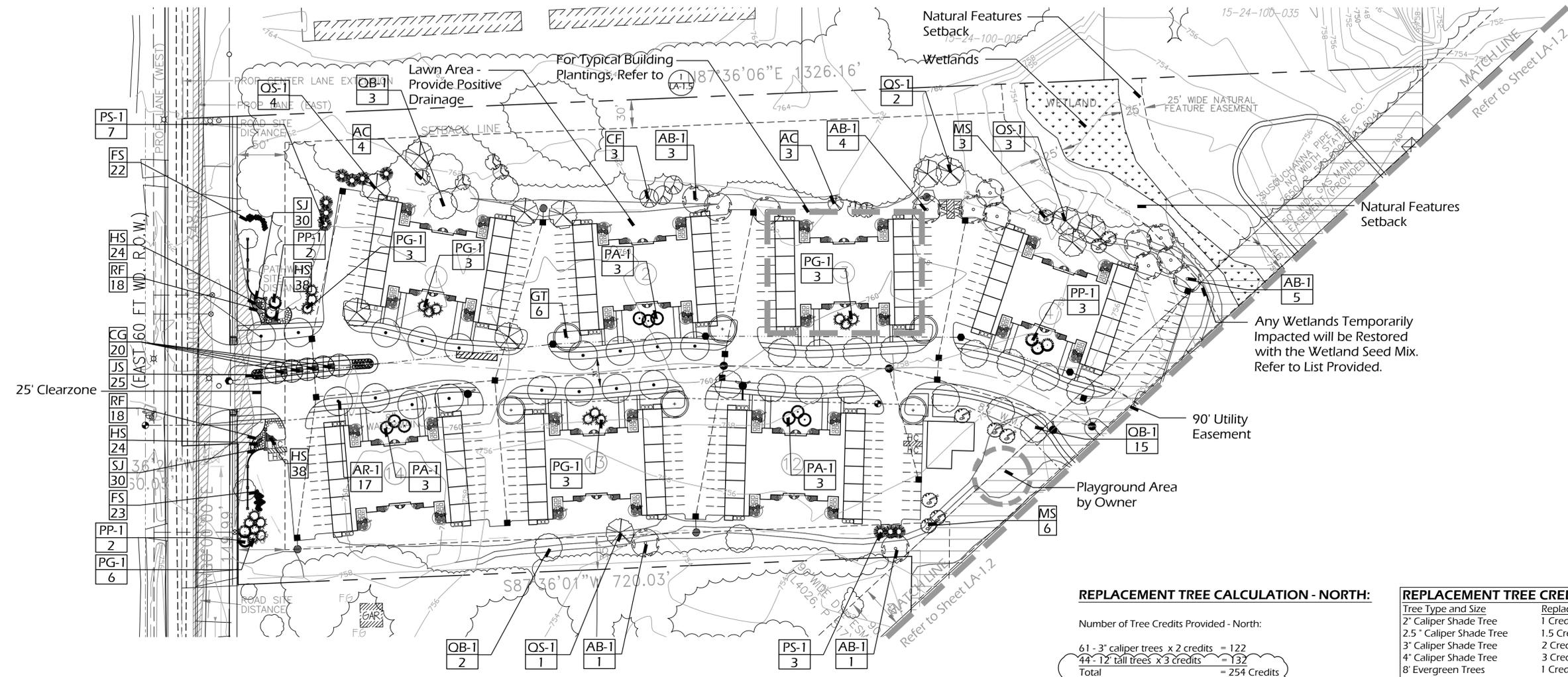
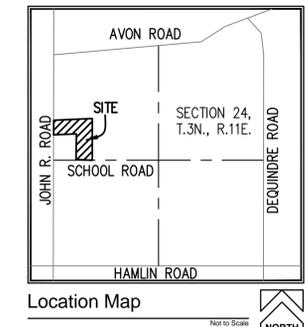
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Project
Harvard Place
Rochester Hills,
Oakland County,
Michigan

Designed/Drawn RLN/RGD
Checked/Approved RLN
Job # D002.2012
File LA 2-24-13.dwg

Date/Revisions	Issued For
04/11/12	Client Review
04/17/12	Preliminary PUD Approval
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12/15/12	Client Review
1/11/13	Final PUD Approval
2/25/13	Final PUD Approval
5/22/13	Final PUD Approval

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REPLACEMENT TREE CALCULATION - NORTH:

Number of Tree Credits Provided - North:

61 - 3" caliper trees x 2 credits = 122
 44 - 12' tall trees x 3 credits = 132
 Total = 254 Credits

6 - 2" Caliper Trees x 1 Credit = 6 Credits

Total Trees = 260 Trees

REPLACEMENT TREE CREDIT TABLE

Tree Type and Size	Replacement Credits
2" Caliper Shade Tree	1 Credit
2.5" Caliper Shade Tree	1.5 Credits
3" Caliper Shade Tree	2 Credits
4" Caliper Shade Tree	3 Credits
8' Evergreen Trees	1 Credit
9' Evergreen Trees	1.5 Credits
10' Evergreen Trees	2 Credits
12' Evergreen Trees	3 Credits

PRELIMINARY REPLACEMENT - NORTH PLANT MATERIAL SCHEDULE:

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHADE TREE					
*14	AB-1	Acer rubrum 'Autumn Blaze'	Autumn Blaze Maple	3" Cal.	B&B
*17	AR-1	Acer rubrum 'Franksred'	Red Sunset Maple	3" Cal.	B&B
*20	QB-1	Quercus bicolor	Swamp White Oak	3" Cal.	B&B
*10	QS-1	Quercus shumardii	Shumardi Oak	3" Cal.	B&B
EVERGREEN TREE					
*9	PA-1	Picea abies	Norway Spruce	12' Ht.	B&B
*18	PG-1	Picea glauca var. densata	Black Hills Spruce	12' Ht.	B&B
*7	PP-1	Picea pungens	Colorado Spruce	12' Ht.	B&B
*10	PS-1	Pinus strobus	Eastern White Pine	12' Ht.	B&B
ORNAMENTAL TREE					
7	AC	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	1.5" Cal.	B&B
3	CF	Cornus florida	White Flowering Dogwood	1.5" Cal.	B&B
9	MS	Malus 'Snowdrift'	Snowdrift Flowering Crab	1.5" Cal.	B&B
SHRUBS					
45	FS	Forsythia x intermedia 'Spring Glory'	Spring Glory Border Forsythia	24" Ht.	Cont.
25	JS	Juniperus sabinna 'Buffalo'	Buffalo Juniper	24" Spr.	Cont.
60	SJ	Spiraea japonica 'Little Princess'	Little Princess Spiraea	24" Ht.	Cont.
ANNUALS/PERENNIALS					
20	CG	Calamagrostis x acutifolia 'Karl Foerster'	Karl Foerster's Feather Reed Grass	24" O.C.	Cont.
124	HS	Hemerocallis 'Stella D' Oro'	Stella D' Oro Daylily	24" O.C.	Cont.
36	RF	Rudbeckia fulgida sullivantii	Black Eyed Susan	36" O.C.	Cont.
MATERIALS					
+/-		MULCH (To Be Determined By Contractor)		UNIT	CY
+/-		PLANT MIX (To Be Determined By Contractor)		UNIT	CY
+/-		TERRA SORB (To Be Determined By Contractor)		UNIT	LBS

* Plants counted toward tree replacement requirements

WETLAND SEED MIX - (For Impacted Wetland Areas)

Northeast Wetland Forest Herb Mix
 Code: STCMX-11
 \$160.00 Per Pound

1 pound will cover 14,500 sq. ft. @ 90+ seeds per sq. ft.

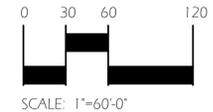
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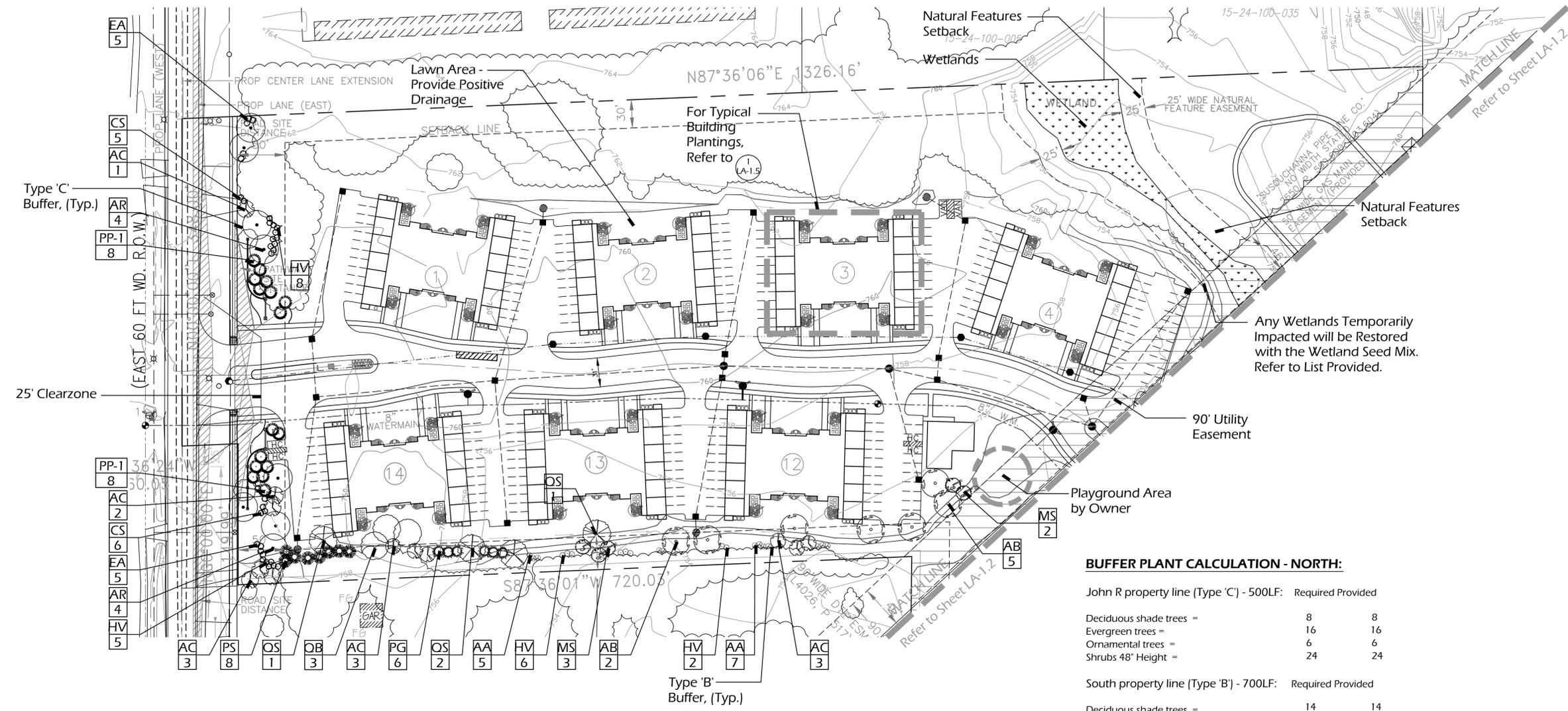
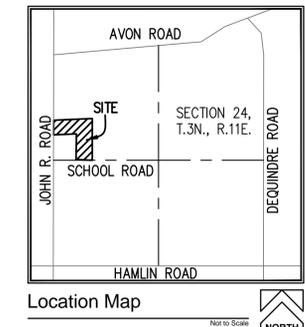
Percent by No. of seeds (not weight)	Scientific Name	Common Name
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25.41%	N Scirpus cyperinus	Wool Grass
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7.68%	N Glyceria canadensis	Canada Mannagrass
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0.94%	N Urtica dioica	Stinging Nettle
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0.85%	N Solidago rugosa	Wrinkled Goldenrod
0.75%	N Cinna arundinacea	Wood Reed
0.62%	N Leersia virginica	Whitegrass
0.57%	N Cephalanthus occidentalis	Buttonbush
0.45%	N Elymus canadensis	Wild Rye
0.38%	N Slum suave	Water Parsnip
0.38%	N Elymus virginicus	Virginia Wild Rye
0.29%	N Polygonum pensylvanicum	Pennsylvania Smartweed
0.24%	N Geum macrorhizum	Large-Leaf Avens
0.22%	N Elymus riparius	Riverbank Wild Rye
0.19%	N Rumex verticillatus	Water Dock
0.16%	N Asclepias incarnata	Swamp Milkweed
0.09%	N Carex lurida	Shallow Sedge
0.09%	N Lillium superbum	Turk's Cap Lily
0.09%	N Rubus allegheniensis	Blackberry
0.07%	N Carex lupulina	Hop Sedge

PRELIMINARY REPLACEMENT - NORTH PLANT MATERIAL SCHEDULE:

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
6	GT	Gleditsia triacanthos var. inermis 'Skyline'	Skyline Honeylocust	2" Cal.	B&B

Plants counted toward parking lot trees.





BUFFER PLANT CALCULATION - NORTH:

John R property line (Type 'C') - 500LF:	Required	Provided
Deciduous shade trees =	8	8
Evergreen trees =	16	16
Ornamental trees =	6	6
Shrubs 48" Height =	24	24
South property line (Type 'B') - 700LF:	Required	Provided
Deciduous shade trees =	14	14
Evergreen trees =	14	14
Ornamental trees =	11	11
Shrubs 48" Height =	28	30
Total	121	123

WETLAND SEED MIX - (For Impacted Wetland Areas)

Northeast Wetland Forest Herb Mix
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\$160.00 Per Pound
1 pound will cover 14,500 sq. ft. @ 90+ seeds per sq. ft.

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7.63%	N Verbena hastata	Blue Vervain
6.02%	N Glycyria grandis	Reed Meadowgrass
5.70%	N Glycyria stricta	Fowl Mannagrass
2.12%	N Panicum clandestinum	Deertongue
1.53%	N Verbena urticifolia	White Vervain
1.51%	N Glycyria melicaria	Melic Mannagrass
0.94%	N Boehmeria cylindrica	False Nettle
0.94%	N Urtica dioica	Stinging Nettle
0.85%	N Solidago gigantea	Giant Goldenrod
0.85%	N Solidago rugosa	Wrinkled Goldenrod
0.75%	N Circa arundinacea	Wood Reed
0.62%	N Leersia virginica	Whitegrass
0.57%	N Cephalanthus occidentalis	Butterbush
0.45%	N Elymus canadensis	Wild Rye
0.38%	N Silum suave	Water Parsnip
0.32%	N Elymus virginicus	Virginia Wild Rye
0.29%	N Polygonum pennsylvanicum	Pennsylvania Smartweed
0.24%	N Geum macrophyllum	Large-Leaf Avens
0.22%	N Elymus riparius	Riverbank Wild Rye
0.19%	N Rumex verticillatus	Water Dock
0.16%	N Asclepias incarnata	Swamp Milkweed
0.09%	N Carex lurida	Shallow Sedge
0.09%	N Lilium superbum	Turk's Cap Lily
0.09%	N Rubus allegheniensis	Blackberry
0.07%	N Carex lupulina	Hop Sedge

PRELIMINARY BUFFER - NORTH PLANT MATERIAL SCHEDULE:

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHADE TREE					
*7	AB	Acer rubrum 'Autumn Blaze'	Autumn Blaze Maple	2" Cal.	B&B
*8	AR	Acer rubrum 'Franksred'	Red Sunset Maple	2" Cal.	B&B
*3	QB	Quercus bicolor	Swamp White Oak	2" Cal.	B&B
*4	QS	Quercus shumardii	Quercus shumardii	2" Cal.	B&B
EVERGREEN TREE					
*6	PG	Picea glauca var. densata	Black Hills Spruce	8' Ht.	B&B
**16	PP-1	Picea pungens	Colorado Spruce	12' Ht.	B&B
*8	PS	Pinus strobus	Eastern White Pine	8' Ht.	B&B
ORNAMENTAL TREE					
*12	AC	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	1.5" Cal.	B&B
*5	MS	Malus 'Snowdrift'	Snowdrift Flowering Crab	1.5" Cal.	B&B
SHRUBS					
*12	AA	Aronia arbutifolia	Red Chokeberry	4' Ht.	B&B
*11	CS	Cornus sericea 'Cardinal'	Cardinal Red Osier Dogwood	4' Ht.	B&B
*10	EA	Euonymus alata 'Compacta'	Dwarf Burning Bush	4' Ht.	B&B
*21	HV	Hammamelis virginiana	Hammamelis virginiana	4' Ht.	B&B

- MATERIALS**
- +/- MULCH (To Be Determined By Contractor) CY
 - +/- PLANT MIX (To Be Determined By Contractor) CY
 - +/- TERRA SORB (To Be Determined By Contractor) LBS

* Plants counted toward buffer requirements
** Plants counted toward replacement tree requirements = 32 credits

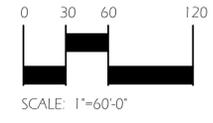
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PH: 586.263.1203
FAX: 586.263.5903

Project: **Harvard Place**
Rochester Hills,
Oakland County,
Michigan

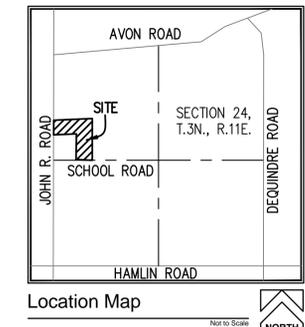
Designed/Drawn: RLN/RGD
Checked/Approved: RLN
Job #: D002.2012
File: LA 2-24-13.dwg

Date/Revisions	Issued For
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3/28/13	Final PUD Approval



PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

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PRELIMINARY REPLACEMENT - SOUTH PLANT MATERIAL SCHEDULE:

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHADE TREE					
*22	AB-1	Acer rubrum 'Autumn Blaze'	Autumn Blaze Maple	3" Cal.	B&B
*5	AF	Acer rubrum 'Franksred' Multi-stem	Multi-stem Red Sunset Maple	12' Ht./2" Cal.	B&B
*7	GT-1	Gleditsia triacanthos var. inermis 'Skyline'	Skyline Honeylocust	3" Cal.	B&B
*8	QB-1	Quercus bicolor	Swamp White Oak	3" Cal.	B&B
*11	QP-1	Quercus palustris	Pin Oak	3" Cal.	B&B
*8	QR-1	Quercus rubra	Red Oak	3" Cal.	B&B
*13	TA	Tilia americana 'Redmond'	Redmond Linden	3" Cal.	B&B
EVERGREEN TREE					
*17	PA-1	Picea abies	Norway Spruce	12' Ht.	B&B
*17	PG-1	Picea glauca var. densata	Black Hills Spruce	12' Ht.	B&B
*14	PP-1	Picea pungens	Colorado Spruce	12' Ht.	B&B
*15	PS-1	Pinus strobus	Eastern White Pine	12' Ht.	B&B
SHRUBS					
30	SJ	Spiraea japonica 'Little Princess'	Little Princess Spiraea	24" Ht.	Cont.
21	VT	Viburnum trilobum 'Compactum'	Compact American Cranberrybush	4' Ht.	Cont.
MATERIALS					
+/-		MULCH (To Be Determined By Contractor)			UNIT
+/-		PLANT MIX (To Be Determined By Contractor)			CY
+/-		TERRA SORB (To Be Determined By Contractor)			LBS

* Plants counted toward tree replacement requirements

REPLACEMENT TREE CALCULATION - SOUTH:

Number of Tree Credits Provided - South:
 5 - 2" caliper trees x 1 credits = 5
 69 - 3" caliper trees x 2 credits = 138
 63 - 12' tall trees x 3 credits = 189
 Total = 332 Credits

11 - 2" Caliper Trees x 1 Credit = 11 Credits

Total Trees = 343 Trees

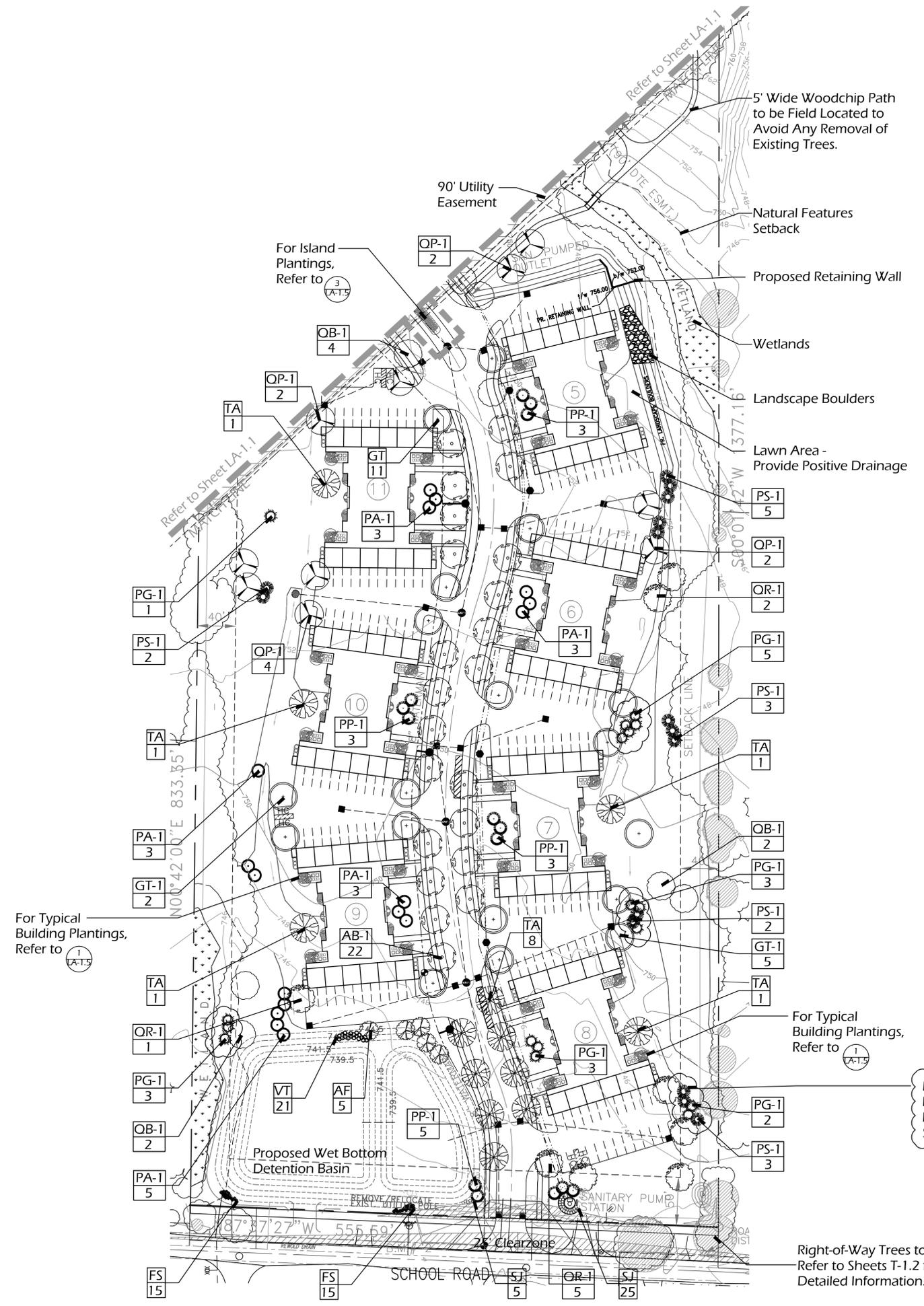
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3" Caliper Shade Tree	2 Credits
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8' Evergreen Trees	1 Credit
9' Evergreen Trees	1.5 Credits
10' Evergreen Trees	2 Credits
12' Evergreen Trees	3 Credits

PRELIMINARY REPLACEMENT - NORTH PLANT MATERIAL SCHEDULE:

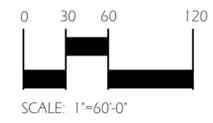
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11	GT	Gleditsia triacanthos var. inermis 'Skyline'	Skyline Honeylocust	2" Cal.	B&B

Plants counted toward parking lot trees.



Minimum of 4' Evergreen Screen Ht. Required by City for Parking Lots. North & South of Building 7, South of Building 8 & 9.

Right-of-Way Trees to be Saved. Refer to Sheets T-1.2 for Additional Detailed Information.



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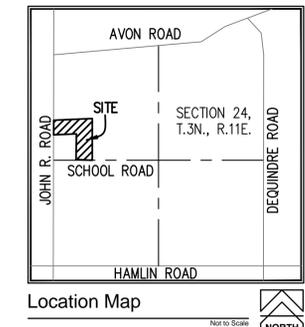
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46600 Romeo Plank, Suite 5
Macomb, Michigan 48313
PH: 586.263.1203
FAX: 586.263.5903

Project: **Harvard Place**
Rochester Hills,
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Designed/Drawn: RLN/RGD
Checked/Approved: RLN
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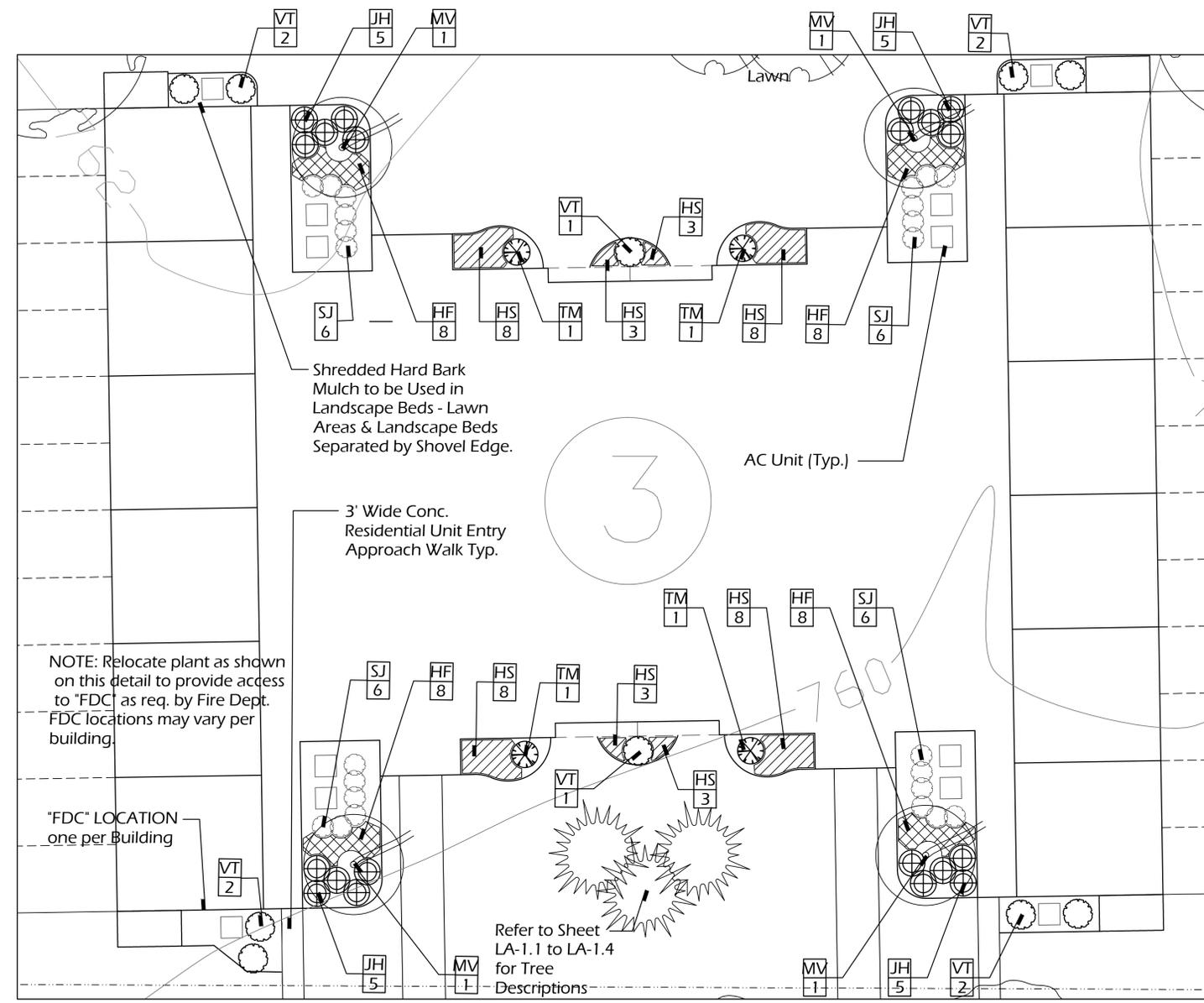
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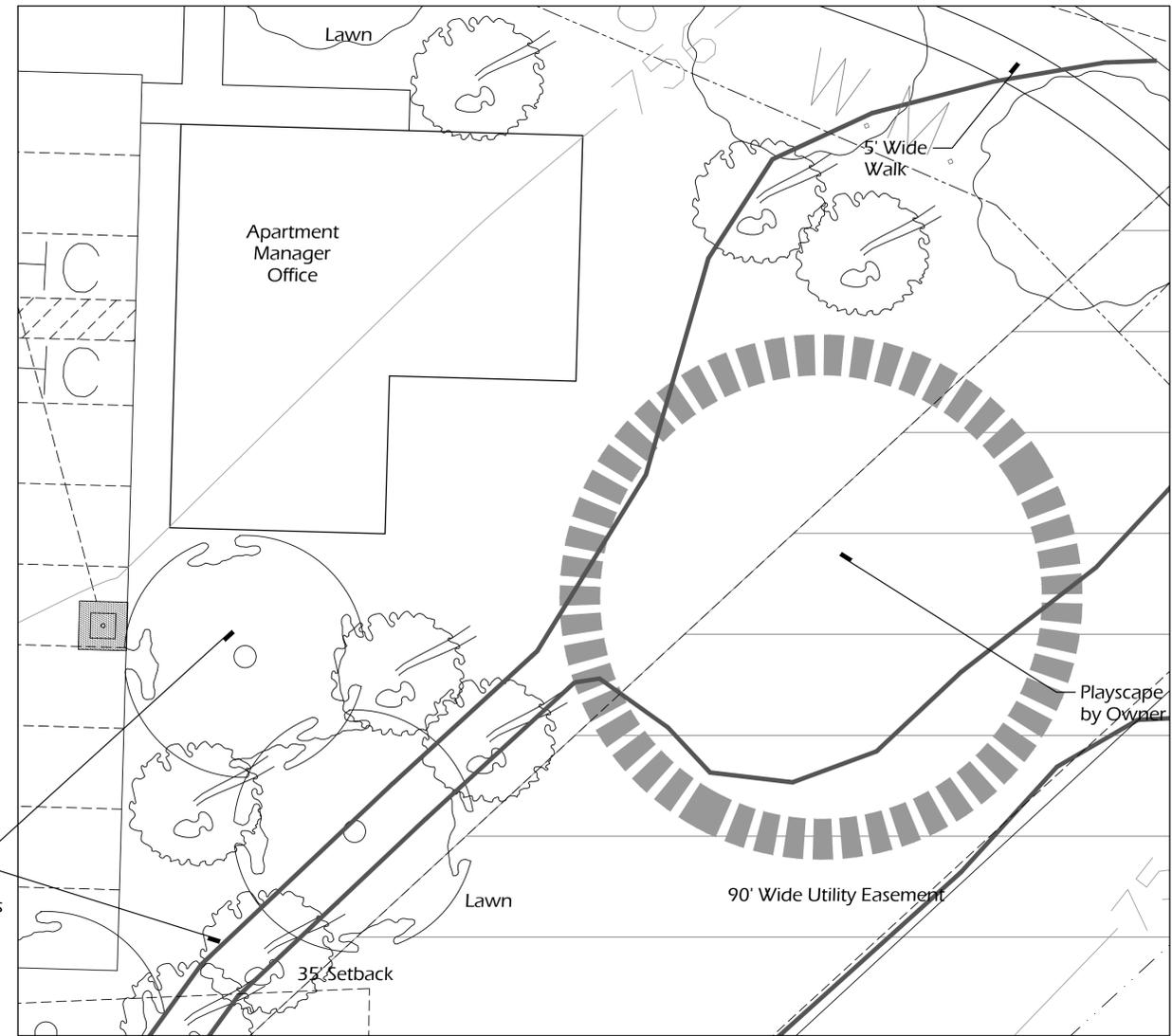


TYPICAL BUILDING PRELIMINARY PLANT MATERIAL SCHEDULE:

TOT.	QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
ORNAMENTAL TREE						
56	4	MV	Malus 'Pink Spires'	Pink Spires Crab	2" Cal.	B&B
SHRUBS						
280	20	JH	Juniperus horizontalis 'Blue Chip'	Blue Chip Juniper	24" Sp.	Cont.
336	24	SJ	Spiraea japonica 'Little Princess'	Little Princess Spiraea	24" Ht.	Cont.
56	4	TM	Taxus x media 'Densifomis'	Dense Yew	24" Ht.	Cont.
140	10	VT	Viburnum trilobum 'Compactum'	Compact American Cranberrybush	36" Ht.	Cont.
PERENNIALS						
448	32	HF	Hosta fortunei 'Francee'	Francee Hosta	18" O.C.	Cont.
616	44	HS	Hemerocallis 'Stella D' Oro'	Stella D' Oro Daylily	18" O.C.	Cont.
MATERIALS						
+/-	+/-		MULCH (To Be Determined By Contractor)			UNIT
+/-	+/-		PLANT MIX (To Be Determined By Contractor)			CY
+/-	+/-		TERRA SORB (To Be Determined By Contractor)			LBS



1
LA-1.5
Typical Foundation Plantings
Scale: 1" = 10'-0"



2
LA-1.5
Playground Area
Scale: 1" = 10'-0"

IRRIGATION SYSTEM:
The irrigation will be designed for each building and the adjacent common areas. Contractor to coordinate to provide irrigation for all landscape areas.

* All landscape areas to have an automatic irrigation system. Irrigation Plan will be provided by John Deere Irrigation Distributor for the final PUD approval.

Irrigation will occur between the hours of midnight and 5 a.m. Irrigation of all landscape areas including buffer areas and street trees.

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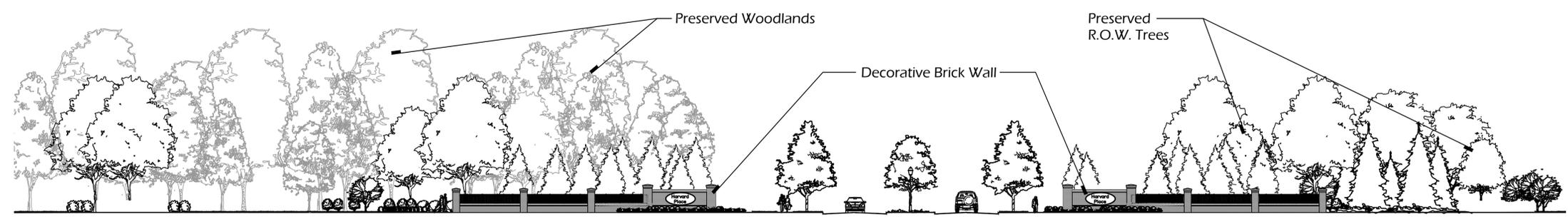
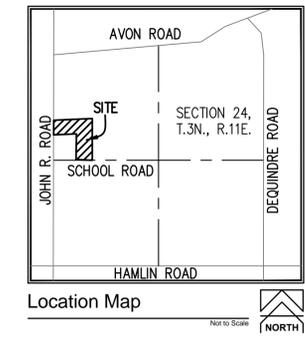
Project
Harvard Place
Rochester Hills,
Oakland County,
Michigan

Designed/Drawn RLN/RGD
Checked/Approved RLN
Job # D002.2012
File LA 2-24-13.dwg

Date/Revisions	Issued For
04/11/12	Client Review
04/17/12	Preliminary PUD Approval
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12/15/12	Client Review
1/11/13	Final PUD Approval
2/26/13	Final PUD Approval
3/28/13	Final PUD Approval

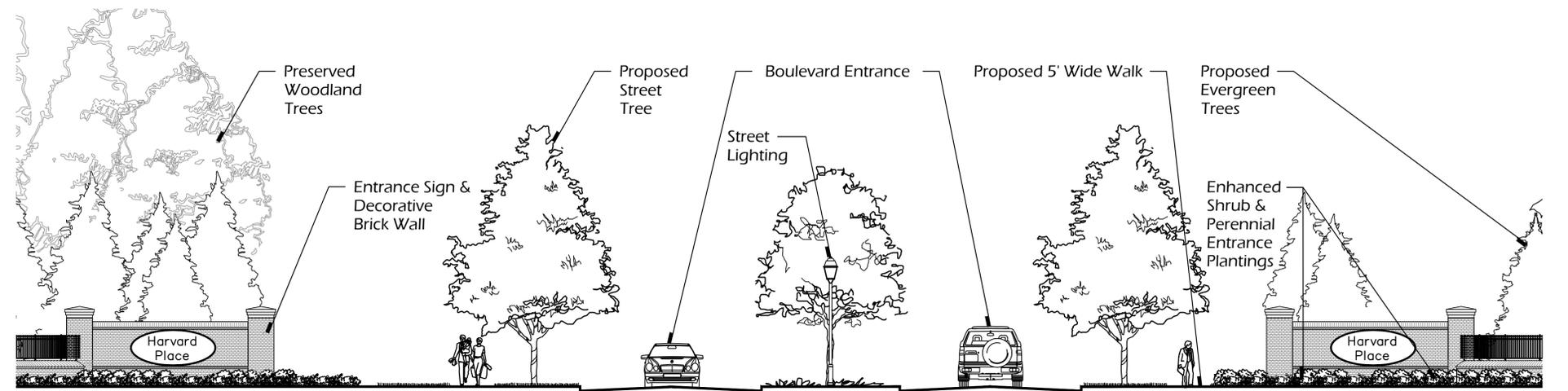


PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.



1 John R Elevation
LA-1.6

Scale: 1" = 20'-0"



2 John R Entrance Elevation
LA-1.6

* All landscape areas to have an automatic irrigation system. Irrigation Plan will be provided by John Deere Irrigation Distributor for the final PUD approval.
Irrigation will occur between the hours of midnight and 5 a.m. Irrigation of all landscape areas including buffer areas and street trees.

IRRIGATION SYSTEM:
The irrigation will be designed for each building and the adjacent common areas.
Contractor to coordinate to provide irrigation for all landscape areas.

HARVARD PLACE PLANT LIST
BUFFER PLANTINGS:

QTY.	SIZE	COMMON NAME	UNIT PRICE	TOTAL
Shade Trees				
7	2" cal	Autumn Blaze Maple	\$ 185.00	\$ 1,295.00
11	2" cal	Red Sunset Maple	\$ 185.00	\$ 2,035.00
5	12'	Multi-stem River Birch	\$ 205.00	\$ 1,025.00
10	2" cal	Skyline Honey Locust	\$ 195.00	\$ 1,950.00
8	2" cal	Swamp White Oak	\$ 215.00	\$ 1,720.00
12	2" cal	Pin Oak	\$ 225.00	\$ 2,700.00
5	2" cal	Red Oak	\$ 215.00	\$ 1,075.00
4	2" cal	Shumard Oak	\$ 225.00	\$ 900.00
2	2" cal	Redmond Linden	\$ 215.00	\$ 430.00
Evergreen Trees				
21	8'	Black Hills Spruce	\$ 265.00	\$ 5,565.00
2	8'	Norway Spruce	\$ 265.00	\$ 530.00
28	8'	Colorado Spruce	\$ 465.00	\$ 13,020.00
16	8'	White Pine	\$ 195.00	\$ 3,120.00
Ornamental Trees				
24	1.5" cal	Autumn Brilliance Serviceberry	\$ 145.00	\$ 3,480.00
7	1.5" cal	Japanese Tree Lilac	\$ 185.00	\$ 1,295.00
5	1.5" cal	Snowdrift Flowering Crab	\$ 155.00	\$ 775.00
3	1.5" cal	White Flowering Dogwood	\$ 140.00	\$ 420.00
Shrubs				
21	#7	Red Chokeberry	\$ 36.00	\$ 756.00
28	#7	Grey Dogwood	\$ 36.00	\$ 1,008.00
38	#7	Red Osier Dogwood	\$ 36.00	\$ 1,368.00
25	#7	Dwarf Burning Bush	\$ 45.00	\$ 1,125.00
21	#7	Common Witchazel	\$ 45.00	\$ 945.00
Planting Materials				
75	yards	Topsoil Installed	\$ 24.00	\$ 1,800.00
100	yards	Shredded Hardwood Mulch Installed	\$ 38.00	\$ 3,800.00
BUFFER PLANTINGS			\$	52,137.00

HARVARD PLACE PLANT LIST
REPLACEMENT PLANTINGS:

QTY.	SIZE	COMMON NAME	UNIT PRICE	TOTAL
Shade Trees				
26	3" cal	Autumn Blaze Maple	\$ 275.00	\$ 7,150.00
27	3" cal	Red Sunset Maple	\$ 275.00	\$ 7,425.00
5	12' ht	Clump Red Sunset Maple	\$ 275.00	\$ 1,375.00
7	3" cal	Skyline Honey Locust	\$ 265.00	\$ 1,855.00
28	3" cal	Swamp White Oak	\$ 305.00	\$ 8,540.00
11	3" cal	Pin Oak	\$ 325.00	\$ 3,570.00
8	3" cal	Red Oak	\$ 305.00	\$ 2,440.00
10	3" cal	Shumard Oak	\$ 325.00	\$ 3,250.00
13	3" cal	Redmond Linden	\$ 275.00	\$ 3,575.00
17	2" cal	Skyline Honey Locust	\$ 195.00	\$ 3,315.00
Evergreen Trees				
41	12'	Black Hills Spruce	\$ 455.00	\$ 18,655.00
26	12'	Norway Spruce	\$ 445.00	\$ 11,570.00
21	12'	Colorado Spruce	\$ 465.00	\$ 9,765.00
24	12'	White Pine	\$ 380.00	\$ 9,120.00
Ornamental Trees				
7	1.5" cal	Autumn Brilliance Serviceberry	\$ 145.00	\$ 1,015.00
3	1.5" cal	White Flowering Dogwood	\$ 140.00	\$ 420.00
9	1.5" cal	Snowdrift Flowering Crab	\$ 155.00	\$ 1,395.00
Shrubs				
90	#5	Little Princess Spirea	\$ 28.00	\$ 2,520.00
25	#5	Buffalo Juniper	\$ 29.00	\$ 725.00
45	#5	Spring Glory Forsythia	\$ 32.50	\$ 1,462.00
21	#5	Cranberry Viburnum	\$ 34.00	\$ 714.00
20	each	Karl Foerster Grass #3	\$ 28.75	\$ 575.00
124	each	Stella del-oro Daylily #1	\$ 8.75	\$ 1,085.00
36	each	Black Eyed Susan #1	\$ 9.50	\$ 342.00
Planting Materials				
135	yards	Topsoil Installed	\$ 24.00	\$ 3,240.00
170	yards	Shredded Hardwood Mulch Installed	\$ 38.00	\$ 6,460.00
REPLACEMENT PLANTINGS			\$	111,558.00

Scale: 1" = 8'-0"

HARVARD PLACE PLANT LIST
UNIT PLANTINGS PER BUILDING:

QTY.	SIZE	COMMON NAME	UNIT PRICE	TOTAL
Ornamental Trees				
4	2" cal	Pink Spire Crab	\$ 165.00	\$ 660.00
Shrubs				
20	each #3	Blue Chip Juniper	\$ 29.00	\$ 580.00
24	each	Little Princess Spirea	\$ 28.00	\$ 672.00
4	each	Dense Yew 24"	\$ 48.00	\$ 192.00
10	each #5	Viburnum	\$ 34.00	\$ 340.00
Perennials				
32	each	Flancee Hosta #1	\$ 9.50	\$ 304.00
44	each	Stella del-oro Daylily #1	\$ 8.75	\$ 385.00
Planting Materials				
10	yards	Topsoil Installed	\$ 24.00	\$ 240.00
16	yards	Shredded Hardwood Mulch Installed	\$ 38.00	\$ 608.00
Drain Tile per Building				
128	in.ft.	4" Solid Drain Tile installed (32' per courtyard)	\$ 6.50	\$ 832.00
4	each	4" Pop ups (4 per bldg.)	\$ 18.50	\$ 74.00
UNIT PLANTINGS per BUILDING			\$	4,887.00
Total of 14 BUILDING			\$	68,418.00
BUFFER PLANTINGS			\$	52,137.00
REPLACEMENT PLANTINGS			\$	111,558.00
UNIT PLANTINGS Total 14 BUILDING			\$	68,418.00
GRAND TOTAL			\$	232,113.00

242,642 S.F. Total Site Square Footage for Seed
or
26,960 S.Y. Total Site Square Yards for Seed Cost
Cost approx. \$0.85 per yard or \$22,916.00 Total

3 Landscape Cost Estimate
LA-1.6

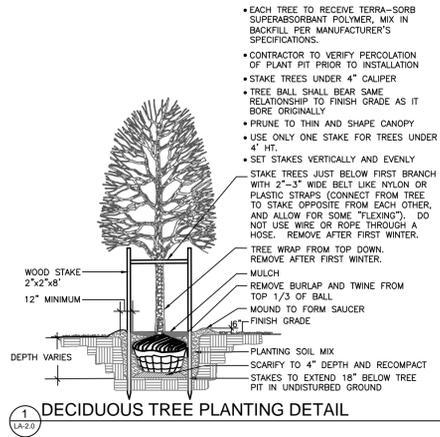


PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

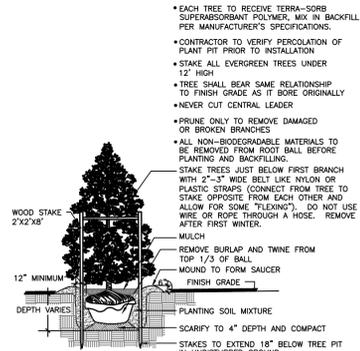
GENERAL NOTES

PLANTING NOTES:

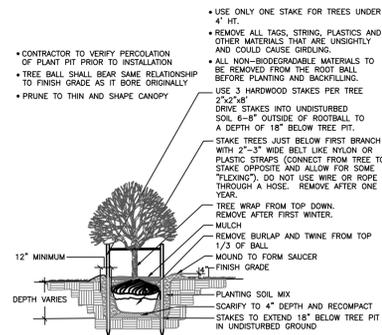
- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES 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.
- EDGING SHALL BE A SHOVEL EDGE.
- ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
- STAKES USED FOR TREE SUPPORTS SHALL POINT AWAY FROM ANY CIRCULATION ROUTES.
- IN CASE OF DISCREPANCY BETWEEN PLAN AND SPECIFICATIONS, THE PLAN SHALL GOVERN PROPER PROCEDURE.
- 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.
- REMOVE ALL TREE STAKES AND GUY WIRES AFTER ONE WINTER.
- INSTALL AND MAINTAIN ALL LANDSCAPING ACCORDING TO ROCHESTER HILLS STANDARDS.
- PLANTING TO START FALL 2012.
- 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.
- REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TOP 1/3 OF TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS.
- 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.
- 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.
- 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.



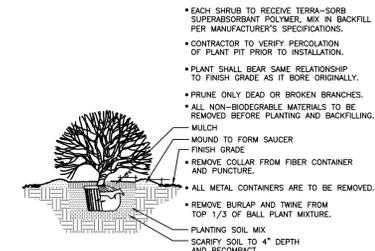
1 LA-2.0 DECIDUOUS TREE PLANTING DETAIL



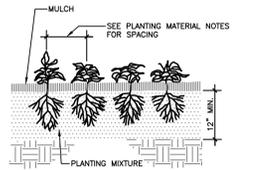
2 LA-2.0 EVERGREEN TREE PLANTING DETAIL



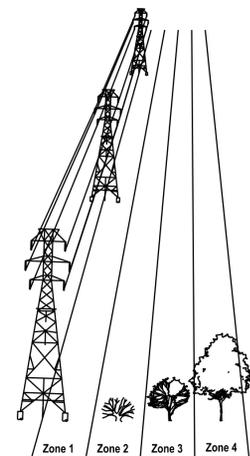
3 LA-2.0 ORNAMENTAL TREE PLANTING DETAIL



4 LA-2.0 SHRUB PLANTING DETAIL

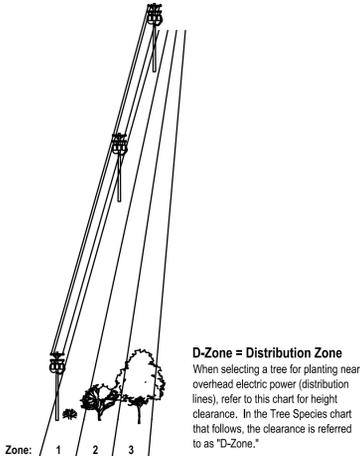


5 LA-2.0 ANNUAL, PERENNIAL, GROUND COVER PLANTING DETAIL



- Zone 1 - Directly under to 30 feet away:**
Do not plant trees or shrubs - only grass
- Zone 2 - From 30 - 60 feet away:**
Trees with maximum height of 15 feet.
- Zone 3 - From 60-90 feet away:**
Trees with maximum height of 25 feet.
- Zone 4 - From 90 - 120 feet away:**
Trees with maximum height of 60 feet.

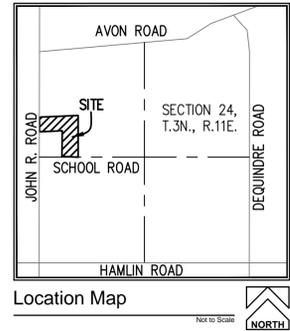
6 LA-2.0 Transmission Zone Planting Detail



- Zone 1 - Directly under to 20 feet away:**
Maximum height of trees or shrubs to 25 feet.
- Zone 2 - From 20 - 50 feet away:**
Trees with maximum height of 45 feet.
- Zone 3 - More than 50 feet away:**
Trees greater than 45 feet in height.

LANDSCAPE NOTES:

- 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.
- 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 6' from the nearest underground utility.
- 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.
- Prior approval is required to plant any tree or shrub in the public right-of-way.
- No substitutions or changes of location or plant types shall be made without the approval of the developer and the City of Rochester Hills.
- 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.
- Replacement trees may not be planted within the drip line of existing trees.
- No substitutions or changes of location or plant type shall be made without the approval of the developer and the City of Rochester Hills.
- Trees must be at least 6' from underground utilities and 15' from overhead utilities.



TREE PROTECTION NOTES:

- The tree protection fencing (TPF) shall be erected 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 maintain 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- During the construction process no person shall attach any device or wire/cable/cord/rope to an existing tree designated to be preserved.
- All utility service request must included notification to the installer that protected trees must be avoided. All trenching shall occur outside the TPF.
- 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.
- 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.
- Regulated trees located off-site on adjacent properties that may be affected by construction operations must be protected as defined here in.
- 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.

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Landscape Architecture
Urban Design

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PLANS SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION

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