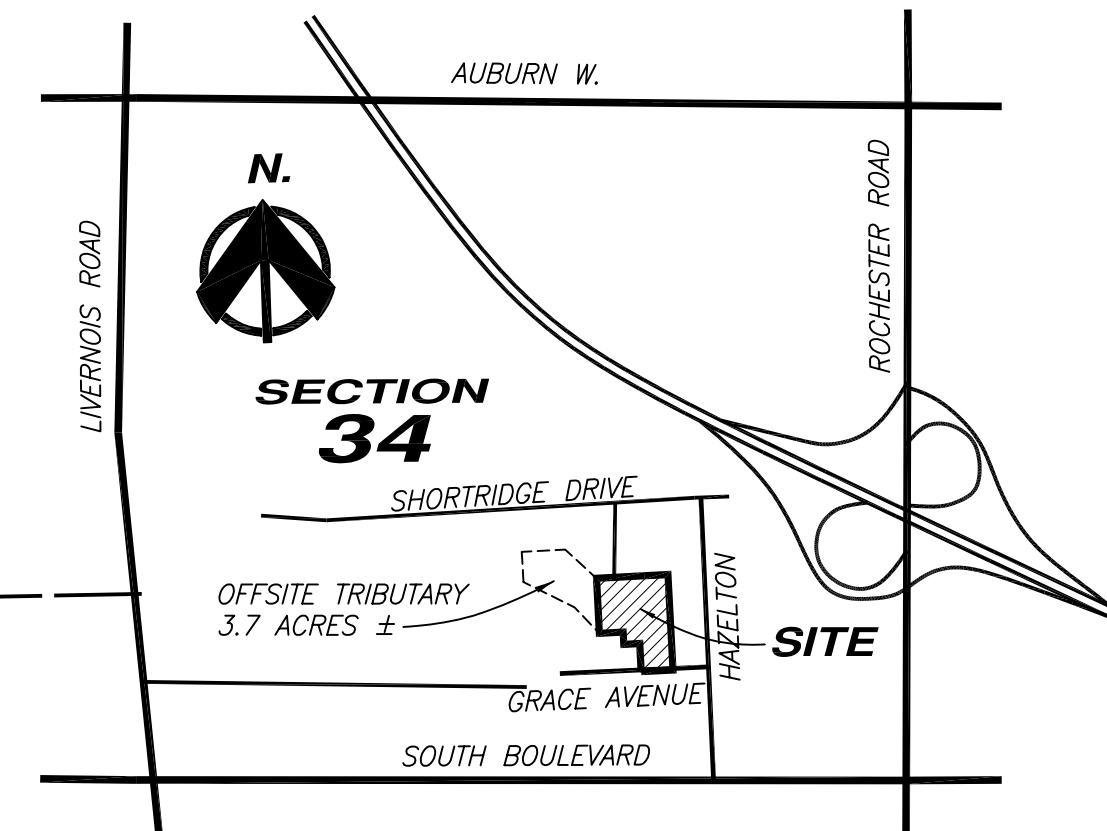
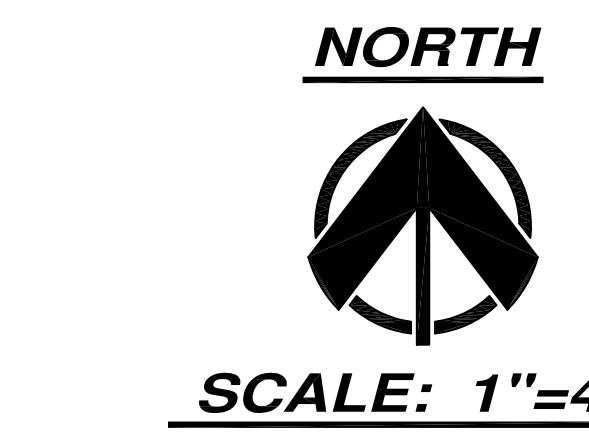


OFFSITE TRIBUTARY
APPROXIMATELY 3.7 ACRES.

PROPOSED WATERSHED BOUNDARY
& TOTAL TRIBUTARY AREA TO
RETENTION POND. 5.806 ACRES.



LOCATION MAP
SCALE: 1"=40'



PROPERTY DESCRIPTION:
PART OF THE SOUTHEAST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION" AS RECORDED IN LIBER 18 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE N.00°40'18"W., 826.04 FT. ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING; THENCE S.89°32'50"W., 220.23 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W., 219.25 FT.) ALONG THE CENTERLINE OF GRACE STREET, A 50 FT. WIDE PRIVATE ROAD; THENCE N.00°40'18"W., 195.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E.); THENCE S.89°20'06"W., 110.00 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W.); THENCE N.00°40'18"W., 85.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E.); THENCE S.89°20'06"W., 164.81 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W., 164.63 FT.); THENCE N.00°40'18"W., 380.82 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E., 381.50 FT.); THENCE N.89°20'14"E., 495.04 FT. (PREVIOUSLY DESCRIBED AS S.89°32'50"E.) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS, TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S.00°40'18"E., 660.80 FT. (PREVIOUSLY DESCRIBED AS S.00°27'10"W., 661.50 FT.) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING. CONTAINING 5.958 ACRES.

LEGEND

- EXISTING GRADE
- EXISTING CONTOURS, 2' INTERVAL
- EXISTING GROUND SLOPE: 0 - 2%
- EXISTING GROUND SLOPE: 2 - 4%
- EXISTING GROUND SLOPE: 4 - 10%
- EXISTING DIRECTION OF NATURAL SURFACE DRAINAGE
- WATERSHED BOUNDARY & TOTAL TRIBUTARY AREA TO DETENTION POND

NOT TO BE USED AS CONSTRUCTION DRAWINGS

BENCHMARKS

1. ARROW ON HYDRANT LOCATED 10 FEET EAST OF THE SOUTHEAST PROPERTY CORNER OF #390 GRACE STREET. ELEV. 751.23
2. ARROW ON HYDRANT AT THE END OF MCCOMB STREET ON THE EAST SIDE. ELEV. 758.18

APPEX
ENGINEERING & LAND PLANNING CONSULTANTS
CIVIL ENGINEERING & LAND PLANNING CONSULTANTS
47745 VAN DYKE AVENUE
SHELBY TOWNSHIP, MI 48317
PHONE: 586-739-5200
FAX: 586-254-5314

PROJECT: "GRACE PARC" SUBDIVISION
CLIENT: FRANK C. MANON, GRACE STREET DEVELOPMENT, INC., 47858 VAN DYKE AVE., SHELBY TOWNSHIP, MI 48317, (986) 726-1501
JOB NO: 02-017
DATE: 4/26/04
DRAWN BY: N.P.R.
CHECKED BY: W.E.M.

REVISIONS:
2/23/05 REVISED PER CITY MEETING.
1/20/05 REVISED PER CITY REVIEW COMMENTS.
10/25/04 REVISED PER CITY REVIEW COMMENTS.
8/4/04 REVISED PER CITY REVIEW COMMENTS.

SCALE: 1"=40'

DRAINAGE PATTERN & SLOPE GRADIENT SKETCH

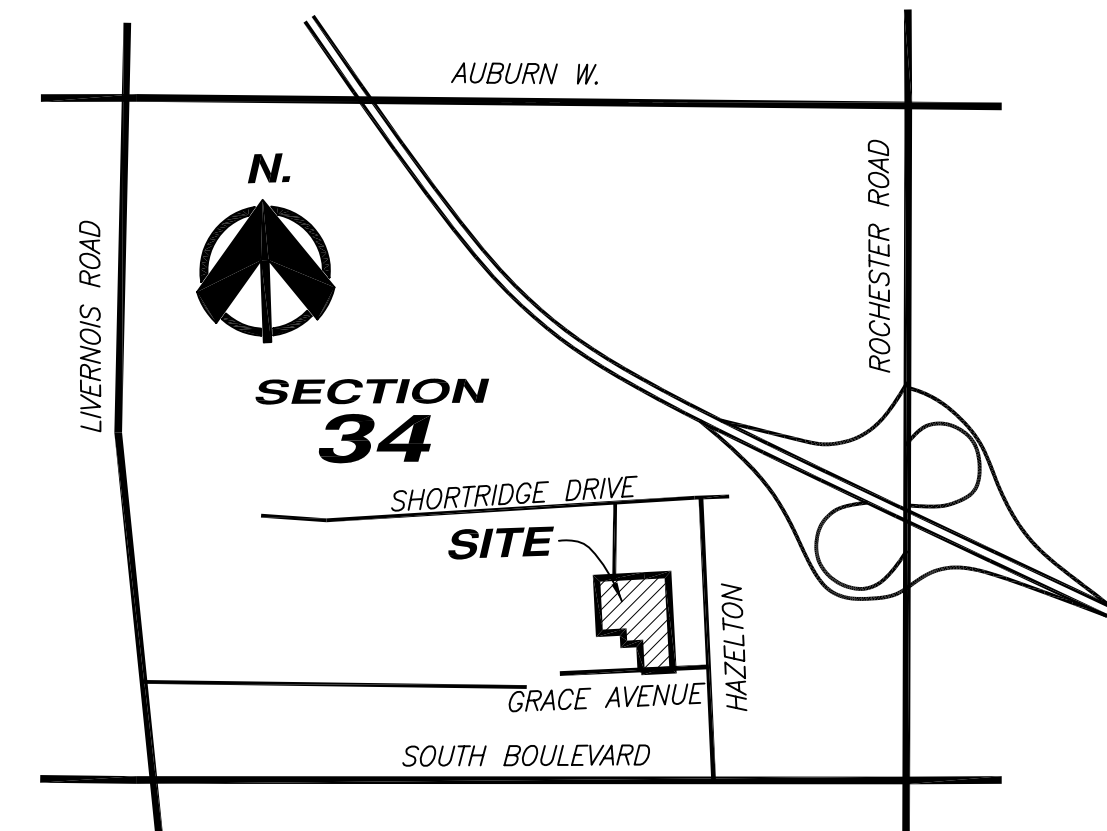
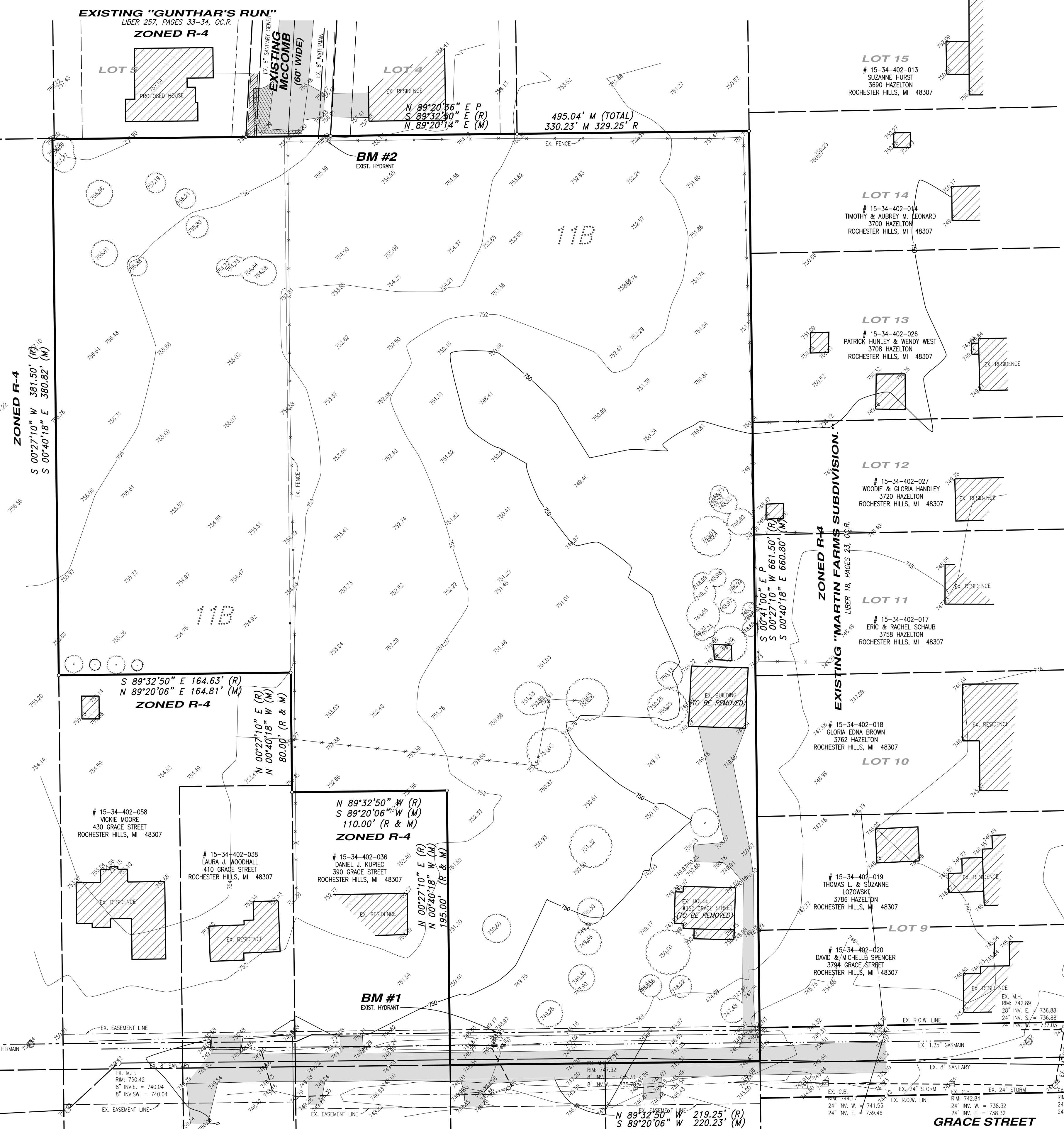
SHEET **3** OF 5
MUNICIPAL REVIEW NUMBERS: CITY FILE #04-011

LEGEND

- EXISTING GRADE
- EXISTING CONTOURS, 2' INTERVAL
- EXISTING ASPHALT PAVEMENT
- EXISTING TREES

15-34-402-055
CURTIS HENSLEY
P.O. BOX 1239
STERLING HEIGHTS, MI
48311-1239

15-34-402-023
470 GRACE STREET
ROCHESTER HILLS, MI 48307



LOCATION MAP

SCALE: 4" = 1 MILE

NORTH



SCALE: 1"=40'

SITE CRITERIA

- SOWELL #: 15-34-402-035
- EXISTING ZONING: R-4, ONE-FAMILY RESIDENTIAL
- ADJACENT ZONINGS: R-4, ONE-FAMILY RESIDENTIAL
- TOTAL AREA OF SITE: 5.958 Ac.
- PROPOSED USE: SINGLE FAMILY RESIDENTIAL

BENCHMARKS

1. ARROW ON HYDRANT LOCATED 10 FEET EAST OF THE SOUTHEAST PROPERTY CORNER OF #390 GRACE STREET. ELEV: 751.23
2. ARROW ON HYDRANT AT THE END OF MCCOMB STREET ON THE EAST SIDE. ELEV: 758.18

SOILS

11B CAPAC SANDY LOAM (0 TO 4% SLOPES), 0"-8" VERY DARK GRAYISH-BROWN SANDY LOAM, 8"-20" BROWN CLAY LOAM, 20"-32" GRAYISH-BROWN CLAY LOAM, 32"-60" PALE BROWN LOAM. MODERATELY SLOW PERMEABILITY, SLOW RUNOFF.

PROPERTY DESCRIPTION:

PART OF THE SOUTHEAST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34; THENCE S.89°32'50"E, 991.01 FT. ALONG THE SOUTH LINE OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION" AS RECORDED IN LIBER 18 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE N.00°40'18"W, 826.04 FT. ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING; THENCE S.89°20'06"W, 220.23 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W, 219.25 FT.) ALONG THE CENTERLINE OF GRACE STREET, A 50 FT. WIDE PRIVATE ROAD; THENCE N.00°40'18"W, 195.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E); THENCE S.89°20'06"W, 110.00 FT. (PREVIOUSLY DESCRIBED AS S.89°32'50"W); THENCE N.00°40'18"W, 85.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E); THENCE S.89°20'06"W, 164.81 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W, 164.63 FT.); THENCE N.00°40'18"W, 380.82 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E, 381.50 FT.); THENCE N.89°20'14"E, 495.04 FT. (PREVIOUSLY DESCRIBED AS S.89°32'50"E) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS, TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S.00°40'18"E, 660.80 FT. (PREVIOUSLY DESCRIBED AS S.00°27'10"W, 661.50 FT.) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING, CONTAINING 5.958 ACRES.

CONTRACTOR'S NOTE

The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities. The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (TOLL FREE) for the location of underground utilities

NOT TO BE USED AS CONSTRUCTION DRAWINGS

FIRE DEPT. NOTES:

1. FIRE LANES SHALL BE DESIGNATED BY THE CITY CODE OFFICIAL, AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE 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. 901.4.2
2. CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH UNIFORM FIRE CODE ARTICLE 87, SECTION 8701.
3. OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. FIRE PREVENTION ORDINANCE CHAPTER 58, SEC. 1102.6.2 & 1102.6.2.3.

APEX
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CLIENT: FRANK C. MANON, GRACE PARC DEVELOPMENT, INC., 47858 VAN DYKE AVE., SHELBY TOWNSHIP, MI 48317, (986) 726-1501
JOB NO: 02-017
DATE: 4/26/04
DRAWN BY: R.K.F.
CHECKED BY: W.E.M.
PART OF THE S.E. 1/4 OF SECTION 34, CITY OF ROCHESTER HILLS, MACOMB CO., MI

REVISIONS:
2/23/05 REVISION PER CITY MEETING.
1/20/05 REVISION PER CITY REVIEW COMMENTS.
10/23/04 REVISION PER CITY REVIEW COMMENTS.
8/04/04 REVISION PER CITY PLAN REVIEW MEETING.

SCALE: 1"=40'
EXISTING CONDITIONS AND NATURAL FEATURES BASE PLAN

SHEET 2 OF 5
MUNICIPAL REVIEW NUMBERS: CITY FILE #04-011

PLANT SCHEDULE & COST ESTIMATE

DECIDUOUS TREES:

SYMBOL:	QUANTITY:	BOTANICAL NAME:	COMMON NAME:	SIZE:	ROOT:	UNIT PRICE:	UNIT TOTAL:
Pc	6 EA.	ACER RUBRUM	RED SUNSET	3" CAL.	B&B	\$425.00	\$2,550.00

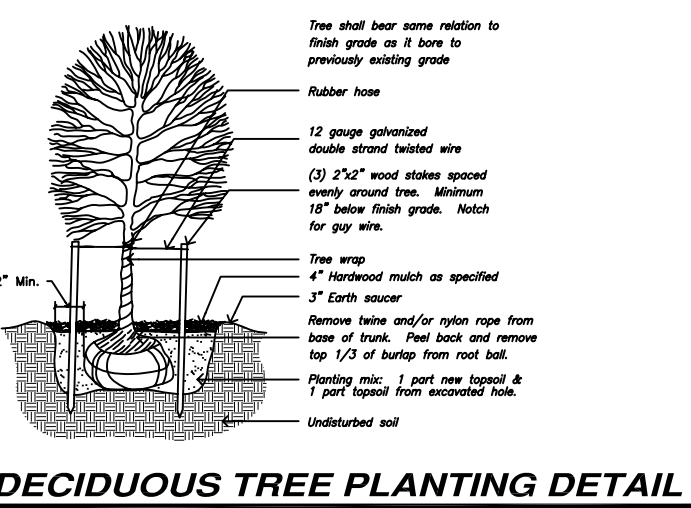
EVERGREEN TREES:

SYMBOL:	QUANTITY:	BOTANICAL NAME:	COMMON NAME:	SIZE:	ROOT:	UNIT PRICE:	UNIT TOTAL:
Pp	13 EA.	PICEA PUNGENS	COLORADO SPRUCE	9" HT.	B&B	\$400.00	\$5,200.00

TOTAL TREES: 19
 SUBTOTAL COST: \$7,750.00
 5% CONTINGENCY: \$387.50
TOTAL ESTIMATE: \$8,137.50

LEGEND

- EXISTING GRADE
- EXISTING CONTOURS, 2' INTERVAL
- EXISTING TREES
- EXISTING TREES TO BE REMOVED
- PROPOSED PROTECTIVE TREE FENCING



EVERGREEN TREE PLANTING DETAIL (NO SCALE)

TREE PLANTING RESTRICTIONS

PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB ON THE PUBLIC RIGHT-OF-WAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC ROAD. SHADE TREES AND 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 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 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. SHADE AND EVERGREEN TREES MUST BE AT LEAST 15' AWAY FROM THE NEAREST OVERHEAD WIRES AND AT LEAST 5' FROM THE NEAREST UNDERGROUND UTILITY.

CLOSING COMMENTS

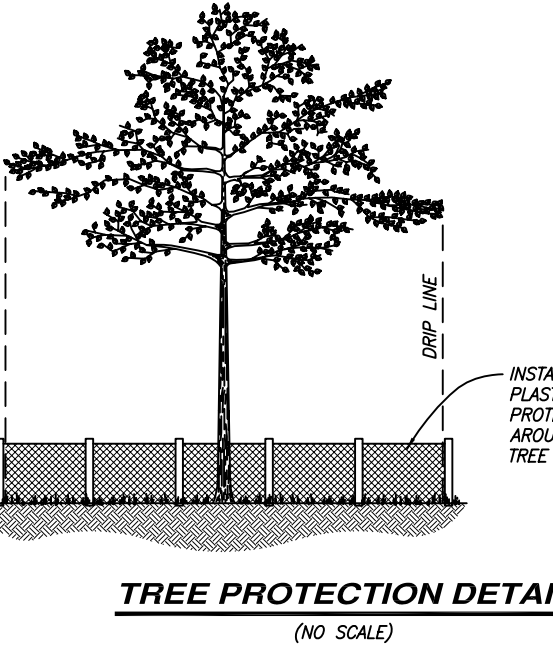
PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS FORESTRY DIVISION NEEDS TO INSPECT ALL TREES, EXISTING OR PLANTED, TO DETERMINE ANY THAT POSE A HAZARD TO THE SAFE USE OF THE PUBLIC RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

CONTRACTOR'S NOTE

The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to locate and preserve any and all underground utilities. The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

TREE PROTECTION NOTES

- TREE PROTECTIVE FENCING (TPF) SHALL BE ERRECTED PER THE PLANS APPROVED BY THE CITY OF ROCHESTER HILLS PLANNING DEPARTMENT. THE TPF MUST BE IN PLACE AND BE INSPECTED BY THE CITY OF ROCHESTER HILLS 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 TPF THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT MUST INSPECT ALL TREES DESIGNATED TO BE PRESERVED. THE LANDSCAPE PERFORMANCE BOND WILL NOT BE RELEASED UNTIL THE 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 REGULATED TREES NOT APPROVED FOR REMOVAL. INCLUDING BUT NOT LIMITED TO LAND CLEARING, GRUBBING, TRENCING, GRADING OR FILLING, NO PERSON SHALL PLACE ANY SOLVENTS, BUILDING MATERIAL, CONSTRUCTION EQUIPMENT, SOIL DEPOSITS, OR HAZARDOUS MATERIALS WITHIN THE DRIP LINE OF TREES DESIGNATED FOR PRESERVATION.
- PROPOSED GRADES ARE TO MATCH THE EXISTING ELEVATIONS OUTSIDE THE LIMITS OF THE TPF. NO GRADING EITHER OUT OR IN IS PERMITTED WITHIN THE DRIP LINE OF ANY TREE DESIGNATED FOR PRESERVATION.
- DURING THE CONSTRUCTION PROCESS NO PERSON SHALL ATTACH ANY DEVICE OR WIRE/CABLE/CORD/ROPE TO AN EXISTING TREE DESIGNATED TO BE PRESERVED.
- ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE THE TPF.
- SMALLS SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINE OF ANY TREE DESIGNATED FOR PRESERVATION. SMALLS SHALL BE CONSTRUCTED SO AS NOT TO DIRECT ANY ADDITIONAL FLOW INTO THE DRIP LINE OF A TREE DESIGNATED FOR PRESERVATION.
- IF TREE PROTECTION CANNOT BE MAINTAINED FOR A TREE THROUGHOUT THE ENTIRE PERIOD REQUIRED, THE REPLACEMENT OF THAT TREE WILL BE REQUIRED ON AN INCH FOR EACH INCH BACK 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 HEREIN.
- THE TPF SHALL CONSIST OF 4'-FEET HIGH ORANGE SHAW FENCING TO BE INSTALLED AROUND THE DRIP LINE OF ALL TREES DESIGNATED FOR PRESERVATION. THIS FENCING SHALL BE SUPPORTED BY 6'-FEET LONG METAL TUBES POSTS 5 FEET ON CENTER AND DRIVEN A MINIMUM OF 24 INCHES INTO THE GROUND. THE TPF SHALL REMAIN UPRIGHT AND SECURELY IN PLACE FOR THE REQUIRED TIME AS SPECIFIED ABOVE.



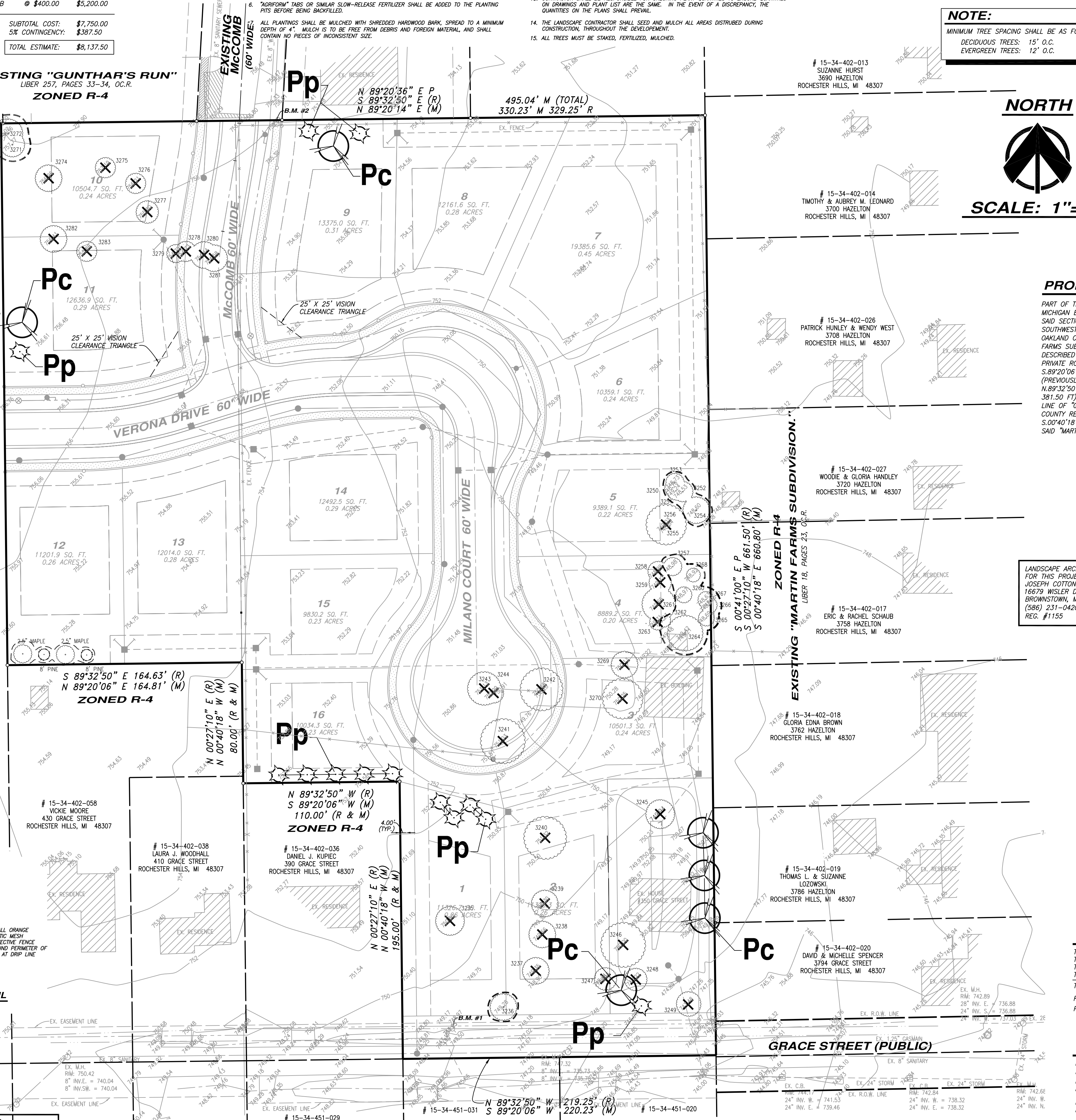
NOT TO BE USED AS CONSTRUCTION DRAWINGS

BENCHMARKS

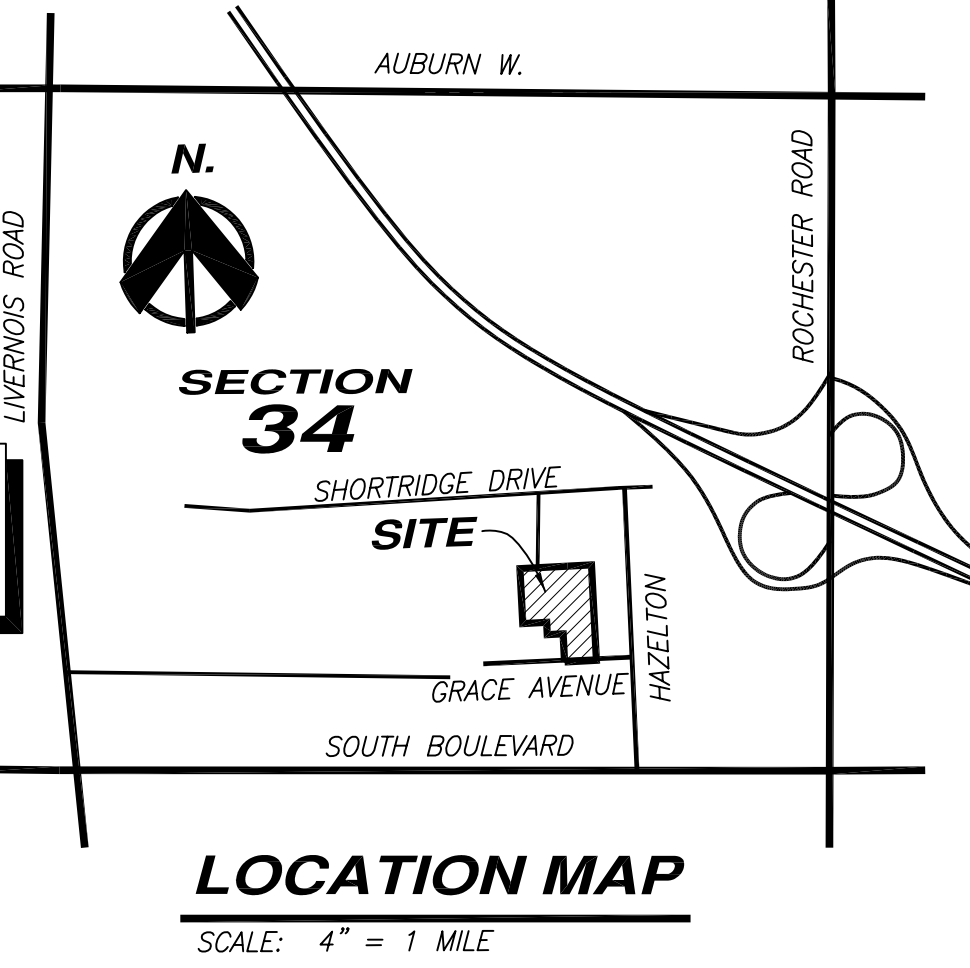
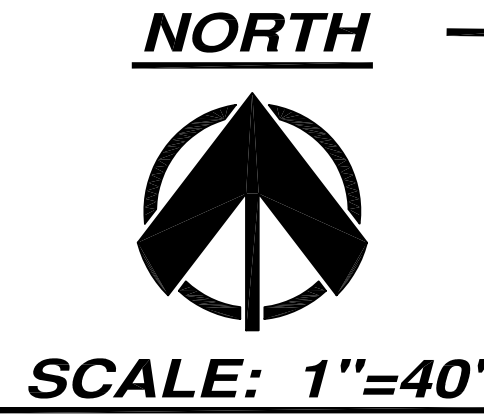
- ARROW ON HYDRANT LOCATED 10 FEET EAST OF THE SOUTHEAST CORNER OF #390 GRACE STREET. ELEV: 751.23
- ARROW ON HYDRANT AT THE END OF MCCOMB STREET ON THE EAST SIDE. ELEV: 758.18

LANDSCAPING NOTES

- ALL PLANT MATERIAL SHALL BE TRUE TO NAME, FREE FROM PHYSICAL DAMAGE AND WIND BURN.
- PLANTS SHALL BE FULL, WELL-BRANCHED, AND IN HEALTHY VIGOROUS GROWING CONDITION.
- PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
- WHEN ALL LANDSCAPING IS COMPLETE THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT WILL INSPECT AND IF EVERYTHING IS ACCEPTABLE THE PERFORMANCE BOND WILL BE RELEASED. AT THIS TIME AND FOR THE TWO-YEAR WARRANTY PERIOD A MAINTENANCE BOND WILL BE HELD AT THE END OF TWO YEARS THE LANDSCAPING WILL BE INSPECTED AGAIN. AT THIS TIME IF EVERYTHING IS IN GOOD CONDITION THE MAINTENANCE BOND WILL BE RELEASED.
- ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. PROVIDE CLEAN BACKFILL SOIL USING MATERIAL STOCKPILED ON SITE. SOIL SHALL BE SOEDED AND FREE OF ANY DEBRIS, FOREIGN MATERIAL, AND STONE.
- "ARIFORM" TABS OR SIMILAR SLOW-RELEASE FERTILIZER SHALL BE ADDED TO THE PLANTING PITS BEFORE BEING BACKFILLED.
- ALL PLANTINGS SHALL BE MULCHED WITH SHREDED HARDWOOD BARK, SPREAD TO A MINIMUM DEPTH OF 4". MULCH IS TO BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND SHALL CONTAIN NO PIECES OF INCONSISTENT SIZE.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN ON THE LANDSCAPE DRAWINGS AND SPECIFICATIONS.
- 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.
- PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
- THE DEVELOPER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.
- THE DEVELOPER AND/OR THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT, AT ANY STAGE OF THE INSTALLATION, TO RECTIFY ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING PLANT QUANTITIES TO ENSURE QUANTITIES ON DRAWINGS AND PLANT LIST ARE THE SAME. IN THE EVENT OF A DISCREPANCY, THE QUANTITIES ON THE PLANS SHALL PREVAIL.
- THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH ALL AREAS DISTURBED DURING CONSTRUCTION, THROUGHOUT THE DEVELOPMENT.
- ALL TREES MUST BE STAKED, FERTILIZED, MULCHED.



NOTE:
 MINIMUM TREE SPACING SHALL BE AS FOLLOWS:
 DECIDUOUS TREES: 15' O.C.
 EVERGREEN TREES: 12' O.C.



SITE CRITERIA

- SIDWELL #: 15-34-402-035
- EXISTING ZONING: R-4, ONE-FAMILY RESIDENTIAL
- ADJACENT ZONINGS: R-4, ONE-FAMILY RESIDENTIAL
- TOTAL AREA OF SITE: 5.958 AC.
- PROPOSED USE: SINGLE FAMILY RESIDENTIAL

PROPERTY DESCRIPTION:

PART OF THE SOUTHEAST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34; THENCE S.86°55'47"E, 991.01 FT. ALONG THE SOUTH LINE OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION" AS RECORDED IN LIBER 18 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE S.89°20'06"W, 220.23 FT. (PREVIOUSLY DESCRIBED AS N.89°22'10"E, 381.50 FT.); THENCE N.89°20'14"E, 495.04 FT. (PREVIOUSLY DESCRIBED AS S.89°32'50"E) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS, TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S.00°27'10"W, 661.50 FT. (PREVIOUSLY DESCRIBED AS S.00°40'18"W, 110.00 FT.); THENCE N.00°40'18"W, 195.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E); THENCE S.89°20'06"W, 164.81 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W, 164.63 FT.); THENCE N.00°40'18"W, 380.82 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E, 381.50 FT.); THENCE N.89°20'14"E, 495.04 FT. (PREVIOUSLY DESCRIBED AS S.89°32'50"E) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS, TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S.00°40'18"W, 660.80 FT. (PREVIOUSLY DESCRIBED AS S.00°27'10"W, 661.50 FT.) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING, CONTAINING 5.958 ACRES.

TREE INVENTORY

TAG #	SIZE	SPECIES	ELEV.	REMOVE?
3235	12-13	BOXELDER	750.60	YES
3236	12	FRUIT	749.28	NO
3237	8.3-12	FRUIT	749.35	YES
3238	6-12	FRUIT	749.66	YES
3239	15.2-12	FRUIT	750.30	YES
3240	2-15.19	FRUIT	751.32	YES
3241	28	OAK	751.03	YES
3242	19	BOXELDER	750.65	YES
3243	15	BOXELDER	751.13	YES
3244	9	BOXELDER	750.99	YES
3245	13	PINE	749.94	YES
3246	25	WALNUT	750.00	YES
3247	8.2-10.2-6	FRUIT	748.56	YES
3248	10.7	FRUIT	748.22	YES
3249	11	PINE	747.48	YES
3250	7 12	BOX ELDER	749.24	NO
3251	8	BOX ELDER	748.78	NO
3252	9	BOX ELDER	748.53	NO
3253	8	BOX ELDER	748.73	NO
3254	12	BOX ELDER	748.60	NO
3255	9	BOX ELDER	748.64	NO
3256	9 18	BOX ELDER	749.03	NO
3257	8	BOX ELDER	748.98	NO
3258	9 9	BOX ELDER	748.99	NO
3259	10	BOX ELDER	749.17	NO
3260	7	BOX ELDER	748.97	NO
3261	15	BOX ELDER	749.65	YES
3262	6	BOX ELDER	749.23	NO
3263	7	BOX ELDER	749.71	NO
3264	16	BOX ELDER	749.42	NO
3265	7	BOX ELDER	748.89	NO
3266	7	BOX ELDER	748.61	NO
3267	6 7	BOX ELDER	748.63	NO
3268	6	BOX ELDER	748.92	NO
3269	12	BOX ELDER	750.13	YES
3270	18	WALNUT	750.25	YES
3271	11	MAPLE	757.77	NO
3272	2-13	OAK	758.36	NO
3273	13	OAK	758.44	YES
3274	12	ASH	756.96	DISEASED
3275	9	ELM	757.19	YES
3276	9	ELM	756.21	YES
3277	10	POPLAR	755.80	YES
3278	9	BOX ELDER	754.73	YES
3279	8	BOX ELDER	754.72	YES
3280	12	BOX ELDER	754.64	YES
3281	12	BOX ELDER	754.58	YES
3282	13	BOX ELDER	756.41	YES
3283	9	BOX ELDER	755.88	YES

TREE SUMMARY:

TOTAL # OF TAGGED TREES: 49
 TOTAL # OF DISEASED ASH TREES: -1
 TOTAL # OF TREES OFFSITE: 0
 TOTAL # OF TREES TO REMAIN: 18
 TOTAL # OF REGULATED TREES: 48
 TOTAL # OF REGULATED TREES: 48
 REQUIRED PERCENTAGE OF TREES TO BE SAVED: 37% (18 TREES)
 PROPOSED PERCENTAGE OF TREES TO BE SAVED: 18 TREES / 48 = 37%

TREE REPLACEMENT CALCULATION:

NUMBER OF EXISTING TREES TO BE REMOVED: 30 + 1 DISEASED ASH TREE
 NUMBER OF REPLACEMENT CREDITS REQUIRED = 30
 NUMBER OF PROPOSED 3" CALIBER DECIDUOUS REPLACEMENT TREES: 6
 NUMBER OF CREDITS = (6 trees) x (2 credits/tree) = 12 CREDITS
 NUMBER OF 9" HIGH EVERGREEN REPLACEMENT TREES: 13
 NUMBER OF CREDITS = (13 trees) x (1.5 credits/tree) = 19.5 CREDITS
 TOTAL NUMBER OF CREDITS = 31.5
 REPLACEMENT TREES CANNOT BE PLANTED WITHIN 4 FEET OF ANY PROPERTY LINE.

APPEX ENGINEERING & LAND PLANNING CONSULTANTS
 CIVIL ENGINEERING & LAND PLANNING CONSULTANTS
 PHONE: 586-759-5200
 FAX: 586-254-5314
 47745 VAN DYKE AVENUE
 SHELBY TOWNSHIP, MI 48317

PROJECT: "GRACE PARC" SUBDIVISION
 CLIENT: FRANCO C. MANCINI (PLANNING INC.)
 47858 VAN DYKE AVE.
 SHELBY TOWNSHIP, MI 48317
 (586) 726-1501

JOB NO: 02-017
 DATE: 12/20/06
 DRAWN BY: JLM
 CHECKED BY: WEM

REVISIONS:
 SCALE:
 SHEET

TREE REPLACEMENT PLAN

OF 5
 MUNICIPAL REVIEW NUMBERS:
 CITY FILE #04-011

15-34-402-055
CURTIS HENSLEY
P.O. BOX 1239
STERLING HEIGHTS, MI
48311-1239

15-34-402-023
CLIFFORD DURAND
P.O. BOX 1239
STERLING HEIGHTS, MI
48311-1239

15-34-402-058
WICKIE MOORE
430 GRACE STREET
ROCHESTER HILLS, MI 48307

15-34-402-038
LAURA W. WOODHALL
410 GRACE STREET
ROCHESTER HILLS, MI 48307

15-34-402-036
DANIEL J. KUPIEC
390 GRACE STREET
ROCHESTER HILLS, MI 48307

15-34-451-029

15-34-451-031

15-34-451-020

15-34-402-019
THOMAS L. & SUZANNE
LOZOWSKI
3786 HAZELTON
ROCHESTER HILLS, MI 48307

15-34-402-020
DAVID & MICHELLE SPENCER
3794 GRACE STREET
ROCHESTER HILLS, MI 48307

15-34-402-017
ERIC & RACHEL SCHUB
3758 HAZELTON
ROCHESTER HILLS, MI 48307

15-34-402-018
GLORIA EDNA BROWN
3762 HAZELTON
ROCHESTER HILLS, MI 48307

15-34-402-027
WOODIE & GLORIA HANDLEY
3720 HAZELTON
ROCHESTER HILLS, MI 48307

15-34-402-026
PATRICK HUNLEY & WENDY WEST
3708 HAZELTON
ROCHESTER HILLS, MI 48307

15-34-402-014
TIMOTHY & AUBREY W. LEONARD
3700 HAZELTON
ROCHESTER HILLS, MI 48307

15-34-402-013
SUZANNE HURST
3690 HAZELTON
ROCHESTER HILLS, MI 48307

EXISTING "GUNTHER'S RUN"
LIBER 257, PAGES 33-34, O.C.R.

EXISTING
McCOMB
(60' WIDE)

VERONA DRIVE
60' WIDE

VERONA DRIVE
60' WIDE

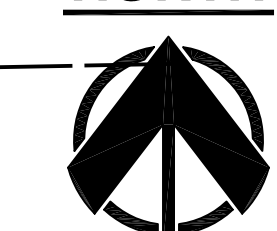
GRACE AVENUE (PRIVATE)
(50' WIDE)

GRACE STREET (PUBLIC)

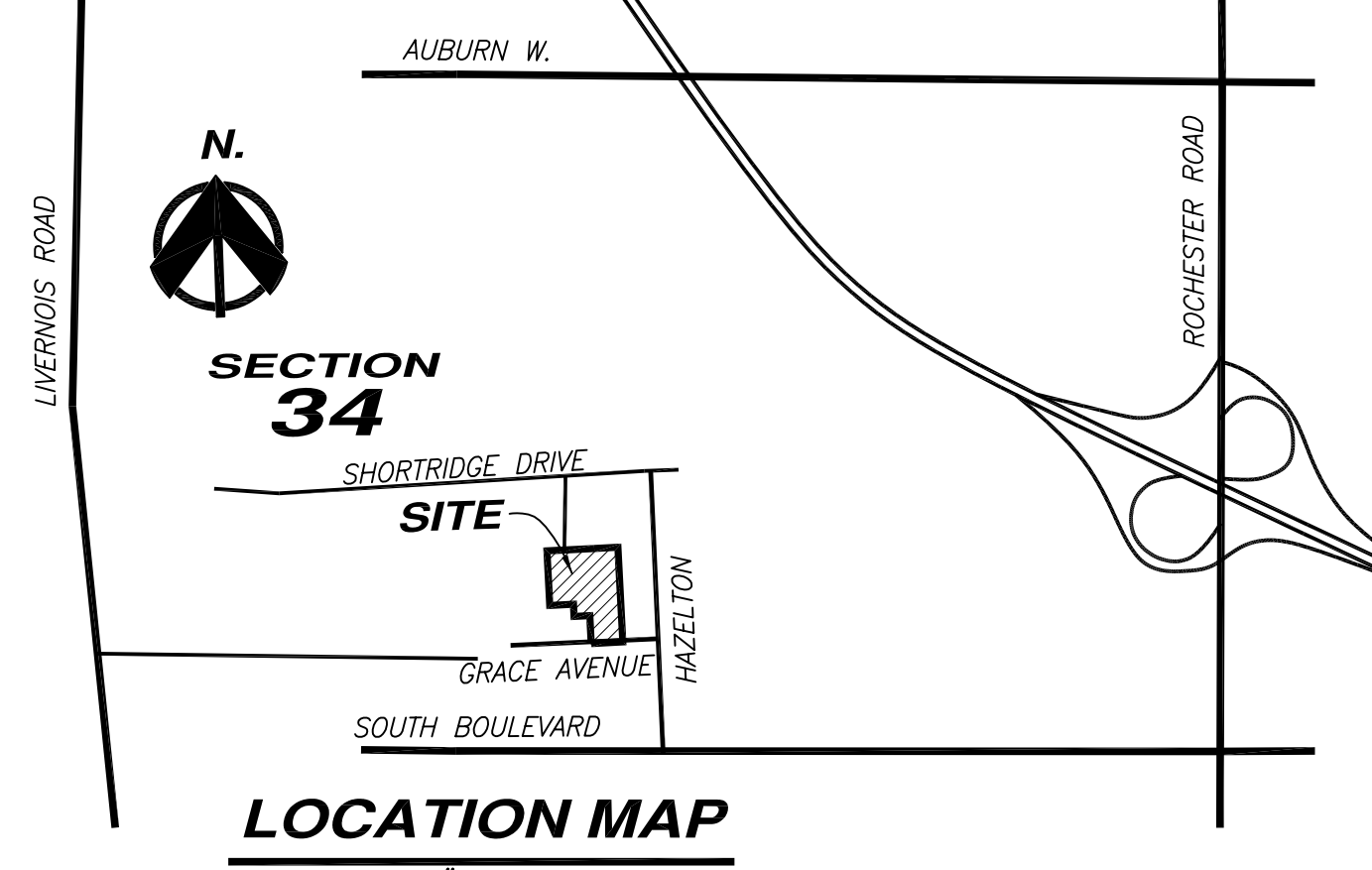
BENCHMARKS

- ARROW ON HYDRANT LOCATED 10 FEET EAST OF THE SOUTHEAST PROPERTY CORNER OF #390 GRACE STREET. ELEV: 751.23
- ARROW ON HYDRANT AT THE END OF McCOMB STREET ON THE EAST SIDE. ELEV: 758.18

NORTH



SCALE: 1"=40'



PROPERTY DESCRIPTION:

PART OF THE SOUTHEAST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34; THENCE S.86°55'47"E., 991.01 FT. ALONG THE SOUTH LINE OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION" AS RECORDED IN LIBER 18 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE N.00°40'18"W., 826.04 FT. ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING; THENCE S.89°20'06"W., 220.23 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W., 219.25 FT.) ALONG THE CENTERLINE OF GRACE STREET, A 50 FT. WIDE PRIVATE ROAD; THENCE N.00°40'18"W., 195.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E.); THENCE S.89°20'06"W., 110.00 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W.); THENCE N.00°40'18"W., 85.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E.); THENCE S.89°20'06"W., 164.81 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W., 164.63 FT.); THENCE N.00°40'18"W., 380.83 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E., 381.50 FT.); THENCE N.89°20'14"E., 495.04 FT. (PREVIOUSLY DESCRIBED AS S.89°32'50"E.) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS, TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S.00°40'18"E., 660.80 FT. (PREVIOUSLY DESCRIBED AS S.00°27'10"W., 661.50 FT.) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING, CONTAINING 5.958 ACRES.

SITE CRITERIA

- SIDWELL #:** 15-34-402-035, 15-34-402-057
- EXISTING ZONING:** R-4, ONE-FAMILY RESIDENTIAL
- ADJACENT ZONINGS:** R-4, ONE-FAMILY RESIDENTIAL
- TOTAL AREA OF SITE:** 5.958 Ac.
- PROPOSED USE:** SINGLE FAMILY RESIDENTIAL
- SETBACK SUMMARY:** FRONT: 25', REAR: 35', SIDE: 10' MIN./20' TOTAL
- UTILITY SUMMARY:** WATER MAIN: CONNECT TO EXIST. MUNICIPAL WATERMANS; SANITARY SEWER: CONNECT TO EXIST. MUNICIPAL SANITARY SEWERS; STORM SEWER: ENCLOSED PIPE TO ON-SITE DETENTION POND
- LANDSCAPING:** REFER TO TREE REPLACEMENT & LANDSCAPING PLAN.
- NUMBER OF LOTS PROPOSED:** 16 LOTS
- ALLOWABLE NET DENSITY:** (3.4 units/Ac.) x (5.958 Ac.) = 20.3 units
- PROPOSED NET DENSITY:** 16 units (2.6 units/Ac.)
- MINIMUM LOT SIZE REQUIRED:** 9,900 S.F.
- MINIMUM LOT AVERAGING SIZE REQUIRED:** 8,640 S.F.
- MINIMUM LOT FRONTAGE:** 80'
- MINIMUM LOT AVERAGING FRONTAGE:** 72'
- MINIMUM CORNER LOT AVERAGING FRONTAGE:** 92'
- MINIMUM CORNER FRONTAGE:** 100'

CURVE DATA

NO.	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD LENGTH	CHORD BEARING
1	63.00'	94.02'	263°29'00"	94.02'	S 89°19'42" E
2	67.00'	48.81'	41°44'30"	49.79'	S 21°32'33" E
3	60.00'	33.75'	32°13'47"	33.31'	N 15°28'35" E
4	76.50'	206.27'	154°29'08"	149.22'	S 45°41'06" E
5	60.00'	32.81'	31°19'57"	32.40'	S 72°44'19" W
6	260.00'	48.35'	10°39'15"	48.28'	S 83°04'40" W
7	200.00'	73.41'	21°01'50"	73.00'	N 00°48'16" W
8	260.00'	29.70'	06°32'40"	29.68'	N 06°26'19" E
9	201.45'	22.84'	06°29'50"	22.83'	S 06°27'02" W
10	260.00'	100.72'	22°11'47"	100.10'	S 01°23'14" E
11	214.62'	72.85'	19°26'50"	72.50'	S 79°19'26" W
12	260.00'	75.68'	16°40'36"	75.41'	N 80°59'56" E
13	200.00'	58.20'	16°40'28"	58.00'	N 80°59'52" E
14	13.50'	21.20'	89°59'55"	19.09'	N 45°40'06" W
15	67.00'	48.81'	41°44'30"	47.74'	S 20°11'57" W
16	43.50'	68.32'	89°59'35"	61.51'	S 45°40'06" E
17	230.00'	66.94'	16°40'28"	66.70'	N 80°59'52" E
18	230.00'	66.94'	16°40'36"	66.71'	S 80°59'56" W
19	230.00'	108.59'	27°03'01"	107.58'	N 03°48'51" W
20	230.00'	26.27'	06°32'40"	26.26'	S 06°26'19" W

NOT TO BE USED AS CONSTRUCTION DRAWINGS

CONTRACTOR'S NOTE
The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities.
The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
(TOLL FREE) for the location of underground utilities

APEX ENGINEERING GROUP INC.
CIVIL ENGINEERING & LAND PLANNING CONSULTANTS
PHONE: 586-739-5200
FAX: 586-254-5314
47745 VAN DYKE AVENUE
SHELBY TOWNSHIP, MI 48317

PROJECT: "GRACE PARC" SUBDIVISION
CLIENT: FRANCO C. MANGINI, FRANK M. MANGINI, INC., 47858 VAN DYKE AVENUE, SHELBY TOWNSHIP, MI 48317 (586) 726-1501
JOB NO: 02-017
DATE: 01/20/05
DRAWN BY: D.K.E.
CHECKED BY: W.E.M.

REVISIONS:
2/23/05 REVISION PER CITY MEETING.
1/20/05 REVISION PER CITY MEETING.

SEAL: ROADWAY GEOMETRIC PLAN

SHEET 1 OF 1

MUNICIPAL REVIEW NUMBERS:
CITY FILE #04-011

LEGEND

	EXISTING GRADE		EXISTING TREES		PROPOSED SANITARY SEWER
	EXISTING CONTOURS, 2' INTERVAL		PROP. ON-SITE CONCRETE WITH INTEGRAL CURBS		PROPOSED STORM SEWER
	EXISTING ASPHALT PAVEMENT		PROPOSED CONCRETE WALKS		PROPOSED WATERMAIN W/ TYPICAL GATE VALVE & WELL & STD. HYDRANT ASSEMBLY
	YARD SETBACKS (NO SCALE)		PROPOSED ASPHALT PAVEMENT		

YARD SETBACKS

(NO SCALE)

NOTE: MINIMUM LOT AREA REQUIRED = 3,600 SQ. FT.
NOTE: TOTAL MINIMUM SIDE YARD = 20'

Detention Calculations

Project Name: Grace Street
Job Number: 020417
Date: 3-23-24
Revision: 2/23/24

Allowable Outflow:
Tabular Area: A = 5,806 acres (Gross site area minus Grace Street right-of-way)
Manning Coefficient: n = 0.35
Runoff Coefficient: C = 0.35

Required Detention Volume, 10-Year Storm:
 $V_{10} = 1.18 \times 10^6 \text{ cu ft} = 0.57 \text{ cfs (per acre)}$

4" MOUNTABLE CONC. CURB & GUTTER DETAIL (ON SITE)

Provided Detention Volume, 10-Year Storm

$V = 1.18 \times 10^6 \text{ cu ft} = 0.57 \text{ cfs (per acre)}$

Required Detention Volume, 1-Year Storm:
 $V_1 = 0.37 \times 10^6 \text{ cu ft} = 0.17 \text{ cfs (per acre)}$

Outlet Calculation for Riser Structure Heads:
1-Year Storm Storage Volume = 3,663.13 ft³
1-Year Storm Volume must drain within 24 to 40 hours. Use = 24.0 hr. = 86,400 sec.
 $Q_{out} = V/t = 3,663.13 \text{ ft}^3 / 86,400 \text{ sec} = 0.0423 \text{ cfs}$

Overflow Outlet Calculation

Outlet Elevation:
C = 0.35
Intensity: I = 1.75 (20 min., 25) = 3.89 in/hr.
Intensity: I = 1.75 (20 min., 25) = 3.89 in/hr.
Intensity: I = 1.75 (20 min., 25) = 3.89 in/hr.

Outlet Elevation:
C = 0.35
Intensity: I = 1.75 (20 min., 25) = 3.89 in/hr.
Intensity: I = 1.75 (20 min., 25) = 3.89 in/hr.
Intensity: I = 1.75 (20 min., 25) = 3.89 in/hr.

CURVE DATA

NO.	ARC NO.	ARC LENGTH	DELTA ANGLE	CHORD LENGTH	CHORD BEARING
1	63.00'	94.02'	263.2900°	94.02'	S 89°19'42" E
2	67.00'	48.81'	414.430°	49.79'	S 21°32'33" E
3	60.00'	137.75'	321.147°	33.31'	N 15°28'55" E
4	76.50'	206.27'	154.2908°	149.22'	S 45°41'08" E
5	60.00'	32.81'	311.957°	32.40'	S 7°44'19" W
6	260.00'	48.81'	103.015°	48.78'	S 63°04'40" W
7	200.00'	73.41'	210.150°	73.00'	N 00°48'18" W
8	260.00'	29.70'	06.3240°	29.68'	N 06°26'19" E
9	261.65'	29.84'	06.2920°	29.81'	S 0°22'02" W
10	260.00'	100.22'	221.147°	100.10'	S 01°23'14" E
11	214.62'	72.85'	172.963°	72.50'	S 7°19'26" W
12	260.00'	72.85'	164.963°	72.61'	N 80°59'58" E
13	200.00'	58.20'	164.928°	58.00'	N 80°59'52" E
14	113.50'	21.20'	89.303°	19.89'	N 40°40'06" W
15	67.00'	48.81'	414.430°	47.74'	S 2°01'15" W
16	43.50'	68.32'	89.2935°	61.51'	S 45°40'06" E
17	230.00'	68.84'	114.028°	68.70'	N 80°59'52" E
18	230.00'	68.84'	164.963°	66.71'	S 80°59'58" W
19	230.00'	108.59'	270.917°	107.58'	N 03°49'51" W
20	230.00'	26.27'	08.3240°	26.26'	S 06°26'19" W

EXISTING McCOMB BUILDING SETBACKS

LOT	SETBACK FROM EX. R.O.W. LINE
1	26.80'
2	26.80'
3	26.80'
4	26.20'
5	27.00'
6	27.40'
7	26.60'
8	26.00'
9	26.00'

CONTRACTOR'S NOTE

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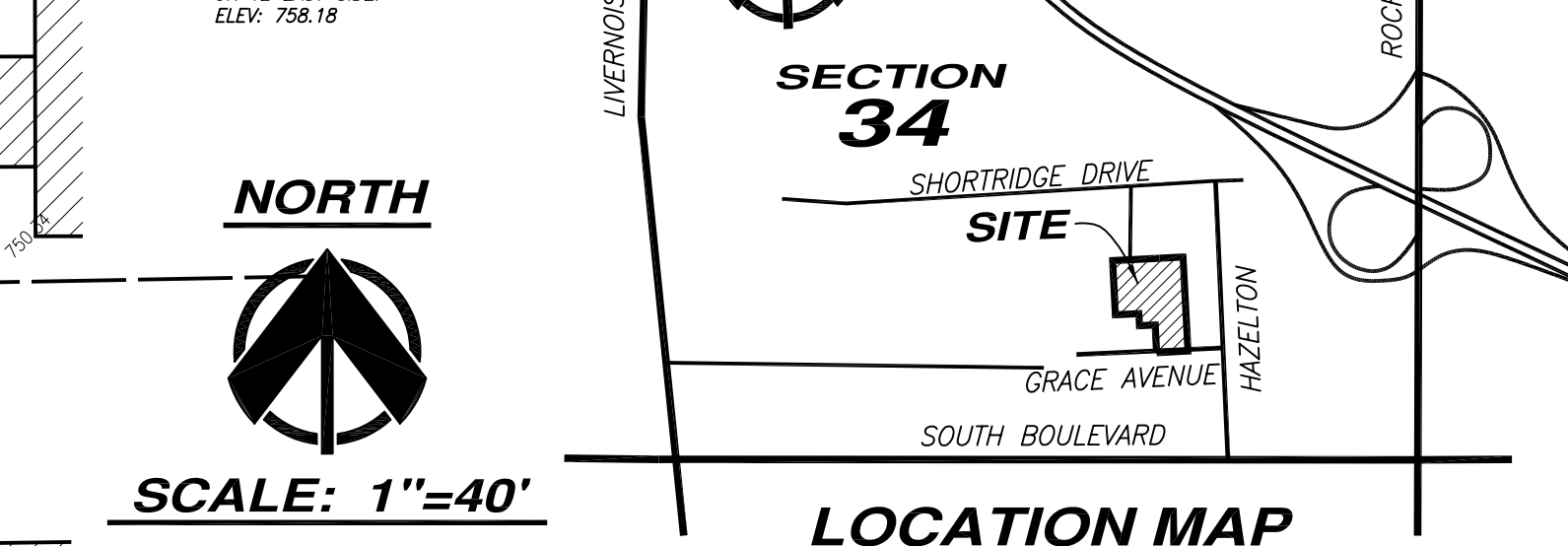
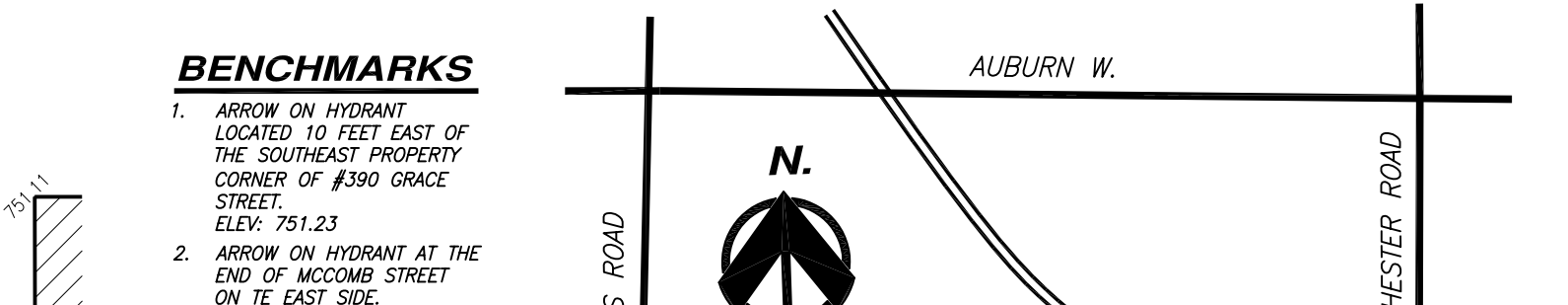
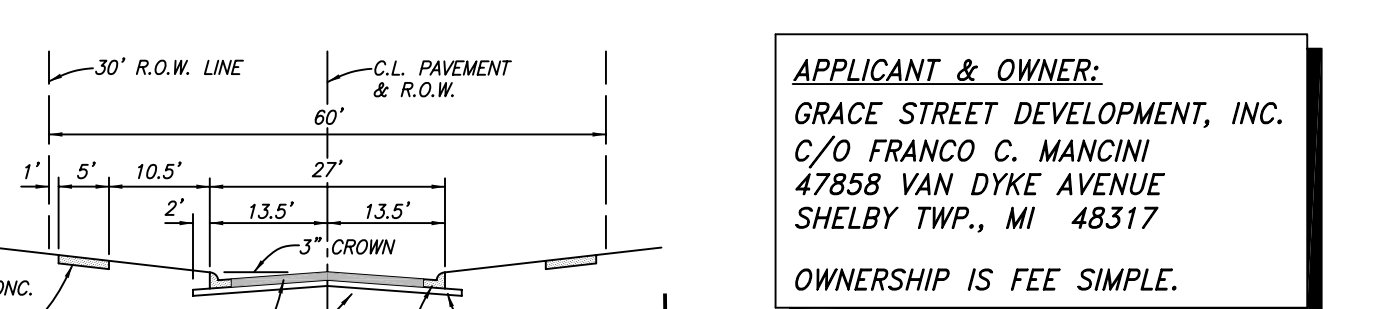
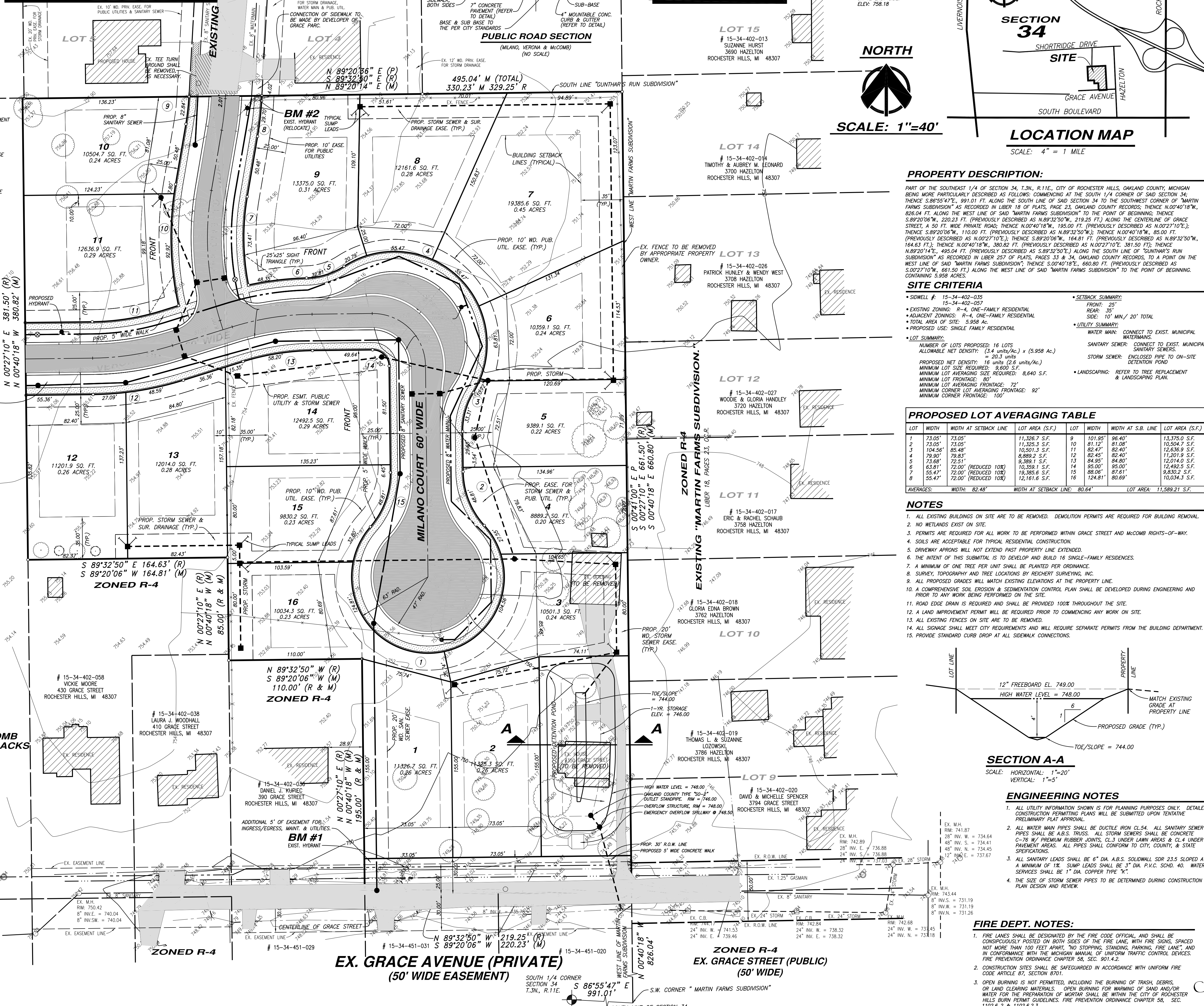
3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (TOLL FREE) for the location of underground utilities.

The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

- ### SHEET INDEX
- TENTATIVE PRELIMINARY PLAN
 - EXISTING CONDITIONS AND NATURAL FEATURES BASE PLAN
 - DRAINAGE PATTERN AND SLOPE GRADIENT SKETCH
 - EXISTING TREE AND TREE REMOVAL PLAN
 - TREE REPLACEMENT PLAN SUPPLEMENTAL SHEET
- ### 1. ROADWAY GEOMETRIC PLAN

NOT TO BE USED AS CONSTRUCTION DRAWINGS

EXISTING "GUNTHER'S RUN" LIBER 257, PAGES 33-34, O.C.R.
ZONED R-4



PROPERTY DESCRIPTION:

PART OF THE SOUTHEAST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34; THENCE S.89°54'47".9010 FT. ALONG THE SOUTH LINE OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION" AS RECORDED IN LIBER 18 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE N.00°40'18" W. 826.04 FT. ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING; THENCE S.89°20'06" W. 220.23 FT. (PREVIOUSLY DESCRIBED AS S.89°20'06" W. 219.25 FT.) ALONG THE CENTERLINE OF GRACE STREET, A 50 FT. WIDE PRIVATE ROAD; THENCE N.00°40'18" W. 195.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10" E. 195.00 FT.); THENCE S.89°20'06" W. 110.00 FT. (PREVIOUSLY DESCRIBED AS S.89°20'06" W. 110.00 FT.); THENCE N.00°40'18" W. 85.00 FT. (PREVIOUSLY DESCRIBED AS S.00°27'10" E. 85.00 FT.); THENCE S.89°20'06" W. 164.63 FT.; THENCE N.00°40'18" W. 380.82 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10" E. 381.50 FT.); THENCE N.89°20'14" E. 495.04 FT. (PREVIOUSLY DESCRIBED AS S.89°20'06" W. 495.04 FT.) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS; TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S.00°27'10" E. 661.50 FT. (PREVIOUSLY DESCRIBED AS S.00°27'10" E. 661.50 FT.) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING. CONTAINING 5.958 ACRES.

SITE CRITERIA

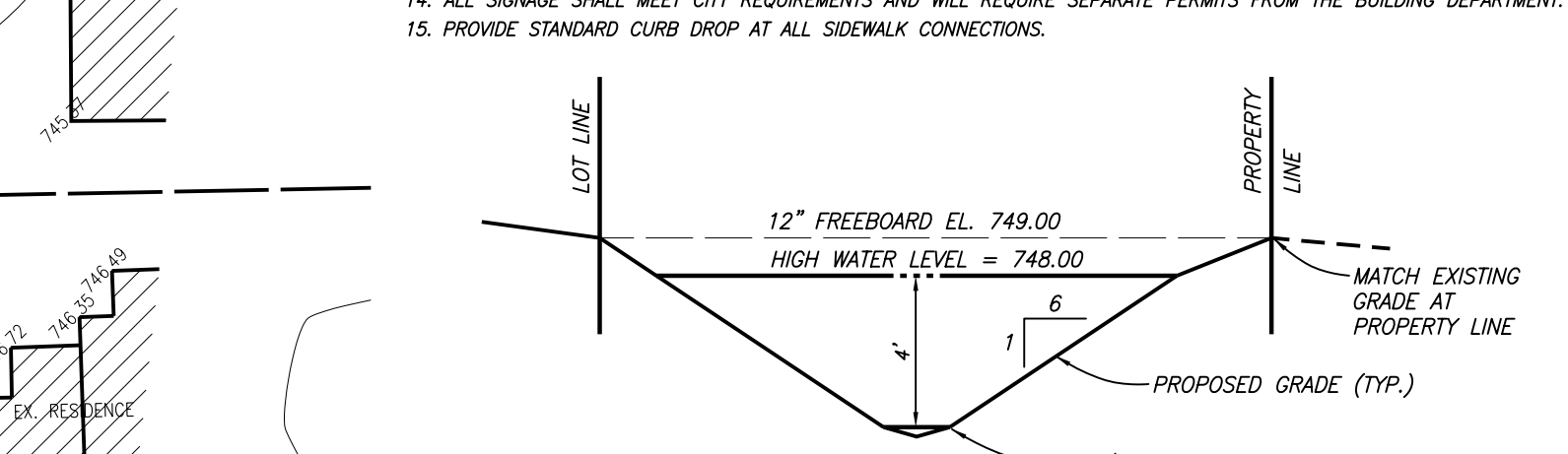
• SIDELINE #:	15-34-402-035	• SETBACK SUMMARY:	FRONT: 25'
• EXISTING ZONING:	15-34-402-057	REAR: 35'	
• ADJACENT ZONINGS:	R-4, ONE-FAMILY RESIDENTIAL	SIDE: 1' MIN./20' TOTAL	
• TOTAL AREA OF SITE:	5,958 AC.	• UTILITY SUMMARY:	WATER MAIN: CONNECT TO EXIST. MUNICIPAL WATERMANS
• PROPOSED USE:	SINGLE FAMILY RESIDENTIAL	STORM SEWER: ENCLOSED PIPE TO ON-SITE DETENTION POND	

PROPOSED LOT AVERAGING TABLE

LOT	WIDTH AT SETBACK LINE	LOT AREA (S.F.)	LOT WIDTH	WIDTH AT S.B. LINE	LOT AREA (S.F.)		
1	73.05'	73.05'	11,326.7 S.F.	9	101.25'	96.40'	11,375.0 S.F.
2	73.05'	73.05'	11,325.3 S.F.	10	81.12'	81.08'	10,504.7 S.F.
3	104.26'	85.48'	10,501.3 S.F.	11	82.47'	82.40'	12,636.9 S.F.
4	73.05'	73.05'	8,889.2 S.F.	12	82.45'	82.40'	11,201.8 S.F.
5	73.66'	72.51'	9,389.1 S.F.	13	84.95'	84.80'	12,014.0 S.F.
6	63.81'	72.00' (REDUCED 10%)	10,359.1 S.F.	14	95.00'	95.00'	12,492.5 S.F.
7	55.47'	72.00' (REDUCED 10%)	13,958.0 S.F.	15	88.00'	87.61'	9,830.2 S.F.
8	55.47'	72.00' (REDUCED 10%)	12,161.6 S.F.	16	124.81'	80.69'	10,034.3 S.F.

AVERAGES: WIDTH: 82.48' WIDTH AT SETBACK LINE: 80.84' LOT AREA: 11,589.21 S.F.

- ### NOTES
- ALL EXISTING BUILDINGS ON SITE ARE TO BE REMOVED. DEMOLITION PERMITS ARE REQUIRED FOR BUILDING REMOVAL.
 - NO WETLANDS EXIST ON SITE.
 - PERMITS ARE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN GRACE STREET AND McCOMB RIGHTS-OF-WAY.
 - SOILS ARE ACCEPTABLE FOR TYPICAL RESIDENTIAL CONSTRUCTION.
 - DRIVEWAY APRONS WILL NOT EXTEND PAST PROPERTY LINE EXTENDED.
 - THE INTENT OF THIS SUBMITTAL IS TO DEVELOP AND BUILD 16 SINGLE-FAMILY RESIDENCES.
 - A MINIMUM OF ONE TREE PER UNIT SHALL BE PLANTED PER ORDINANCE.
 - SURVEY, TOPOGRAPHY AND TREE LOCATIONS BY RECHERTY SURVEYING, INC.
 - ALL PROPOSED GRADES WILL MATCH EXISTING ELEVATIONS AT THE PROPERTY LINE.
 - A COMPREHENSIVE SOIL EROSION & SEDIMENTATION CONTROL PLAN SHALL BE DEVELOPED DURING ENGINEERING AND PRIOR TO ANY WORK BEING PERFORMED ON THE SITE.
 - ROAD EDGE DRAIN IS REQUIRED AND SHALL BE PROVIDED 100% THROUGHOUT THE SITE.
 - A LAND IMPROVEMENT PERMIT WILL BE REQUIRED PRIOR TO COMMENCING ANY WORK ON SITE.
 - ALL EXISTING FENCES ON SITE ARE TO BE REMOVED.
 - ALL STORAGE SHALL MEET CITY REQUIREMENTS AND WILL REQUIRE SEPARATE PERMITS FROM THE BUILDING DEPARTMENT.
 - PROVIDE STANDARD CURB DROP AT ALL SIDEWALK CONNECTIONS.



- ### ENGINEERING NOTES
- ALL UTILITY INFORMATION SHOWN IS FOR PLANNING PURPOSES ONLY. DETAILED CONSTRUCTION PERMITTING PLANS WILL BE SUBMITTED UPON TENTATIVE PRELIMINARY PLAN APPROVAL.
 - ALL WATER MAIN PIPES SHALL BE DUCTILE IRON CL54. ALL STORM SEWER PIPES SHALL BE A.B.S. TRUSS. ALL STORM SEWERS SHALL BE CONCRETE C-76 W/ PREMIUM RUBBER JOINTS, CL3 UNDER LAIN AREAS & CL4 UNDER PAVEMENT AREAS. ALL PIPES SHALL CONFORM TO CITY, COUNTY, & STATE SPECIFICATIONS.
 - ALL SANITARY LEADS SHALL BE 6" DIA. A.B.S. SOLIDWALL SDR 23.5 SLOPE AT A MINIMUM OF 1%. SUMP LEADS SHALL BE 3" DIA. P.V.C. SCHD. 40. WATER SERVICES SHALL BE 1" DIA. COPPER TYPE "K".
 - THE SIZE OF STORM SEWER PIPES TO BE DETERMINED DURING CONSTRUCTION PLAN DESIGN AND REVIEW.

- ### FIRE DEPT. NOTES:
- FIRE LANES SHALL BE DESIGNATED BY THE FIRE CODE OFFICIAL, AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE 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. 901.4.2.
 - CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH UNIFORM FIRE CODE, ARTICLE 67, SECTION 9701.
 - 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 THE CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. FIRE PREVENTION ORDINANCE CHAPTER 58, SEC. 1102.6.2 & 1102.6.2.3.

APPEX

ENGINEERING GROUP INC.
CIVIL ENGINEERING & LAND PLANNING CONSULTANTS

PROJECT: "GRACE PARC" SUBDIVISION

CLIENT: FRANCO C. MANCINI, GRACE STREET DEVELOPMENT, INC., (SHELBY TOWNSHIP, MI 48317)

JOB NO: 02-017

DATE: 4/26/24

CHECKED BY: V.E.M.

REVISIONS:

SCALE: SHEET 1 OF 5

MUNICIPAL REVIEW NUMBERS: CITY FILE #04-011

LEGEND

- EXISTING GRADE
- EXISTING CONTOURS, 2' INTERVAL
- EXISTING TREES
- EXISTING TREES TO BE REMOVED

PROPERTY DESCRIPTION:

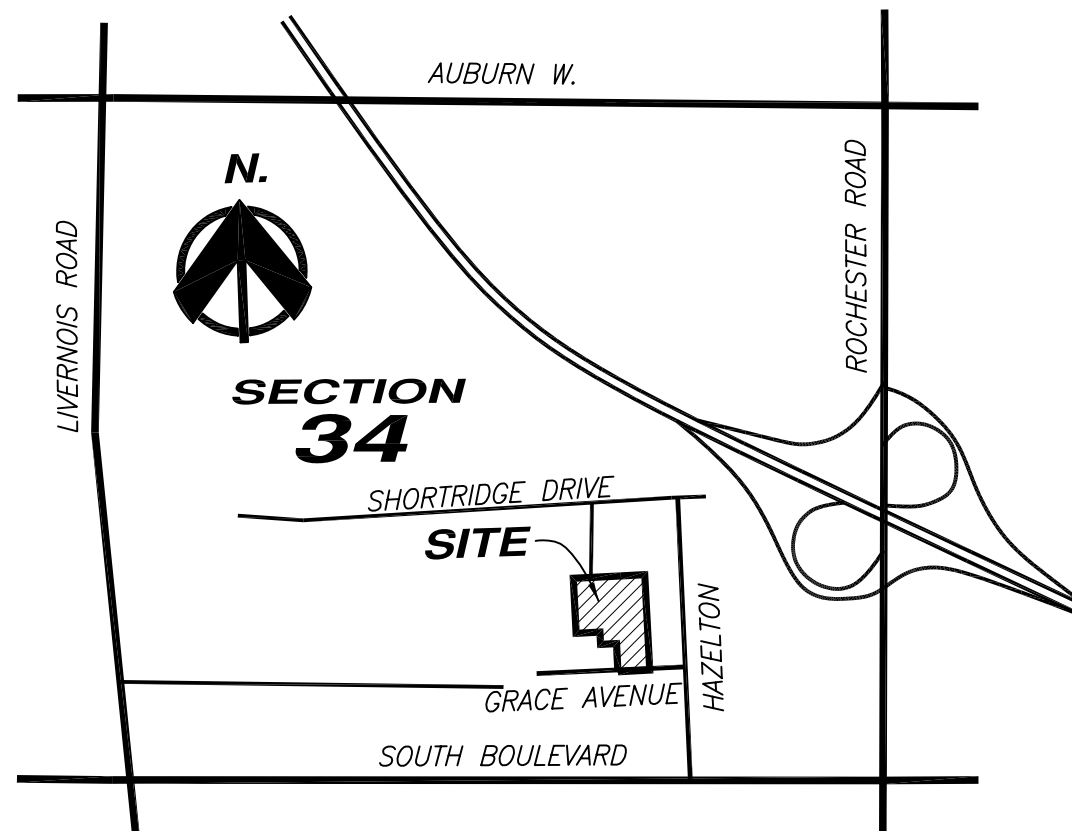
PART OF THE SOUTHWEST 1/4 OF SECTION 34, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 34; THENCE S.86°55'47"E., 991.01 FT. ALONG THE SOUTH LINE OF SAID SECTION 34 TO THE SOUTHWEST CORNER OF "MARTIN FARMS SUBDIVISION" AS RECORDED IN LIBER 19 OF PLATS, PAGE 23, OAKLAND COUNTY RECORDS; THENCE N.00°40'18"W., 826.04 FT. ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING; THENCE S.89°20'06"W., 220.23 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W., 219.25 FT.) ALONG THE CENTERLINE OF GRACE STREET, A 50 FT. WIDE PRIVATE ROAD; THENCE N.00°40'18"W., 195.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E.); THENCE S.89°20'06"W., 110.00 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W.); THENCE N.00°40'18"W., 85.00 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E.); THENCE S.89°20'06"W., 164.81 FT. (PREVIOUSLY DESCRIBED AS N.89°32'50"W., 164.63 FT.); THENCE N.00°40'18"W., 380.82 FT. (PREVIOUSLY DESCRIBED AS N.00°27'10"E., 381.50 FT.); THENCE N.89°20'14"E., 495.04 FT. (PREVIOUSLY DESCRIBED AS S.89°32'50"E.) ALONG THE SOUTH LINE OF "GUNTHER'S RUN SUBDIVISION" AS RECORDED IN LIBER 257 OF PLATS, PAGES 33 & 34, OAKLAND COUNTY RECORDS; TO A POINT ON THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION"; THENCE S.00°40'18"E., 660.80 FT. (PREVIOUSLY DESCRIBED AS S.00°27'10"E., 661.50 FT.) ALONG THE WEST LINE OF SAID "MARTIN FARMS SUBDIVISION" TO THE POINT OF BEGINNING, CONTAINING 5.958 ACRES.

SITE CRITERIA

- SIDWELL #: 15-34-402-035
- 15-34-402-057
- EXISTING ZONING: R-4, ONE-FAMILY RESIDENTIAL
- ADJACENT ZONINGS: R-4, ONE-FAMILY RESIDENTIAL
- TOTAL AREA OF SITE: 5.958 Ac.
- PROPOSED USE: SINGLE FAMILY RESIDENTIAL

BENCHMARKS

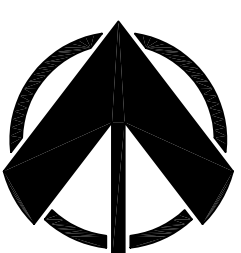
1. ARROW ON HYDRANT LOCATED 10 FEET EAST OF THE SOUTHWEST CORNER OF #390 GRACE STREET. ELEV: 751.23
2. ARROW ON HYDRANT AT THE END OF MCCOMB STREET ON THE EAST SIDE. ELEV: 758.18



LOCATION MAP

SCALE: 4" = 1 MILE

NORTH



SCALE: 1"=40'

TREE INVENTORY

TAG #	SIZE	SPECIES	ELEV.	REMOVE?
3235	12-13	BOXELDER	750.60	YES
3236	12	FRUIT	749.28	NO
3237	8.3-12	FRUIT	749.35	YES
3238	8.3-12	FRUIT	749.66	YES
3239	15.2-12	FRUIT	750.30	YES
3240	2-15.19	FRUIT	751.32	YES
3241	26	OAK	751.03	YES
3242	19	BOXELDER	750.65	YES
3243	15	BOXELDER	751.13	YES
3244	9	BOXELDER	750.99	YES
3245	13	BOXELDER	749.94	YES
3246	25	WALNUT	750.00	YES
3247	8.2-10.2-6	FRUIT	748.56	YES
3248	10.7	FRUIT	748.22	YES
3249	11	PINE	747.48	YES
3250	7 12	BOX ELDER	749.24	NO
3251	8	BOX ELDER	748.78	NO
3252	9	BOX ELDER	748.53	NO
3253	8	BOX ELDER	748.73	NO
3254	12	BOX ELDER	748.60	NO
3255	9	BOX ELDER	748.64	NO
3256	9 18	BOX ELDER	749.03	YES
3257	8	BOX ELDER	748.98	NO
3258	9	BOX ELDER	748.99	YES
3259	10	BOX ELDER	749.17	YES
3260	7	BOX ELDER	748.97	NO
3261	15	BOX ELDER	749.65	YES
3262	8	BOX ELDER	749.23	NO
3263	7	BOX ELDER	749.71	YES
3264	16	BOX ELDER	749.42	NO
3265	7	BOX ELDER	748.69	NO
3266	7	BOX ELDER	748.51	NO
3267	6 7	BOX ELDER	748.63	NO
3268	6	BOX ELDER	748.92	NO
3269	12	BOX ELDER	750.13	YES
3270	18	WALNUT	750.25	YES
3271	11	MAPLE	757.77	NO
3272	2-13	OAK	758.36	NO
3273	13	OAK	758.02	NO
3274	12	ASH	756.96	DISEASED
3275	9	ELM	757.19	YES
3276	9	ELM	756.21	YES
3277	10	POPLAR	755.80	YES
3278	9	BOX ELDER	754.73	YES
3279	8	BOX ELDER	754.72	YES
3280	12	BOX ELDER	754.44	YES
3281	12	BOX ELDER	754.58	YES
3282	13	BOX ELDER	756.41	YES
3283	9	BOX ELDER	755.88	YES

TREE SUMMARY:

TOTAL # OF TAGGED TREES:	48	TOTAL # OF TREES TO BE REMOVED:	-30
TOTAL # OF DISEASED ASH TREES:	-1	TOTAL # OF TREES TO BE SAVED:	18
TOTAL # OF TREES OFFSITE:	0	TOTAL # OF REGULATED TREES:	52
TOTAL # OF REGULATED TREES:	48	TOTAL # OF REGULATED TREES:	52
REQUIRED PERCENTAGE OF TREES TO BE SAVED:	37% (18 TREES)		
PROPOSED PERCENTAGE OF TREES TO BE SAVED:	18 TREES / 48 = 37%		

NOT TO BE USED AS CONSTRUCTION DRAWINGS

CONTRACTOR'S NOTE

The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities. The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (TOLL FREE) for the location of underground utilities

APPEX
ENGINEERING & LAND PLANNING CONSULTANTS
CIVIL ENGINEERING & LAND PLANNING CONSULTANTS
PHONE: 586-739-5200
FAX: 586-254-5314

CLIENT: FRANCIS G. MANGINI
PROJECT: "GRACE PARC" SUBDIVISION
47858 VAN DYKE AVE.
SHELBY TOWNSHIP, MI 48317
(586) 726-1501

JOB NO: 02-017
DATE: 11/14/18
DRAWN BY: W.M.M.
CHECKED BY: W.M.M.

REVISIONS:
22/03/05: REVISION PER CITY MEETING.
12/20/04: REVISION PER CITY REVIEW COMMENTS.
08/20/04: REVISION PER CITY REVIEW MEETING.

EXISTING TREE AND TREE REMOVAL PLAN

SHEET

4

MUNICIPAL REVIEW NUMBERS:
CITY FILE #04-011