

Oakville Estates

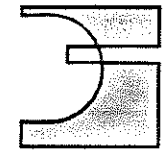
Planned Unit Development
Submitted for Final PUD Review

Rochester Hills,

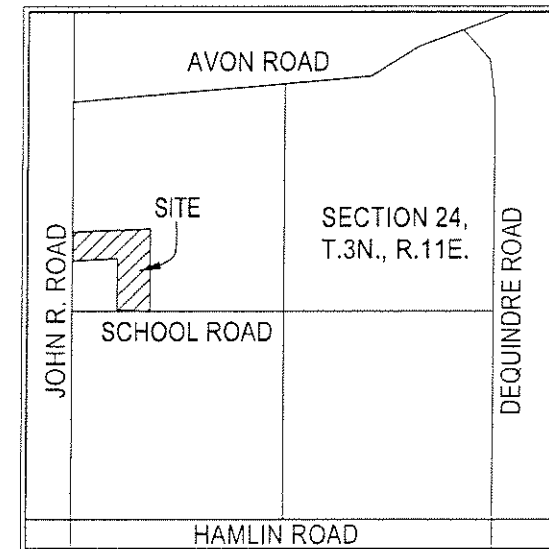
Oakland County, Michigan

Sheet Index:

Land Planner/ Landscape Architect	SP - 1.0 Cover
DesignTeam Limited 17255 W. Ten Mile Road Southfield, MI 48075 248.559.1000 Fax: 248.559.5717 email: meamrtd@aol.com	SP - 2.0 Zoning Plan
	SP - 2.1 Natural Feature Plan
	SP - 3.0 Overall Final Site Plan
	SP - 3.1 Open Space Plan
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	SP - 5.0 Oakville Estates South - Final Site Plan
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	LA - 1.1 Complete Cost Estimate
	LA - 2.0 Oakville Estates Phase I 'Section A' - Final Landscape Plan
	LA - 2.1 Oakville Estates Phase I 'Section B' - Final Landscape Plan
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LA - 5.0 Amenities, Specifications & Details	



DesignTeam
Landscape Architecture
Land Planning
Urban Design
Environmental Planning



Location Map

Not to Scale



Legal Description (Provided by MCS Associates, Inc.)

LEGAL DESCRIPTION: TOTAL PARCEL

Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point which is S87°37'27"E 769.35 feet along the East-West 1/4 line of Section 24 and centerline of School Road (North 43 ft wd. R.O.W.) and N00°42'00"E 43.02 feet to the North R.O.W. line of School Road (North 43 ft wd. R.O.W.) from the West 1/4 corner of Section 24; thence continuing N00°42'00"E 853.35 feet; thence S87°36'01"W 720.03 feet to the East 60 ft R.O.W. line of John R. Road (East 60 ft wd. R.O.W.); thence N00°00'00"E 149.99 feet along said East 60 ft R.O.W. line of John R. Road (East 60 ft wd. R.O.W.); thence S87°36'24"W 60.05 feet to the West line of Section 24 and centerline of John R. Road (East 60 ft wd. R.O.W.); thence N00°00'00"E 348.00 feet along said West line of Section 24 and centerline of John R. Road (East 60 ft wd. R.O.W.); thence N87°36'06"E 1326.16 feet to the 1/8 line of Section 24; thence S00°01'42"W 1377.16 feet along said 1/8 line of Section 24 to the North R.O.W. line of School Road (North 43 ft wd. R.O.W.); thence N87°37'27"W 555.59 feet along said North R.O.W. line of School Road (North 43 ft wd. R.O.W.) to the Point of Beginning.
Containing 1,121,893 square feet --- 25.755 acres.

Subject to the rights of the public and any governmental unit in any part thereof taken, used or needed for street, road or highway purposes.

NOTE:
NET ACREAGES ARE CALCULATED TO THE PROPOSED 60 FT R.O.W. OF JOHN R. ROAD, AND THE EXISTING 43 FT R.O.W. OF SCHOOL ROAD.

Project Engineer	C - 1 BOUNDARY SURVEY
JJ Associates (Formerly MCS Associates) Civil Engineering and Surveying 44444 Mound Road Suite 100 Sterling Heights, Michigan 48314 Phone: 586.726.9111 Fax: 586.726.9112	C - 2 TOPOGRAPHIC SURVEY
	C - 3 JOHN R. ROAD TOPOGRAPHIC SURVEY
	C - 4 SCHOOL ROAD TOPOGRAPHIC SURVEY
	C - 5 UTILITY LAYOUT
	C - 6 GRADING PLAN
	C - 7 GRADING PLAN
	C - 8 STRIPING DETAIL, SOIL MAP, SLOPE GRADIENT, WATERSHED MAP
	C - 9 DRAINAGE MAP
	C - 10 TREE PRESERVATION PLAN
	C - 11 TREE PRESERVATION PLAN
	C - 12 TREE PRESERVATION PLAN
	C - 13 TREE LISTING
	C - 14 TREE LISTING
	A - 1 UNIT A, B AND C ELEVATIONS
A - 2 UNIT A AND B ELEVATIONS	
WE-1 BOARDWALK LOCATION & DETAILS	

Wetland Consultant
Brooks Williamson and Associates
30366 Beck Road
Wixom, Michigan 48393

Phone: 248.624.9100
Fax: 248.624.3983

Planned issued

DATE : 11/30/06
 FOR REVIEW
 FOR APPROVAL
 FOR BIDDING
 FOR CONSTRUCTION

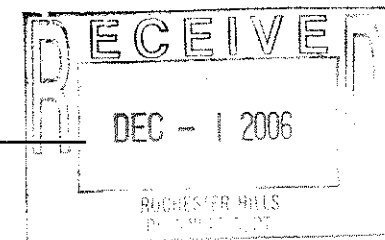
Client/Applicant

Oakville Estates L.L.C.
Mr. Greg Custer
42850 Schoenherr Road
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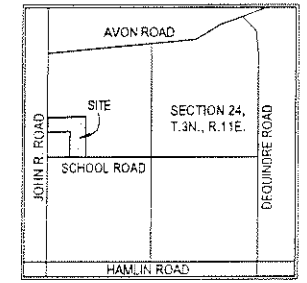
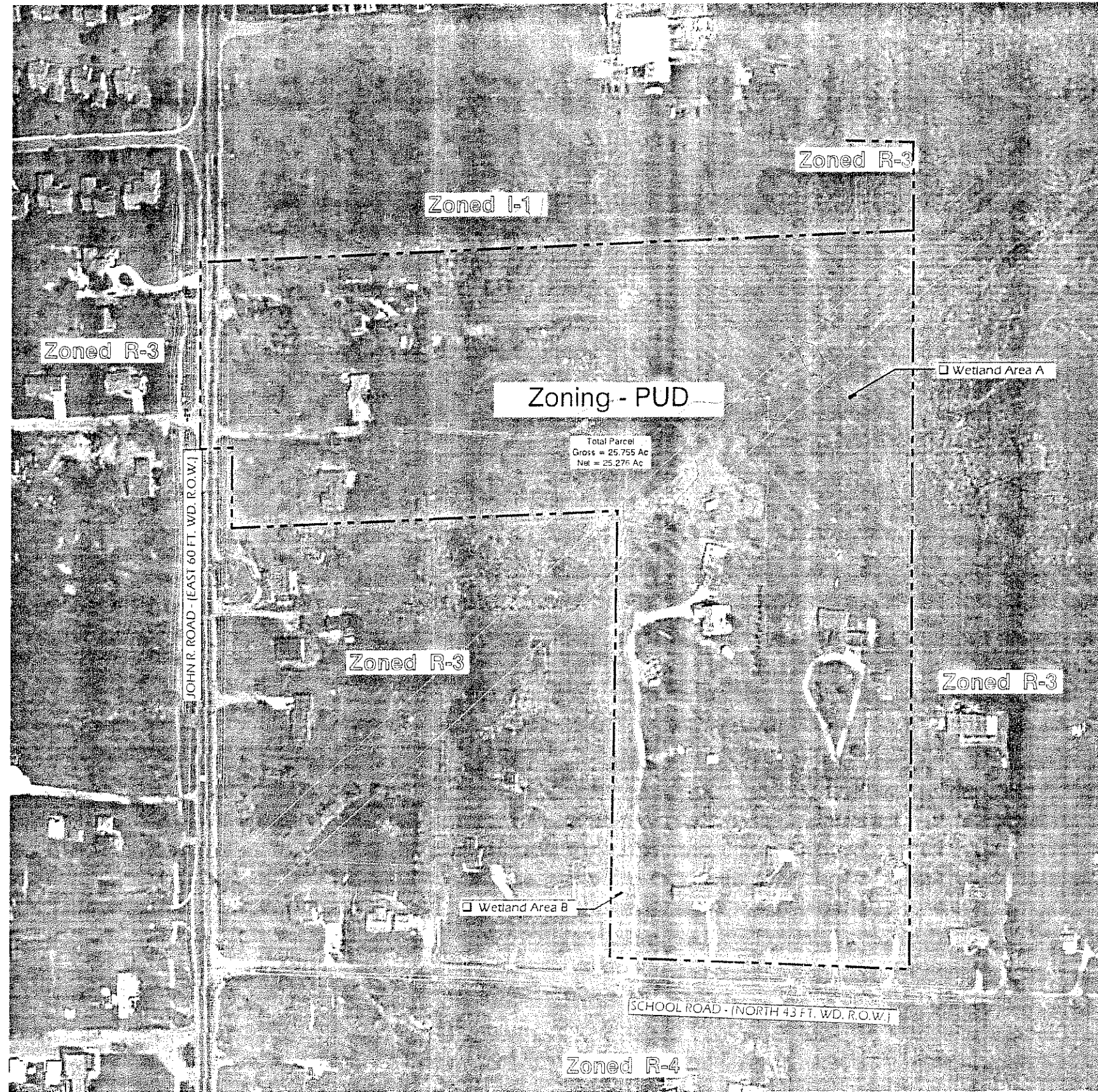
Project

Oakville Estates
Rochester Hills, Oakland County, Michigan
Submitted For Final PUD Approval



DesignTeam	11/13/06	Final PUD Approval
Checked/Approved	11/13/06	Final PUD Approval
Job #	037526	
File	D:\37526\cover\11-13-06.dwg	
Date/Version	Issued For	
11/13/06	Final PUD Approval	
02/27/06	Concept Review & Approval	
02/07/06	Concept Review & Approval	
01/27/06	Staff Review	
02/27/06	Final PUD Approval	
11/20/06	Final PUD Approval	

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Date



Location Map

Legal Description (Provided by MCS Associates, Inc.)

LEGAL DESCRIPTION TOTAL PARCEL
 Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
 Beginning at a point which is S87°37'37"E 759.35 feet along the East-West 1/4 line of Section 24 and centerline of School Road (North 43 ft wd. R.O.W.) and N00°42'00"E 43.01 feet to the North R.O.W. line of School Road (North 43 ft wd. R.O.W.) from the West 1/4 corner of Section 24; thence continuing N00°42'00"E 533.35 feet; thence S87°38'01"W 720.03 feet to the East 60 ft R.O.W. line of John R. Road (East 60 ft wd. R.O.W.); thence N00°00'00"E 149.99 feet along said East 60 ft R.O.W. line of John R. Road (East 60 ft wd. R.O.W.); thence S87°36'24"W 60.05 feet to the West line of Section 24 and centerline of John R. Road (East 60 ft wd. R.O.W.); thence N87°36'08"E 1326.16 feet to the 1/8 line of Section 24; thence S00°01'42"W 1377.15 feet along said 1/8 line of Section 24 to the North R.O.W. line of School Road (North 43 ft wd. R.O.W.); thence N87°37'27"W 556.59 feet along said North R.O.W. line of School Road (North 43 ft wd. R.O.W.) to the Point of Beginning. Containing 1,121,893 square feet -- 25.755 acres.

Subject to the rights of the public and any governmental unit in any part thereof taken, used or dedicated for street, road or highway purposes.

NOTE:
 NET ACRES ARE CALCULATED TO THE PROPOSED 60 FT R.O.W. OF JOHN R. ROAD AND THE EXISTING 43 FT R.O.W. OF SCHOOL ROAD.



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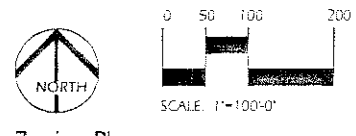
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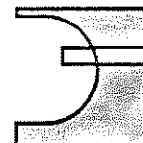
Project:
 Oakville Estates
 Rochester Hills,
 Oakland County,
 Michigan

Date/Revision	Issued For
1/11/06	For Staff Review
2/23/06	Concept Review & Approval
5/8/06	Concept Review & Approval
6/12/06	Staff Review
6/27/06	Final Staff Approval
11/20/06	Final Staff Approval

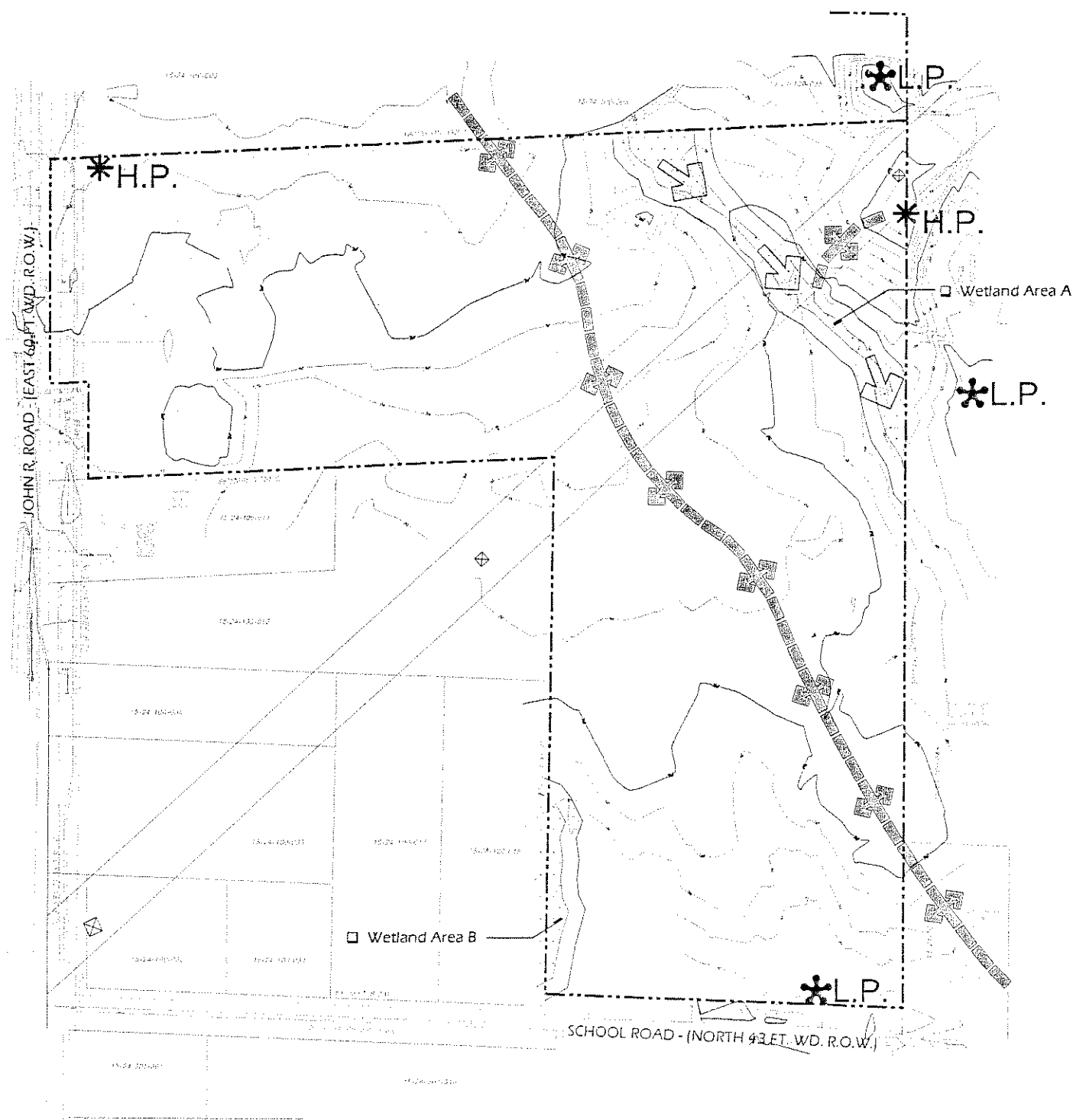
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 Date

- NOTES:**
1. Base, boundary, topographic, and legal description information provided by MCS & Associates, received on 5/2/06.
 2. Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
 3. Subject to city and agency reviews and modifications.





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 Landscape Architecture
 Land Planning
 Urban Design
 Environmental Planning



LEGEND:

- Property Line
- Existing Vegetation
- Wetlands
- 25' Buffer
- Ridge
- *H.P. High Point
- *L.P. Low Point

WETLAND REPORT:

For description of the wetlands refer to report prepared and submitted by Brooks Williamson and Associates, dated 11-9-05.

NOTES:

1. Base, boundary, topographic, and legal description information provided by MCS & Associates, received on 5/2/06.
2. Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
3. Subject to city and agency reviews and modifications.

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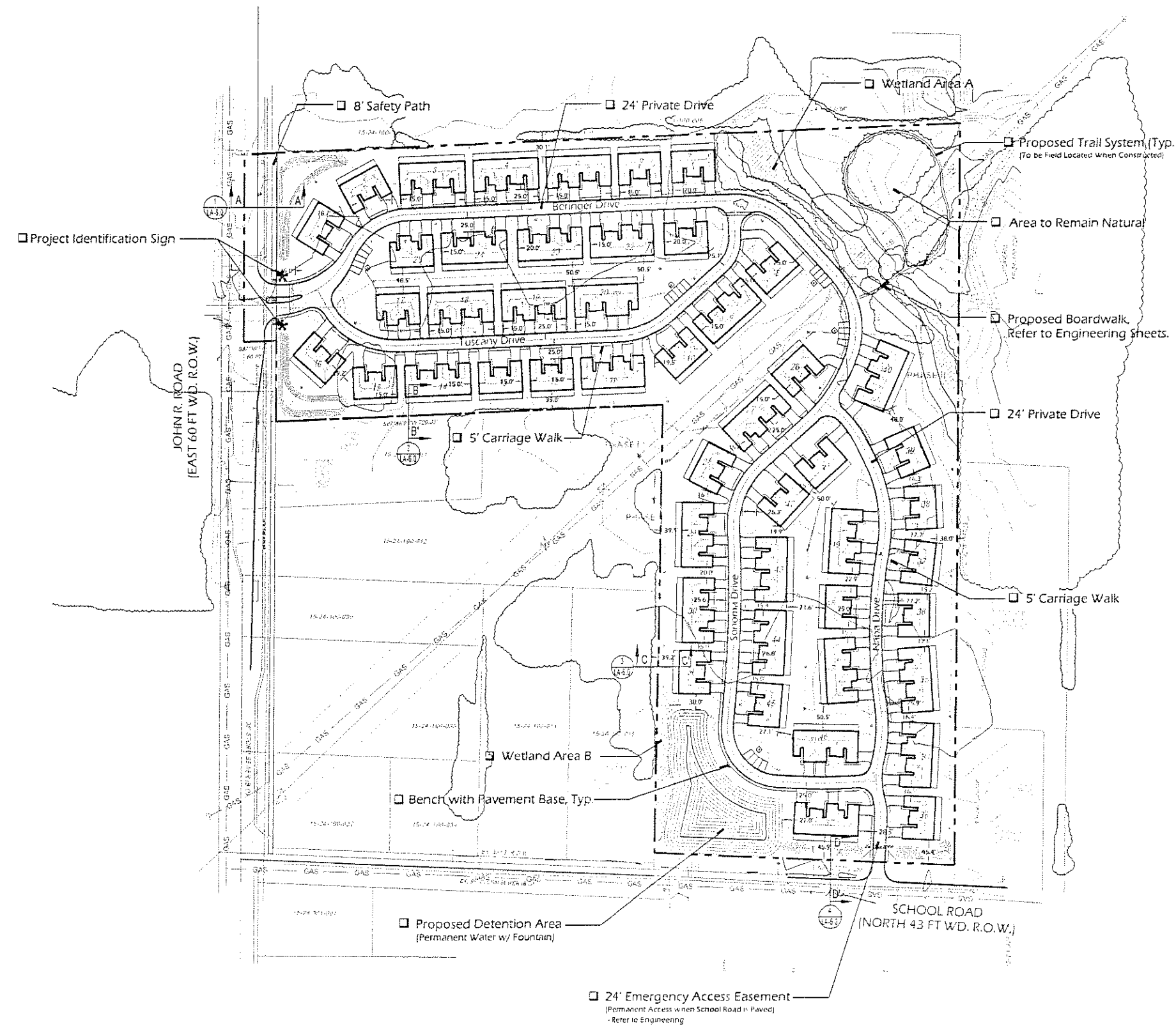
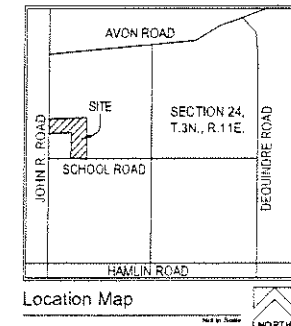
Project: Oakville Estates
 Rochester Hills,
 Oakland County,
 Michigan

Date/Revision	Issued For
11/11/06	For Staff Review
2/22/06	Cancel: NARA S. Approval
5/10/06	Cancel: NARA S. Approval
8/12/06	Staff Review
9/12/06	Final PSD Approval
11/13/06	Final PSD Approval

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 Date



Natural Features Plan



SITE DATA:

ITEM	
ZONING	PUD
SITE AREA	
Gross Site Area	25.755 Acres
Existing ROW	+/- 0.263 Acres
Future ROW	+/- 0.216 Acres
Net Site Area (Excluding ROW)	+/- 25.492 Acres
Net Site Area (Excluding Future ROW)	+/- 25.276 Acres
DENSITY (Gross)	+/- 4.74 DU/Ac.
Oakville Estates (Total Number of Units)	122
SETBACKS	
Front Yard	25
Minimum Separation Between Units	15
Rear Yard	30
Minimum Rear Yard Separation Between Units	45

NOTES:

1. Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
2. Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
3. Subject to city and agency reviews and modifications.
4. Parking to occur on side in which carriage walk occurs, opposite side of fire hydrants.



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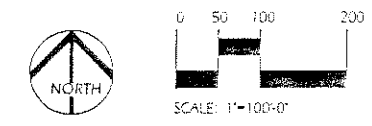
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Project: **Oakville Estates**
Rochester Hills,
Oakland County,
Michigan

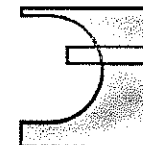
Date/Revision	Issued For
11/13/04	Final Plan Review
02/22/05	Concept Review & Approval
04/07/05	Concept Review & Approval
01/12/06	Self Review
01/27/06	Final (P&I) Approval
11/20/06	Final (P&I) Approval

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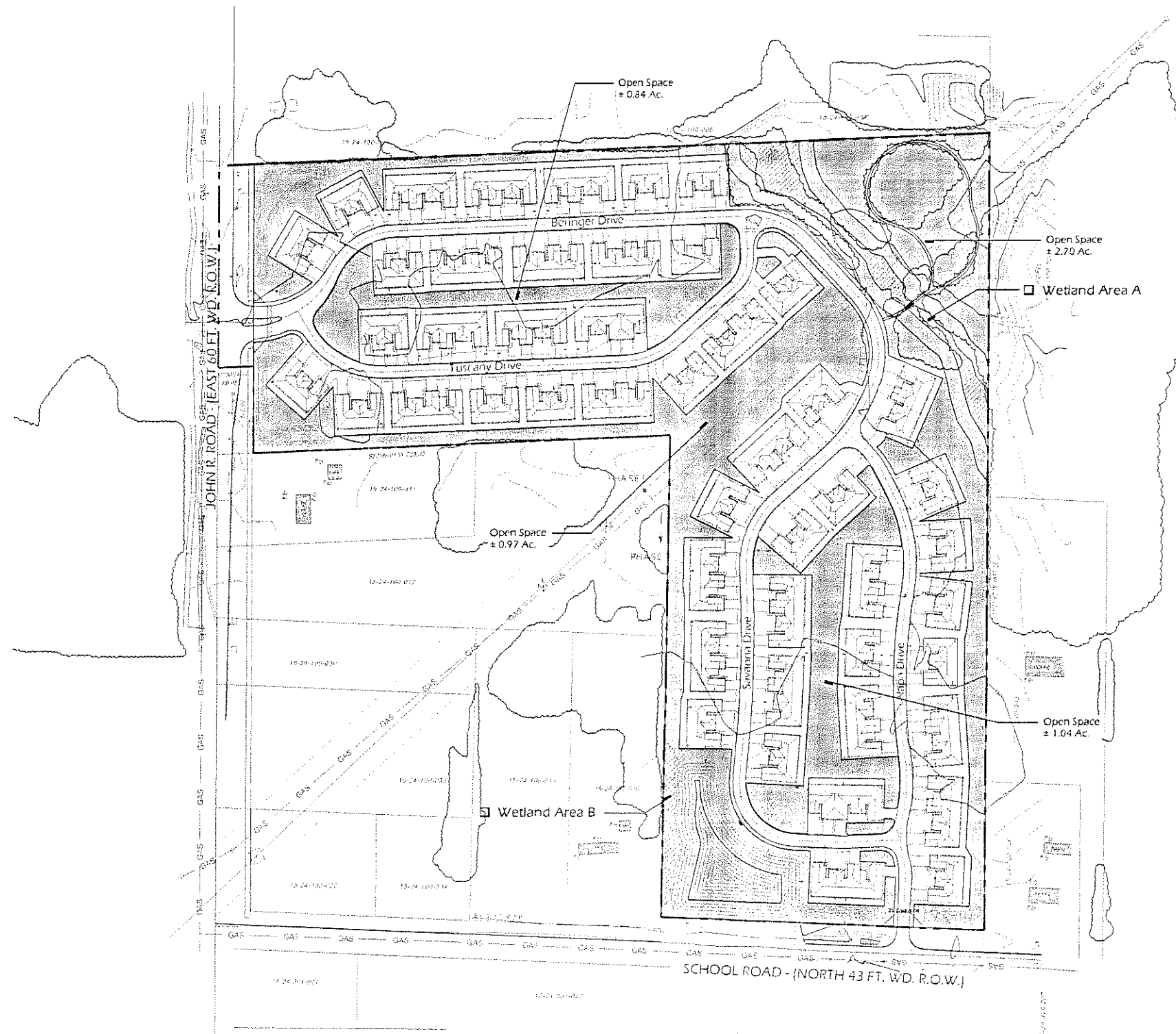
Overall Final Site Plan

SP-3.0



DesignTeam

Landscape Architecture
Land Planning
Urban Design
Environmental Planning



OPEN SPACE DATA:

ITEM			
TOTAL SITE AREA	25.755 Acres (Gross)	100.00 %	
TOTAL OPEN SPACE	+/- 10.27 Acres	39.88 %	

NOTES:

1. Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
2. Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
3. Subject to city and agency reviews and modifications.
4. Parking to occur on side in which carriage walk occurs, opposite side of fire hydrants.



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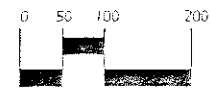
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Project

Oakville Estates
Rochester Hills,
Oakland County,
Michigan

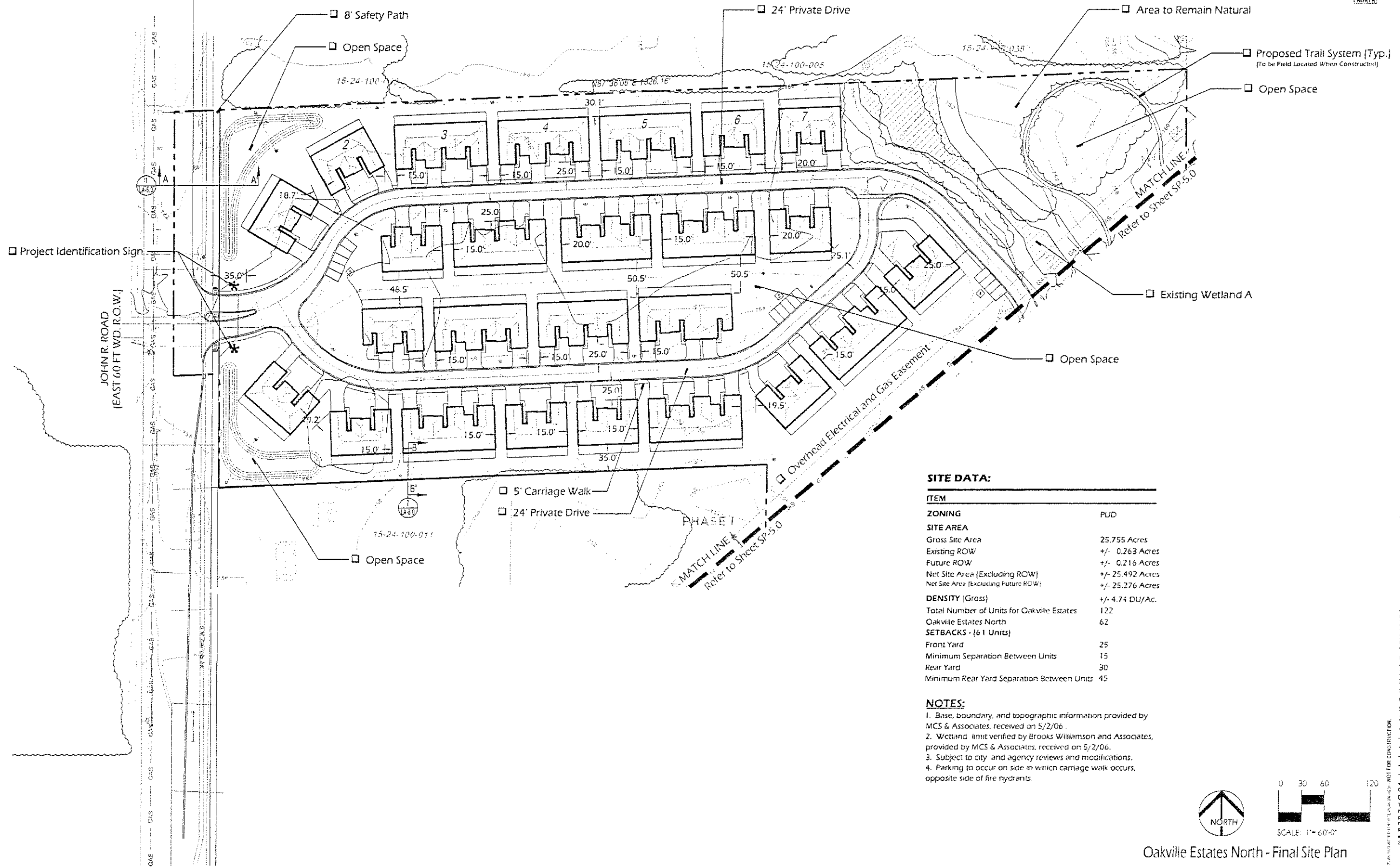
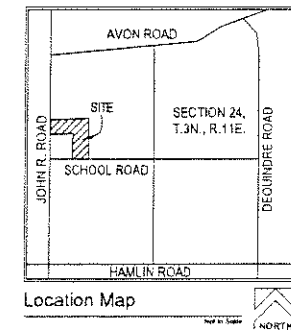
Design/Drawn	DATE
Checked/Approved	DATE
For: 03/22/06	DATE
Design/Drawn	DATE
Checked/Approved	DATE
For: 03/22/06	DATE
Design/Drawn	DATE
Checked/Approved	DATE
For: 03/22/06	DATE

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SCALE: 1"=100'-0"

Open Space Plan



SITE DATA:

ITEM	PUD
ZONING	PUD
SITE AREA	
Gross Site Area	25.755 Acres
Existing ROW	+/- 0.263 Acres
Future ROW	+/- 0.216 Acres
Net Site Area (Excluding ROW)	+/- 25.492 Acres
Net Site Area (Excluding Future ROW)	+/- 25.276 Acres
DENSITY (Gross)	+/- 4.74 DU/Ac.
Total Number of Units for Oakville Estates	122
Oakville Estates North	62
SETBACKS - (61 Units)	
Front Yard	25
Minimum Separation Between Units	15
Rear Yard	30
Minimum Rear Yard Separation Between Units	45

NOTES:

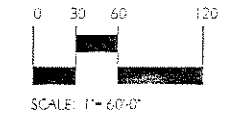
1. Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
2. Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
3. Subject to city and agency reviews and modifications.
4. Parking to occur on side in which carriage walk occurs, opposite side of fire hydrants.

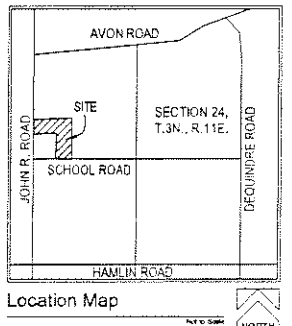
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Oakville Estates
 Rochester Hills,
 Oakland County,
 Michigan

Date/Revision	Drawn By
11/11/06	11/11/06
11/11/06	11/11/06
11/11/06	11/11/06
11/11/06	11/11/06
11/11/06	11/11/06
11/11/06	11/11/06





SITE DATA:

ITEM	
ZONING	PUD
SITE AREA	
Gross Site Area	25.755 Acres
Existing ROW	+/- 0.263 Acres
Future ROW	+/- 0.216 Acres
Net Site Area (Excluding ROW)	+/- 25.492 Acres
Net Site Area (Excluding Future ROW)	+/- 25.276 Acres
DENSITY (Gross)	+/- 4.74 DU/Ac.
Total Number of Units for Oakville Estates	122
Oakville Estates South	60
SETBACKS - (60 Units)	
Front Yard	25
Minimum Side Yard Separation Between Units	15
Rear Yard	30
Minimum Rear Yard Separation Between Units	45

NOTES:

1. Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
2. Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
3. Subject to city and agency reviews and modifications.
4. Parking to occur on site in which carriage walk occurs, opposite side of fire hydrants.

DesignTeam Limited
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Southfield, MI 48075

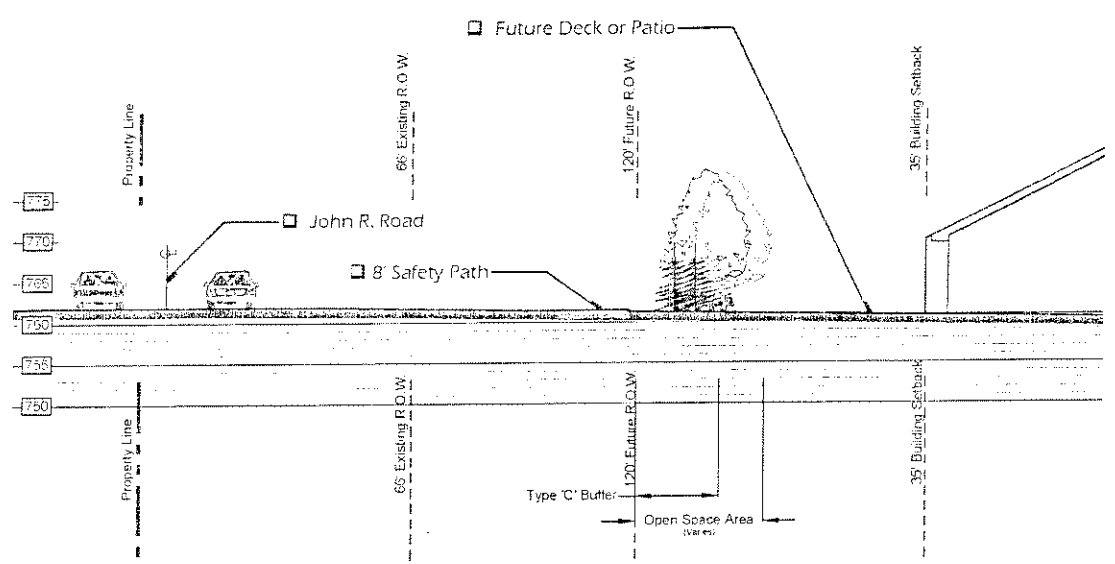
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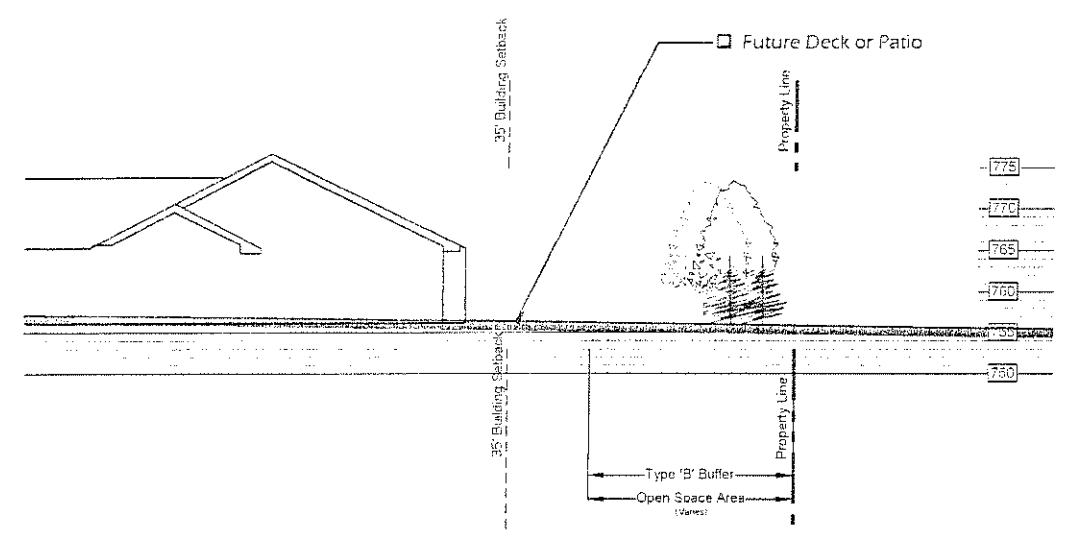
Oakville Estates
Rochester Hills,
Oakland County,
Michigan

Date/Revision	Issued For
11/11/06	Final Staff Review
11/14/06	Final Staff Review & Approve
11/21/06	General Review & Approve
11/27/06	Contract Review & Approve
12/12/06	Staff Review
12/27/06	Final L&S Approve
1/13/07	Final L&S Approve

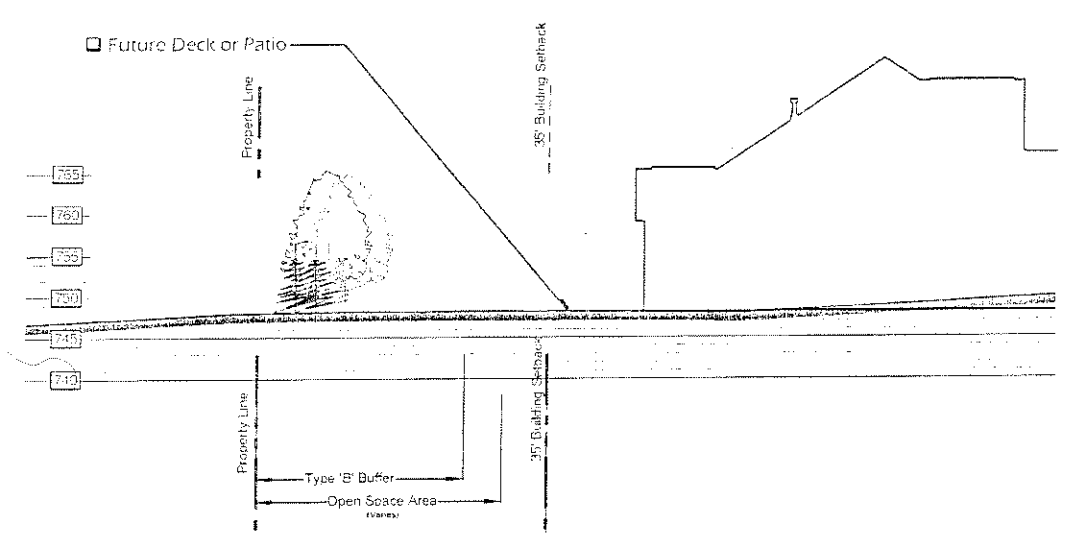




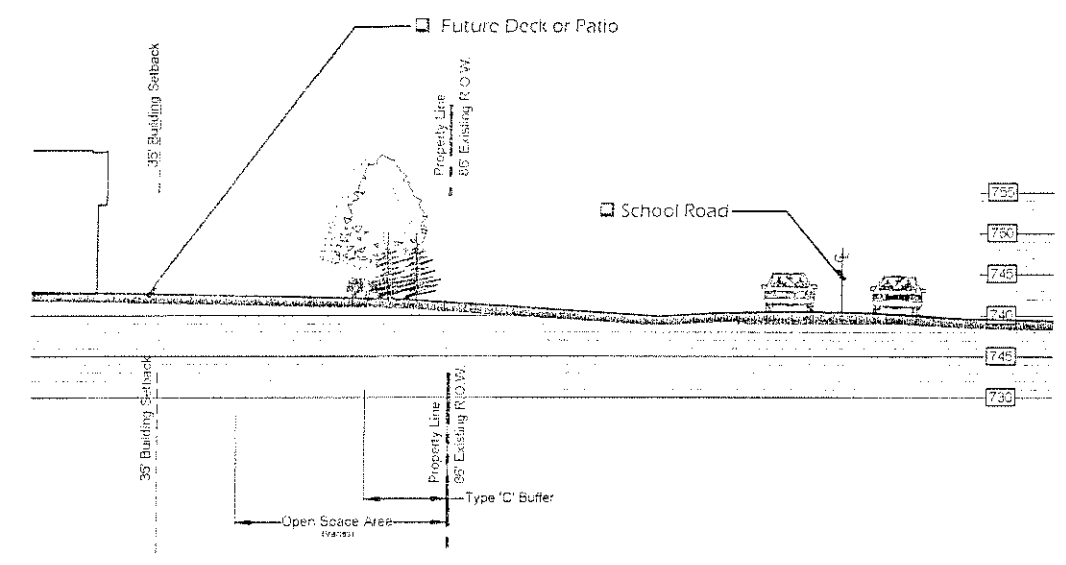
1 Section A-A' - John R. Road to Back of Building #1



2 Section B-B' - Oakville Estates North - South Side Property Line To Building #14



3 Section C-C' - Oakville Estates South - West Side Property Line to Building #31



4 Section D-D' - School Road to Back of Building #32

NOTES:
1. Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
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3. Subject to city and agency reviews and modifications.



Sections Plan



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FAX: 585.985.0111

Project: Oakville Estates
Rochester Hills, Oakland County, Michigan

Date/Revision	Issue For
11/11/02	Site Plan Rev.
2/2/03	Concept Review & Approval
9/4/05	Concept Review & Approval
9/12/05	Site Plan Review
9/27/05	Final PUD Approval
10/24/05	Final PUD Approval

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Sheet: SP-6.0

SP-6.0
ORIGINAL

SITE DATA:

ITEM	
ZONING	PLD
SITE AREA	
Gross Site Area	25.755 Acres
Existing ROW	+/- 0.263 Acres
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Minimum Rear Yard Separation Between Units	45

- NOTES:**
- The notation I.V.O. is Intermittent Visual Obstruction, as defined by the City of Rochester Hills Ordinance.
 - Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
 - Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
 - 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.

LANDSCAPE ISLAND CALCULATION:
For every 10 parking spaces, or fraction thereof, 150 square feet of landscape islands.
For every 300 square feet of landscape islands, or fraction thereof, 1 medium shade tree shall be provided.

- Phase I - 16 Parking Spaces = 2 Islands**
2 Islands x 150 SF. = 300 SF. of Landscape Islands Required
1 Tree Required
- Phase II - 6 Parking Spaces = 1 Island**
1 Island x 150 SF. = 150 SF. of Landscape Islands Required
1 Tree Required
- 2 Island Trees Provided in Phase I
1 Island Tree Provided in Phase II

REPLACEMENT TREE CALCULATION:

Total Number of Trees Surveyed	1,405
Minus Off-Site Trees	- 25
Minus Ash Trees	- 40
Minus R.O.W. Trees	- 9
Minus Dead Trees	- 14
Total Number of Regulated Trees Onsite	1,317
Total Number of Regulated Trees Saved	- 205
Total Number of Regulated Trees Removed	1,112
Total Number of Trees to be Classified as Removals:	1,112 Trees
Required Number of Tree Credits for Replacement:	1,112 Credits
Total Number of Tree Credits Provided:	
112 - 2" caliper trees	= 112.0
97 - 2.5" caliper trees	= 145.5
3 - 3" caliper trees	= 6.0
41 - 10' tall trees	= 61.5
98 - 12' tall trees	= 294.0
Total	619.0
Number of Buffer Trees for Credits Towards Replacement:	255 Trees
255 Buffer Trees	= 510.0
(3.5" caliper canopy trees & 14' tall evergreen trees - to count at a 2:1 credit.)	
Total Credits Provided for Replacement:	1,129.0 Credits
619.0 + 510.0 = 1,129.0 Credits	
Amount due to City Tree Fund = \$0.00	

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
8' Evergreen Trees	1 Credit
9' Evergreen Trees	1.5 Credits
10' Evergreen Trees	2 Credits
12' Evergreen Trees	3 Credits

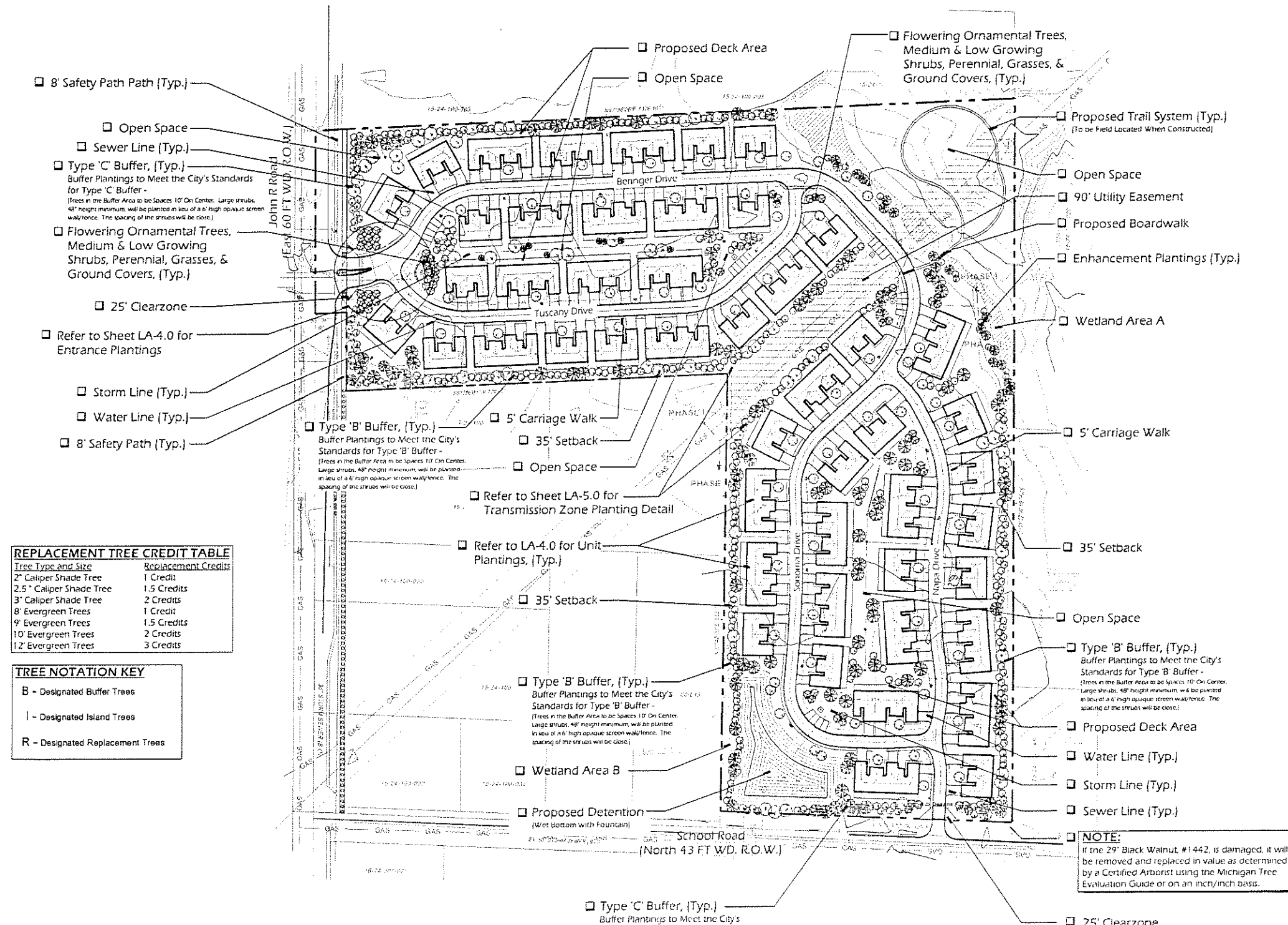
PLANTING SCHEDULE AND COST ESTIMATE - PHASE I - GROUND COVER

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
19,962		Seed		S1			\$7.45	\$147,829.00
1,062		Seed - R.O.W.		S7			\$7.45	\$7,917.90
Total:								\$9,290.80

PLANTING SCHEDULE AND COST ESTIMATE - PHASE II - GROUND COVER

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
2,555		Basin - Mixture City Approved		S1			\$7.25	\$18,543.75
2,104		Seed		S1			\$7.45	\$15,674.80
2,650		Seed - R.O.W.		S1			\$7.45	\$19,722.50
Total:								\$16,618.05

- LANDSCAPE PLANTING NOTES:**
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 - All trees being retained will be identified by painting, flagging or some other approved method.
 - Trees to be located a minimum of 10' 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.
 - Shade trees and shrubs must be planted at least 5' from the edge of the 8' safety path. Evergreen and ornamental trees must be planted at least 10' from the edge of the 8' safety path.



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
8' Evergreen Trees	1 Credit
9' Evergreen Trees	1.5 Credits
10' Evergreen Trees	2 Credits
12' Evergreen Trees	3 Credits

TREE NOTATION KEY

B	- Designated Buffer Trees
I	- Designated Island Trees
R	- Designated Replacement Trees



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Main project cost table with columns: Qty., Key, Botanical Name, Common Name, Size, Root, Notes, Unit Price, Total Price, and location codes (LA-1.0 to LA-4.0). Includes sections for SHADE-TREE, EVERGREEN-TREE, ORNAMENTAL-TREE, SHRUBS, and PERENNIALS.

Total: \$457,536.85

REPLACEMENT TREE CREDIT TABLE

Table mapping tree types and sizes to replacement credits (e.g., 2" Caliper Shade Tree = 1 Credit).

REPLACEMENT TREE CALCULATION:

Summary table for replacement tree calculation showing total number of trees on-site, regulated trees, and total credits provided for replacement.

Amount due to City Tree Fund = \$0.00

LANDSCAPE PLANTING NOTES:

- List of 7 planting notes including requirements for plant material, street tree placement, utility clearances, and safety path distances.

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Project: Oakville Estates
Rochester Hills,
Oakland County,
Michigan

Revision table with columns: Description, Issue, and Date.

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Complete Cost Estimate

LA-1.1



DesignTeam

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Urban Design
Environmental Planning

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Oakville Estates

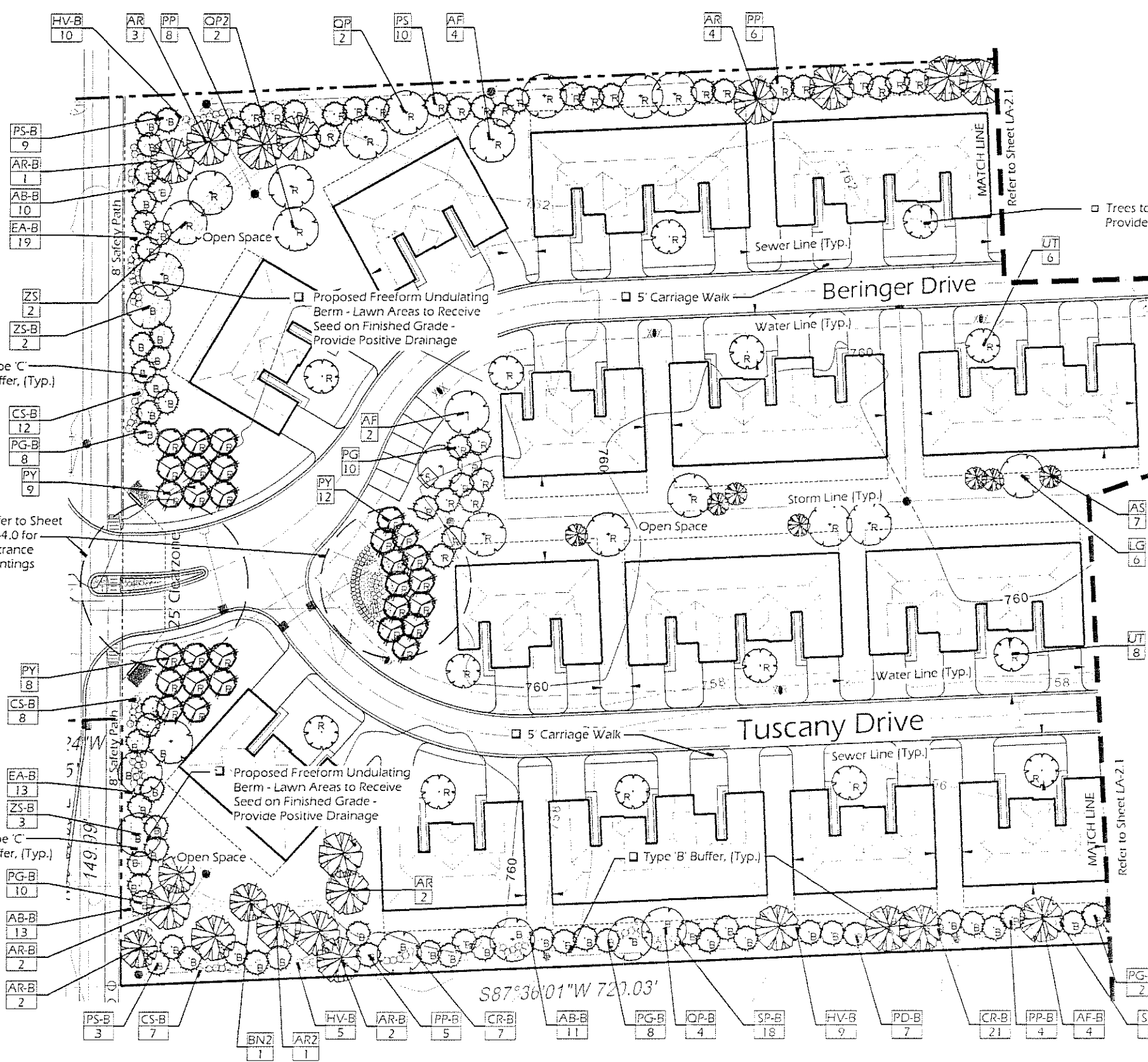
Rochester Hills,
Oakland County,
Michigan

Project
Date/Revision
Issue For

11.11.07
2.02.08
6.13.08
6.17.08
6.17.08
10.13.08

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Sheet: LA-2.0



Planting Schedule and Cost Estimate - Buffer Trees - LA-2.0

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
4	AF-B	Acer x freemanii 'Celtan'	Celebration Maple	3' 5" Cal	B&B		\$450.00	\$1,800.00
7	AR-B	Acer rubrum	Red Maple	3' 5" Cal	B&B		\$450.00	\$3,150.00
4	OP-B	Quercus palustris	Pin Oak	3' 5" Cal	B&B		\$450.00	\$1,800.00
5	PS-B	Larix laricina	Sweet Spruce	3' 5" Cal	B&B		\$450.00	\$2,250.00
EVERGREEN TREE								
26	PG-B	Picea canadensis	White Spruce	14' Ht	B&B	10' O.C.	\$550.00	\$14,300.00
7	PD-B	Picea glauca densata	Black Hills Spruce	14' Ht	B&B	10' O.C.	\$550.00	\$3,850.00
9	PP-B	Picea mariana	Colorado Blue Spruce	14' Ht	B&B	10' O.C.	\$550.00	\$4,950.00
11	PS-B	Pinus strobus	Scotch Pine	14' Ht	B&B	10' O.C.	\$550.00	\$6,050.00
SHRUBS								
14	AP-B	Juniperus horizontalis	Red Chamaedorea	48" Ht	Cont	4' x 5' O.C.	\$95.00	\$1,330.00
26	OP-B	Coreopsis verticillata	Star Coreopsis	48" Ht	Cont	4' x 5' O.C.	\$45.00	\$1,170.00
17	CS-B	Comarostaphylis ovata	California Red Leaf Dogwood	48" Ht	Cont	4' x 5' O.C.	\$45.00	\$765.00
32	EA-B	Euboea alba 'Candace'	Lowland Shrub	48" Ht	Cont	4' x 5' O.C.	\$95.00	\$3,040.00
24	HO-B	Hemerocallis sp.	Common Daylily	48" Ht	Cont	4' x 5' O.C.	\$75.00	\$1,800.00
28	SP-B	Sparganium angustifolium	Missouri Blue Flag	48" Ht	Cont	4' x 5' O.C.	\$85.00	\$2,380.00
MATERIALS								
41	M1	Manhole					\$40.00	\$1,640.00
41	M2	Manhole					\$40.00	\$1,640.00
32	M3	Manhole					\$135.00	\$4,320.00
							Total:	\$58,955.00

Planting Schedule and Cost Estimate - Replacement Trees - LA-2.0

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
4	AF	Acer x freemanii 'Celtan'	Celebration Maple	2' 5" Cal	B&B		\$225.00	\$895.00
10	AR	Acer rubrum	Red Maple	2' 5" Cal	B&B		\$225.00	\$2,250.00
1	AP	Acer rubrum	Red Maple	3' Cal	B&B		\$475.00	\$475.00
18	US	Ulmus americana	Sweet Gum	2' 5" Cal	B&B		\$225.00	\$4,050.00
2	OP	Quercus palustris	Pin Oak	3' 5" Cal	B&B		\$225.00	\$450.00
1	OP	Quercus palustris	Pin Oak	5' Cal	B&B		\$475.00	\$475.00
1	PS	Larix laricina	Sweet Spruce	2' 5" Cal	B&B		\$225.00	\$225.00
EVERGREEN TREE								
10	PG	Picea canadensis	White Spruce	12' Ht	B&B		\$550.00	\$5,500.00
14	PP	Picea mariana	Colorado Blue Spruce	12' Ht	B&B		\$550.00	\$7,700.00
10	PS	Pinus strobus	Scotch Pine	12' Ht	B&B		\$550.00	\$5,500.00
ORNAMENTAL TREE								
7	AS	Amelanchier canadensis	Shadblow Serviceberry	10' Ht	B&B	Multi-Stem	\$225.00	\$1,575.00
25	OP	Prunella serotina 'Cleveland Select'	Cleveland Select Pear	2' 5" Cal	B&B		\$225.00	\$5,625.00
12	UT	Ulmus americana - Trees to be randomly mixed with 1st below to provide a diversified streetscape at the driveway.					\$225.00	\$2,700.00
1	BT	Betula nana 'Pendula'	Hamamelis River Birch	10' Ht	B&B	Multi-Stem	\$225.00	\$225.00
1	CR	Crataegus crus-galli 'ermis'	Thornless Hawthorne	10' Ht	B&B	Multi-Stem	\$225.00	\$225.00
1	MA	Malus x 'Snowdrift'	Snowdrift Flowering Crabapple	7' Cal	B&B		\$225.00	\$225.00
1	MA	Malus x 'Spring Snow'	Spring Snow Flowering Crabapple	7' Cal	B&B		\$225.00	\$225.00
1	FR	Fraxinus americana	Canadian Elm	2' Cal	B&B		\$225.00	\$225.00
1	SI	Syringa reticulata 'Lacepede'	Japanese Tree Lilac	10' Ht	U&O	Multi-Stem	\$225.00	\$225.00
MATERIALS								
1	M1	Manhole					\$40.00	\$40.00
1	M2	Manhole					\$40.00	\$40.00
1	M3	Manhole					\$135.00	\$135.00
							Total:	\$41,074.00

Planting Schedule and Cost Estimate - Island Trees - LA-2.0

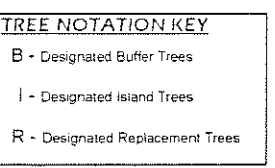
Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
2	AF	Acer x freemanii 'Celtan'	Celebration Maple	2' Cal	B&B		\$225.00	\$450.00
							Total:	\$450.00

- NOTES:**
- The notation I.V.O. is Intermittent Visual Obstruction, as defined by the City of Rochester Hills Ordinance.
 - Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
 - Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
 - 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.

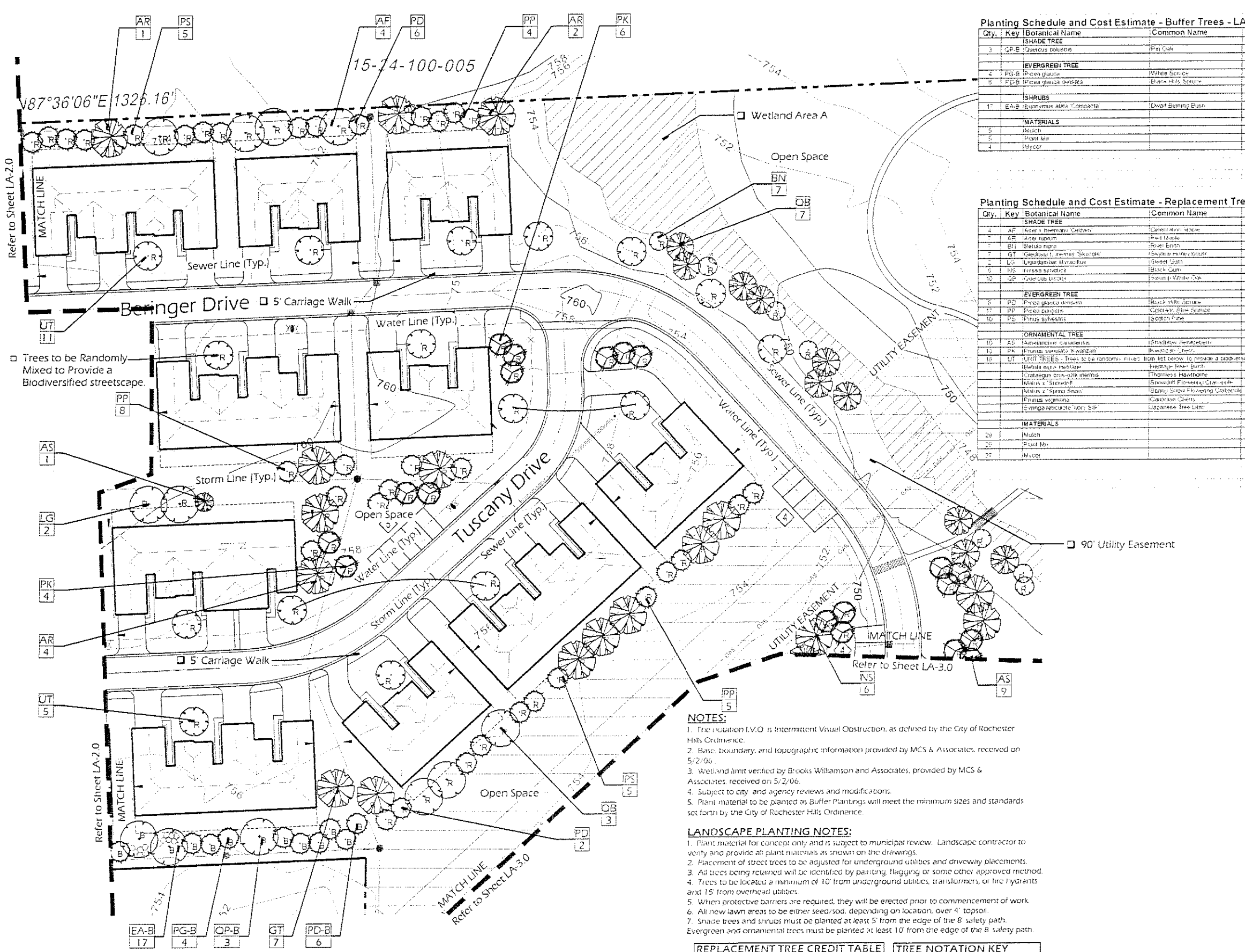
- LANDSCAPE PLANTING NOTES:**
- Plant material for concept only and is subject to municipal review. Landscape contractor to verify and provide all plant materials as shown on the drawings.
 - Placement of street trees to be adjusted for underground utilities and driveway placements.
 - All trees being retained will be identified by painting, tagging or some other approved method.
 - Trees to be located a minimum of 10' 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.
 - Shade trees and shrubs must be planted at least 5' from the edge of the 8' safety path. Evergreen and ornamental trees must be planted at least 10' from the edge of the 8' safety path.

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
8' Evergreen Trees	1 Credit
9' Evergreen Trees	1.5 Credits
10' Evergreen Trees	2 Credits
12' Evergreen Trees	3 Credits



Oakville Estates Phase I 'Section A'
Final Landscape Plan



Planting Schedule and Cost Estimate - Buffer Trees - LA-2.1

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
3	OP-B	SHADE TREE <i>Quercus velutina</i>	Pin Oak	3.5" Cal	B&F		\$450.00	\$1,350.00
4	PG-B	EVERGREEN TREE <i>Pinus strobus</i>	White Spruce	14" H	B&B	1" O.C.	\$650.00	\$2,600.00
15	PD-B	EVERGREEN TREE <i>Picea canadensis</i>	Black Hills Spruce	14" H	B&B	1" O.C.	\$550.00	\$8,250.00
17	EA-B	SHRUBS <i>Euonymus alata Compacta</i>	Dwarf Burning Bush	45" H	Cont.	4" - 6" O.C.	\$65.00	\$1,105.00
5		MATERIALS						
5		Mulch					\$40.00	\$200.00
5		Plant Mix					\$30.00	\$150.00
4		Mycor					\$13.00	\$52.00
Total:							\$9,357.00	

Planting Schedule and Cost Estimate - Replacement Trees - LA-2.1

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
4	AF	SHADE TREE <i>Aster + Berberis</i>	Carroll's Star	2" Cal	B&B		\$375.00	\$1,500.00
7	AE	SHADE TREE <i>Aster</i>	Star	2" Cal	B&B		\$175.00	\$1,225.00
7	BT	SHADE TREE <i>Betula nigra</i>	River Birch	10" - 12" H	B&B	Multi-Stem	\$155.00	\$1,085.00
7	GT	SHADE TREE <i>Gleditsia triacanthos 'Skyline'</i>	Skyline Redbud	2" Cal	B&B		\$175.00	\$1,225.00
4	LG	SHADE TREE <i>Liquidambar styraciflua</i>	Swamp Gum	2" Cal	B&B		\$175.00	\$700.00
5	HS	SHADE TREE <i>Hedera helix</i>	Black Gum	2" Cal	B&B		\$175.00	\$875.00
10	OP	SHADE TREE <i>Quercus laevis</i>	Scout Oak	2" Cal	B&B		\$175.00	\$1,750.00
8	PD	EVERGREEN TREE <i>Pinus strobus densata</i>	Black Hills Spruce	12" H	B&B		\$550.00	\$4,400.00
17	PP	EVERGREEN TREE <i>Picea canadensis</i>	Black Hills Spruce	12" H	B&B		\$550.00	\$9,350.00
10	PE	EVERGREEN TREE <i>Pinus sylvestris</i>	Scotch Pine	12" H	B&B		\$550.00	\$5,500.00
10	AS	ORNAMENTAL TREE <i>Aster</i>	Star	10" H	B&B	Multi-Stem	\$225.00	\$2,250.00
13	PK	ORNAMENTAL TREE <i>Prunella serotina</i>	Kwazari Cherry	2" Cal	B&B		\$225.00	\$2,925.00
18	UT	ORNA. TREES - Trees to be randomly mixed from list below to provide a diversified streetscape at the development.					\$225.00	\$4,050.00
		<i>Betula nigra</i>	River Birch	10" H	B&B	Multi-Stem		
		<i>Claytonia virginica</i>	Flowering Dogwood	2" Cal	B&B			
		<i>Hamamelis virginica</i>	Witch Hazel	2" Cal	B&B			
		<i>Malus 'Spring Snow'</i>	Spring Snow Flowering Crabapple	2" Cal	B&B			
		<i>Pinus strobus</i>	White Spruce	14" H	B&B			
		<i>Prunella serotina</i>	Kwazari Cherry	2" Cal	B&B			
		<i>Styrax japonica</i>	Japanese Tree Lilac	10" H	B&B	Multi-Stem		
29		MATERIALS						
29		Mulch					\$40.00	\$1,160.00
29		Plant Mix					\$30.00	\$870.00
27		Mycor					\$13.00	\$351.00
Total:							\$43,706.00	

- NOTES:**
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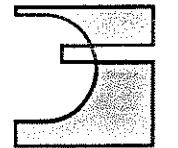
- LANDSCAPE PLANTING NOTES:**
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REPLACEMENT TREE CREDIT TABLE

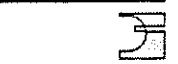
Tree Type and Size	Replacement Credits
2" Caliper Shade Tree	1 Credit
2.5" Caliper Shade Tree	1.5 Credits
3" Caliper Shade Tree	2 Credits
8" Evergreen Trees	1 Credit
9" Evergreen Trees	1.5 Credits
10" Evergreen Trees	2 Credits
12" Evergreen Trees	3 Credits

TREE NOTATION KEY

B	- Designated Buffer Trees
I	- Designated Island Trees
R	- Designated Replacement Trees



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Rochester Hills,
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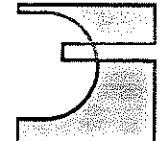
DESIGN REVISIONS

Date/Revision	Issued For
11-17-06	For Staff Review
12-13-06	Concept Review & Approval
1-10-07	Concept Review & Approval
2-1-07	Staff Review
3-1-07	Final PUD Approval
3-13-07	Local Hills Approval

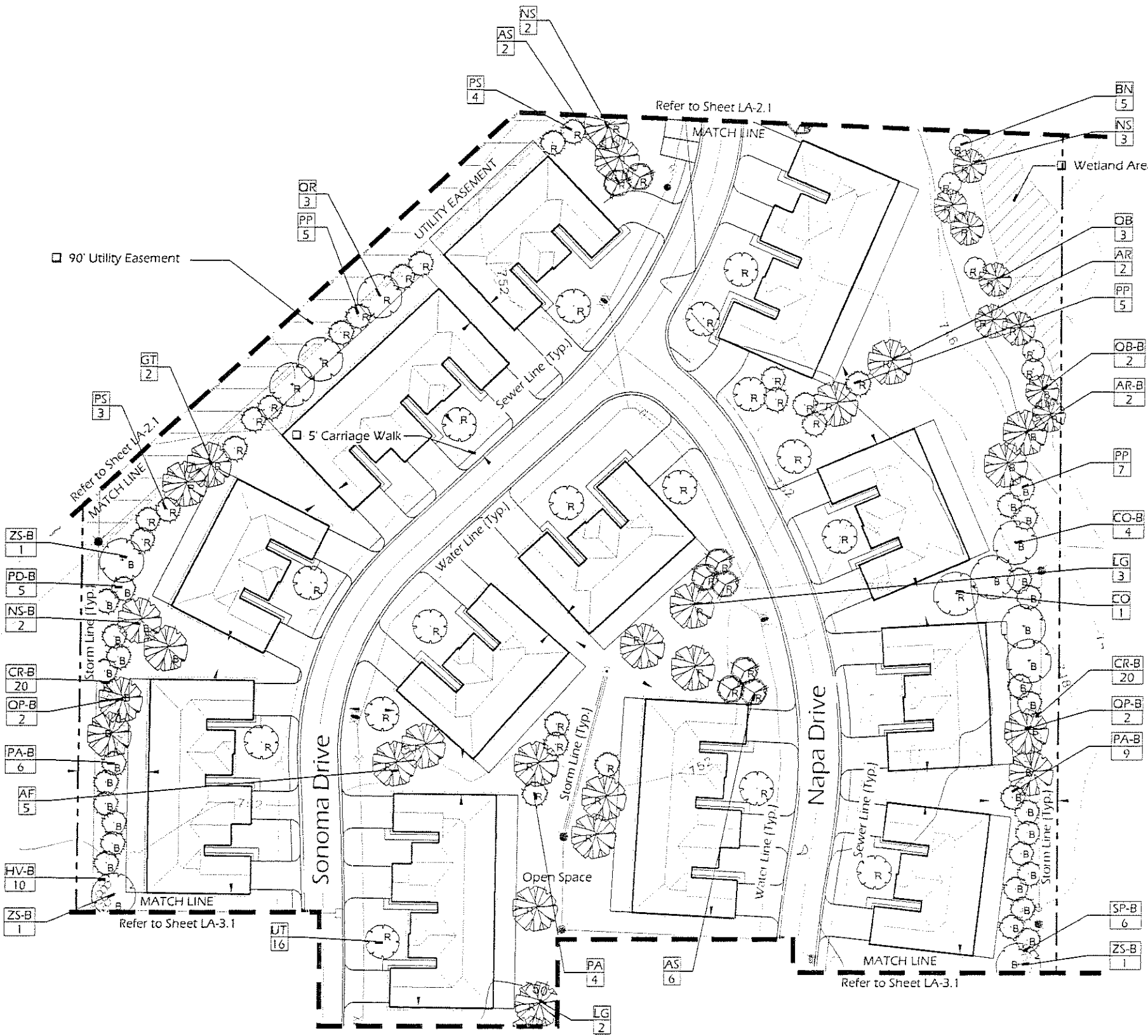


Oakville Estates Phase I 'Section B'
Final Landscape Plan

LA-2.1



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Urban Planning
Environmental Planning



Planting Schedule and Cost Estimate - Buffer Trees - LA-3.0

Qty	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
1	AR-B	Acer glabrum	Red Maple	3" Cal	B&B		\$300.00	\$300.00
4	CO-B	Prunella occidentalis	Common Hackberry	3" Cal	B&B		\$450.00	\$1,800.00
1	PS-B	Pinus strobus	Black Gum	3" Cal	B&B		\$900.00	\$900.00
2	OB-B	Quercus bicolor	Swamp White Oak	3" Cal	B&B		\$450.00	\$900.00
2	CP-B	Populus deltoides	Poplar	3" Cal	B&B		\$450.00	\$900.00
3	NS-B	Quercus laevis	Scarlet Oak	3" Cal	B&B		\$450.00	\$1,350.00
EVERGREEN TREE								
2	PA-B	Thuja occidentalis	Horizontal Spruce	14 Ht	B&B	15' O.C.	\$250.00	\$500.00
2	PD-B	Prinos canadensis	Black Hills Spruce	14 Ht	B&B	15' O.C.	\$950.00	\$1,900.00
2	PP-B	Prinos strobus	Colorado Blue Spruce	14 Ht	B&B	15' O.C.	\$450.00	\$900.00
SHRUBS								
21	CR-B	Quercus laevis	Red Dogwood	4" Ht	Cont	4" x 5" O.C.	\$45.00	\$1,145.00
21	CR-B	Prinos canadensis	Black Hills Spruce	4" Ht	Cont	4" x 5" O.C.	\$45.00	\$1,145.00
21	SP-B	Syringa patens	Missouri Lilac	4" Ht	Cont	4" x 5" O.C.	\$45.00	\$1,145.00
MATERIALS								
1							\$40.00	\$40.00
1							\$20.00	\$20.00
1							\$10.00	\$10.00
							Total:	\$29,564.00

Planting Schedule and Cost Estimate - Replacement Trees - LA-3.0

Qty	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
1	AR	Acer glabrum	Red Maple	3" Cal	B&B		\$300.00	\$300.00
1	AR	Acer glabrum	Red Maple	3" Cal	B&B		\$300.00	\$300.00
1	CO	Prunella occidentalis	Common Hackberry	3" Cal	B&B		\$450.00	\$450.00
1	OT	Quercus laevis	Scarlet Oak	3" Cal	B&B		\$450.00	\$450.00
1	LG	Liquidambar styraciflua	Sweet Gum	3" Cal	B&B		\$150.00	\$150.00
1	NS	Quercus bicolor	Swamp White Oak	3" Cal	B&B		\$450.00	\$450.00
1	SE	Quercus bicolor	Swamp White Oak	3" Cal	B&B		\$450.00	\$450.00
1	CR	Quercus laevis	Red Oak	3" Cal	B&B		\$450.00	\$450.00
EVERGREEN TREE								
1	PA	Thuja occidentalis	Horizontal Spruce	12 Ht	B&B		\$150.00	\$150.00
1	PD	Prinos canadensis	Colorado Blue Spruce	12 Ht	B&B		\$550.00	\$550.00
1	PS	Pinus strobus	Scotch Pine	12 Ht	B&B		\$150.00	\$150.00
ORNAMENTAL TREE								
1	AR	Acer glabrum	Red Maple	10" Ht	B&B	Multi-Stem	\$25.00	\$25.00
1	UT	Ulmus americana	Winged Elm	10" Ht	B&B	Multi-Stem	\$25.00	\$25.00
1	CR	Quercus laevis	Scarlet Oak	10" Ht	B&B	Multi-Stem	\$25.00	\$25.00
1	CR	Quercus bicolor	Swamp White Oak	10" Ht	B&B	Multi-Stem	\$25.00	\$25.00
1	CR	Quercus laevis	Scarlet Oak	10" Ht	B&B	Multi-Stem	\$25.00	\$25.00
1	CR	Quercus bicolor	Swamp White Oak	10" Ht	B&B	Multi-Stem	\$25.00	\$25.00
MATERIALS								
1							\$40.00	\$40.00
1							\$20.00	\$20.00
1							\$10.00	\$10.00
							Total:	\$28,340.00

Planting Schedule and Cost Estimate - Island Trees - LA-3.0

Qty	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
1	IS	Prinos canadensis	Black Hills Spruce	3" Cal	B&B		\$225.00	\$225.00
							Total:	\$225.00

- NOTES:**
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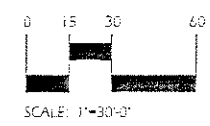
- LANDSCAPE PLANTING NOTES:**
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 - When protective barriers are required, they will be erected prior to commencement of work.
 - All new lawn areas to be either seed/sod, depending on location, over 4" topsoil.

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
6" Evergreen Trees	1 Credit
9" Evergreen Trees	1.5 Credits
12" Evergreen Trees	2 Credits

TREE NOTATION KEY

B	- Designated Buffer Trees
I	- Designated Island Trees
R	- Designated Replacement Trees



Oakville Estates Phase II Section A - Final Landscape Plan

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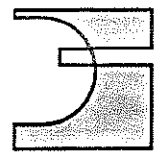
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Project:
Oakville Estates
Rochester Hills,
Oakland County,
Michigan

Design Team:

Design/Drawn by	Scale/Date
MM	MM/YY
MM	MM/YY
MM	MM/YY
MM	MM/YY
MM	MM/YY
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Oakland County,
Michigan

Design/Drawn:	MAK/BAV
Checked/Approved:	NLM
JOB #:	0572.06
DATE:	03/27/06
SCALE:	1"=30'-0"
DATE:	
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DATE:	
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DATE:	

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Planting Schedule and Cost Estimate - Buffer Trees - LA-3.1

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
1	AR-B	Aster multiflorus	Red Maple	2" Cal	B&B		\$450.00	\$450.00
5	CO-B	Quercus macrocarpa	Common Hackberry	2" Cal	B&B		\$450.00	\$2,250.00
1	LG	Liquidambar styraciflua	Sweet Gum	2" Cal	B&B		\$450.00	\$450.00
5	CR-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$450.00	\$2,250.00
8	ZS-B	Zelkova serotina	Seamless Zelkova	2" Cal	B&B		\$450.00	\$3,600.00
EVERGREEN TREE								
6	PA	Prunus serotina	Black Cherry	2" Cal	B&B		\$350.00	\$2,100.00
21	PG-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$350.00	\$7,350.00
10	PP-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$350.00	\$3,500.00
14	PP-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$350.00	\$4,900.00
13	PP-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$350.00	\$4,550.00
ORNAMENTAL TREE								
6	PA	Prunus serotina	Black Cherry	2" Cal	B&B		\$350.00	\$2,100.00
SHRUBS								
61	AR-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$90.00	\$5,490.00
19	CR-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$90.00	\$1,710.00
65	CS-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$90.00	\$5,850.00
64	EA-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$90.00	\$5,760.00
25	HQ-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$90.00	\$2,250.00
64	PP-B	Prunus serotina	Black Cherry	2" Cal	B&B		\$90.00	\$5,760.00
MATERIALS								
60		Stump					\$10.00	\$600.00
60		Plant Mix					\$10.00	\$600.00
40		Mulch					\$13.00	\$520.00
Total:								\$93,692.00

Planting Schedule and Cost Estimate - Replacement Trees - LA-3.1

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHADE TREE								
4	AF	Aster multiflorus	Red Maple	2" Cal	B&B		\$225.00	\$900.00
7	AR	Aster multiflorus	Red Maple	2" Cal	B&B		\$225.00	\$1,575.00
1	LG	Liquidambar styraciflua	Sweet Gum	2" Cal	B&B		\$225.00	\$225.00
4	LG	Liquidambar styraciflua	Sweet Gum	2" Cal	B&B		\$225.00	\$900.00
EVERGREEN TREE								
8	PA	Prunus serotina	Black Cherry	2" Cal	B&B		\$550.00	\$4,400.00
ORNAMENTAL TREE								
6	PA	Prunus serotina	Black Cherry	2" Cal	B&B		\$550.00	\$3,300.00
24	UT	UT	UT				\$175.00	\$4,200.00
MATERIALS								
14		Stump					\$40.00	\$560.00
10		Plant Mix					\$30.00	\$300.00
12		Mulch					\$13.00	\$156.00
Total:								\$16,811.00

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
8" Evergreen Trees	1 Credit
9" Evergreen Trees	1.5 Credits
10" Evergreen Trees	2 Credits
12" Evergreen Trees	3 Credits

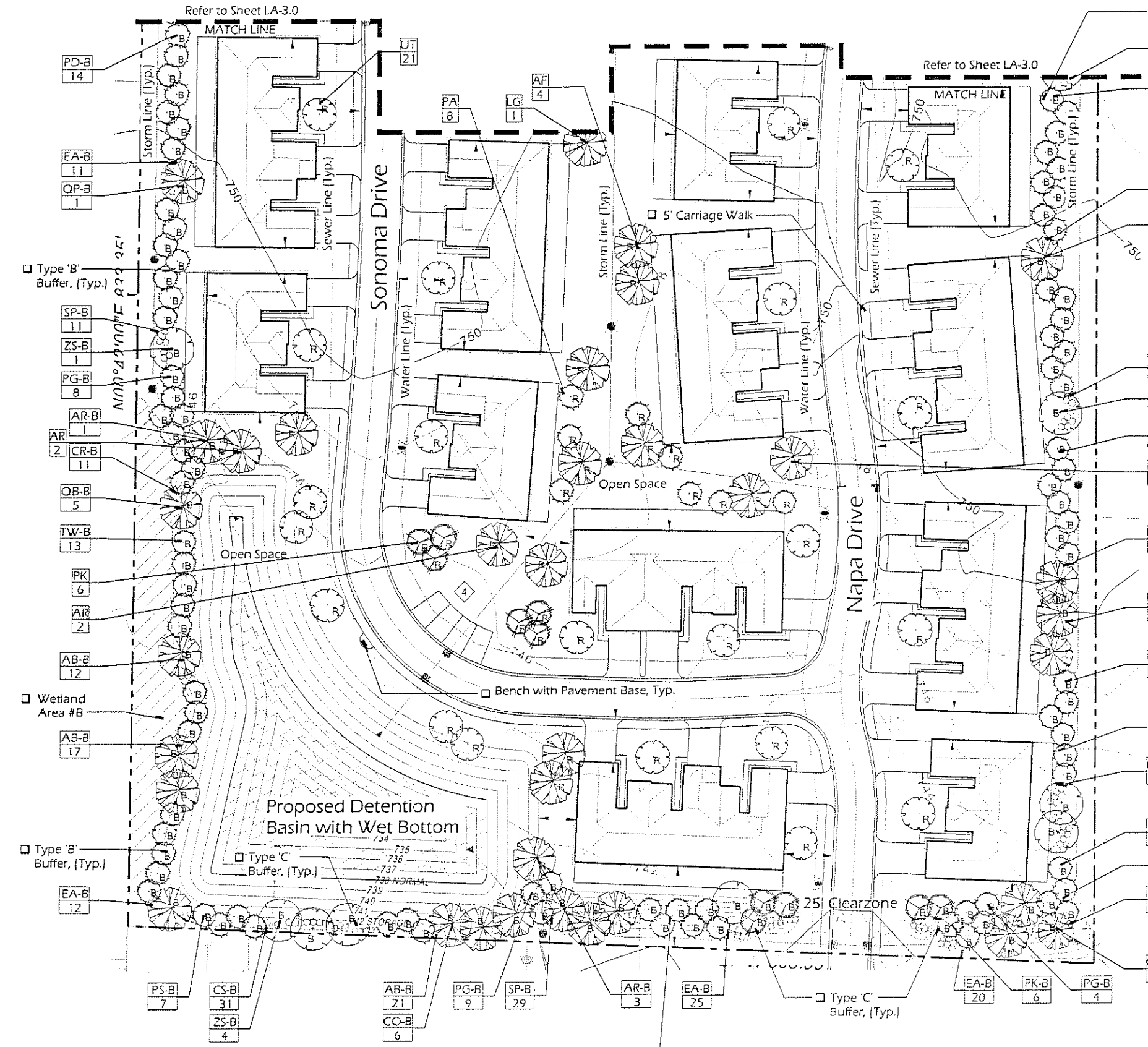
TREE NOTATION KEY

B	- Designated Buffer Trees
I	- Designated Island Trees
R	- Designated Replacement Trees



SCALE: 1"=30'-0"

Oakville Estates Phase II 'Section B' -
Final Landscape Plan



- NOTES:**
- The notation I.V.O. is Intermittent Visual Obstruction, as defined by the City of Rochester Hills Ordinance.
 - Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06.
 - Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
 - 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.

Proposed Freeform Undulating Berm - Lawn Areas to Receive Sod on Finished Grade - Provide Positive Drainage

- LANDSCAPE PLANTING NOTES:**
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Refer to Sheet LA-3.0

Refer to Sheet LA-3.0

Type 'B' Buffer, (Typ.)

Type 'B' Buffer, (Typ.)

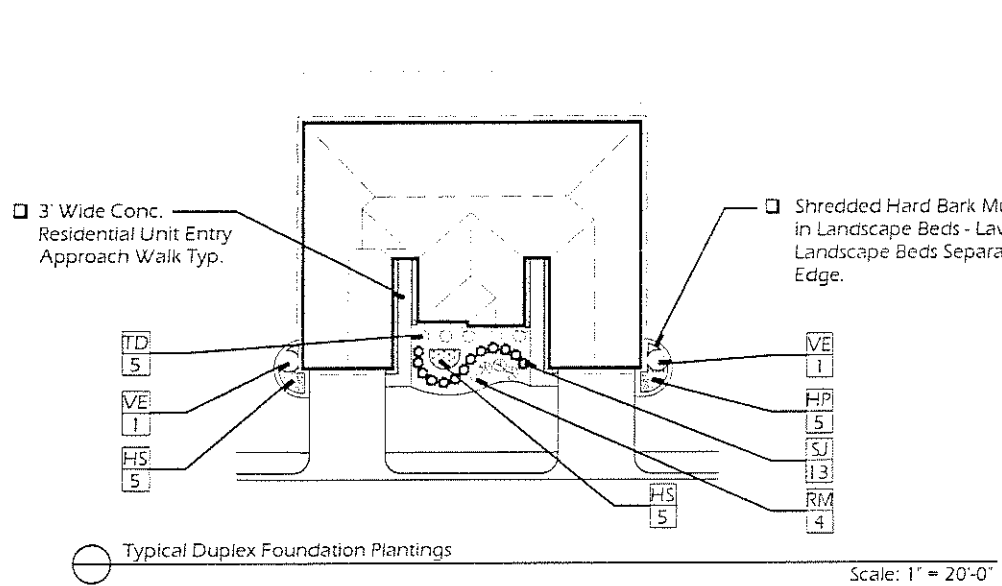
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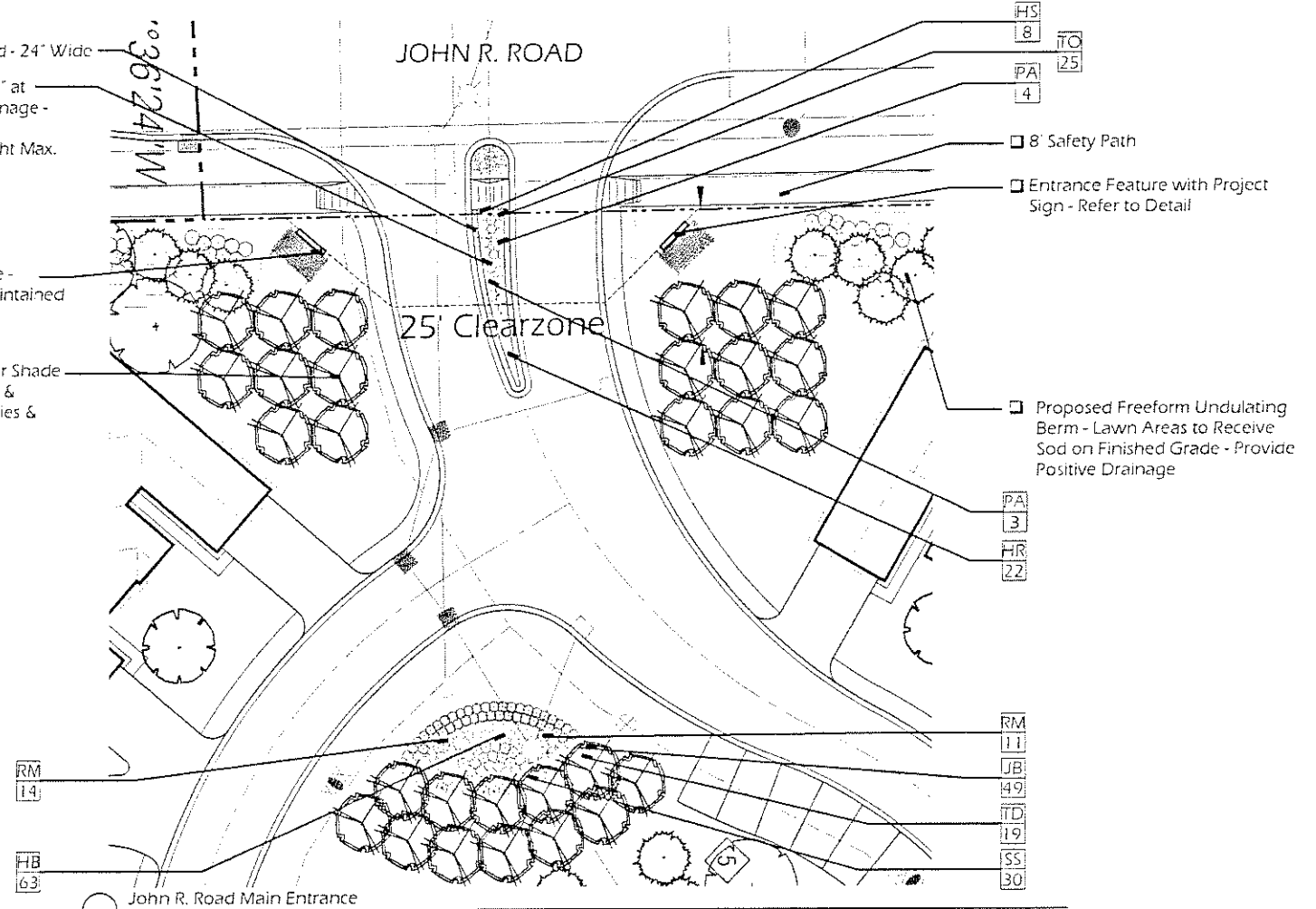
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Proposed Freeform Undulating Berm - Lawn Areas to Receive Seed on Finished Grade - Provide Positive Drainage



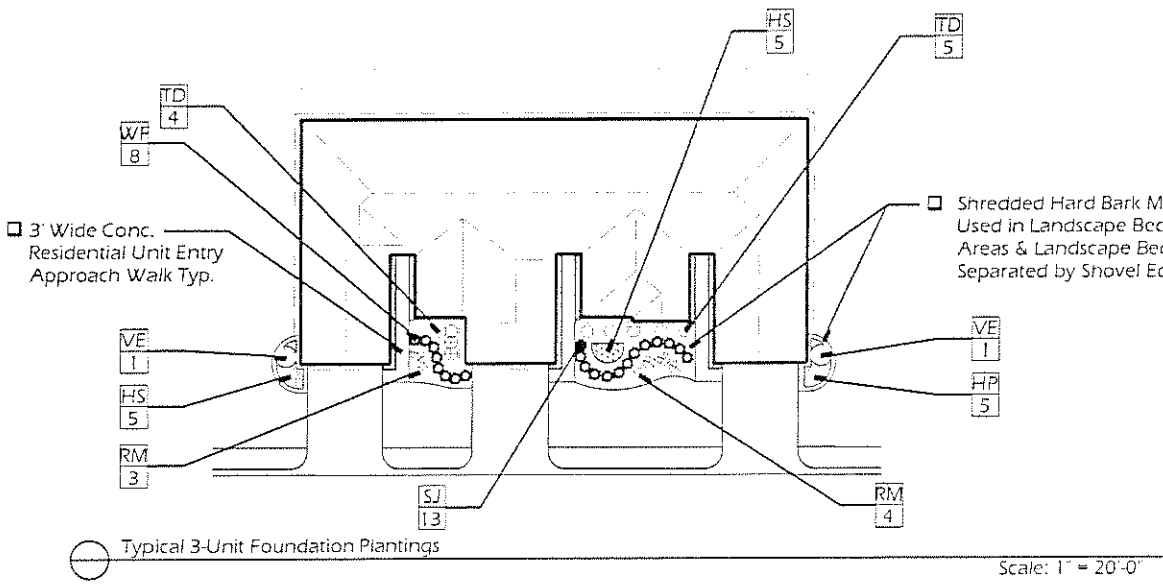
Planting Schedule and Cost Estimate - Two Unit Building - Typ. - LA-4.0

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price	
SHRUBS									
4	RM	Rosa 'Meidandyn'	Knockout Rose	24" Ht.	Cont.		\$40.00	\$160.00	
13	SJ	Spiraea japonica 'Little Princess'	Little Princess Spiraea	24" Sp.	Cont.		\$40.00	\$520.00	
5	TD	Taxus x media 'Densiformis'	Dense Yew	24" Ht.	Cont.		\$50.00	\$250.00	
2	VE	Viburnum plicatum 'Emerald Triumph'	Emerald Triumph Viburnum	24" Ht.	Cont.		\$55.00	\$110.00	
PERENNIALS									
10	HS	Hemerocallis 'Stella D'Ore'	Stella D'Ore Daylily	1 Gal. Cont.			\$15.00	\$150.00	
5	HP	Hosta x 'Patrol'	Patrol Hosta	1 Gal. Cont.			\$15.00	\$75.00	
MATERIALS									
2		Mulch		CY			\$40.00	\$80.00	
5		Plant Mix		CY			\$39.00	\$195.00	
5		Mulch		LBS			\$13.00	\$65.00	
							Total per Unit:	\$1,680.00	
25 Two Unit Buildings Proposed on Site							\$1,680.00	Per Unit	Total: \$42,000.00



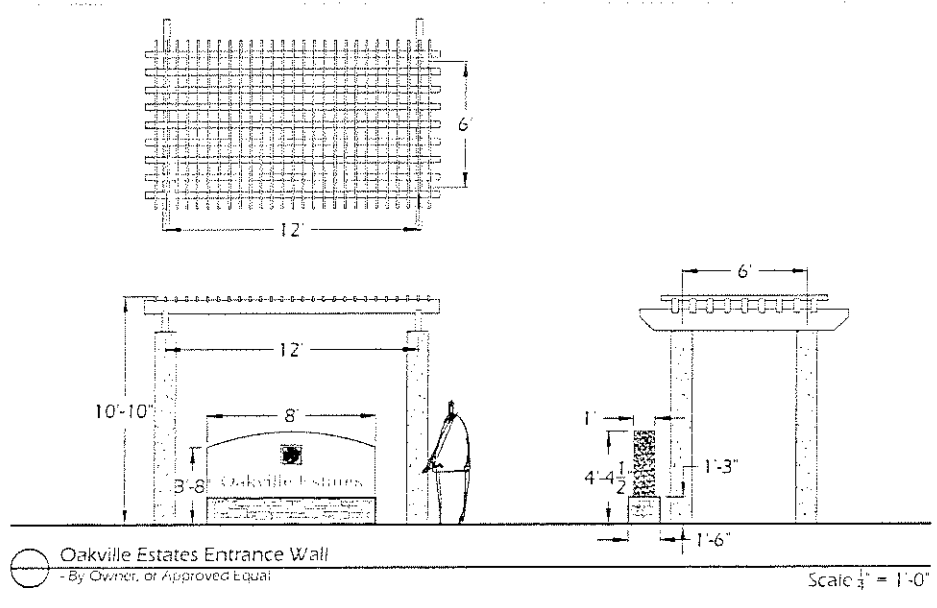
Planting Schedule and Cost Estimate - John R. Road Entrance - Typ. - LA-4.0

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHRUBS								
40	VE	Spirea japonica 'Bridal Wreath'	Bridal Wreath Spirea	24" Sp.	Cont.		\$35.00	\$1,400.00
25	RM	Rosa 'Meidandyn'	Knockout Rose	24" Ht.	Cont.		\$40.00	\$1,000.00
30	SE	Spiraea japonica 'Snowmound'	Snowmound Spiraea	24" Ht.	Cont.		\$38.00	\$1,140.00
10	TD	Taxus x media 'Densiformis'	Dense Yew	24" Ht.	Cont.		\$55.00	\$550.00
20	TD	Taxus x media 'Emerald'	Emerald Yew	24" Sp.	Cont.		\$40.00	\$800.00
PERENNIALS								
50	HE	Hemerocallis 'Branford'	Branford Daylily	17" O.C.	11 Gal. Cont.		\$12.00	\$600.00
20	HE	Hemerocallis 'Haley Returns'	Haley Returns Daylily	17" O.C.	11 Gal. Cont.		\$12.00	\$240.00
5	HS	Hemerocallis 'Stella D'Ore'	Stella D'Ore Daylily	15" O.C.	11 Gal. Cont.		\$33.00	\$165.00
1	PA	Prinoskia atrorubra 'Little Spire'	Little Spire Russian Sage	24" O.C.	11 Gal. Cont.		\$33.00	\$33.00
MATERIALS								
24		Mulch		CY			\$40.00	\$960.00
24		Plant Mix		CY			\$39.00	\$936.00
15		Mulch		LBS			\$13.00	\$195.00
							Total:	\$8,904.00



Planting Schedule and Cost Estimate - Three Unit Building - Typ. - LA-4.0

Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price	
SHRUBS									
7	RM	Rosa 'Meidandyn'	Knockout Rose	24" Ht.	Cont.		\$40.00	\$280.00	
13	SJ	Spiraea japonica 'Little Princess'	Little Princess Spiraea	24" Sp.	Cont.		\$40.00	\$520.00	
5	TD	Taxus x media 'Densiformis'	Dense Yew	24" Ht.	Cont.		\$50.00	\$250.00	
2	VE	Viburnum plicatum 'Emerald Triumph'	Emerald Triumph Viburnum	24" Ht.	Cont.		\$55.00	\$110.00	
3	WF	Wisteria 'Red Prince'	Red Prince Wisteria	24" Ht.	Cont.		\$45.00	\$135.00	
PERENNIALS									
10	HS	Hemerocallis 'Stella D'Ore'	Stella D'Ore Daylily	1 Gal. Cont.			\$15.00	\$150.00	
5	HP	Hosta x 'Patrol'	Patrol Hosta	1 Gal. Cont.			\$15.00	\$75.00	
MATERIALS									
2		Mulch		CY			\$40.00	\$80.00	
5		Plant Mix		CY			\$39.00	\$195.00	
5		Mulch		LBS			\$13.00	\$65.00	
							Total:	\$2,440.00	
24 Three Unit Buildings Proposed on Site							\$2,440.00	Per Unit	Total: \$58,560.00



NOTES:

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- Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
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Project: Oakville Estates
Rochester Hills,
Oakland County,
Michigan

Designed/Drawn	MSB/PJG
Checked/Reviewed	PKB
Proj #	0312.06
File	031216 LA 11-25-06.rvt
Date/Revision	11/25/06
11/13/06	1st 30% Review
11/20/06	Contract Review & Approval
11/21/06	Contract Review & Approval
11/22/06	Final Review
11/23/06	Final PLO Approval
11/23/06	Final PLO Approval

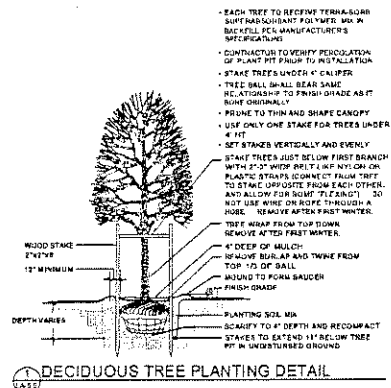
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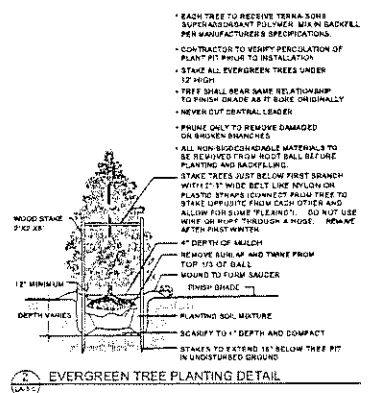
GENERAL NOTES

PLANTING NOTES:

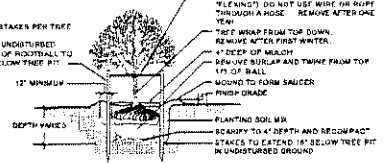
- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES 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.
- 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. BACK FILL AND CROWN PARKING LOT ISLANDS 12" ABOVE ADJACENT CURBS.
- 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 PARRK GRADE MATERIAL WILL BE ACCEPTED.
- INSTALL SOD IN ALL AREAS INDICATED ON PLAN. SOD TO BE WELL ESTABLISHED, MINERAL GROWTH, NO PEST SOD WILL BE ALLOWED. SOD BLEND SHALL CONSIST OF A MINIMUM OF THREE (3) IMPROVED VARIETIES OF BLUEGRASS. ACCEPTANCE AND GUARANTEE NOTES SHALL APPLY TO ALL SOD.
- EDGING SHALL BE 4" x 1/8" METAL EDGING OR APPROVED EQUAL. TO BE INSTALLED WITH HORIZONTAL METAL STAKES AT 36" SPACING. COLOR TO BE BLACK OR DARK GREEN. SILVER COLOR OR PLASTIC IS NOT ACCEPTABLE. INSTALL PER MANUFACTURER'S SPECIFICATIONS IN ALL AREAS INDICATED ON PLAN.
- THE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPING FOR A PERIOD OF TWO (2) YEARS BEGINNING AFTER APPROVAL BY THE CITY OF ROCHESTER HILLS 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 HILLS LANDSCAPE ARCHITECT, WITHOUT COST TO THE OWNER.
- ACCEPTANCE OF GRADING AND SOD SHALL BE BY LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE AND AS DETERMINED BY THE CITY'S LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME MAINTENANCE RESPONSIBILITY FOR A MINIMUM OF TWO (2) YEAR. 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'S LANDSCAPE ARCHITECT, THE OWNER SHALL ASSUME ALL MAINTENANCE RESPONSIBILITIES.
- 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).
- 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.
- MULCHING AND WATERING OF ALL PLANTS AND TREES SHALL BE IMMEDIATELY OR WITHIN 16 HOURS AFTER INSTALLATION.
- 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 2006.
- USE GRADE "A" DOUBLE SHREDDED HARDWOOD BARK.
- PLANT TREES AND SHRUBS NO CLOSER THAN THE FOLLOWING MINIMUM DISTANCE FROM SIDEWALKS, CURBS, AND PARKING STALLS:
 - A. SHADE/CANOPY TREES 5 FEET
 - B. ORNAMENTAL/FLOWERING TREES 10 FEET
 - C. EVERGREEN TREES 10 FEET
 - D. EVERGREEN/FLOWERING SHRUBS 5 FEET
- 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.
- LAWN TREES ARE TO BE MULCHED WITH A MINIMUM OF 4" WIDE BY 4" DEEP SHREDDED BARK OR APPROVED DESIGN FOR TRUNK PROTECTION. ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.
- 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.
- 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.
- 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.
- 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 TEXTURE PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) TO A MINIMUM OF 2" ABOVE TOP OF 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.
- 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.
- REPLACE EXCAVATED MATERIAL WITH GOOD, MEDIUM TEXTURE PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) TO A MINIMUM OF 2" ABOVE TOP OF 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.
- 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.
- ALL PLANT MATERIAL TO RECEIVE TERZO-SORB SUPER ABSORBENT POLYMER OR APPROVED EQUAL BY LANDSCAPE ARCHITECT, FOLLOW MANUFACTURER'S SPECIFICATIONS.
- THE CLEAR ZONE SHALL BE MAINTAINED AT ALL INTERSECTIONS THAT INGRESS AND EGRESS TO THE SITE. IT IS THE OWNER'S 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 OWNER'S RESPONSIBILITY TO MAINTAIN TREES AND OTHER OVERHANGING OBJECTS TO PROVIDE ADEQUATE HEADROOM TO COMPLY WITH ADA GUIDELINES.



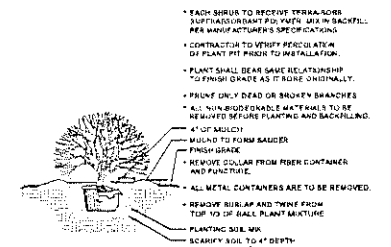
1 DECIDUOUS TREE PLANTING DETAIL



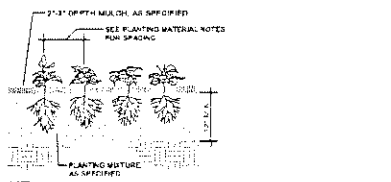
2 EVERGREEN TREE PLANTING DETAIL



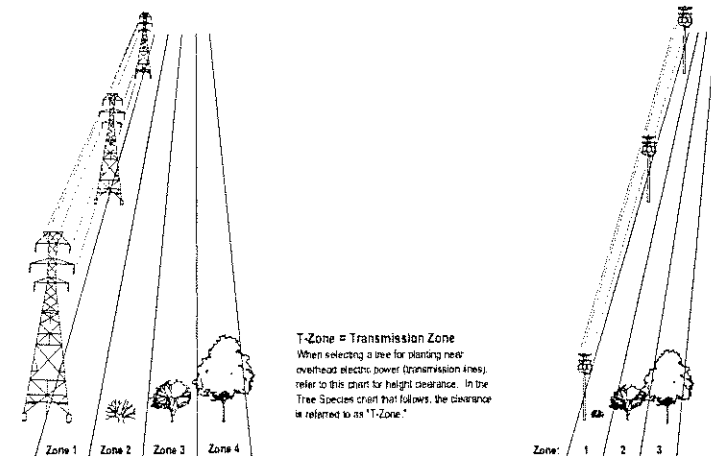
3 ORNAMENTAL TREE PLANTING DETAIL



4 SHRUB PLANTING DETAIL

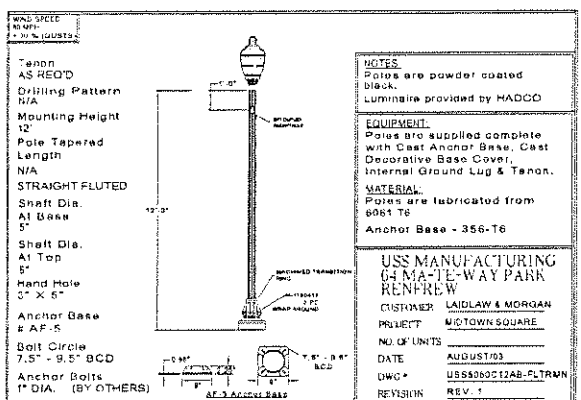


5 ANNUAL, PERENNIAL, GROUND COVER PLANTING DETAIL



- 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 - 80 feet away: Trees with maximum height of 25 feet
- Zone 4 - From 80 - 120 feet away: Trees with maximum height of 60 feet

6 Transmission Zone Planting Detail



7 Entrance Lighting Detail (- or Approved Equal) (N.T.S.)

LANDSCAPE NOTES:

- Prior to the release of the Performance Bond, the City of Rochester Hills Landscape Architect must inspect all landscape planting including but not limited to existing trees, replacement trees, suffer 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 roadway. 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.
- 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 15' 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 Landscape Architect.
- The developer and/or the City of Rochester Hills Landscape Architect 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 Landscape Architect.
- Trees must be at least 10' from underground utilities and 15' from overhead utilities.

SPACING GUIDE LINES:

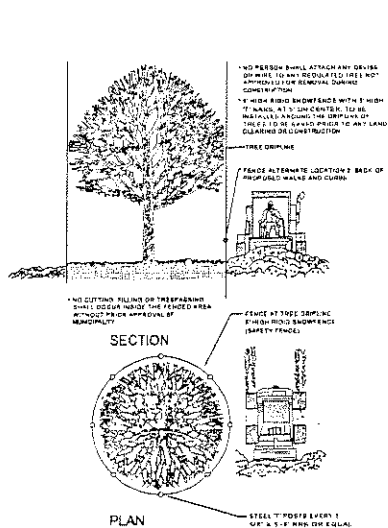
- All trees or shrubs may not be planted within 4' of any property line.
- All trees and shrubs must be planted within 10' of a fire hydrant.
- Shade trees are not to be planted within 5' any walkway.
- Evergreen trees and ornamental trees are not to be planted within 10' a public walkway.
- Trees are not to be planted within 10' of any underground utility or 15' of any overhead utility.
- The planting of trees and shrubs is not permitted within any right-of-way.

PARKS AND FORESTRY NOTES:

- 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. 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 15' 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. All trees and shrubs must be planted at least 10' from any fire hydrant.

FIRE DEPARTMENT NOTES:

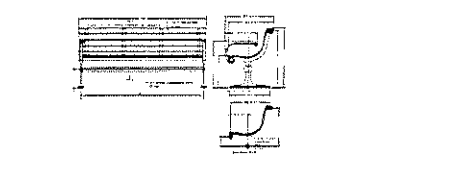
- CONSTRUCTION SITE SHALL BE SAFEGUARDED IN ACCORDANCE WITH UNIFORM FIRE CODE ARTICLE 57, UNIFORM FIRE CODE 67.01
- OPEN BURNING IS NOT PERMITTED INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 56, SECTION 1102.2.2 & 1102.5.2.3



8 TREE PROTECTION FENCE DETAIL

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' Landscape Architect 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.
- 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' Landscape Architect 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' Landscape Architect 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' Landscape Architect is required at the end of the warranty and maintenance period. 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.
- 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 other 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/drape to an existing tree designated to be preserved.
- All utility service request must include 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 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 each 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.



9 Bench Detail (- or Approved Equal) (N.T.S.)



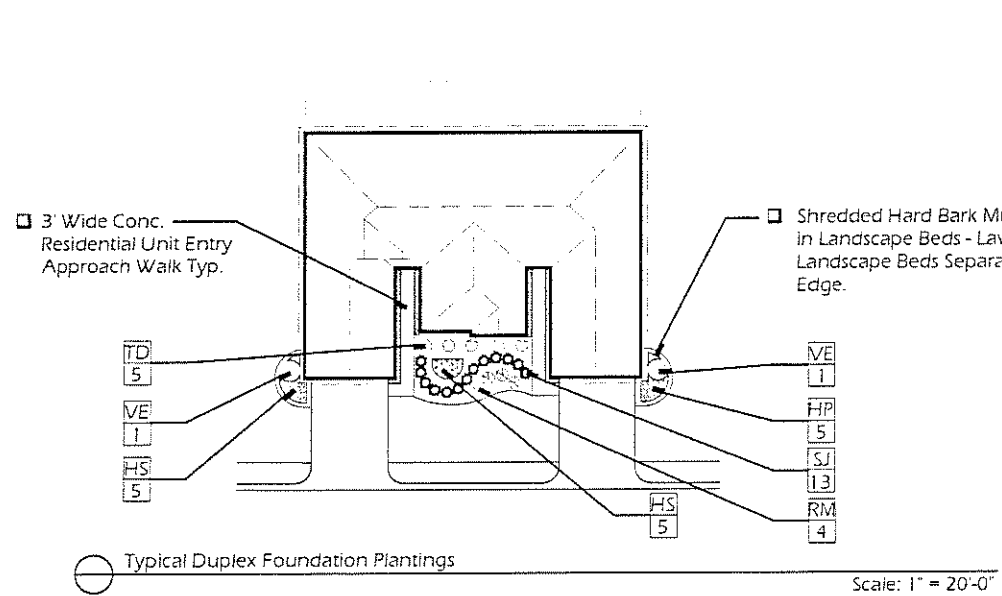
DesignTeam Limited
17255 W. Two Mile Road
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FAX: 586.566.0210

Oakville Estates
Rochester Hills,
Oakland County,
Michigan

Design/Drawn	ADD/SLK
Checked/Approved	NSL
2007 03 26	
PH: 586.566.8100	PH: 586.566.0210
Date/Revision	Issued For
11/11/06	Final Approval
02/20/06	Concept Review & Approval
04/06/06	Concept Review & Approval
04/20/06	Site Review
04/27/06	Final TPO Approval
11/20/06	Final TPO Approval

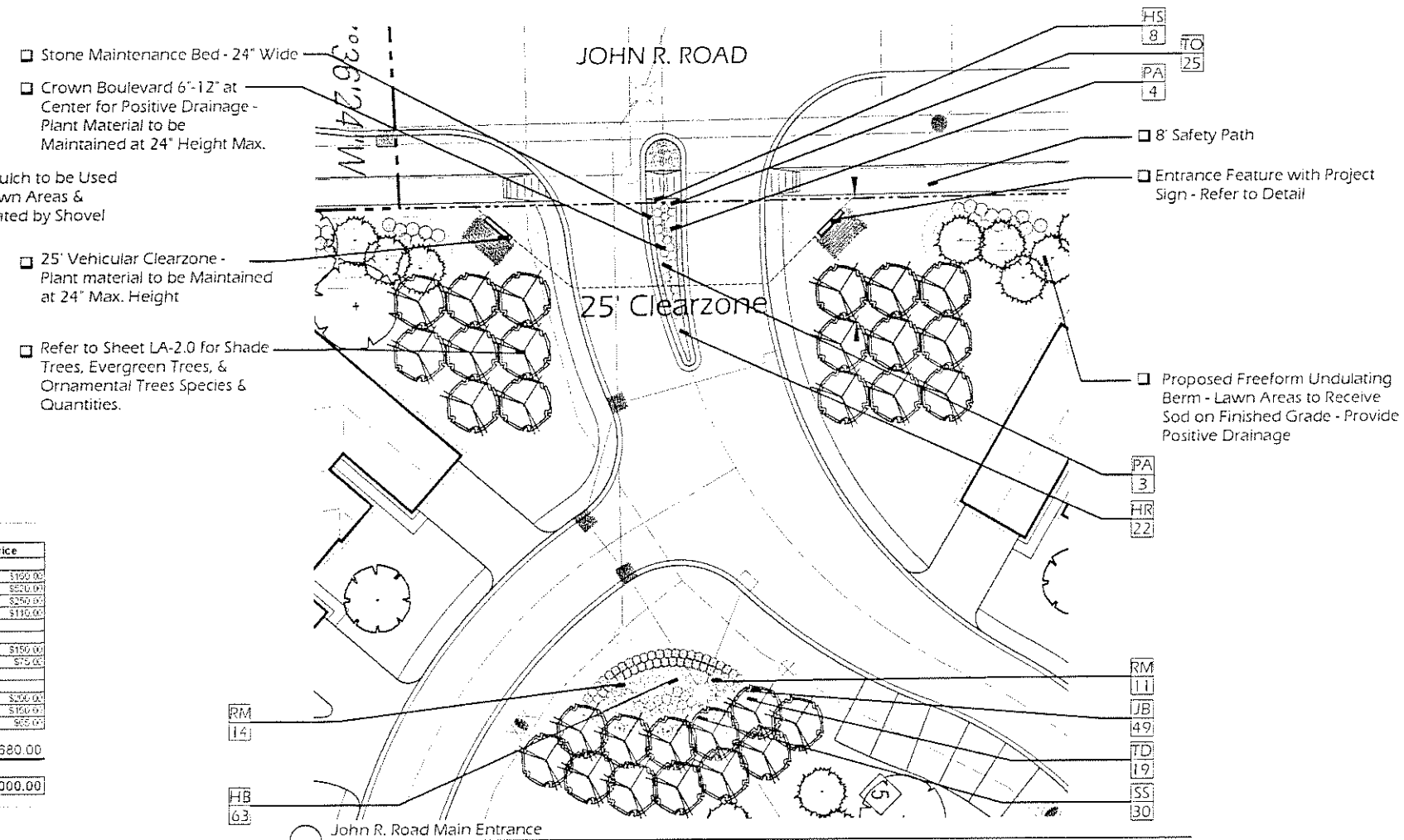
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Date



Planting Schedule and Cost Estimate - Two Unit Building - Typ. - LA-4.0

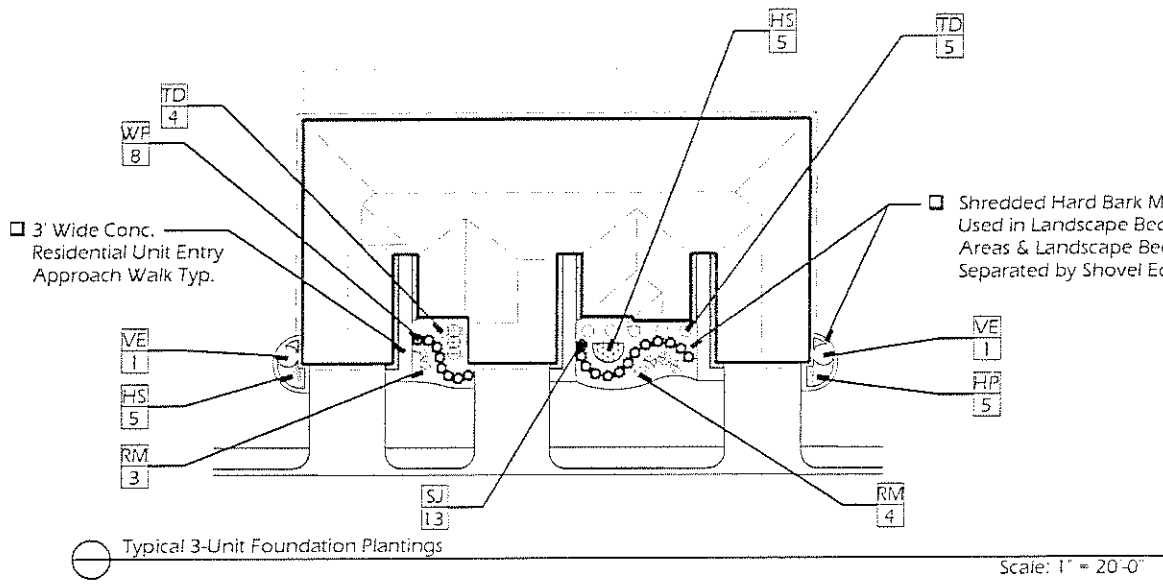
Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHRUBS								
4	RM	Rosa 'Meivert'	Knockout Rose	24" Ht.	Cont.		\$40.00	\$160.00
13	SJ	Spiraea japonica 'Little Princess'	Little Princess Spiraea	24" Sp.	Cont.		\$40.00	\$520.00
5	TD	Taxus x m. 'densiformis'	Dense Yew	24" Ht.	Cont.		\$50.00	\$250.00
2	VE	Viburnum plicatum 'Emerald Triumph'	Emerald Triumph Viburnum	24" Ht.	Cont.		\$55.00	\$110.00
PERENNIALS								
10	HS	Heimericallis 'Stella D'Oro'	Stella D'Oro Daylily	1 Gal. Cont.			\$15.00	\$150.00
5	HP	Hosta x 'Patinoz'	Patinoz Hosta	1 Gal. Cont.			\$15.00	\$75.00
MATERIALS								
5		Mulch		CY			\$40.00	\$200.00
5		Plant Mat.		CY			\$30.00	\$150.00
5		Mulch		LBS			\$13.00	\$65.00
Total per Unit:							\$1,680.00	

25	Two Unit Buildings Proposed on Site	\$1,680.00	Per Unit	Total:	\$42,000.00
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Planting Schedule and Cost Estimate - John R. Road Entrance - Typ. - LA-4.0

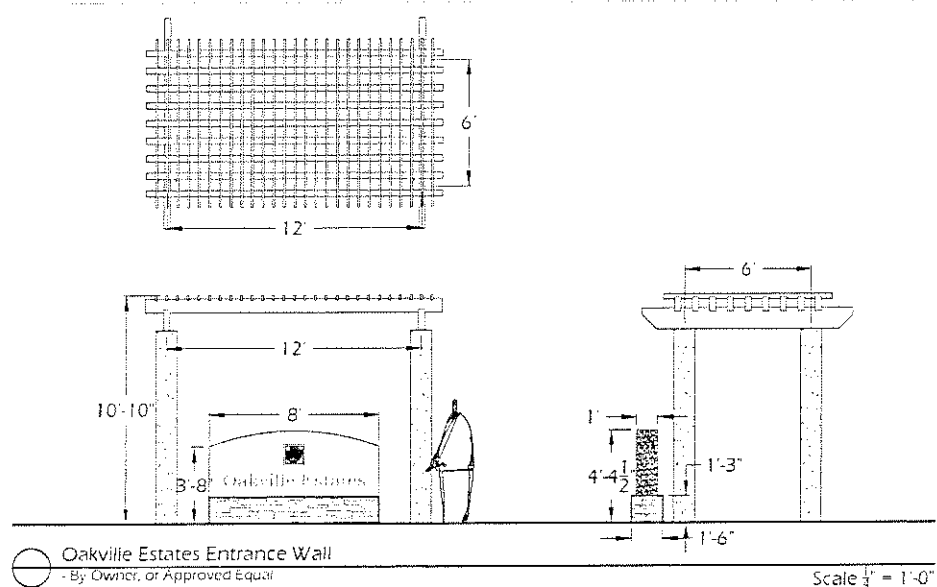
Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHRUBS								
40	JB	Juniperus horizontalis 'Spartan'	Emerald Spreading Juniper	24" Sp.	Cont.		\$35.00	\$1,400.00
12	RM	Rosa 'Meivert'	Knockout Rose	24" Ht.	Cont.		\$40.00	\$480.00
30	SP	Spiraea japonica 'Snowmound'	Snowmound Spiraea	24" Ht.	Cont.		\$38.00	\$1,140.00
15	TD	Taxus x media 'Censiformis'	Dense Yew	24" Ht.	Cont.		\$50.00	\$750.00
24	TD	Taxus x media 'Everline'	Everline Yew	24" Sp.	Cont.		\$45.00	\$1,080.00
PERENNIALS								
33	HP	Heimericallis 'Stella D'Oro'	Stella D'Oro Daylily	1" O.C.	11 Gal. Cont.		\$12.00	\$396.00
22	HP	Heimericallis 'Miss Watumi'	Miss Watumi Daylily	1" O.C.	11 Gal. Cont.		\$12.00	\$264.00
5	HS	Heimericallis 'Stella D'Oro'	Stella D'Oro Daylily	1" O.C.	11 Gal. Cont.		\$15.00	\$75.00
7	PL	Panicum arrizoides 'Little Sore'	Little Sore Russian Sage	24" O.C.	11 Gal. Cont.		\$12.00	\$84.00
MATERIALS								
24		Mulch		CY			\$40.00	\$960.00
24		Plant Mat.		CY			\$30.00	\$720.00
17		Mulch		LBS			\$13.00	\$221.00
Total:							\$8,904.00	



Planting Schedule and Cost Estimate - Three Unit Building - Typ. - LA-4.0

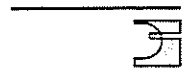
Qty.	Key	Botanical Name	Common Name	Size	Root	Notes	Unit Price	Total Price
SHRUBS								
7	RM	Rosa 'Meivert'	Knockout Rose	24" Ht.	Cont.		\$40.00	\$280.00
13	SJ	Spiraea japonica 'Little Princess'	Little Princess Spiraea	24" Sp.	Cont.		\$40.00	\$520.00
5	TD	Taxus x m. 'densiformis'	Dense Yew	24" Ht.	Cont.		\$50.00	\$250.00
2	VE	Viburnum plicatum 'Emerald Triumph'	Emerald Triumph Viburnum	24" Ht.	Cont.		\$55.00	\$110.00
8	WP	Wynona 'Red Prince'	Purple Leaf Viburnum	24" Ht.	Cont.		\$45.00	\$360.00
PERENNIALS								
10	HS	Heimericallis 'Stella D'Oro'	Stella D'Oro Daylily	1 Gal. Cont.			\$15.00	\$150.00
5	HP	Hosta x 'Patinoz'	Patinoz Hosta	1 Gal. Cont.			\$15.00	\$75.00
MATERIALS								
7		Mulch		CY			\$40.00	\$280.00
5		Plant Mat.		CY			\$30.00	\$150.00
5		Mulch		LBS			\$13.00	\$65.00
Total:							\$2,440.00	

24	Three Unit Buildings Proposed on Site	\$2,440.00	Per Unit	Total:	\$58,560.00
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- NOTES:**
- The notation I.V.O. is Intermittent Visual Obstruction, as defined by the City of Rochester Hills Ordinance
 - Base, boundary, and topographic information provided by MCS & Associates, received on 5/2/06
 - Wetland limit verified by Brooks Williamson and Associates, provided by MCS & Associates, received on 5/2/06.
 - Subject to city and agency reviews and modifications.

- LANDSCAPE PLANTING NOTES:**
- 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.
 - Placement of street trees to be adjusted for underground utilities and driveway placements.
 - All trees being retained will be identified by painting, flagging or some other approved method.
 - Trees to be located a minimum of 10' 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.



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PH: 586.566.8100
FAX: 586.566.0210

Project: Oakville Estates
Rochester Hills,
Oakland County,
Michigan

Designed/Drawn: MAF/FAE
Checked/Reviewed: PJA
Job #: 0372.06
File: 0372.06.14.11.22.06.dwg

Date/Revisions: issued for:
11/11/05 - 2nd 3/24/06 issue
2/23/06 - General Review & Approval
5/11/06 - General Review & Approval
8/12/06 - Shall Issue
9/27/06 - Final PDD Approval
11/20/06 - Final PDD Approval

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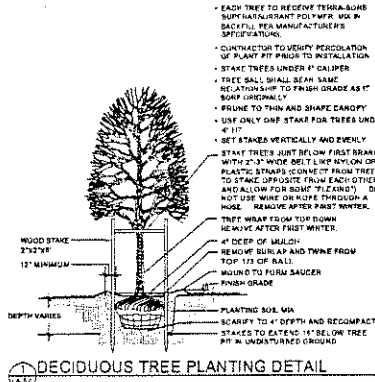
Detailed Unit & Entrance Landscape Plan

LA-4.0

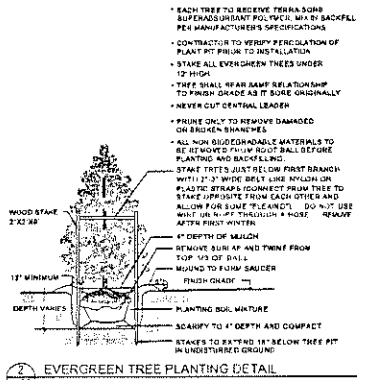
GENERAL NOTES

PLANTING NOTES:

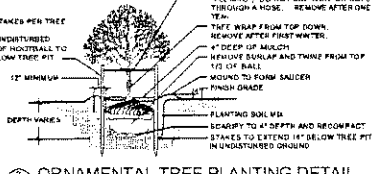
- 1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION OR 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. BACK FILL AND CROWN PARKING LOT ISLANDS 12" ABOVE ADJACENT CURBS.
4. 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 PAK GRADE MATERIAL WILL BE ACCEPTED.
5. INSTALL SOD IN ALL AREAS INDICATED ON PLAN. SOD TO BE WELL ESTABLISHED. MINERAL GROWTH, NO PEST SOD WILL BE ALLOWED. SOD BLEND SHALL CONSIST OF A MINIMUM OF THREE (3) IMPROVED VARIETIES OF BLUEGRASS. ACCEPTANCE AND GUARANTEE NOTES SHALL APPLY TO ALL SOD.
6. EDGING SHALL BE 4" x 1/8" METAL EDGING OR APPROVED EQUAL. TO BE INSTALLED WITH HORIZONTAL METAL STAKES AT 36" SPACING. COLOR TO BE BLACK OR DARK GREEN. SILVER COLOR OR PLASTIC IS NOT ACCEPTABLE. INSTALL PER MANUFACTURER'S SPECIFICATIONS IN ALL AREAS INDICATED ON PLAN.
7. THE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPING FOR A PERIOD OF TWO (2) YEARS BEGINNING AFTER APPROVAL BY THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME MAINTENANCE RESPONSIBILITY FOR A MINIMUM OF TWO (2) YEAR. 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'S LANDSCAPE ARCHITECT, THE OWNER SHALL ASSUME ALL MAINTENANCE RESPONSIBILITIES.
9. 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).
10. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
11. STAKES USED FOR TREE SUPPORTS SHALL POINT AWAY FROM ANY CIRCULATION ROUTES.
12. IN CASE OF DISCREPANCY BETWEEN PLAN AND SPECIFICATIONS, THE PLAN SHALL GOVERN PROPER PROCEDURE.
13. MULCHING AND WATERING OF ALL PLANTS AND TREES SHALL BE IMMEDIATELY OR WITHIN 16 HOURS AFTER INSTALLATION.
14. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
15. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
16. REMOVE ALL TREE STAKES AND GUY WIRES AFTER ONE WINTER.
17. INSTALL AND MAINTAIN ALL LANDSCAPING ACCORDING TO ROCHESTER HILLS STANDARDS.
18. PLANTING TO START FALL 2006.
19. USE GRADE 'A' DOUBLE SHEATHED HARDWOOD BARK.
20. PLANT TREES AND SHRUBS NO CLOSER THAN THE FOLLOWING MINIMUM DISTANCE FROM SIDEWALKS, CURBS, AND PARKING STALLS:
A. SHADE/CANOPY TREES 5 FEET
B. ORNAMENTAL/FLOWERING TREES 10 FEET
C. EVERGREEN TREES 10 FEET
D. EVERGREEN/FLOWERING SHRUBS 5 FEET
21. 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.
22. REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TOP 1/3 OF TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS.
23. LAWN TREES ARE TO BE MULCHED WITH A MINIMUM OF 4" WIDE BY 4" DEEP SHREDDED BARK OR APPROVED DESIGN FOR TRUNK PROTECTION. ONLY NATURAL COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.
24. 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.
25. 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.
26. 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.
27. 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 TEXTURE PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) TO A MINIMUM OF 2" ABOVE TOP OF CURB AND SIDEWALK. ADD 4"-6" OF TOPSOIL AND CROWN TO A MINIMUM OF 6" ABOVE ADJACENT CURBS AND/OR WALKS 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.
28. ALL PLANT MATERIAL TO RECEIVE TERRAZO-SORB SUPER ABSORBENT POLYMER OR APPROVED EQUAL BY LANDSCAPE ARCHITECT, FOLLOW MANUFACTURER'S SPECIFICATIONS.
29. 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.
30. 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.



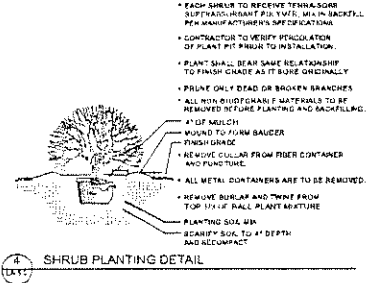
DECIDUOUS TREE PLANTING DETAIL



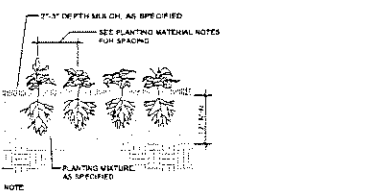
EVERGREEN TREE PLANTING DETAIL



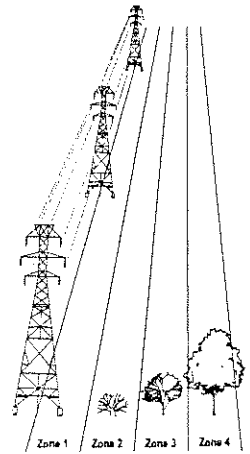
ORNAMENTAL TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

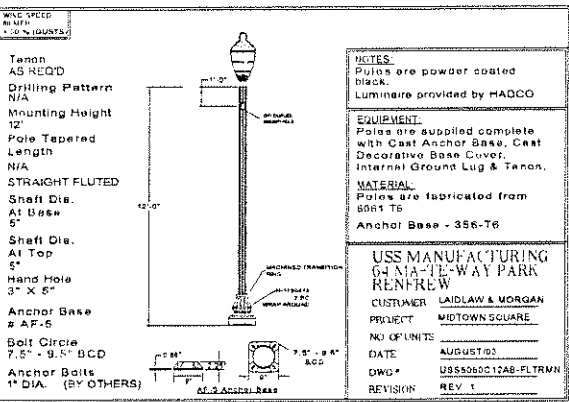


ANNUAL, PERENNIAL, GROUND COVER PLANTING DETAIL



- 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 80 feet.

Transmission Zone Planting Detail



Entrance Lighting Detail (- or Approved Equal)

LANDSCAPE NOTES:

- 1. Prior to the release of the Performance Bond, the City of Rochester Hills Landscape Architect 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 roadway. Shade trees and shrubs must be planted at least 5' from the edge of the public roadway. Evergreen and ornamental trees must be planted at least 10' from the edge of the public roadway. 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 roadway 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 Landscape Architect.
6. The developer and/or the City of Rochester Hills Landscape Architect 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 substitutions or changes of location or plant type shall be made without the approval of the developer and the City of Rochester Hills Landscape Architect.
9. Trees must be at least 10' from underground utilities and 15' from overhead utilities.

SPACING GUIDE LINES:

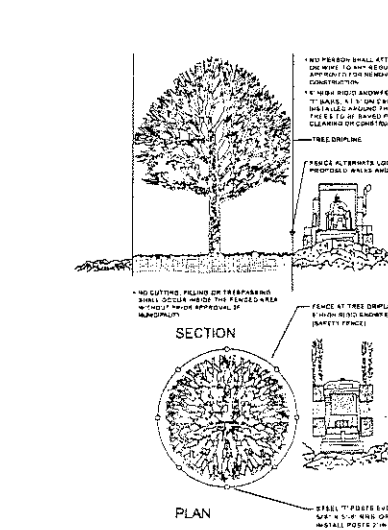
- 1. All trees or shrubs may not be planted within 4' of any property line.
2. All trees and shrubs must be planted within 10' of a fire hydrant.
3. Shade trees are not to be planted within 5' any walkway.
4. Evergreen trees and ornamental trees are not to be planted within 10' a public walkway.
5. Trees are not to be planted within 10' of any underground utility or 15' of any overhead utility.
6. The planting of trees and shrubs is not permitted within any right-of-way.

PARKS AND FORESTRY NOTES:

- 1. 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 roadway. Evergreen and ornamental trees must be planted at least 10' from the edge of the public roadway. No trees or shrubs may be planted within 5' any walkway. No trees or shrubs may be planted in the triangular area formed at the intersection of any street right-of-way lines at a distance along each line 25' from their point of intersection. No trees or shrubs may be planted in the triangular area formed at the intersection of any driveway with a public roadway at a distance along each line of 15' from their point of intersection. All trees and shrubs must be planted at least 10' from any fire hydrant.

FIRE DEPARTMENT NOTES:

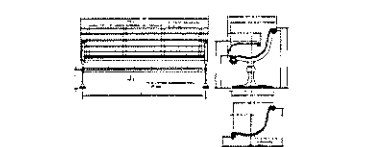
- 1. CONSTRUCTION SITE SHALL BE SAFEGUARDED IN ACCORDANCE WITH UNIFORM FIRE CODE ARTICLE 87, UNIFORM FIRE CODE 87.01
2. OPEN BURNING IS NOT PERMITTED INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION. FIRE PREVENTION ORDINANCE CHAPTER 58 SECTION 1102.2 58-1102.2.3



TREE PROTECTION FENCE DETAIL

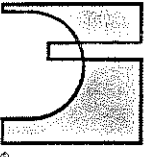
TREE PROTECTION NOTES:

- 1. 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' Landscape Architect 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' Landscape Architect 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 the TPF inspection.
3. Upon Completion of all construction and prior to the removal of the City of Rochester Hills' Landscape Architect 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' Landscape Architect 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, grading, 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 devices or wire/cable/cord/rope to an existing tree designated to be preserved.
8. All utility service request must include 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 an 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 preserved. 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.



Bench Detail (- or Approved Equal)

Amenities, Specifications, & Details



DesignTeam
Landscape Architecture
Land Planning
Urban Design
Environmental Planning

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248.559.1000
Fax: 248.569.5717
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Oakville Estates L.L.C.
42850 Schoenher Road
Sterling Heights, Michigan 48313
Ph: 586.566.8100
FAX: 586.566.0210

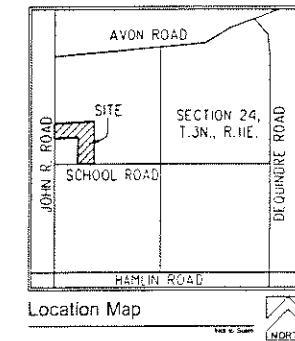
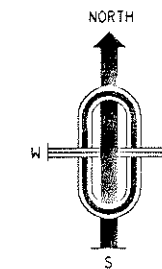
Oakville Estates
Rochester Hills,
Oakland County,
Michigan

Table with 2 columns: Description, Value/Unit. Includes items like Design/Construction, Construction, etc.

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Sheet

"OAKVILLE ESTATES"

PART OF THE NW 1/4 OF SECTION 24,
T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.



THE FOLLOWING NINE (9) LEGAL DESCRIPTIONS ARE AS CITED ON THE TITLE COMMITMENT NO. 63-554369, AS ISSUED BY "THE PHILIP F. GRECO TITLE COMPANY", DATED AT MT. CLEMENS, MICHIGAN, ON NOVEMBER 22, 2005 AT 8:00 A.M.

LEGAL DESCRIPTION: PARCEL 15-24-100-040 (PARCEL 1)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant S88°20'40"E 769.00 feet from the West 1/4 corner; thence N00°00'00"E 175.60 feet; thence N88°47'00"E 27.65 feet; thence S00°00'00"W 912.30 feet; thence S88°49'50"W 201.26 feet; thence S00°00'00"W 276.45 feet; thence N88°20'40"W 70.03 feet to the Point of Beginning, except the South 43 feet.

LEGAL DESCRIPTION: PARCEL 15-24-100-037 (PARCEL 2)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant S02°50'24"W 850.85 feet from the Northwest section corner; thence S89°28'59"E 450.00 feet; thence S00°37'00"W 70.00 feet; thence N89°28'59"W 150.00 feet; thence S85°10'41"W 128.16 feet; thence N88°55'50"W 175.62 feet; thence N02°50'24"E 80.00 feet to the Point of Beginning.

LEGAL DESCRIPTION: PARCEL 15-24-100-028 (PARCEL 3)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant S88°20'40"E 129.00 feet from the West 1/4 corner; thence N00°00'00"E 290.75 feet; thence S88°49'50"W 88.65 feet; thence N00°00'00"E 912.30 feet; thence N88°47'00"E 27.65 feet; thence S00°37'00"W 931.44 feet; thence N88°20'40"W 126.00 feet; thence S00°37'44"E 290.75 feet; thence N88°20'40"W 70.09 feet to the Point of Beginning, except south 43 feet taken for road.

LEGAL DESCRIPTION: PARCEL 15-24-100-038 (PARCEL 4)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant S02°50'24"W 930.85 feet from the Northwest section corner; thence S88°55'50"E 175.62 feet; thence N85°18'41"E 128.16 feet; thence S89°28'59"E 150.00 feet; thence N00°37'00"E 70.00 feet; thence S89°28'59"E 876.16 feet; thence S02°28'24"W 198.00 feet; thence N89°28'52"W 1327.43 feet; thence N02°50'24"E 118.00 feet to the Point of Beginning.

LEGAL DESCRIPTION: PARCEL 15-24-100-018 (PARCEL 5)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Macomb County, Michigan, being more particularly described as follows:
Beginning at a point distant S88°20'40"E 999.00 feet from the West 1/4 corner; thence N00°00'00"E 284.25 feet; thence N88°49'50"E 130.00 feet; thence S00°00'00"W 290.75 feet; thence N88°20'40"W 130.00 feet to the Point of Beginning, except South 43.00 feet taken for road.

LEGAL DESCRIPTION: PARCEL 15-24-100-019 (PARCEL 6)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant N88°20'40"W 1325.90 feet from the center of Section; thence N88°20'40"W 126.00 feet; thence N00°40'20"W 290.75 feet; thence S88°20'40"E 126.00 feet; S00°40'20"E 290.75 feet to the Point of Beginning, except South 43.00 feet taken for road.

LEGAL DESCRIPTION: PARCEL 15-24-100-029 (PARCEL 7)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant S88°20'40"E 839.03 feet from the West 1/4 corner; thence N00°00'00"E 276.45 feet; thence N88°49'50"E 159.91 feet; thence S00°00'00"W 254.25 feet; thence N88°20'40"W 159.97 feet to the Point of Beginning, except the south 43 feet taken for road.

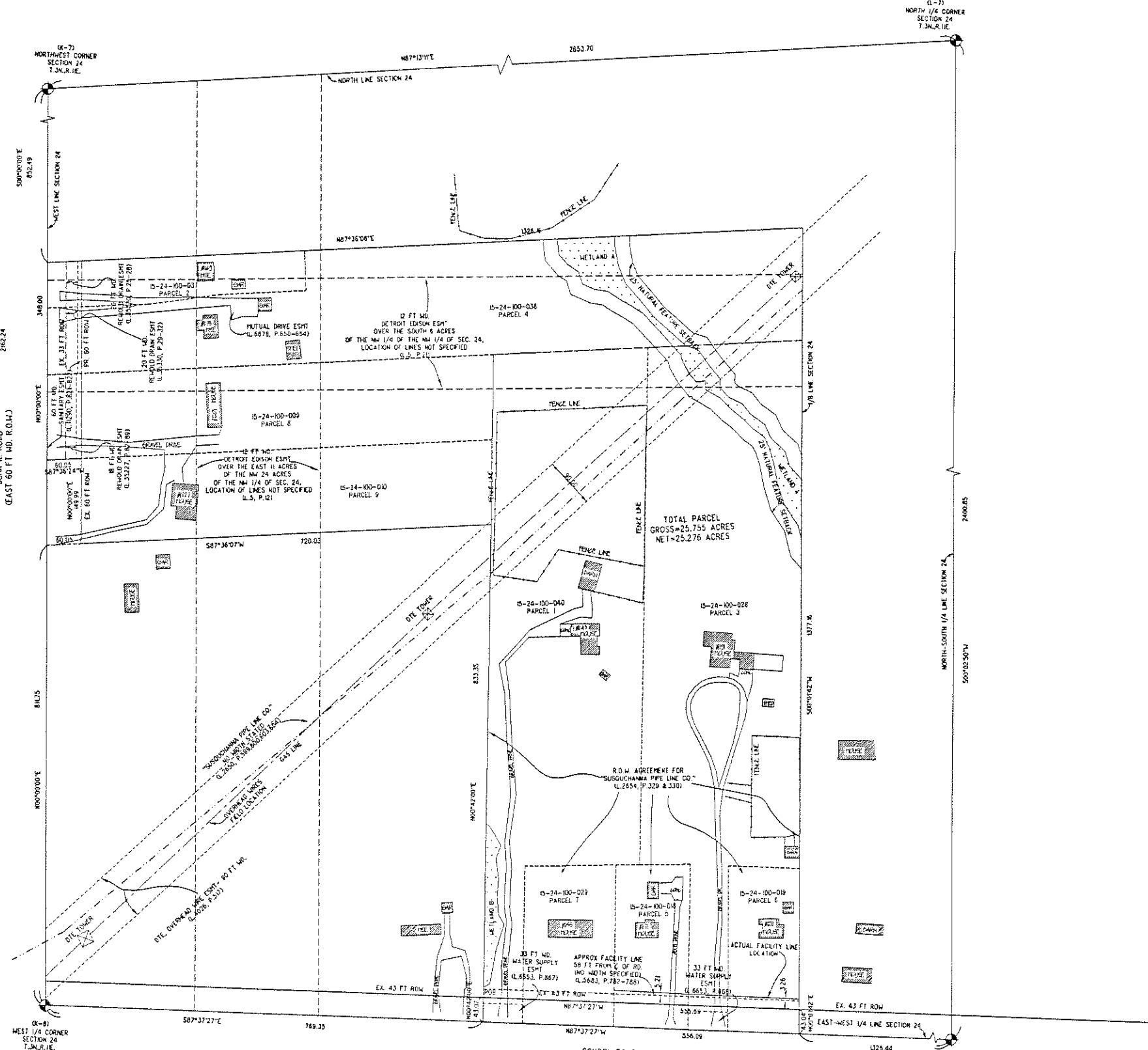
LEGAL DESCRIPTION: PARCEL 15-24-100-009 (PARCEL 8)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Avon Township, now Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant N00°00'00"E 961.75 feet from the West 1/4 corner; thence N00°00'00"E 150.00 feet; thence N87°34'50"E 784.16 feet; thence S00°00'00"W 150.00 feet; thence S87°34'50"W 780.00 feet to the Point of Beginning.

LEGAL DESCRIPTION: PARCEL 15-24-100-010 (PARCEL 9)
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point distant N00°00'00"E 811.75 feet from the West 1/4 corner; thence N00°00'00"E 150.00 feet; thence N87°34'50"E 780.00 feet; thence S00°00'00"W 150.00 feet; thence S88°48'40"W 780.00 feet to the Point of Beginning, except west 60.00 feet taken for road.

SURVEY CERTIFICATION:
I hereby certify to FFth Third Bank and to the PHILIP F. GRECO TITLE COMPANY that: (1) this print of the survey was actually made upon the ground; (2) the survey information, courses and distances shown thereon are correct and there are no buildings or other structures on the Property, except as shown; (3) all easements, rights of way or similar encumbrances creating rights in, on, over, under, across or through the Property of benefiting the Property as Shown on the Philip F. Greco Title Commitment no. 63-554369 are noted and located hereon, and are identified by Liber and Page of recording of the instrument(s) creating them; (4) the buildings located thereon do not encroach on such easements, rights of way or similar encumbrances in, on, over, under, across or through the Property, nor do the buildings on the adjoining property encroach upon the Property or such easements, except as shown; and (5) the Property has direct access to John R. Road and School Road, dedicated public roads.

DATE:

PHILIP F. GRECO TITLE COMPANY



LEGAL DESCRIPTION: TOTAL PARCEL
Part of the NW 1/4 of Section 24, T.3N., R.11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point which is S87°37'27"E 769.35 feet along the East-West 1/4 line of Section 24 and centerline of School Road (North 43 ft. R.O.W.) and N00°42'00"E 43.02 feet to the North R.O.W. line of School Road (North 43 ft. R.O.W.) from the West 1/4 corner of Section 24; thence continuing N00°42'00"E 833.35 feet; thence S87°36'07"W 720.03 feet to the East 60 ft. R.O.W. line of John R. Road (East 60 ft. R.O.W.); thence N00°00'00"E 149.99 feet along said East 60 ft. R.O.W. line of John R. Road (East 60 ft. R.O.W.); thence S87°35'24"W 60.03 feet to the West line of Section 24 and centerline of John R. Road (East 60 ft. R.O.W.); thence N00°00'00"E 348.00 feet along said West line of Section 24 and centerline of John R. Road (East 60 ft. R.O.W.); thence N87°36'06"E 1326.16 feet to the 1/8 line of Section 24; thence S00°00'00"W 1377.16 feet along said 1/8 line of Section 24 to the North R.O.W. line of School Road (North 43 ft. R.O.W.); thence N87°37'27"W 555.59 feet along said North R.O.W. line of School Road (North 43 ft. R.O.W.) to the Point of Beginning.
Containing 1,121,893 square feet --- 25.755 acres (Gross).
Containing 1,101,018 square feet --- 25.276 acres (Net), more or less.

SUBJECTS PERTAINING TO SURVEY AS STATED ON TITLE POLICY NUMBER 63-554369.

Subject to a Right-of-Way in favor of Susquehanna Pipe Line Company, a Pa. Corp., as recorded in Liber 2654, page 329, as to Parcels 1, 5, 6, and 7, in Liber 2650, page 599, as to Parcels 2 and 4 and in Liber 2650, page 603, Oakland County Records, as to Parcels 8 and 9. (Item 10)

Subject to an Easement in favor of the County of Oakland for water supply, as set forth in instrument(s) recorded in Liber 6653, page 866, and in Liber 6653, page 867, as to Parcel 1, in Liber 6653, page 868, Oakland County Records, as to Parcel 3. (Item 11)

Subject to a Right-of-Way in favor of the Detroit Edison Company, as recorded in Register No. 115475, and in Liber 5683, page 782, as to Parcels 1 and 3, in Liber 5 of Miscellaneous, page 22, as to Parcels 2 and 4, in Liber 5653, page 784, as to Parcel 3, in Liber 5 of Miscellaneous, page 12, in Liber 200, page 21 and in Liber 5683, page 787, as to Parcel 5, in Liber 5683, page 788, as to Parcel 6, in Liber 5686, page 786, as to Parcel 7, in Liber 5 of Miscellaneous, page 21 and in Liber 4026, page 517, Oakland County Records, as to Parcel 9. (Item 12)

Subject to a Right-of-Way in favor of the Revold Drain, as recorded in Liber 35330, page 25, as to Parcel 2, in Liber 35330, page 29; as to Parcel 4 and in Liber 35227, page 82, Oakland County Records, as to Parcel 8. (Item 13)

Subject to the terms and conditions of a certain Utility Obligation Agreement, as recorded in Liber 14109, page 61, in Liber 9256, page 868, as to Parcel 2 and in Liber 10163, page 44, Oakland County Records, as to Parcel 4. (Item 14)

Subject to an Easement in favor of the City of Rochester for sanitary sewer, as set forth in instrument(s) recorded in Liber 11290, page 819, as to Parcel 2, in Liber 11290, page 822, as to Parcel 4, in Liber 11290, page 821, as to Parcel 6 and in Liber 11293, page 695, Oakland County Records, as to Parcel 5. (Item 15)

Subject to the terms and conditions of a certain Mutual Driveway Easement, as recorded in Liber 6875, page 650, Oakland County Records, as to Parcels 2 and 4. (Item 16)

Subject to the terms and conditions of a certain Agreement, as recorded in Liber 11092, page 537, Oakland County Records, as to Parcel 6. (Item 17)

Subject to the rights of the public and any governmental unit in any part thereof taken, used or deemed for street, road or highway purposes. (Item 18)

NOTE:
1. NET ACRES ARE CALCULATED TO THE PROPOSED 60 FT. R.O.W. OF JOHN R. ROAD, AND THE EXISTING 43 FT. R.O.W. OF SCHOOL ROAD.
2. WETLANDS FLAGGED BY "BROOKS WILLIAMSON ASSOCIATES".

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REV. 01-09-07 PER CITY
REV. 11-27-06 PER CITY

JJ ASSOCIATES, INC.
Civil Engineering and Surveying

FORMERLY MCS ASSOCIATES, INC.

Civil Engineering and Surveying
4444 Mound Road, Suite 108
Sterling Heights, Michigan 48314
Telephone (586) 726-6310

OAKVILLE ESTATES
PART OF THE NW 1/4 OF SECTION 24, T.3N., R.11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DATE 09-13-06 SCALE 1" = 100'
DRAWN BY A.P. SHEET C-1
CHECKED BY J.C.W. DRAWING PS-06-815

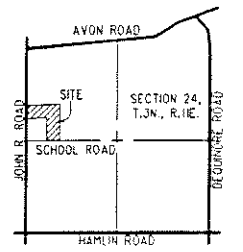
BOUNDARY SURVEY



CITY FILE #04-037

"OAKVILLE ESTATES"

PART OF THE NW 1/4 OF SECTION 24,
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.



CONTROL POINTS:

NUMBER	NORTHING	EASTING	ELEVATION
2	4927.5142	6334.9651	742.13
80	5209.3988	6183.9030	745.27
81	5245.1487	5995.4235	748.01
82	5502.3907	5819.3138	751.24
89	5886.5836	5391.5164	754.31
92	5990.3420	6230.1099	747.19
93	5757.9573	6396.0587	741.85
94	5512.0843	6276.2032	748.63
213	4961.2161	6241.0966	741.07
3148	5016.1388	6187.3148	747.34
3180	5126.8055	6316.2334	746.80
3181	5103.2362	5049.2367	752.57
3206	5178.5543	6085.9869	746.23
3316	5552.5291	5812.3551	751.76
3323	5858.7521	5995.0361	754.27
3401	5548.5525	6213.8595	749.33
3445	5822.5552	6254.0763	749.11
3472	5701.5691	6254.1728	751.61
3490	5985.4236	6329.6372	748.08
3571	6400.4867	5939.0597	760.48
3631	6244.2963	5294.6683	761.79
3680	6452.6373	5426.9011	765.74
3758	5997.5582	5158.9321	758.33
3814	5722.9880	4980.7734	755.66

BENCHMARKS:

NUMBER	NORTHING	EASTING	ELEVATION
3143	4988.7302	5998.3640	742.65
3144	4942.4393	5789.3212	743.98
3188	5038.4985	4958.0797	754.17
3343	6269.7555	6312.3620	763.99
3476	5728.1204	6332.2470	747.15
3815	5992.2263	4969.9797	760.86
3816	6334.1490	5865.0043	757.92
4015	5506.7278	4970.4528	756.23

PRIMARY BENCHMARK:

3188 ARROW ON HYDRANT LOCATED ON THE WEST SIDE OF JOHN R. ROAD ± 40' FROM THE WEST 1/4 CORNER OF SECTION 24.
ELEV: 754.17

BENCHMARK DESCRIPTION:

3143 ARROW ON HYDRANT LOCATED ON THE NORTH SIDE OF SCHOOL ROAD APPROXIMATELY ± 230' EAST FROM THE WEST PROPERTY LINE.
ELEV: 743.98

3144 ARROW ON HYDRANT LOCATED ON THE NORTH SIDE OF SCHOOL ROAD APPROXIMATELY ± 20' EAST FROM THE WEST PROPERTY LINE.
ELEV: 743.89

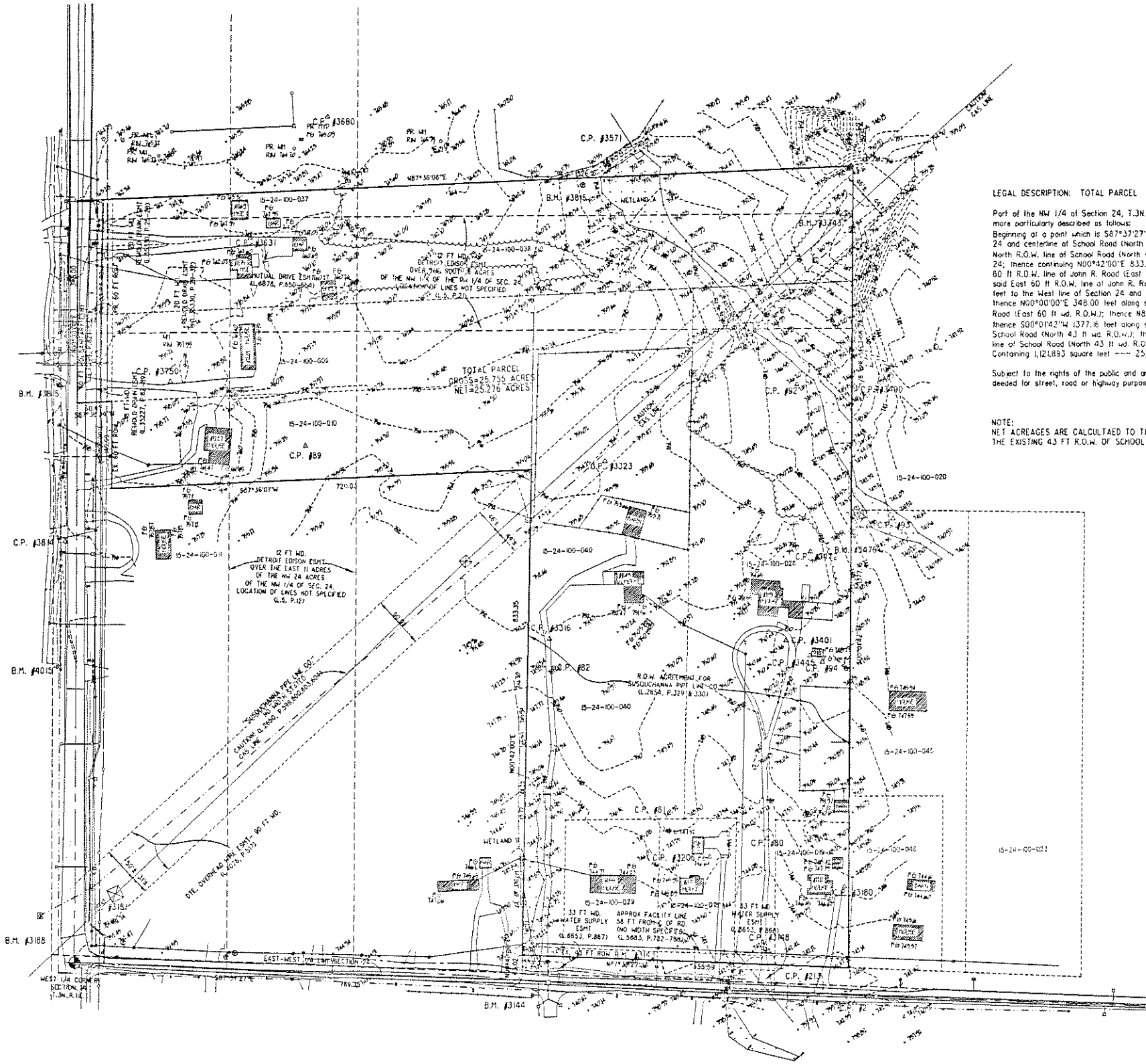
3343 TOP OF THE SOUTHWEST LOWER BRACE OF D.E. TOWER LOCATED ± 95' SOUTH FROM THE NORTH PROPERTY LINE AND ± 15' WEST FROM THE EAST PROPERTY LINE.
ELEV: 763.99

3476 MAG NAIL IN SOUTHWEST FACE OF 15" OAK LOCATED ± 5' EAST FROM THE EAST PROPERTY LINE AND ± 60' SOUTH FROM THE NORTH PROPERTY LINE.
ELEV: 747.15

3815 ARROW ON HYDRANT LOCATED ON THE WEST SIDE OF JOHN R. ROAD AND ± 180' NORTH FROM THE SOUTH PROPERTY LINE.
ELEV: 760.86

3816 MAG NAIL IN SOUTHWEST FACE OF 15" OAK LOCATED ± 480' WEST FROM THE EAST PROPERTY LINE AND ± 10' SOUTH FROM THE NORTH PROPERTY LINE.
ELEV: 757.92

4015 ARROW ON HYDRANT LOCATED ON THE WEST SIDE OF JOHN R. ROAD AND ± 300' SOUTH FROM THE SOUTH PROPERTY LINE.
ELEV: 756.23

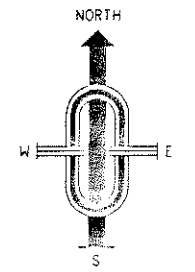


LEGAL DESCRIPTION: TOTAL PARCEL

Part of the NW 1/4 of Section 24, T. 3N., R. 11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
Beginning at a point which is S87°37'27"E 799.35 feet along the East-West 1/4 line of Section 24 and centerline of School Road (North 43 ft wd. R.O.W.) and N00°42'00"E 43.02 feet to the North R.O.W. line of School Road (North 43 ft wd. R.O.W.); from the West 1/4 corner of Section 24; thence containing N00°42'00"E 833.35 feet; thence S87°36'07"W 720.03 feet to the East 60 ft R.O.W. line of John R. Road (East 60 ft wd. R.O.W.); thence N00°00'00"E 149.99 feet along said East 60 ft R.O.W. line of John R. Road (East 60 ft wd. R.O.W.); thence S87°36'24"W 60.05 feet to the West line of Section 24 and centerline of John R. Road (East 60 ft wd. R.O.W.); thence N00°00'00"E 348.00 feet along said West line of Section 24 and centerline of John R. Road (East 60 ft wd. R.O.W.); thence N87°36'06"E 1326.16 feet to the 1/8 line of Section 24; thence S00°00'00"W 1377.16 feet along said 1/8 line of Section 24 and centerline of John R. Road (East 60 ft wd. R.O.W.); thence N87°37'27"W 555.59 feet along said North R.O.W. line of School Road (North 43 ft wd. R.O.W.) to the Point of Beginning.
Containing 1,121,893 square feet — 25.755 acres.

Subject to the rights of the public and any governmental unit in any part thereof taken, used or needed for street, road or highway purposes.

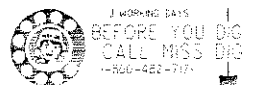
NOTE:
NET ACRES ARE CALCULATED TO THE PROPOSED 60 FT R.O.W. OF JOHN R. ROAD, AND THE EXISTING 43 FT R.O.W. OF SCHOOL ROAD.



LEGEND

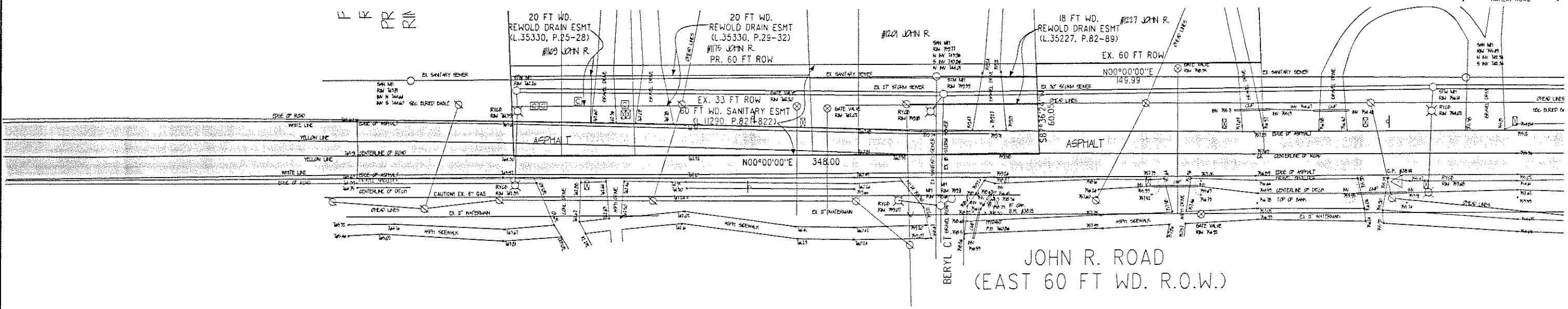
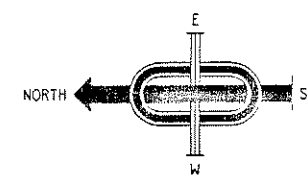
- △ CONTROL POINT
- ⊗ FIRE HYDRANT
- ⊙ GATE VALVE
- MANHOLE - STM OR SAN AS INDICATED
- REAR YARD CATCH BASIN
- ⊠ GAS MARKER
- ⊕ UTILITY POLE
- > GUY POLE
- ⊥ SIGN
- ⊞ MAIL BOX
- TOP OF BANK
- - - CL OF DITCH
- - - EX. STORM SEWER
- - - EX. SANITARY SEWER
- - - EX. WATERMAIN
- - - FENCE
- - - GAS MAIN
- - - O'HEAD LINES
- - - EDGE OF TREE LINE
- - - REWOLD DRAIN

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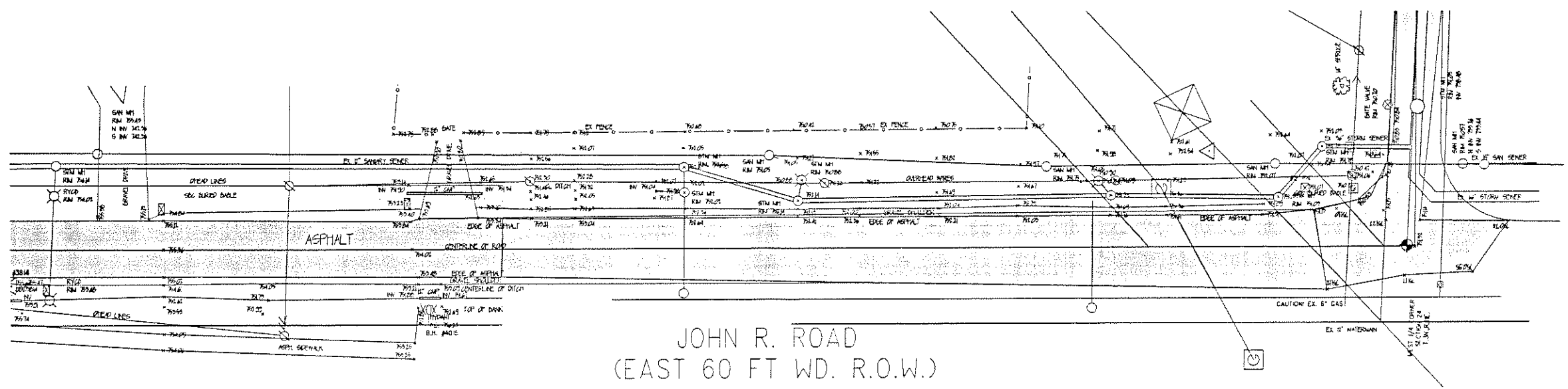


REV: 01-09-07 PER CITY OF ROCHESTER HILLS

MCS ASSOCIATES, INC. Civil Engineering and Surveying	
44444 Pound Road, Suite 100 Sterling Heights, Michigan 48314 Telephone: (586) 726-9111 Fax: (586) 726-9112 Website: www.mcsassociates.net	
OAKVILLE ESTATES PART OF THE NW 1/4 OF SECTION 24, T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN	
DATE 09-13-06	SCALE 1"=100'
DRAWN BY A.P.	SHEET C-2
CHECKED BY J.C.W.	DRAWING PS-06-815
TOPOGRAPHIC SURVEY	



JOHN R. ROAD
(EAST 60 FT WD. R.O.W.)



JOHN R. ROAD
(EAST 60 FT WD. R.O.W.)



REV: 01-09-07 PER CITY op
REV: 11-27-06 PER CITY op

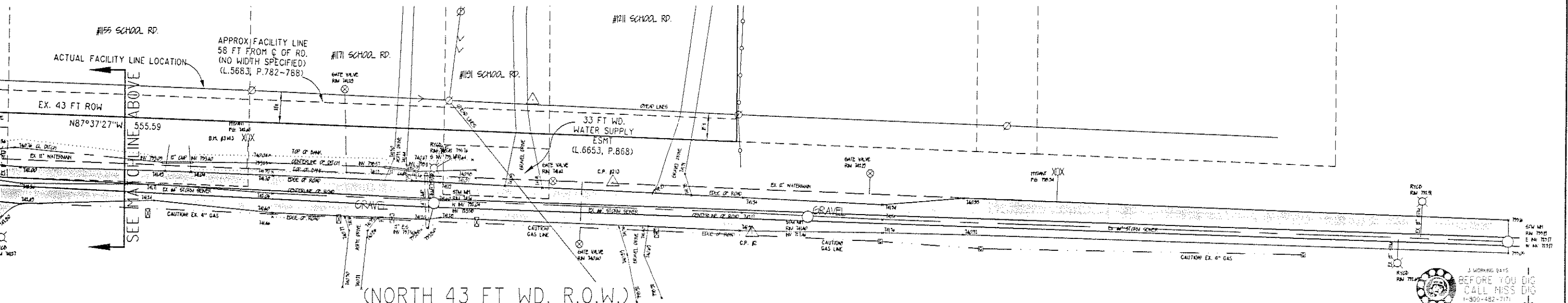
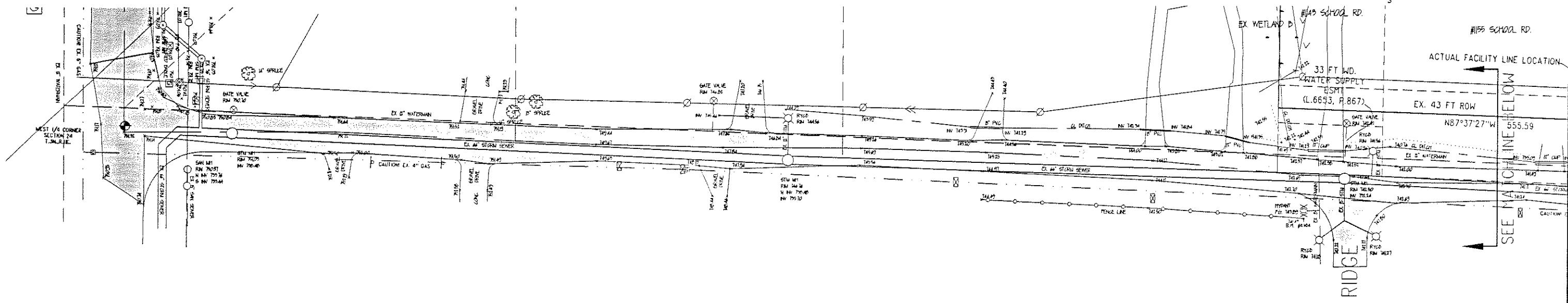
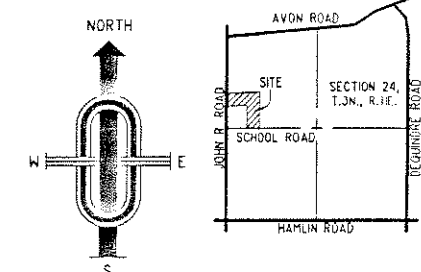
JF ASSOCIATES, INC.
Civil Engineering and Surveying

43244 Mound Road, Suite 800
Sterling Heights, Michigan 48314
Telephone (586) 726-9111
Fax (586) 726-9112
Website www.jfassociates.net

FORMERLY **MCS** ASSOCIATES, INC.
OAKVILLE ESTATES
PART OF THE N.W. 1/4 OF SECTION 24, T.3N., R.1E., OAKLAND COUNTY, MICHIGAN

DATE 09-13-06 SCALE 1"=50'
DRAWN BY A.P. SHEET C-3
CHECKED BY J.C.W. DRAWING PS-06-815


JOHN R ROAD TOPO



(NORTH 43 FT WD. R.O.W.)


 BEFORE YOU DIG
 CALL MISS DIG
 1-800-482-7171

REV: 01-09-07 PER CITY OP
 REV: 11-27-06 PER CITY OP


ASSOCIATES, INC.
 Civil Engineering and Surveying

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 Sterling Heights, Michigan 48314
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 ROCHESTER HILLS
 OAKLAND COUNTY, MICHIGAN

DATE 09-13-06 SCALE 1"=50'
 DRAWN BY A.P. SHEET C-4
 CHECKED BY J.C.W. DRAWING PS-06-815

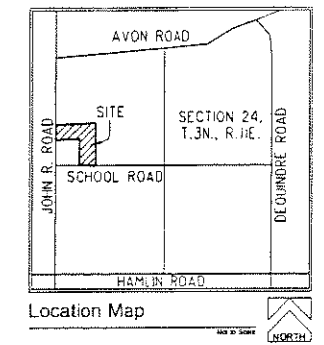
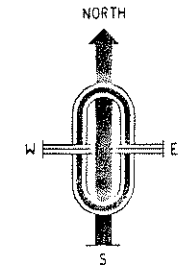
SCHOOL ROAD TOPO

"OAKVILLE ESTATES"

PART OF THE NW 1/4 OF SECTION 24,
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.

NOTE:
OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND / OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION.

FIRE LANES SHALL BE DESIGNATED BY THE FIRE CODE OFFICIAL, AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS SPACED NOT MORE THAN 100 FEET APART. NO STOPPING, STANDING, PARKING, FIRE LANE - AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. FIRE PREVENTION ORDINANCE CHAPTER 58 SEC. 90.14.2. CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH UFC ART 87, SEC. 8701



C FACTOR CALCULATION

IMPERVIOUS AREA = 10.11 Ac. x 0.90 = 9.10 CFS
 PERVIOUS AREA = 12.73 Ac. x 0.20 = 2.55 CFS
 POND AREA = 0.29 Ac. x 1.00 = 0.29 CFS
 TOTAL = 11.94 CFS

$C = \text{TOTAL}/\text{AC} = 11.94/23.00 = 0.52$

DETENTION CALCULATIONS

REQUIRED STORAGE PER O.C.D.C. STANDARDS: (10 YEAR STORM)

DEVELOPED AREA: 23.00 Ac. C = 0.52

EQUIVALENT AREA: (23.00 Ac.)(10.52) = 11.96 Ac.

$Q_0 = (23.00 \text{ Ac.})(10.20 \text{ CFS}/\text{Ac.}) = 4.60 \text{ CFS}$
 $Q_0 = \text{USE } 4.17 \text{ CFS}$
 $Q_0 = (4.17 \text{ CFS})/(11.96 \text{ Ac.}) = 0.35$
 $T = -25 + [6,562.5/(0.35)^{0.5}]^{0.5} = 111.93 \text{ MIN}$
 $Y_s = [0.50(111.93 \text{ MIN})] - 40(0.35)(111.93 \text{ MIN}) = 7,016.95 \text{ CF}$
 $(111.93 \text{ MIN}) + 25$
 $V_1 = (7,016.94 \text{ CF})(11.96 \text{ Ac.}) = 83,910.6 \text{ CF}$
 ACTUAL POND VOLUME:

$VOLUME = H/3(A_1 + A_2 + A_1 \times A_2/0.5)$
 A1 = AREA OF TOP SURFACE
 A2 = AREA OF BOTTOM SURFACE
 H = HEIGHT

ELEVATION	AREA	VOLUME
742	30,502	28,078
741	25,722	23,420
740	21,192	19,016
739	16,920	15,668
738	12,909	12,378

VOLUME FROM STORAGE TO NORMAL (742-738) = 85,078 CF
 VOLUME REQUIRED = 83,910.6 CF

ORFICE CALCULATIONS:

ALLOWABLE DISCHARGE FROM POND = 23.00 Ac x 0.2 CFS/Ac = 4.60 CFS

ASSUME A 9" ORFICE

A = 0.44 SF
 C = 0.62
 H = STORAGE ELEVATION - (C OF PPE = 742-738.37) = 3.63 FT
 $D = (0.62)(0.44 \text{ SF})[2(32.2)(1.63 \text{ FT})]^{0.50} = 4.17 \text{ CFS}$

4.17 CFS < 4.60 CFS
 USE AN 9" ORFICE

OUTLET CALCULATION

Q_{OUTLET} = 41.99 CFS

J0" Ø LOS# = 41.99 CFS

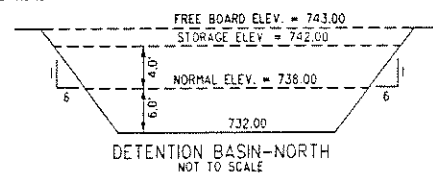
V = 8.55 FT/S

USE 30" Ø LOS#

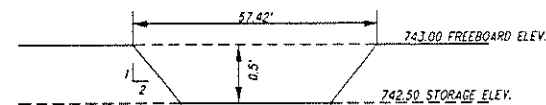
SECONDARY OVERFLOW WEIR CALCULATIONS

Q_{OVERFLOW} = (275/175)(41.99) = 65.98 CFS

$Q = c \times L \times H^{3/2}$
 $65.98 = 3.367 \times L \times (0.5)^{3/2}$
 $L = 55.42 \text{ FT}$



DETENTION BASIN-NORTH
NOT TO SCALE



SECONDARY OVERFLOW WEIR DETAIL
NOT TO SCALE

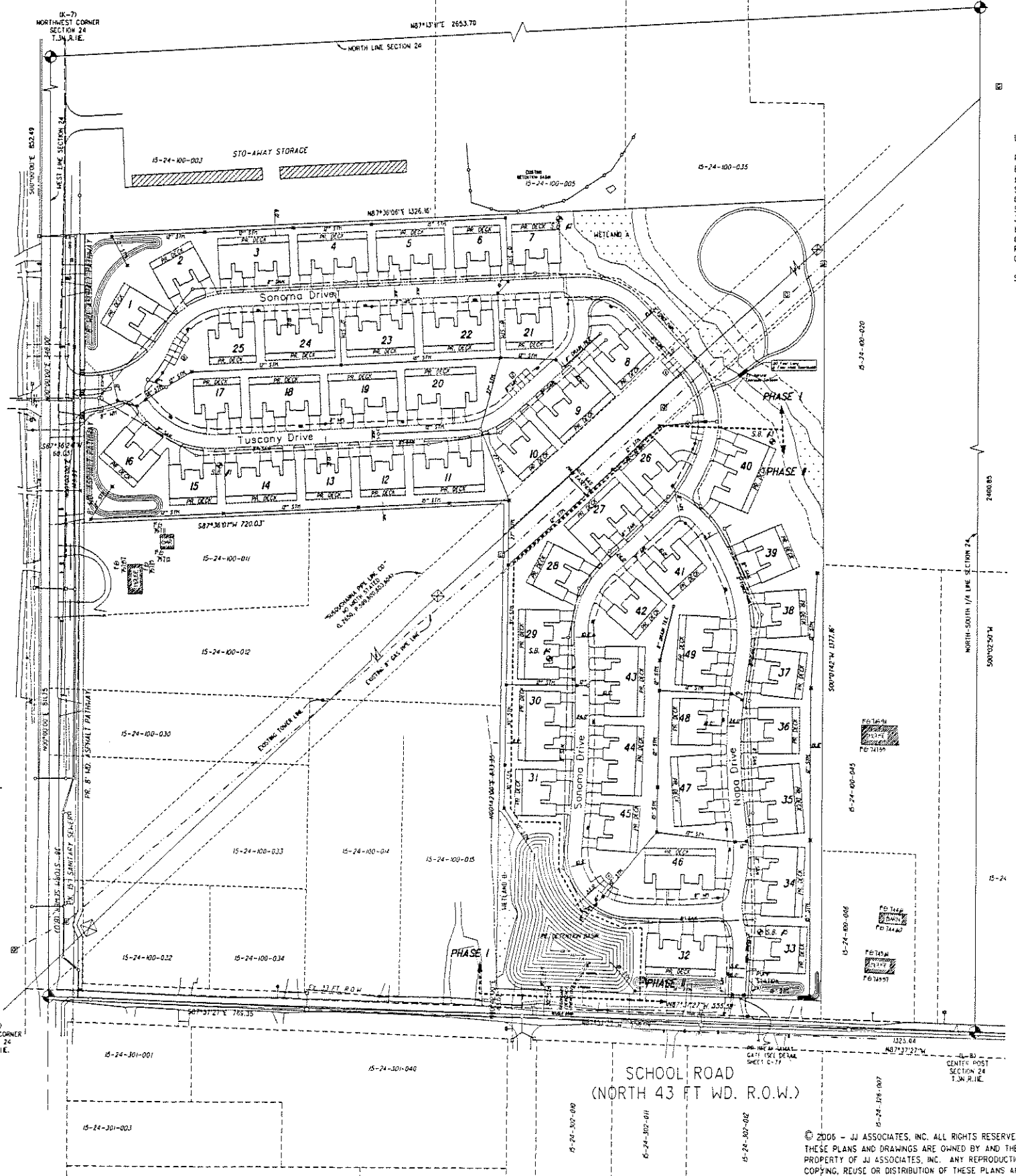
PARKING CALCULATIONS:

TOTAL REQUIRED
 FOR MULTIFAMILIES = 72 x 2.5 = 180 spaces
 FOR DUPLEXES = 50 x 2.0 = 100 spaces
 TOTAL = 280 spaces

PARKING PROVIDED
 4 per unit = (2 in garage, 2 in driveway)
 = 4 x 122 units
 = 488 spaces provided

PARKING STALLS = 28 spaces
 TOTAL PARKING PROVIDED = 516 spaces

JOHN R. ROAD
(EAST 60 FT WD. R.O.W.)



LEGAL DESCRIPTION: TOTAL PARCEL

Part of the NW 1/4 of Section 24, T. 3N., R. 11E., Rochester Hills, Oakland County, Michigan, being more particularly described as follows:
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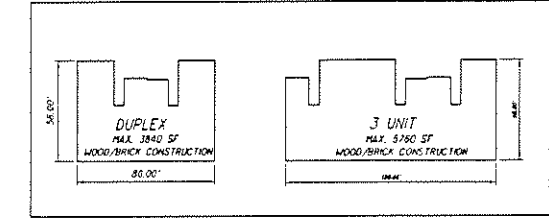
NOTE:

NET ACRES ARE CALCULATED TO THE PROPOSED 60 FT R.O.W. OF JOHN R. ROAD, AND THE EXISTING 43 FT R.O.W. OF SCHOOL ROAD.

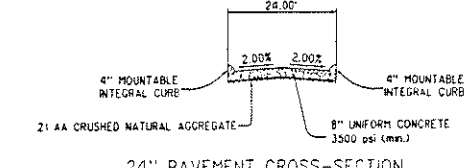
NOTE:

- A "KNOX" KEY SYSTEM SHALL BE INSTALLED, IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE FROM THE FIRE DEPARTMENT.
- ALL BUILDINGS ARE TYPE V CONSTRUCTION.
- COMPACTED SAND BACKFILL IS REQUIRED IN ALL UTILITY TRENCHES LOCATED BENEATH, OR WITHIN A 1 HORIZONTAL TO 1 VERTICAL INFLUENCE OF EXISTING OR FUTURE PAVEMENTS, INCLUDING ROADS, DRIVES, SIDEWALKS, PATHWAYS, OR PARKING AREAS.
- CALCULATIONS WILL BE PROVIDED DURING CONSTRUCTION PLAN REVIEW TO DETERMINE IF THE PROPOSED DEAD END WATERMAIN WILL PROVIDE AN ACCEPTABLE LEVEL OF SERVICE.
- EXISTING SANITARY SEWER CALCULATIONS HAVE BEEN PROVIDED TO MR. PAUL DAVIS, PE CITY ENGINEER AND IS WAS DETERMINED THAT CAPACITY EXISTS FOR THIS DEVELOPMENT.

PHASE I - 25 BUILDINGS (62 UNITS)
 PHASE II - 24 BUILDINGS (60 UNITS)



BUILDINGS OVERALL DIMENSIONS
SCALE 1" = 50'



24" PAVEMENT CROSS-SECTION
(NOT TO SCALE)

NOTE:
NOT TO BE USED AS CONSTRUCTION DRAWING.

LEGEND

- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- STANDARD MANHOLE
- 4" DIA. R.Y.C.B.
- STD. PAVT. CATCH BASIN - 2' SUMP
- STD. PAVT. INLET - 2' SUMP
- GATE VALVE IN WELL
- EXISTING HYDRANT
- PROPOSED HYDRANT
- DTE TOWER
- GAS MARKER

DENOTES - SOIL BORINGS LOCATIONS

S.B. #

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CITY FILE #04-037

REV. 01-09-07 PER CITY OF ROCHESTER HILLS

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 Sterling Heights, Michigan 48314
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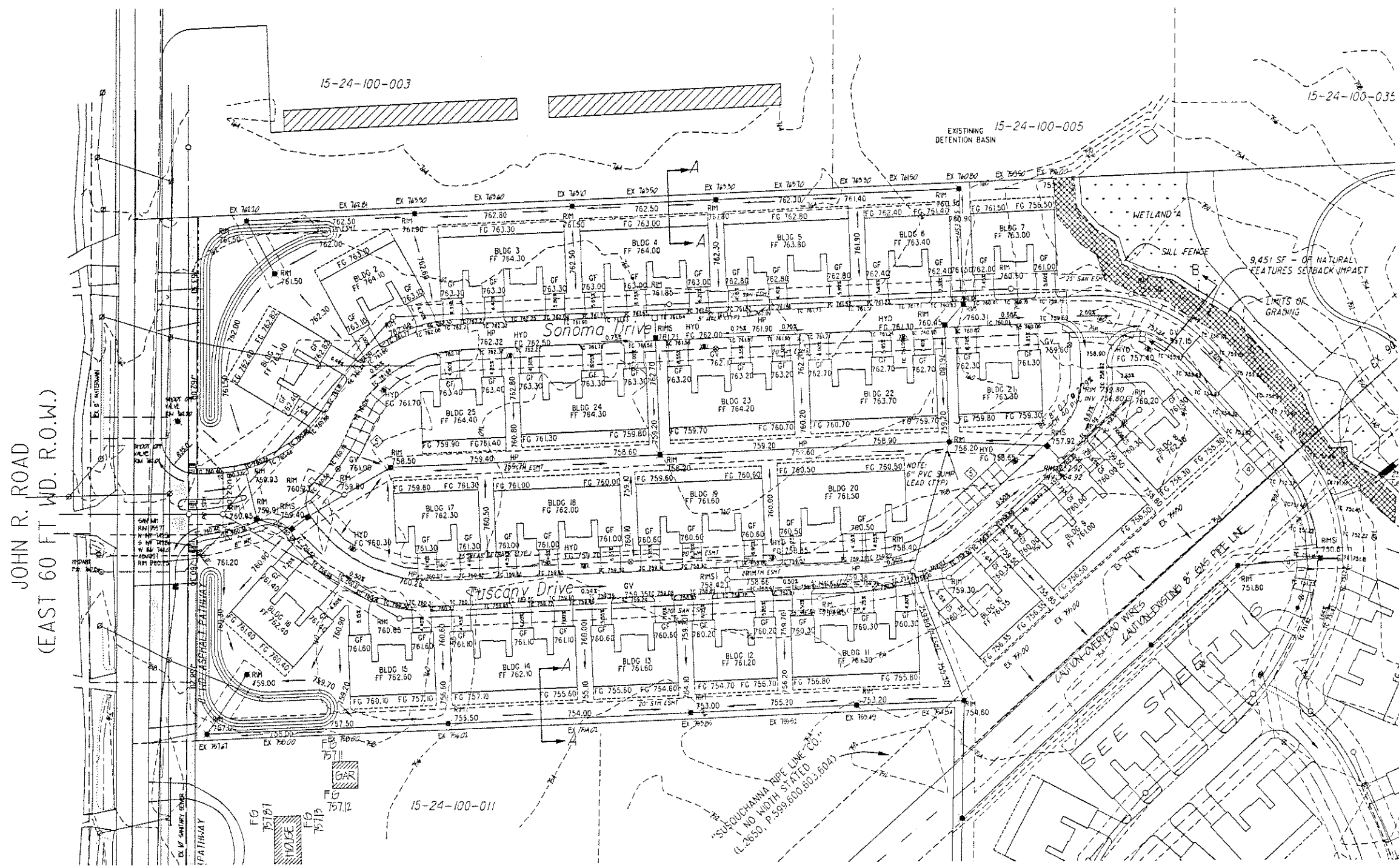
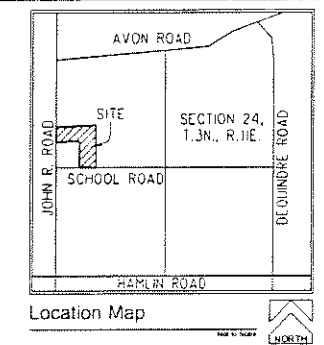
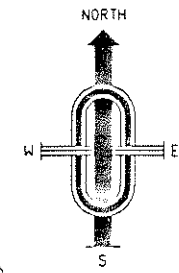
FORMERLY **MCS** ASSOCIATES, INC.
OAKVILLE ESTATES
 PART OF THE NW 1/4 OF SECTION 24, T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DATE 09-13-06 SCALE 1"=100'
 DRAWN BY A.P. SHEET C-5
 CHECKED BY J.C.W. DRAWING PS-06-815

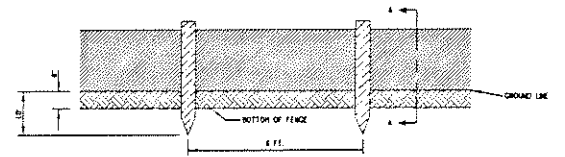
UTILITY LAYOUT

"OAKVILLE ESTATES"

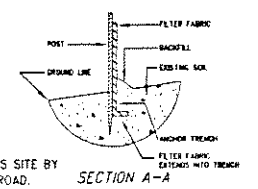
PART OF THE NW 1/4 OF SECTION 24,
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.



JOHN R. ROAD
(EAST 60 FT WD. R.O.W.)



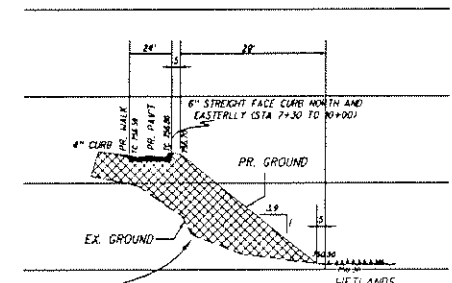
SILTATION FENCE DETAIL
NOT TO SCALE



SECTION A-A
NOT TO SCALE

NOTES

- CONSTRUCTION TRAFFIC SHALL ACCESS SITE BY THE TEMPORARY DRIVE OFF JOHN R. ROAD.
- UNTL PLANS ARE APPROVED FOR CONSTRUCTION THESE PLANS ARE "NOT FOR CONSTRUCTION."
- GF - GARAGE FLOOR ELEVATION
- FF - FINISH FLOOR ELEVATION
- FG - FINISH GRADE ELEVATION



SECTION B-B
NOT TO SCALE

NOTE: THE EMBANKMENT FILL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CONTROLLED DENSITY METHOD" FOR EMBANKMENT CONSTRUCTION PER M.D.O.T. STANDARDS.

484 LF - OF NATURAL FEATURES SETBACK IMPACT (9451 SQUARE FEET)

NOTE: ROUGH AND FINISHED GRADE TO BE COMPLETED DURING DRY WEATHER AS QUICKLY AS POSSIBLE TO MINIMIZE THE CHANCES OF OFF-SITE WETLAND IMPACTS BY SOIL EROSION OR STORMWATER RUNOFF.

NOTE: NOT TO BE USED AS CONSTRUCTION DRAWINGS.

REV. 01-09-07 PER CITY OF ROCHESTER HILLS
REV. 11-27-06 PER CITY OF ROCHESTER HILLS

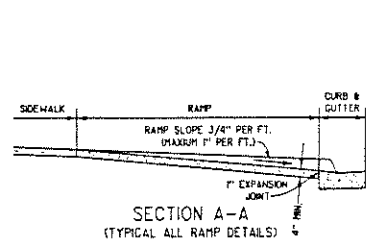
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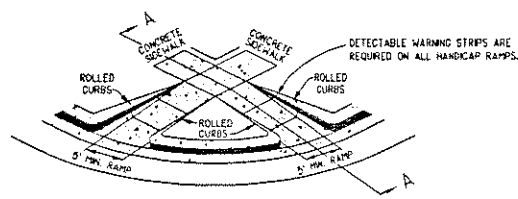
FORMERLY MCS ASSOCIATES, INC.

OAKVILLE ESTATES
PART OF THE NW 1/4 OF SECTION 24, T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

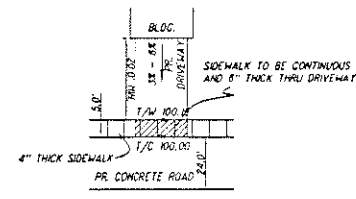
DATE 09-13-06 SCALE 1"=50'
DRAWN BY A.P. SHEET C-6
CHECKED BY J.C.W. DRAWING PS-06-815



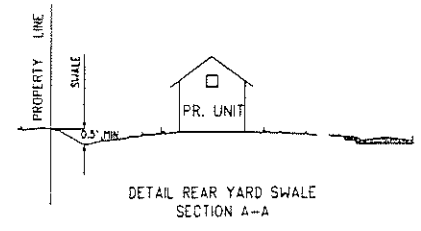
SECTION A-A
TYPICAL ALL RAMP DETAILS



TYPICAL SIDE WALK RAMP DETAIL
NOT TO SCALE



TYPICAL SIDEWALK SECTION THRU DRIVEWAY



DETAIL REAR YARD SWALE SECTION A-A

LEGEND

- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- STANDARD MANHOLE
- 4" DIA. R.Y.C.B.
- 2" DIA. R.Y.C.B.
- STD. PAVT. CATCH BASIN - 2' SUMP
- STD. PAVT. INLET - 2' SUMP
- GATE VALVE IN WELL
- EXISTING HYDRANT
- PROPOSED HYDRANT
- DTE TOWER
- GAS MARKER

NOTES - SOIL BORINGS LOCATIONS

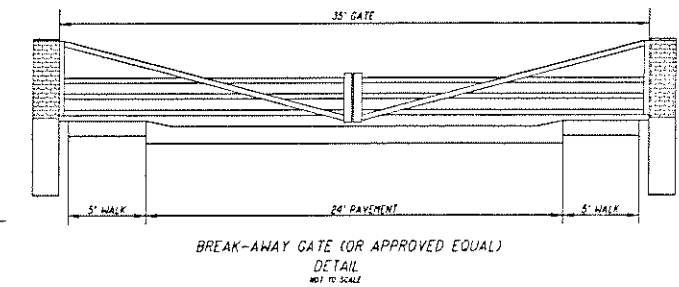
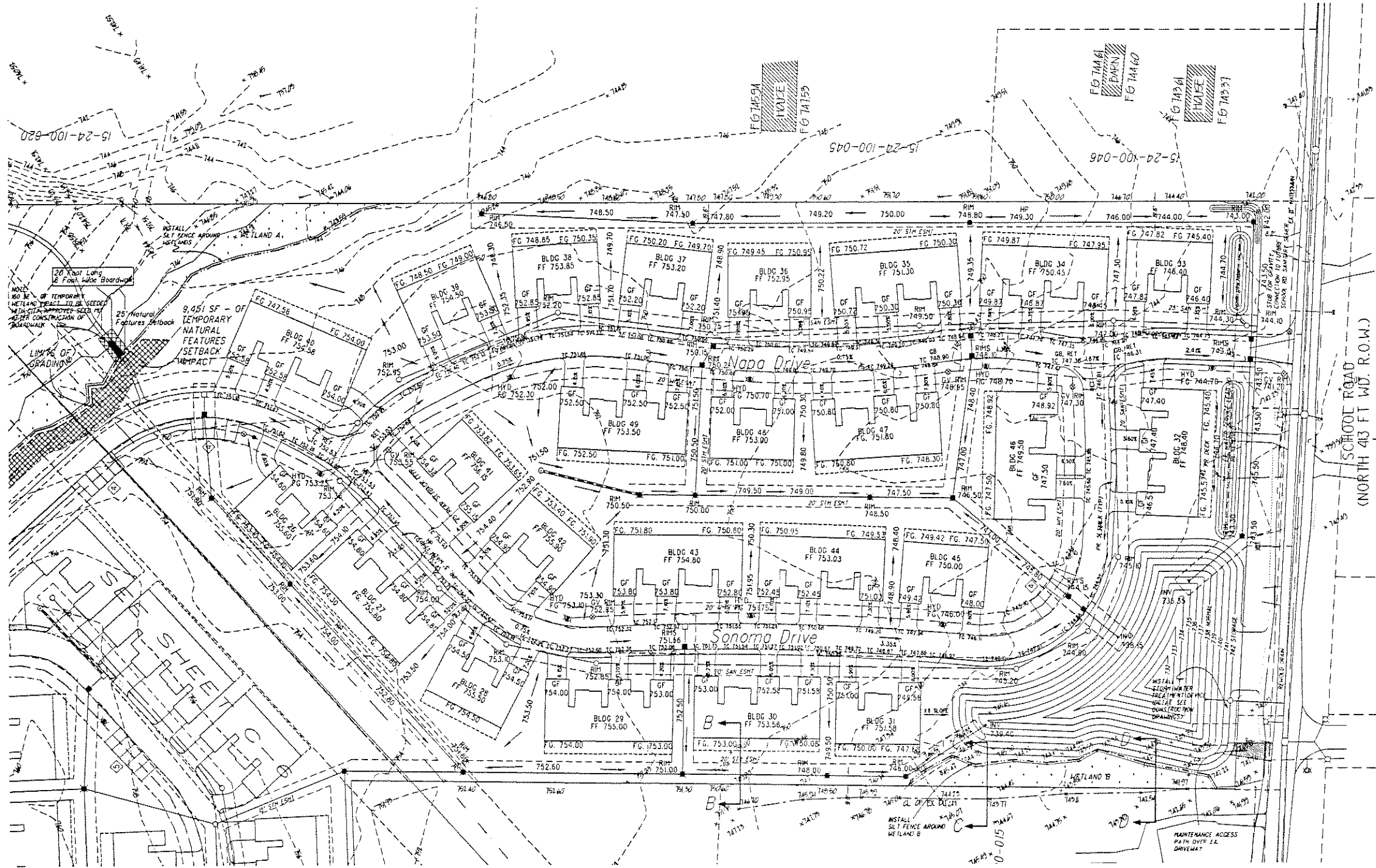
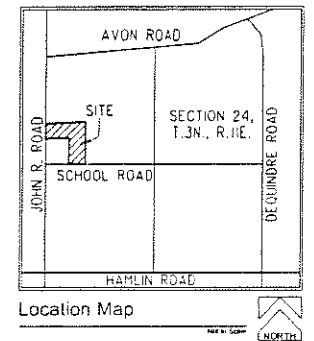
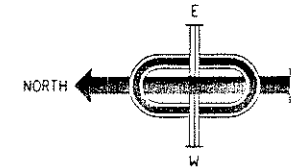
S.B. #

CITY FILE #04-037

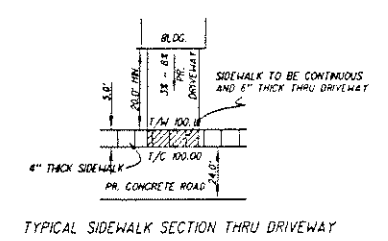
GRADING PLAN

"OAKVILLE ESTATES"

PART OF THE NW 1/4 OF SECTION 24,
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.



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2. ALL BUILDINGS ARE TYPE Y CONSTRUCTION.
3. PROPOSED GATE SHALL BE CONSTRUCTED OF WOOD, PLASTIC OR ALUMINUM.



NOTE:
ROUGH AND FINISHED GRADE TO BE COMPLETED DURING DRY WEATHER AS QUICKLY AS POSSIBLE TO MINIMIZE THE CHANCES OF OFF-SITE WETLAND IMPACTS BY SOIL EROSION OR STORMWATER RUNOFF.

LEGEND

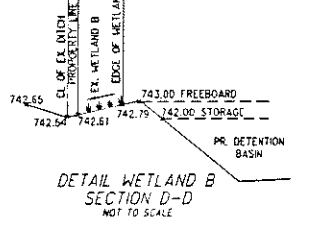
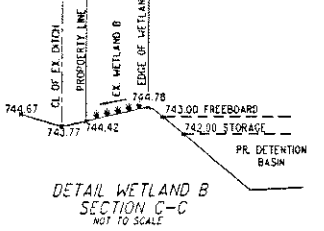
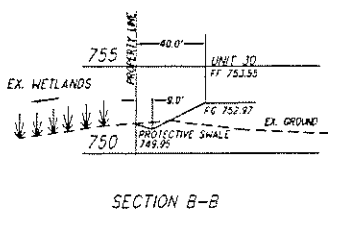
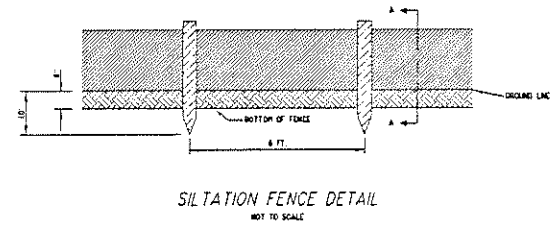
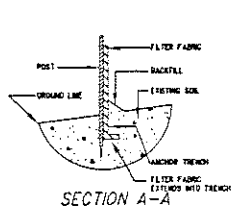
---	SANITARY SEWER
---	STORM SEWER
---	WATER MAIN
---	MANHOLE w/ R.Y.C.B. COVER
---	STANDARD MANHOLE
---	3" DIA. R.Y.C.B.
---	2" DIA. R.Y.C.B.
---	MANHOLE w/ PAVT. C.B. COVER - 2' SUMP
---	STD. PAVT. CATCH BASIN - 2' SUMP
---	STD. PAVT. INLET - 2' SUMP
---	GATE VALVE IN WELL
---	EXISTING HYDRANT
---	PROPOSED HYDRANT
---	OTE TOWER
---	GAS MARKER

NOTES:
CONSTRUCTION TRAFFIC SHALL ACCESS SITE BY THE TEMPORARY DRIVE OFF JOHN R. ROAD.
UNTIL PLANS ARE APPROVED FOR CONSTRUCTION THESE PLANS ARE "NOT FOR CONSTRUCTION".
GF - GARAGE FLOOR ELEVATION
FF - FINISH FLOOR ELEVATION
FG - FINISH GRADE ELEVATION

NOTE:
NOT TO BE USED AS CONSTRUCTION DRAWINGS

REV. 01-09-07 PER CITY OP
REV. 11-27-16 PER CITY OP

J ASSOCIATES, INC. Civil Engineering and Surveying	
FORMERLY MGS ASSOCIATES, INC.	44444 Mound Road, Suite 100 Sterling Heights, Michigan 48314 Telephone (586) 726-9111 Fax (586) 726-9112 Website www.jassociates.net
OAKVILLE ESTATES PART OF THE NW 1/4 OF SECTION 24, T. 3N., R. 11E. ROCHESTER HILLS OAKLAND COUNTY, MICHIGAN	
DATE 09-13-06	SCALE 1"=50'
DRAWN BY A.P.	SHEET C-7
CHECKED BY J.C.W.	DRAWING PS-06-815



LEGEND

---	SANITARY SEWER
---	STORM SEWER
---	WATER MAIN
---	STANDARD MANHOLE
---	4" DIA. R.Y.C.B.
---	2" DIA. R.Y.C.B.
---	STD. PAVT. CATCH BASIN - 2' SUMP
---	STD. PAVT. INLET - 2' SUMP
---	GATE VALVE IN WELL
---	EXISTING HYDRANT
---	PROPOSED HYDRANT
---	OTE TOWER
---	GAS MARKER

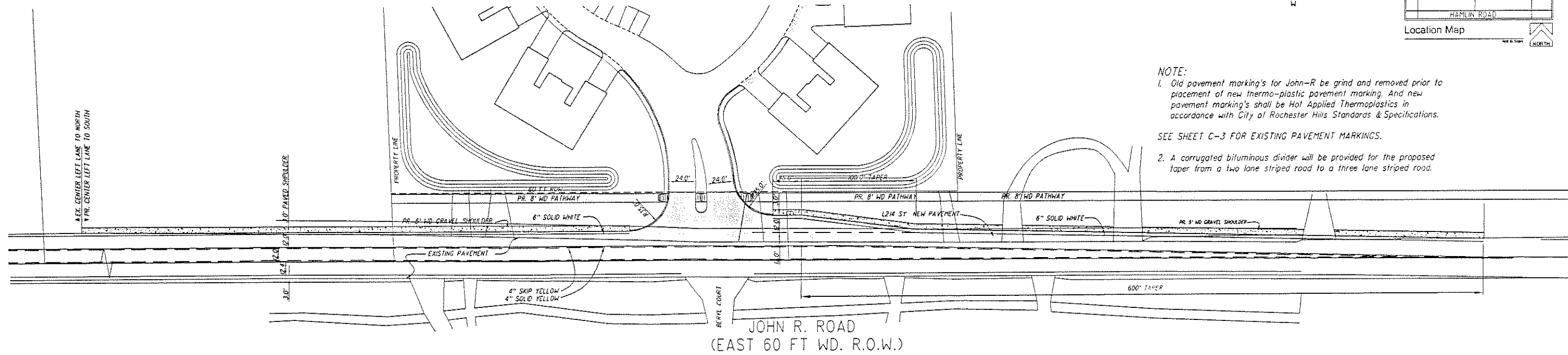
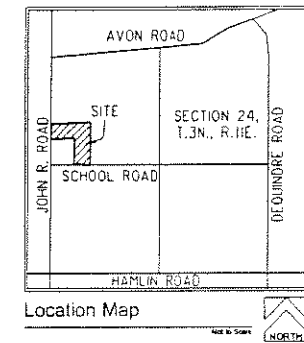
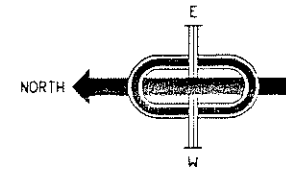
DENOTES- SOIL BORINGS LOCATIONS
S.B. #

CITY FILE #04-037

GRADING PLAN

"OAKVILLE ESTATES"

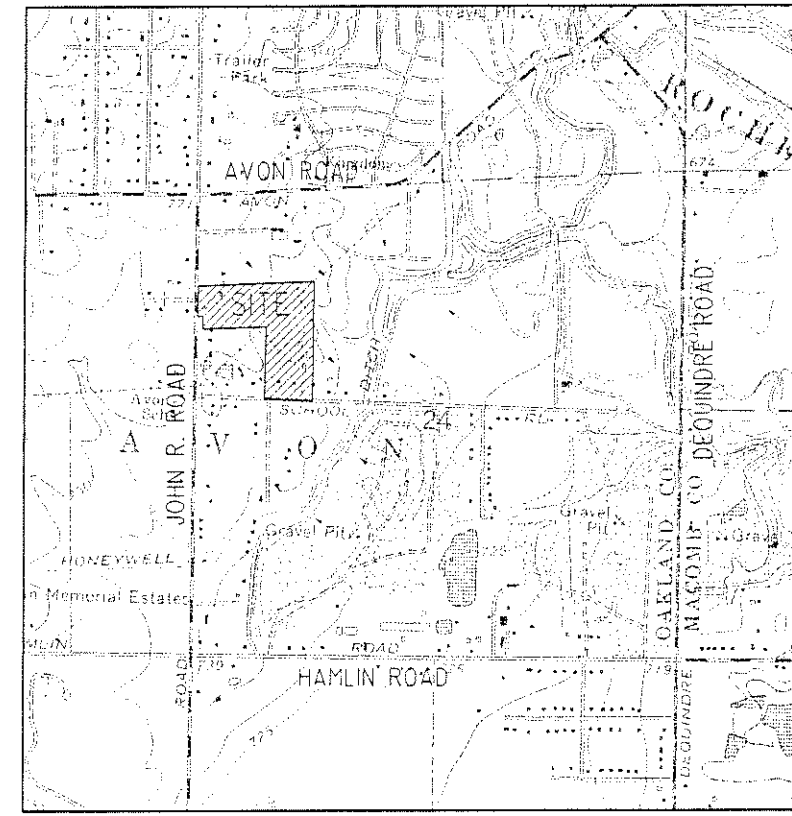
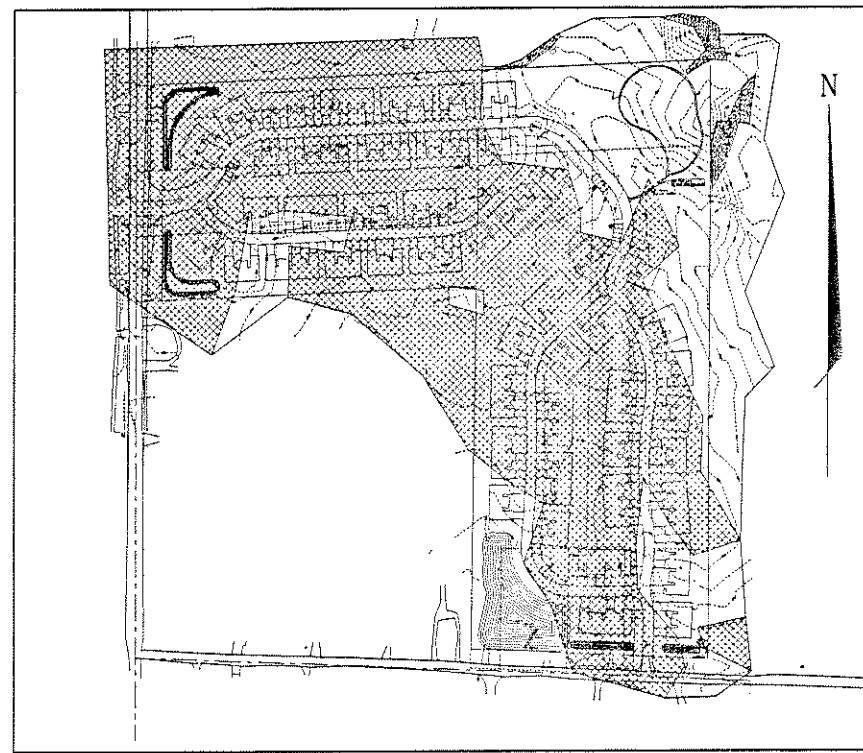
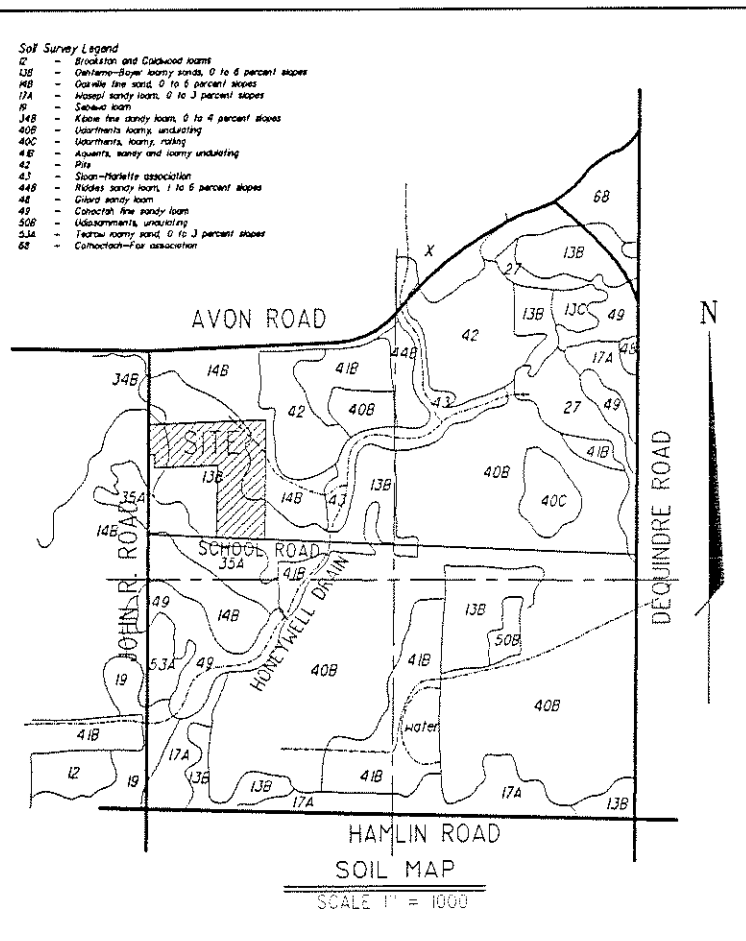
PART OF THE NW 1/4 OF SECTION 24,
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.



NOTE:
1. Old pavement marking's for John-R be grind and removed prior to placement of new thermo-plastic pavement marking. And new pavement marking's shall be Hot Applied Thermoplastics in accordance with City of Rochester Hills Standards & Specifications.

SEE SHEET C-3 FOR EXISTING PAVEMENT MARKINGS.

2. A corrugated bituminous divider will be provided for the proposed taper from a two lane striped road to a three lane striped road.



REV. 01-09-07 PER CITY OF ROCHESTER HILLS
REV. 11-27-06 PER CITY OF ROCHESTER HILLS

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Civil Engineering and Surveying

44454 Mound Road, Suite 100
Sterling Heights, Michigan 48314
Telephone (586) 726-9111
Fax (586) 726-9112
Website www.jassociates.net

FORMERLY
MCS
ASSOCIATES, INC.

OAKVILLE ESTATES
PART OF THE NW 1/4 OF
SECTION 24, T. 3N., R. 11E.,
ROCHESTER HILLS,
OAKLAND COUNTY, MICHIGAN

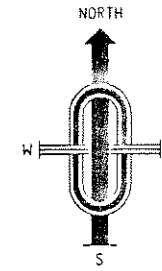
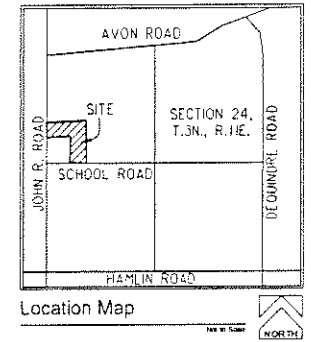
DATE 09-13-06 SCALE 1"=40'
DRAWN BY A.P. SHEET C-8
CHECKED BY J.C.W. DRAWING PS-06-815

STRIPING DETAIL, SOIL MAP
SLOPE GRADIENT, WATERSHED MAP

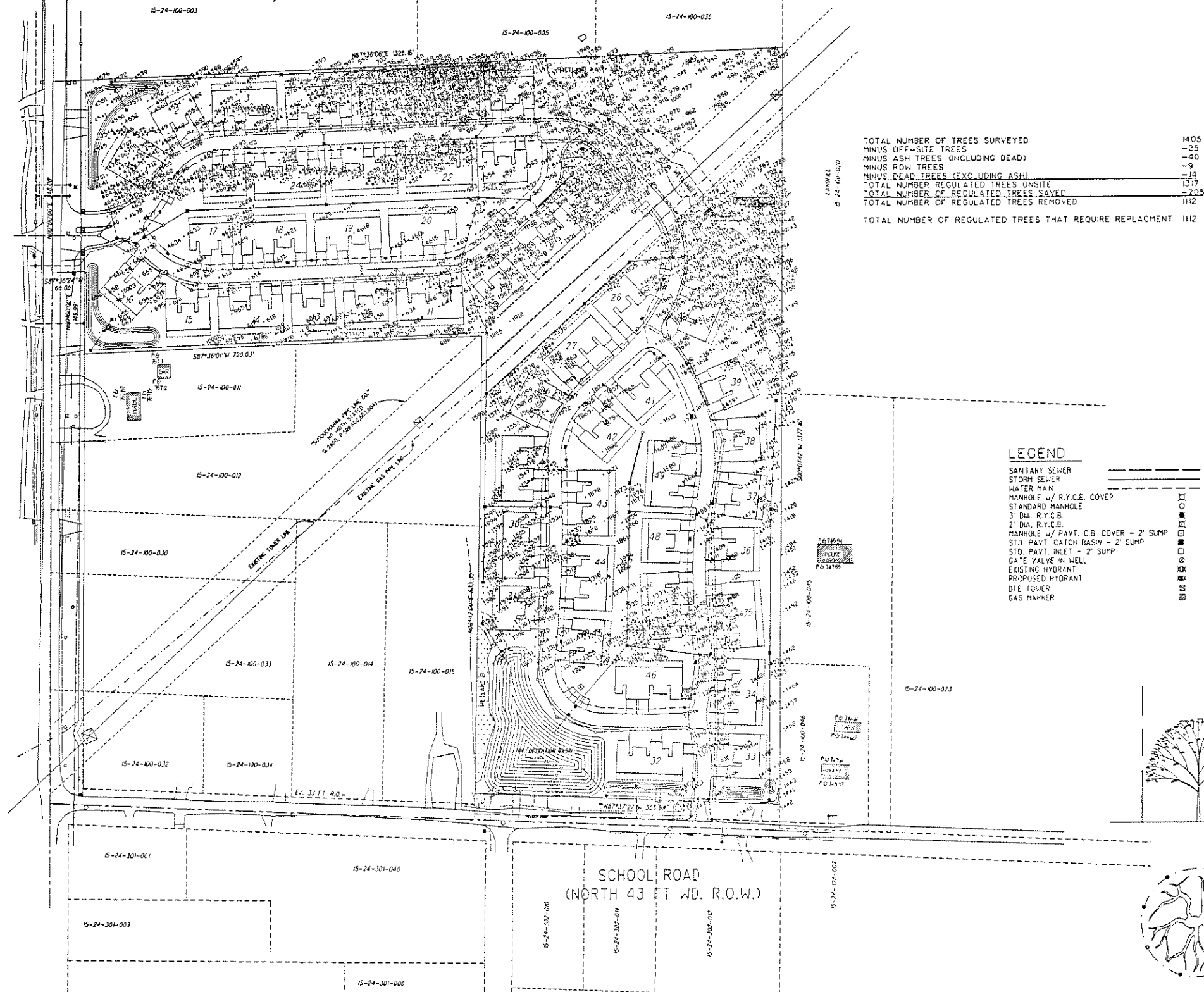
CITY FILE #04-037

"OAKVILLE ESTATES"

PART OF THE NW 1/4 OF SECTION 24,
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.



JOHN R. ROAD
(EAST 60 FT WD. R.O.W.)



TOTAL NUMBER OF TREES SURVEYED	1405
MINUS OFF-SITE TREES	-25
MINUS ASH TREES (INCLUDING DEAD)	-40
MINUS ROW TREES	-9
MINUS DEAD TREES (EXCLUDING ASH)	-18
TOTAL NUMBER REGULATED TREES ONSITE	1317
TOTAL NUMBER OF REGULATED TREES SAVED	-205
TOTAL NUMBER OF REGULATED TREES REMOVED	1112
TOTAL NUMBER OF REGULATED TREES THAT REQUIRE REPLACEMENT	1112

LEGEND

- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- MANHOLE w/ R.Y.C.B. COVER
- STANDARD MANHOLE
- 3" DIA. R.Y.C.B.
- 2" DIA. R.Y.C.B.
- MANHOLE w/ PAVT. CB. COVER - 2' SUMP
- STD. PAVT. CATCH BASIN - 2' SUMP
- STD. PAVT. INLET - 2' SUMP
- GATE VALVE IN WELL
- EXISTING HYDRANT
- PROPOSED HYDRANT
- DIE POWER
- GAS MARKER

IMPORTANT:

ALL TREES ON ADJACENT PROPERTIES MUST BE PROTECTED. HENCE, 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 DEVELOPER. THIS FINE WILL BE DUE PRIOR TO THE BUILDING PERMITS BEING ISSUED. IF YOU HAVE ANY QUESTIONS OR NEED ADDITIONAL INFORMATION CALL THE CITY'S LANDSCAPE ARCHITECT AT 248-656-4660.

TREE PROTECTION NOTES

1. 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' Landscape Architect 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' Landscape Architect 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. A final inspection by the City of Rochester Hills' Landscape Architect 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.
4. The Tree Conservation Ordinance prohibits any construction or development activities within the drip line of and requires trees not approved for removal, including but not limited to land clearing, grubbing, trenching, grading or filling, no person shall place any solvents, building material, construction equipment, soil deposits, or harmful materials within the drip line limit of trees designated for preservation.
5. Proposed grades are to match the existing elevations outside the limits of the TPF. No grading either out or fill is permitted within the drip line of any tree designated for preservation.
6. During the construction process no person shall attach any device or wire/cable/cord/rope to an existing tree designated to be preserved.
7. All utility service requests must include notification to the installer that protected trees must be avoided. All trenching shall occur outside the TPF.
8. Swales shall be routed to avoid the area within the drip line of any tree designated for preservation. Swales shall be constructed so as not to direct any additional flow into the drip line of a tree designated for preservation.
9. If tree protection cannot be maintained for a tree throughout entire period required. The replacement of that tree will be required on an inch for inch basis prior to the issuance of the Certificate of Occupancy.
10. Regulated trees located off-site on adjacent properties that may be affected by construction operations must be protected defined here in.
11. 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. The fencing shall be supported by 4 foot metal T-bar posts 5 feet on center and driven a minimum of 24" into ground. The TPF fencing shall remain upright and security in place for the required time as specified above.

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 roadway. Evergreen and ornamental trees must be planted at least 10' from the edge of the public roadway. No trees or shrubs may be planted within the triangular area formed at the intersection of any street right-of-way lines at a distance along each line of 25' from their point of intersection or any driveway with a public roadway at a distance along each line of 15' from their point of intersection. All trees and shrubs must be planted at least 10' from any fire hydrant. Shade and evergreen trees must be at least 15' away from the nearest overhead wire. Trees must be planted a minimum of 5' from an underground utility, unless the city's landscape architect requires a greater distance.

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

4' HIGH SNOW FENCE TO BE INSTALLED AROUND DRIP LINE OF TREES TO BE SAVED PRIOR TO ANY LAND CLEARING OR CONSTRUCTION

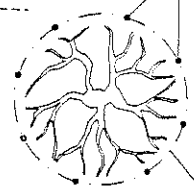
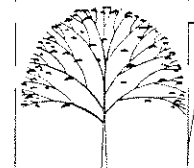
NO CUTTING, FILLING OR TRESPASSING SHALL OCCUR INSIDE FENCED AREAS WITHOUT APPROVAL

DRIP LINE

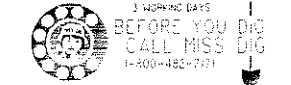
4' ORANGE PLASTIC OR WOOD FENCE AT DRIP LINE OF TREE

6' METAL T-BAR POSTS EVERY 5' o.c. INSTALL POSTS 2' IN TO GROUND

4' ORANGE PLASTIC OR WOOD FENCE AT DRIP LINE OF TREE



TREE PROTECTION DETAIL



NOTE: NOT TO BE USED AS CONSTRUCTION DRAWINGS.

REV 01-09-07 PER CITY OF R.H. 11-27-06 PER CITY OF R.H.

JF ASSOCIATES, INC.
Civil Engineering and Surveying

21442 Mound Road, Suite 103
Sterling Heights, Michigan 48314
Telephone: (586) 726-6310
Fax: (586) 726-0142

FORMERLY MGS ASSOCIATES, INC.
OAKVILLE ESTATES
PART OF THE NW 1/4 OF SECTION 24, T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

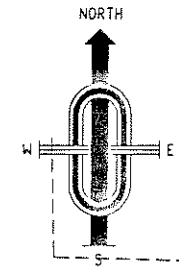
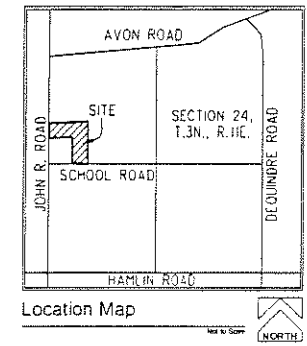
DATE 09-13-06 SCALE 1" = 100'

DRAWN BY A.P. SHEET C-10

CHECKED BY J.C.W. DRAWING PS-06-815

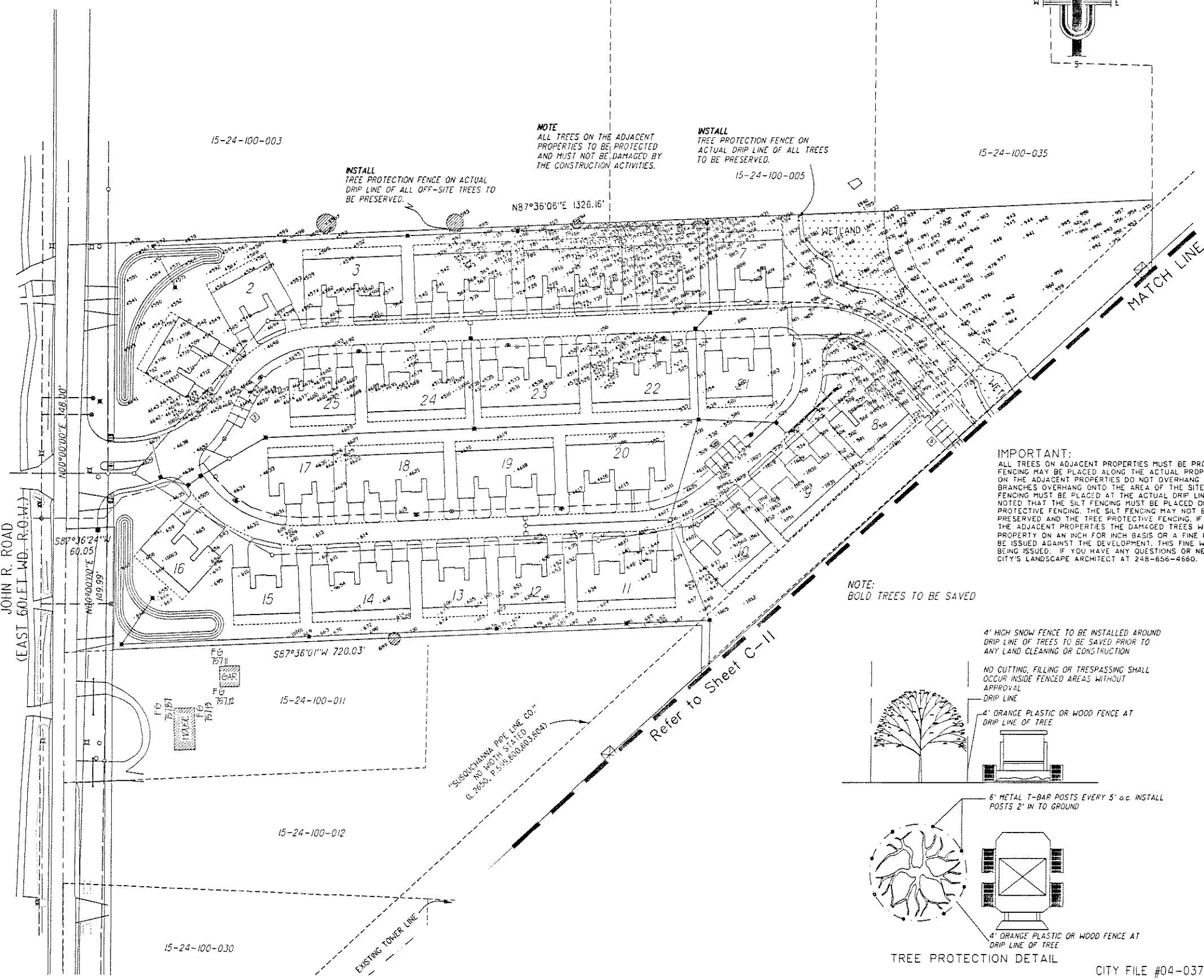
CITY FILE #04-037

TREE PRESERVATION PLAN



JOHN R. ROAD
(EAST 60 FT WD. R.O.W.)

JOHN R. ROAD
(EAST 60 FT WD. R.O.W.)



NOTE
ALL TREES ON THE ADJACENT
PROPERTIES TO BE PROTECTED
AND MUST NOT BE DAMAGED BY
THE CONSTRUCTION ACTIVITIES.

INSTALL
TREE PROTECTION FENCE ON
ACTUAL DRIP LINE OF ALL TREES
TO BE PRESERVED.

INSTALL
TREE PROTECTION FENCE ON ACTUAL
DRIP LINE OF ALL OFF-SITE TREES TO
BE PRESERVED.

IMPORTANT:
ALL TREES ON ADJACENT PROPERTIES MUST BE PROTECTED, HENCE, 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 DEVELOPER. THIS FINE WILL BE DUE PRIOR TO THE BUILDING PERMITS BEING ISSUED. IF YOU HAVE ANY QUESTIONS OR NEED ADDITIONAL INFORMATION CALL THE CITY'S LANDSCAPE ARCHITECT AT 248-656-4660.

NOTE:
BOLD TREES TO BE SAVED

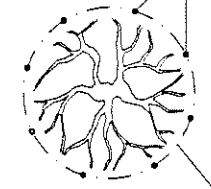
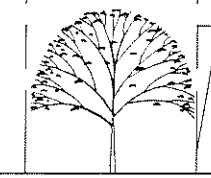
4' HIGH SNOW FENCE TO BE INSTALLED AROUND DRIP LINE OF TREES TO BE SAVED PRIOR TO ANY LAND CLEARING OR CONSTRUCTION

NO CUTTING, FILLING OR TRESPASSING SHALL OCCUR INSIDE FENCED AREAS WITHOUT APPROVAL

4' ORANGE PLASTIC OR WOOD FENCE AT DRIP LINE OF TREE

6' METAL T-BAR POSTS EVERY 5' o.c. INSTALL POSTS 2" IN TO GROUND

4' ORANGE PLASTIC OR WOOD FENCE AT DRIP LINE OF TREE



TREE PROTECTION DETAIL

3 WORKING DAYS
**BEFORE YOU DIG
CALL MISS DIG**
1-800-482-7171

NOTE:
NOT TO BE USED AS CONSTRUCTION DRAWINGS

REV. 01-09-07 PER CITY cc
REV. 11-27-06 PER CITY cc

JF ASSOCIATES, INC.
Civil Engineering and Surveying

44444 Mound Road, Suite 200
Sterling Heights, Michigan 48314
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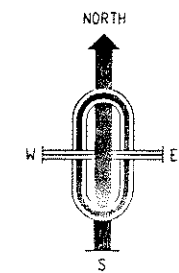
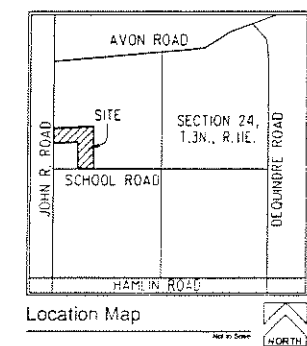
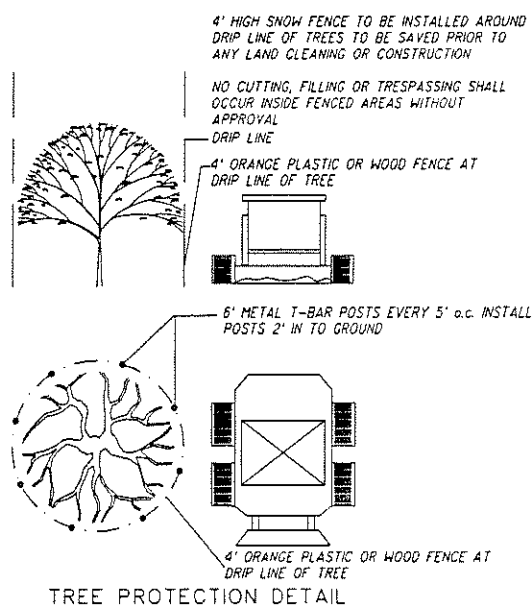
FORMERLY MCS ASSOCIATES, INC.

OAKVILLE ESTATES
PART OF THE N.W. 1/4 OF
SECTION 24, T.3N., R.1E.
RICHMOND HILLS
OAKLAND COUNTY, MICHIGAN

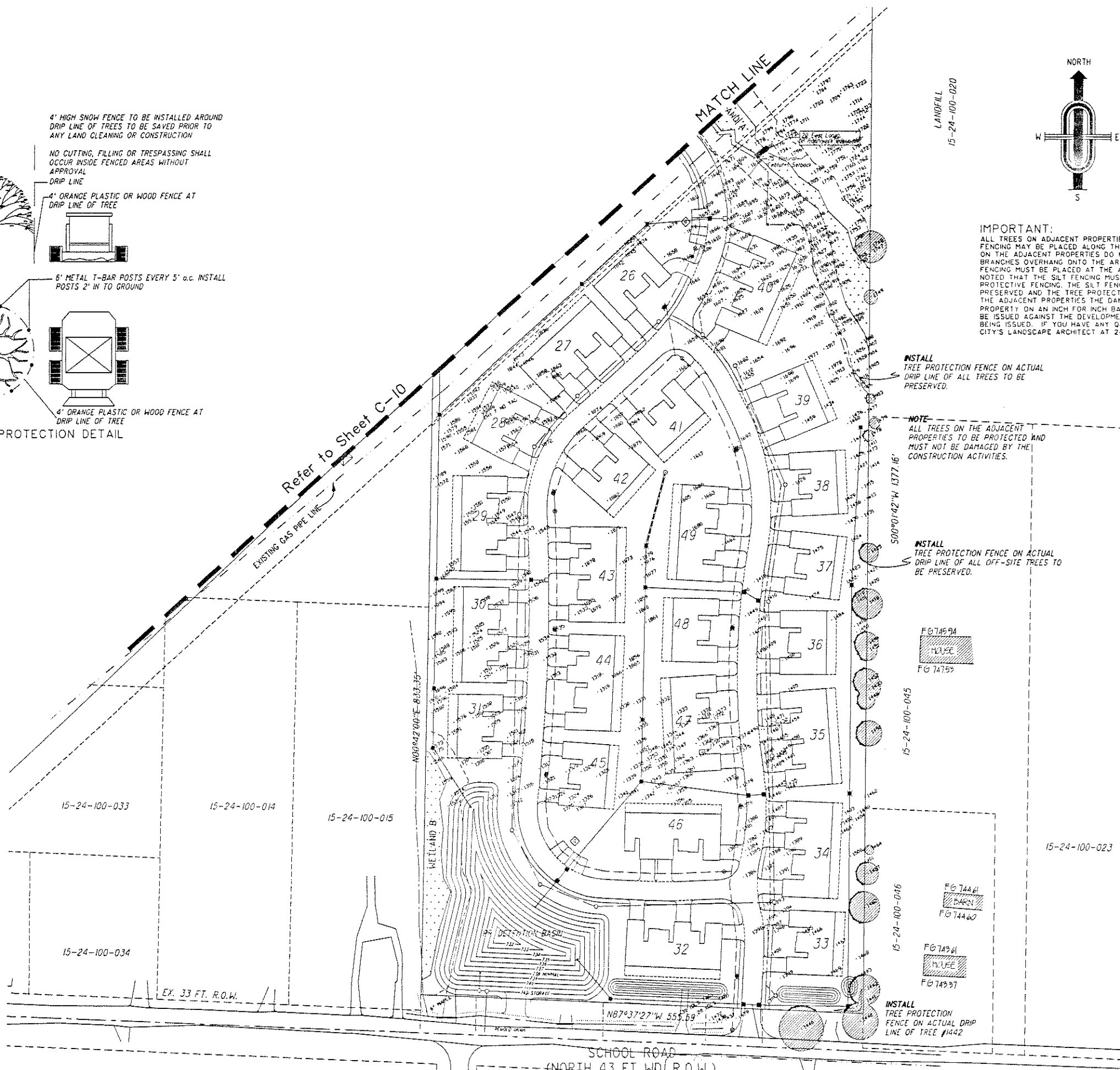
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DRAWN BY A.P. SHEET C-11
CHECKED BY J.C.W. DRAWING PS-06-815

TREE PRESERVATION PLAN

CITY FILE #04-037



IMPORTANT:
ALL TREES ON ADJACENT PROPERTIES MUST BE PROTECTED. HENCE, 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 LANDSCAPE ARCHITECT AT 248-656-4660.



INSTALL TREE PROTECTION FENCE ON ACTUAL DRIP LINE OF ALL TREES TO BE PRESERVED.

NOTE:
ALL TREES ON THE ADJACENT PROPERTIES TO BE PROTECTED AND MUST NOT BE DAMAGED BY THE CONSTRUCTION ACTIVITIES.

INSTALL TREE PROTECTION FENCE ON ACTUAL DRIP LINE OF ALL OFF-SITE TREES TO BE PRESERVED.

NOTE:
TREE CREDITS FOR TREES BEING REMOVED IN SCHOOL ROAD ROW HAVE BEEN PROVIDED FOR AND IS INDICATED ON SHEET LA 1.0

NOTE:
BOLD TREES TO BE SAVED



NOTE:
NOT TO BE USED AS CONSTRUCTION DRAWINGS.

REV. 01-09-07 PER CITY OF
REV. 11-27-05 PER CITY OF

JF ASSOCIATES, INC.
Civil Engineering and Surveying

44444 Mount Road, Suite 100
Sterling Heights, Michigan 48314
Telephone: (586) 726-6110
Fax: (586) 726-0042

FORMERLY MGS ASSOCIATES, INC.

OAKVILLE ESTATES
PART OF THE N.W. 1/4 OF SECTION 24, T.3N., R.1E. ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DATE 09-13-06 SCALE 1" = 60'
DRAWN BY A.P. SHEET C-12
CHECKED BY J.C.W. DRAWING PS-06-815

CITY FILE #04-037

TREE PRESERVATION PLAN



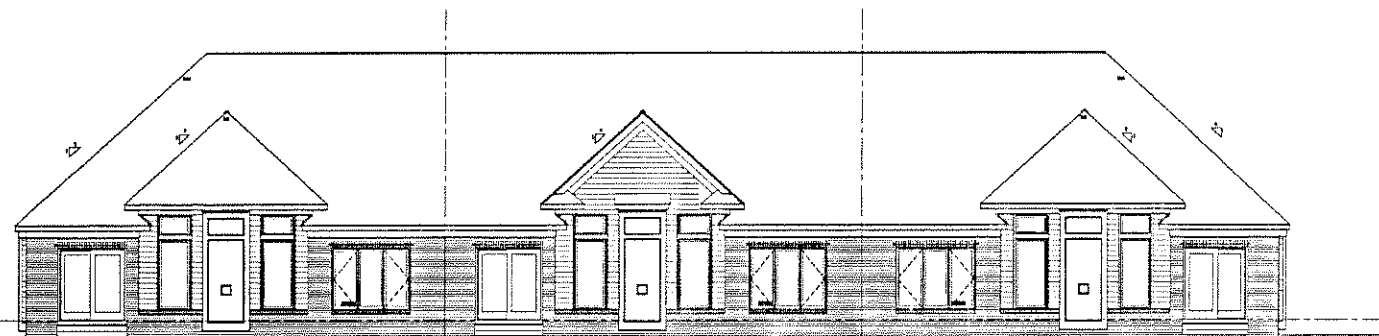
architects+planners

4060 W. MAPLE ROAD
SUITE 200
BLOOMFIELD HILLS, MI
48301

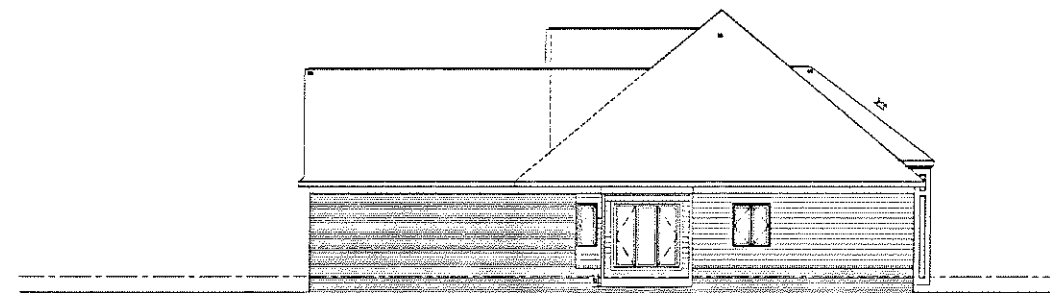
(248) 645-2605
(248) 647-7007 FAX

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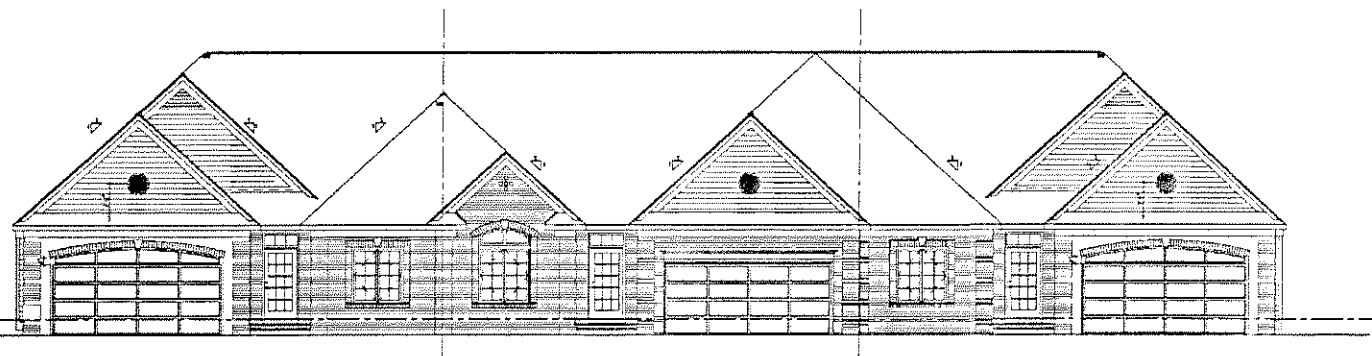
Unit A, B and C
Oakville Estates Conominiums
Rochester, MI



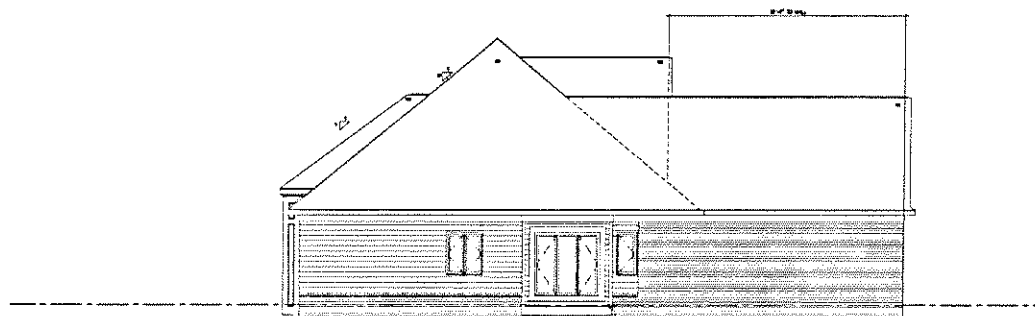
FRONT ELEVATION



RIGHT SIDE ELEVATION



REAR ELEVATION



LEFT SIDE ELEVATION

06008

06008

06008

PLUMB NUMBER

9811 40



KEY TO DETAIL
REFERENCING

A1

elevations



architects-planners

4350 W MAPLE ROAD
SUITE 200
BLOOMFIELD HILLS, MI
48301

(248) 648-2606
(248) 647-7907 FAX

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Unit A and B
Oakville Estates Condominiums
Rochester, MI

06008

DRW
RCC

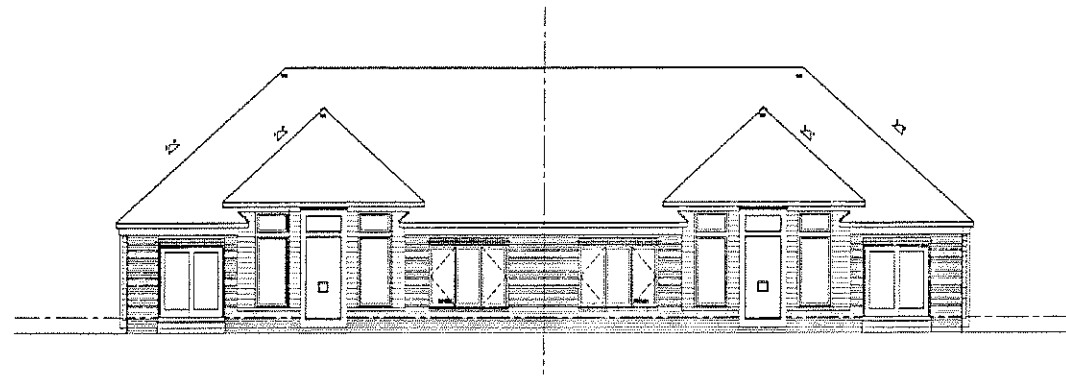
911

A2

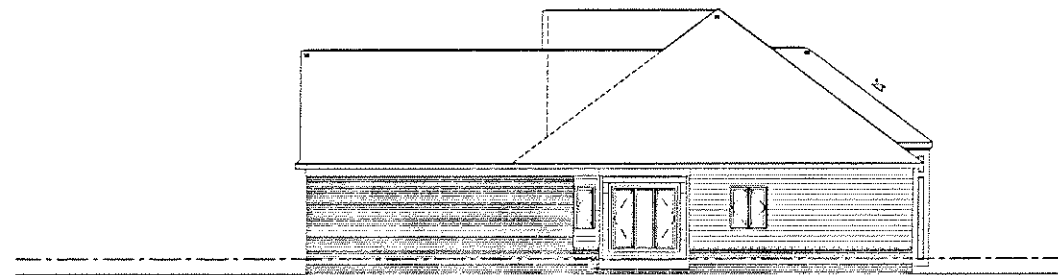


KEY TO DETAIL
REFERENCING

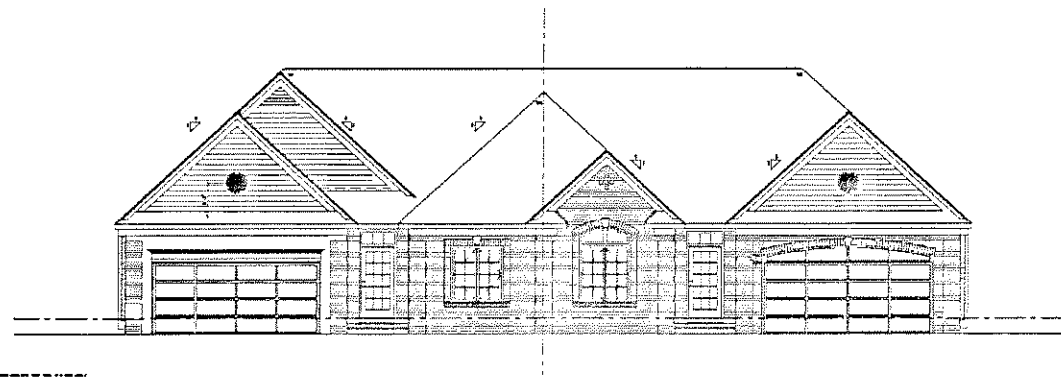
elevations



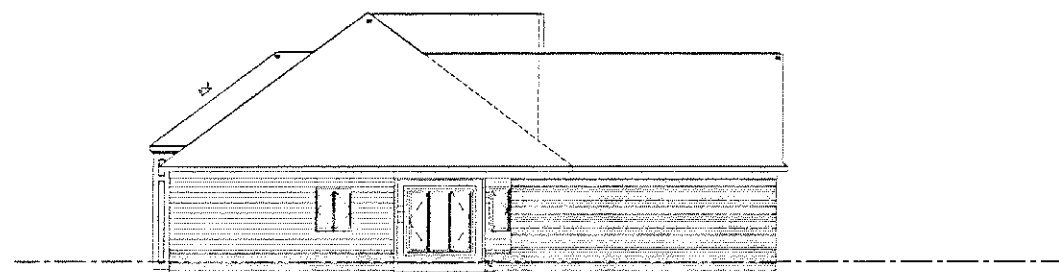
FRONT ELEVATION



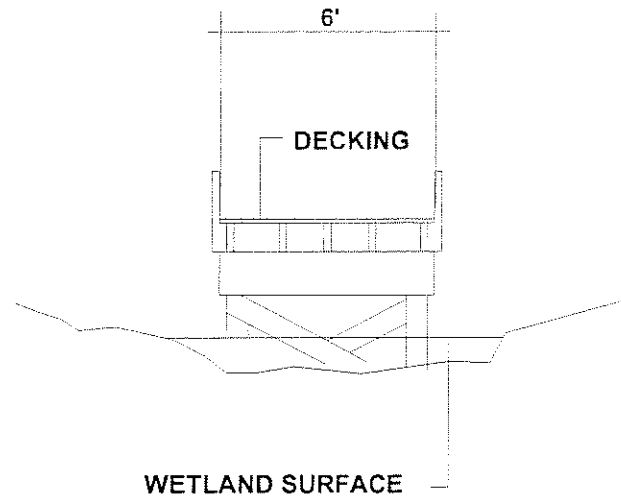
RIGHT SIDE ELEVATION



REAR ELEVATION

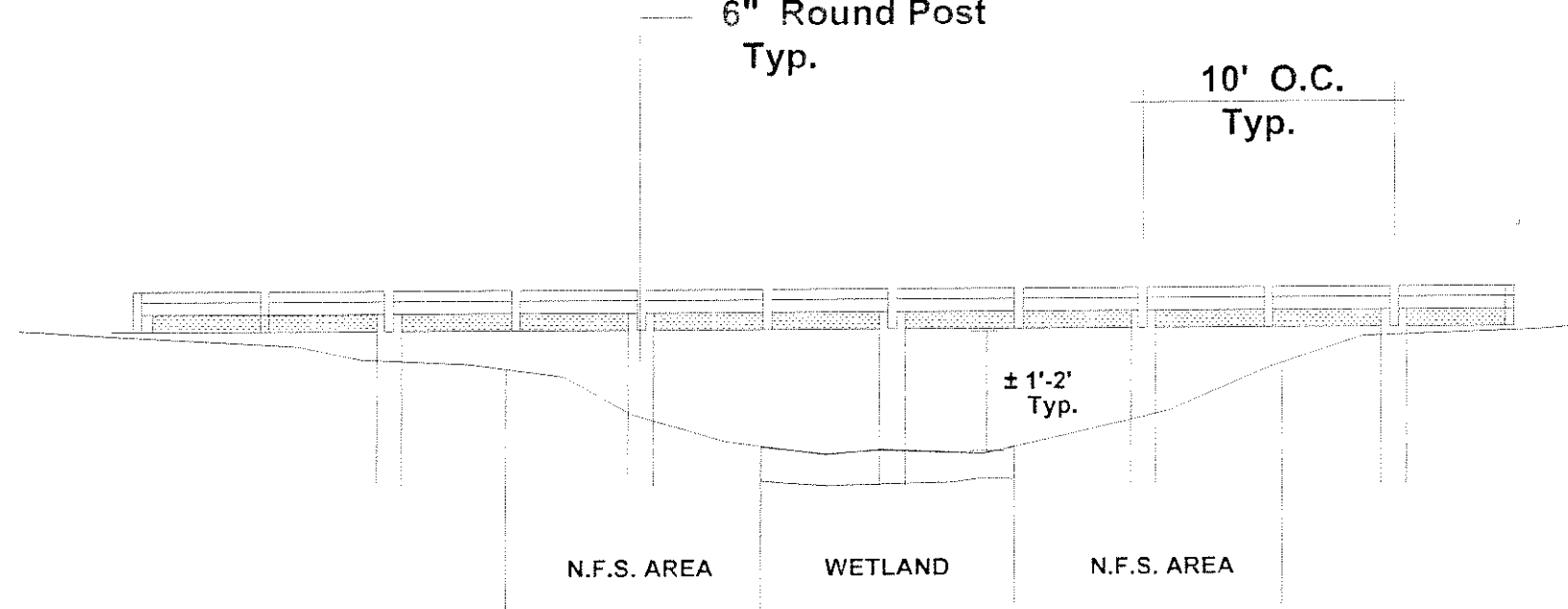


LEFT SIDE ELEVATION



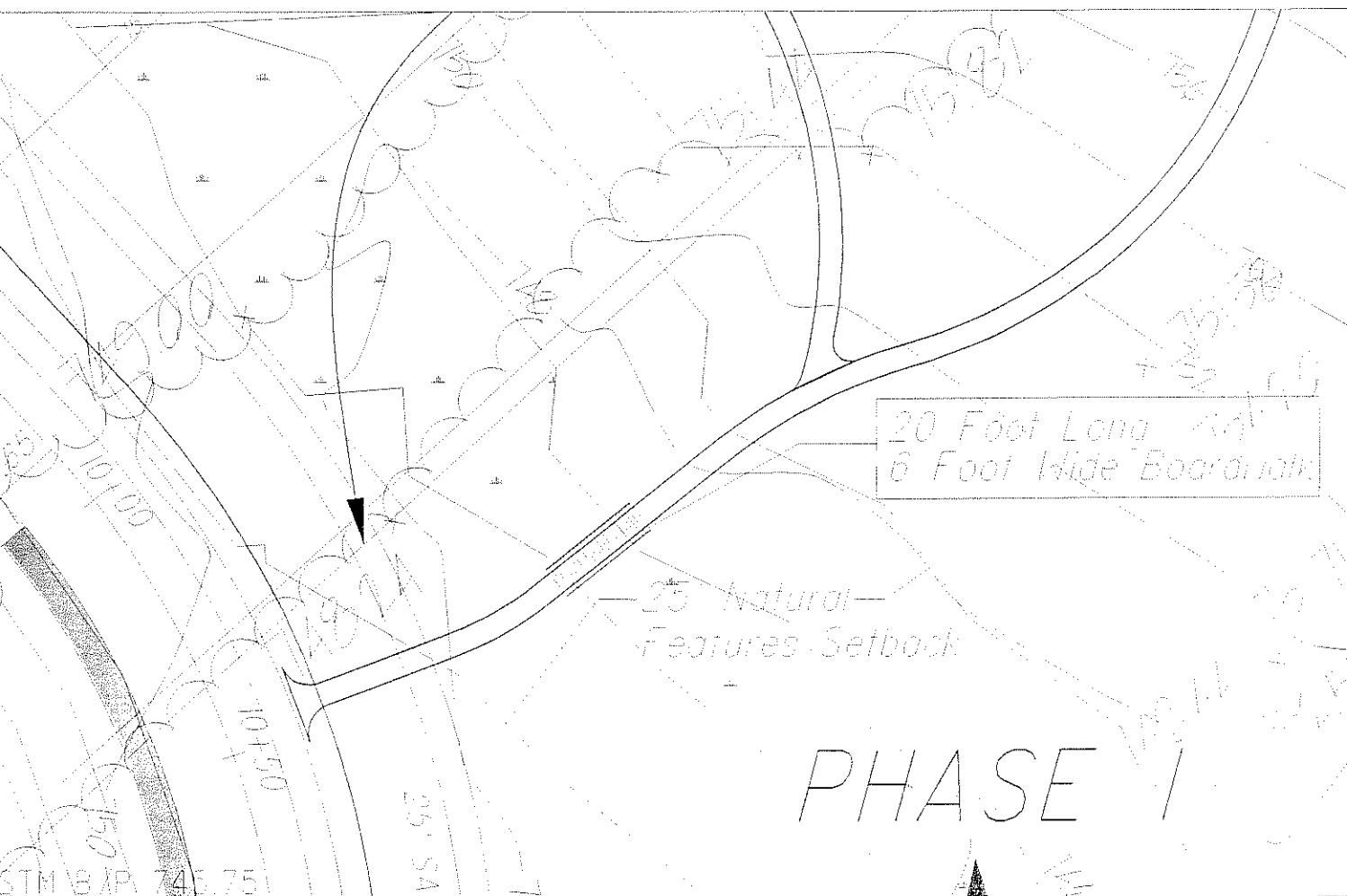
Boardwalk - Cross Section

Cross-Section / Not to Scale

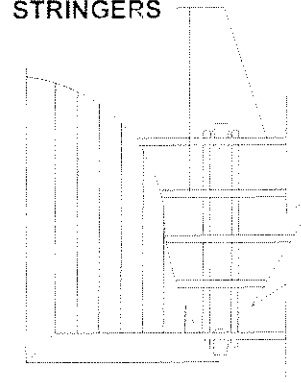


Typical 6' Wide Boardwalk

Not to Scale



STRINGERS



Boardwalk - Plan View

Not to Scale

Figure 3. Boardwalk Location & Details

Oakville Estates

City of Rochester Hills Oakland County, Michigan



SCALE: 1" = 40'



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