

Owner / Developer

ROBERTSON BROTHERS CO.
6905 TELEGRAPH ROAD
SUITE 200
BLOOMFIELD HILLS, MI 48301
CONTACT:
MR. TIM LOUGHRIN
PH: 248-282-1428
FAX: 248-282-1423

Civil Engineer

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVENUE
PONTIAC, MI 48342
CONTACT:
MR. BRAD W. BRICKEL, P.E.
248-332-7931 PHONE
248-332-8257 FAX

Architect

ALEXANDER V. BOGAERS + ASSOCIATES, P.C.
2445 FRANKLIN ROAD
BLOOMFIELD HILLS, MI 48302
CONTACT:
248.334.5000 PHONE

Landscape Architect

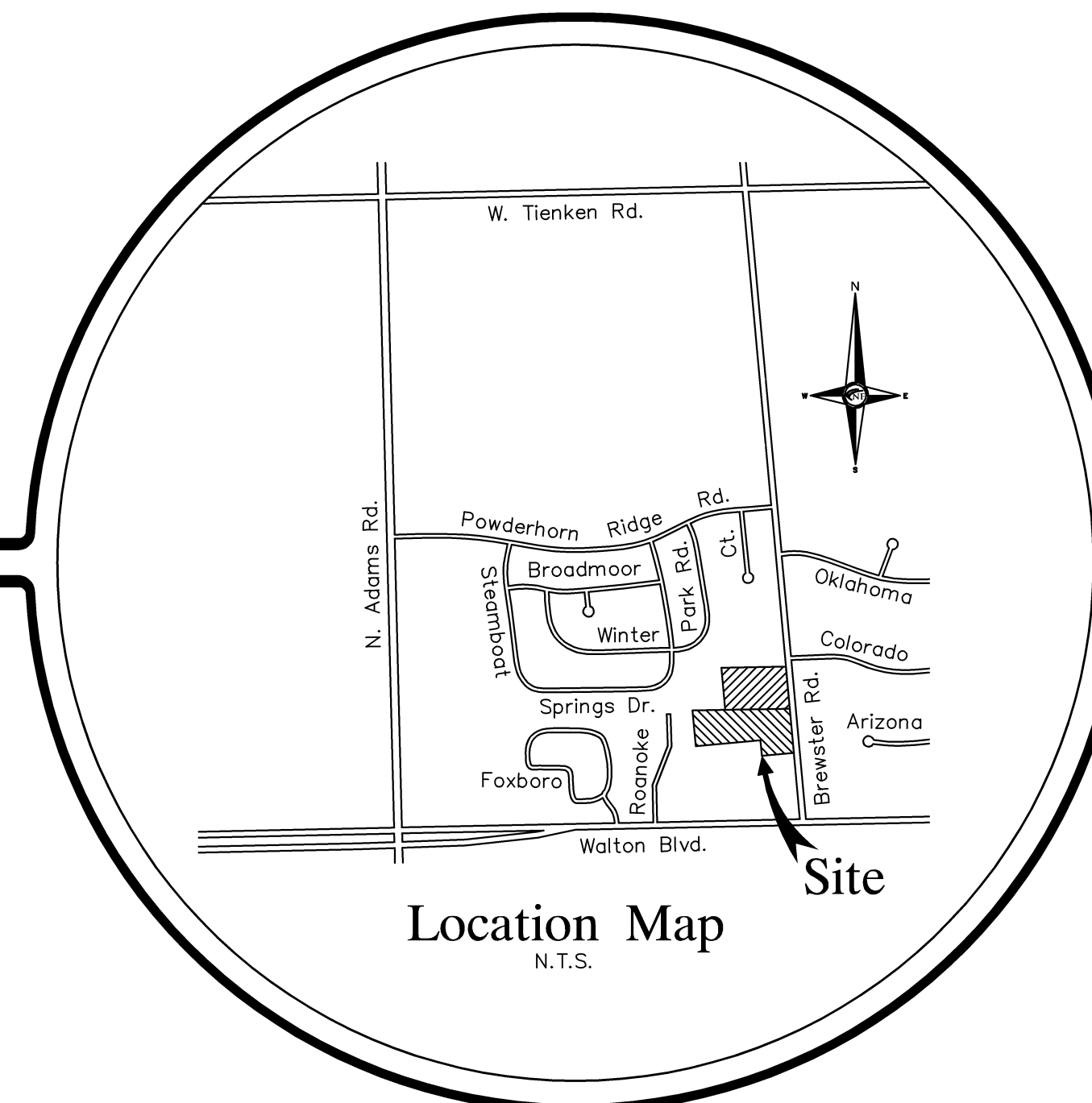
LAND DESIGN STUDIO
18161 W. THIRTEEN MILE RD., SUITE B-4
SOUTHFIELD, MI 48076
CONTACT:
MR. TAD KREAR
248.594.3220 PHONE
248.230.4168 FAX

City of Rochester Hills, Oakland County, Michigan FINAL SITE PLAN PACKAGE DOCUMENTS Single Family Residential Project Prepared For Robertson Brothers Co.

PART OF THE SW 1/4 OF SECTION 8
T.3N., R.11E., CITY OF ROCHESTER HILLS,
OAKLAND COUNTY, MICHIGAN

SHEET INDEX

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SP5	Utility Plan
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SP7	MDOT Details
SP8	Fire Access Plan
SP9	Soil Boring Location Plan
SP10	Soil Boring Log Plan
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LOCATION MAP

Project Name

Brewster Village

LEGAL DESCRIPTION - AS SURVEYED

PART OF THE SOUTHWEST 1/4 OF SECTION 8, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 8; THENCE SOUTH 89 DEGREES 57 MINUTES 18 SECONDS EAST, 11.55 FEET TO THE PROPERTY CONTROLLING CORNER; THENCE NORTH 04 DEGREES 03 MINUTES 10 SECONDS WEST ALONG THE PROPERTY CONTROLLING LINE BETWEEN THE SAID PROPERTY CONTROLLING CORNER AND THE CENTER POST OF SAID SECTION 8, 930.35 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 34 MINUTES 48 SECONDS WEST, 43.14 FEET TO A POINT ON THE WEST LINE OF BREWSTER ROAD (WIDTH VARIES); THENCE SOUTH 04 DEGREES 03 MINUTES 0 SECONDS EAST ALONG SAID WEST LINE OF BREWSTER ROAD, ALSO BEING 43 FEET WEST OF AND PARALLEL TO SAID PROPERTY CONTROLLING LINE, 313.47 FEET; THENCE SOUTH 85 DEGREES 56 MINUTES 50 SECONDS WEST, 228.50 FEET; THENCE NORTH 04 DEGREES 03 MINUTES 10 SECONDS WEST, 110.00 FEET; THENCE SOUTH 85 DEGREES 56 MINUTES 50 SECONDS WEST, 467.95 FEET; THENCE NORTH 03 DEGREES 47 MINUTES 21 SECONDS WEST, 257.86 FEET TO A POINT ON THE SOUTH LINE OF SHADOW WOODS SUBDIVISION No. 1, AS RECORDED IN LIBER 160 OF PLATS, ON PAGES 30 THROUGH 35, OAKLAND COUNTY RECORDS; THENCE THE FOLLOWING THREE (3) COURSES ALONG THE SOUTH AND EAST LINES OF SAID SHADOW WOODS SUBDIVISION No. 1: 1) SOUTH 89 DEGREES 34 MINUTES 48 SECONDS EAST, 240.52 FEET, 2) NORTH 04 DEGREES 03 MINUTES 10 SECONDS WEST, 300.91 FEET AND 3) SOUTH 89 DEGREES 34 MINUTES 48 SECONDS EAST, 500.00 FEET TO A POINT ON SAID PROPERTY CONTROLLING LINE; THENCE SOUTH 04 DEGREES 03 MINUTES 10 SECONDS EAST ALONG SAID PROPERTY CONTROLLING LINE, 300.91 FEET TO THE POINT OF BEGINNING.

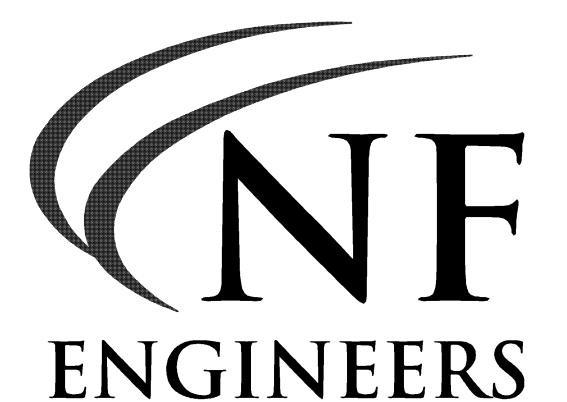
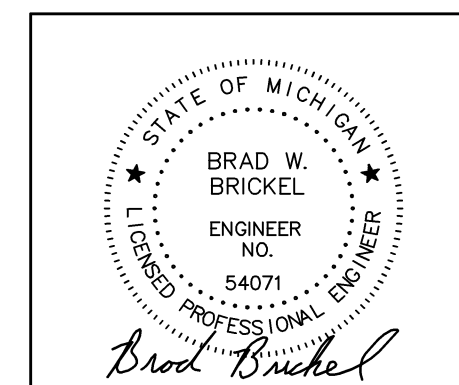
OVERALL (GROSS): 335,657.20 SQ. FT. OR 7.705 ACRES
OVERALL (NET): 312,263.93 SQ. FT. OR 7.168 ACRES

TAX ID NUMBERS:
15-08-376-015 (PARCEL 1)
15-08-331-041 (PARCEL 2)

REVISIONS:	
08-02-18	ISSUED FOR SITE PLAN REVIEW
10-12-18	ISSUED FOR SITE PLAN REVIEW
11-13-18	REVISED PER CITY REVIEW
01-23-19	REVISED PER CITY REVIEW

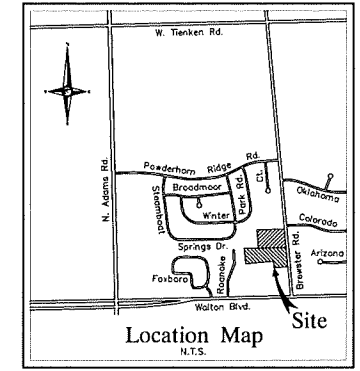
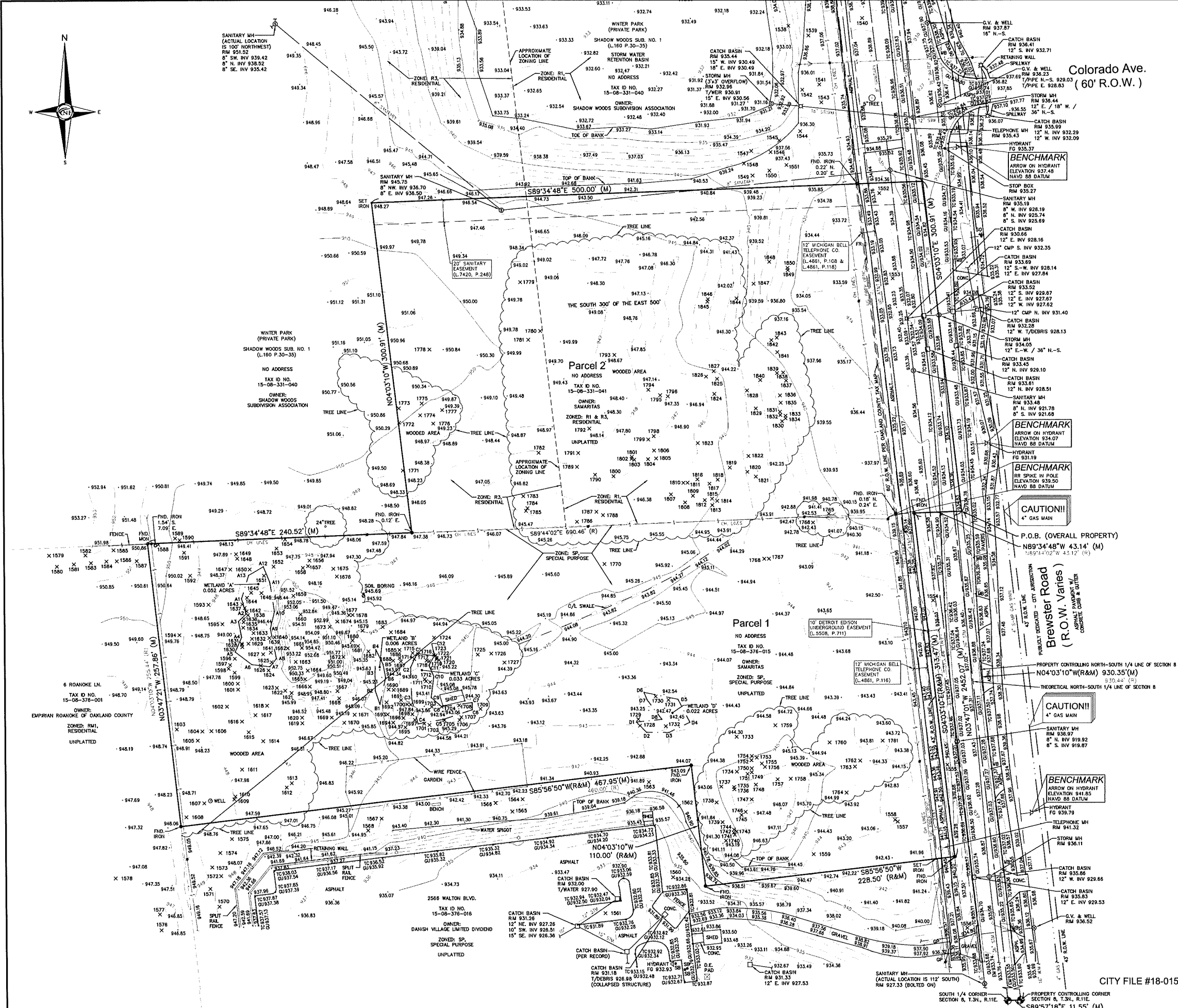
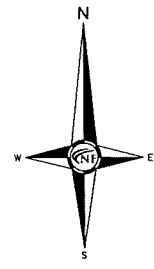


CITY FILE #18-015
N & F JOB #K342



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257



Colorado Ave.
(60' R.O.W.)

NF ENGINEERS

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46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

SEAL

PROJECT
Vacant Parcels -
Brewster Road
(N. of Walton Blvd.)
Rochester Hills, MI 48309

CLIENT
Robertson Brothers Homes
6905 Telegraph Road,
Suite 200
Bloomfield Hills, MI 48301

Contact: Tim Loughrin
248.282.1428 - Phone
248.282.1432 - Fax

PROJECT LOCATION
Part of the SW 1/4
of Section 8
T.3N., R.11E.,
City of Rochester Hills,
Oakland County, Michigan

SHEET
ALTA/NSPS Land Title /
Topographic / Tree /
Wetland Survey



Know what's below
Call before you dig.

DATE	ISSUED/REVISED
3-30-18	SURVEY ISSUED
4-4-18	REVISED PER CLIENT
8-2-18	ISSUED FOR SITE PLAN REVIEW
10-12-18	ISSUED FOR SITE PLAN REVIEW
11-13-18	REVISED PER CITY REVIEW
01-23-19	REVISED PER CITY REVIEW

DRAWN BY:
M. Carnaghi
DESIGNED BY:

APPROVED BY:
K. Navaroli
DATE:
March 30, 2018

SCALE: 1" = 40'
40 20 0 20 40 60
NFE JOB NO. SHEET NO.
K342 SP1

MANHOLE(MH)	EXISTING SANITARY SEWER
HYDRANT	EXISTING SAN. CLEAN OUT
GATE VALVE	EXISTING WATER MAIN
MANHOLE CATCH BASIN(CB)	EXISTING STORM SEWER
X	EX. R.Y. CATCH BASIN
UP	EX. UNDERGROUND (UG) CABLE
IP	OVERHEAD (OH) LINES
IP	LIGHT POLE
IP	SIGN
IP	EXISTING GAS MAIN
ASPH	ASPHALT
CONC	CONCRETE
FD. / FND.	FOUND
RET. WALL	RETAINING WALL
R.O.W.	RIGHT-OF-WAY
SB	STOP BOX
(TYP)	TYPICAL
(R)	RECORD
(M)	MEASURED
C/L	CENTERLINE
GW	GAS METER
P/L	PROPERTY LINE
EM	ELECTRIC METER
FR	FIBER OPTIC RISER
CP	GUARD POST
MB	MAIL BOX
CR	CABLE RISER
ER	ELECTRIC RISER
X 1500	TREE TAG NUMBER
A1 / B1 / C1 / D1	WETLAND TAG NUMBER

CITY FILE #18-015



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
4677 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

JONATHAN NEUENDORFF
Registered Forester
State of Michigan ID #3301046108

PROJECT
Vacant Parcels -
Brewster Road
(N. of Walton Blvd.)
Rochester Hills, MI 48309

CLIENT
Robertson Brothers Homes
6905 Telegraph Road,
Suite 200
Bloomfield Hills, MI 48301

Contact: Tim Loughrin
248.282.1428 - Phone
248.282.1432 - Fax

PROJECT LOCATION
Part of the SW 1/4
of Section 8
T.3N., R.11E.,
City of Rochester Hills,
Oakland County, Michigan

SHEET
Tree List / Survey Notes



Know what's below
Call before you dig.

Table with 2 columns: DATE, ISSUED/REVISED. Rows include 3-30-18 SURVEY ISSUED, 4-4-18 REVISED PER CLIENT, 8-2-18 ISSUED FOR SITE PLAN REVIEW, 10-12-18 ISSUED FOR SITE PLAN REVIEW, 11-13-18 REVISED PER CITY REVIEW, 01-23-19 REVISED PER CITY REVIEW.

CERTIFICATE OF SURVEY
ROBERTSON BROTHERS CO., A MICHIGAN CORPORATION, ON BEHALF OF AN ENTITY TO BE FORMED - SAMARITAS A MICHIGAN NON-PROFIT CORPORATION, FORMERLY KNOWN AS LUTHERAN SOCIAL SERVICES OF MICHIGAN, A MICHIGAN NON-PROFIT CORPORATION - FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDE ITEMS 1, 2, 3, 4, 6(a), 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17, 18 AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 23, 2018.

DRAWN BY:
M. Carnaghi
DESIGNED BY:
K. Navaroli

APPROVED BY:
K. Navaroli
DATE:
March 30, 2018
SCALE: N.T.S.

NFE JOB NO. SHEET NO.
CITY FILE #18-015 K342 SP2

Tree Inventory List table with columns: Job Number, Job Location, Botanical Name, Common Name, Dia., Type, Other Dia., Condition, Comments. Lists various tree species like Populus deltoides, Acer rubrum, etc.

Table with columns: Tree #, Botanical Name, Common Name, Dia., Type, Other Dia., Condition, Comments. Continuation of tree inventory list.

Table with columns: Tree #, Botanical Name, Common Name, Dia., Type, Other Dia., Condition, Comments. Continuation of tree inventory list.

LEGAL DESCRIPTION - PER TITLE COMMITMENT
LAND SITUATED IN THE COUNTY OF OAKLAND, CITY OF ROCHESTER HILLS, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:
PARCEL 1:
PART TO THE SOUTHWEST 1/4 OF SECTION 8, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 8, BEING THE CENTER POINT OF SAID SECTION 8, 830.35 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 34 MINUTES 42 SECONDS WEST, 43.14 FEET TO A POINT ON THE WEST LINE OF BREWSTER ROAD (WIDTH Varies); THENCE SOUTH 04 DEGREES 03 MINUTES 50 SECONDS EAST ALONG SAID WEST LINE OF BREWSTER ROAD, ALSO BEING 43 FEET WEST OF AND PARALLEL TO SAID PROPERTY CONTROLLING LINE, 313.47 FEET; THENCE SOUTH 12 DEGREES 16 MINUTES 50 SECONDS WEST, 228.50 FEET; THENCE NORTH 04 DEGREES 03 MINUTES 10 SECONDS WEST, 110.00 FEET; THENCE SOUTH 85 DEGREES 56 MINUTES 50 SECONDS WEST, 460.00 FEET; THENCE NORTH 03 DEGREES 03 MINUTES 10 SECONDS WEST, 255.44 FEET; THENCE SOUTH 85 DEGREES 56 MINUTES 50 SECONDS WEST, 690.46 FT. TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION - AS SURVEYED
PART OF THE SOUTHWEST 1/4 OF SECTION 8, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 8; THENCE SOUTH 89 DEGREES 34 MINUTES 42 SECONDS EAST, 11.55 FEET TO THE PROPERTY CONTROLLING CORNER; THENCE NORTH 04 DEGREES 03 MINUTES 10 SECONDS WEST ALONG THE PROPERTY CONTROLLING LINE BETWEEN SAID PROPERTY CONTROLLING LINE AND THE CENTER POINT OF SAID SECTION 8, 830.35 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 34 MINUTES 42 SECONDS WEST, 43.14 FEET TO A POINT ON THE WEST LINE OF BREWSTER ROAD (WIDTH Varies); THENCE SOUTH 04 DEGREES 03 MINUTES 10 SECONDS EAST ALONG SAID WEST LINE OF BREWSTER ROAD, ALSO BEING 43 FEET WEST OF AND PARALLEL TO SAID PROPERTY CONTROLLING LINE, 313.47 FEET; THENCE SOUTH 12 DEGREES 16 MINUTES 50 SECONDS WEST, 228.50 FEET; THENCE NORTH 04 DEGREES 03 MINUTES 10 SECONDS WEST, 110.00 FEET; THENCE SOUTH 85 DEGREES 56 MINUTES 50 SECONDS WEST, 460.00 FEET; THENCE NORTH 03 DEGREES 03 MINUTES 10 SECONDS WEST, 255.44 FEET; THENCE SOUTH 85 DEGREES 56 MINUTES 50 SECONDS WEST, 690.46 FT. TO THE POINT OF BEGINNING.

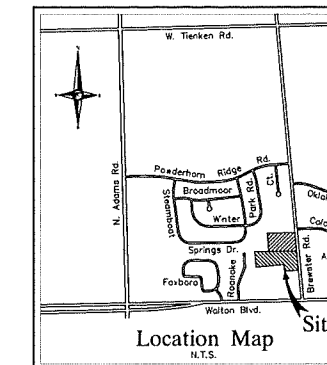
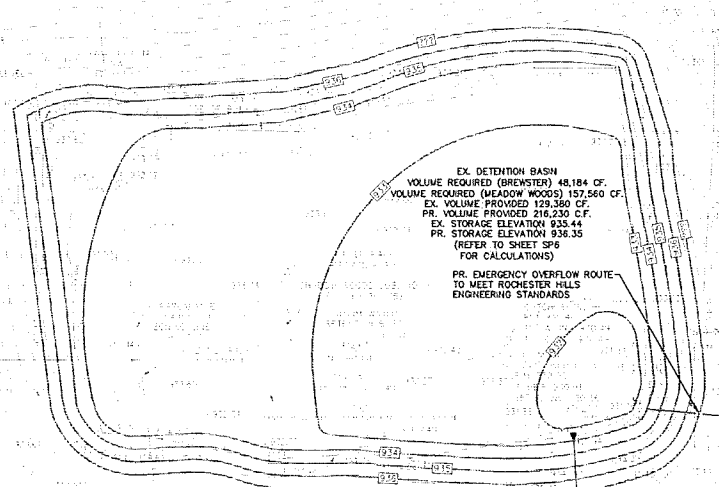
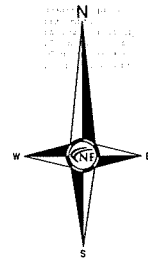
TITLE REPORT NOTES
REFERENCE FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NUMBER: 804189, EFFECTIVE DATE: JANUARY 22, 2018, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
SCHEDULE B & EXCEPTIONS:
EXCEPTIONS: 1, 2, 3, 4, 5, 12, 13, 14, 15 AND 16 REFER TO THE OWNERSHIP OF THE PROPERTY AND/OR ARE NOT PLOTTABLE.
6. TERMS AND CONDITIONS CONTAINED IN RESTRICTIONS AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 4008, PAGE 52, WHICH IS REFERRED TO AGREEMENT TO RELEASE RESTRICTIONS AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 6556, PAGE 466, AS TO PARCEL 2. (NOT PLOTTABLE)
7. RIGHT OF WAY IN FAVOR OF MICHIGAN BELL TELEPHONE COMPANY AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 4661, PAGE 118, AS TO PARCEL 2. (AS PLOTTED HEREON)
8. RIGHT OF WAY IN FAVOR OF MICHIGAN BELL TELEPHONE COMPANY AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 4661, PAGE 118, AS TO PARCEL 1. (AS PLOTTED HEREON)
9. SANITARY SEWER EASEMENT IN FAVOR OF THE TOWNSHIP OF AVON AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 7420, PAGE 248, AS TO PARCEL 2. (AS PLOTTED HEREON)
10. EASEMENT IN FAVOR OF THE COUNTY OF OAKLAND AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 5508, PAGE 711, AS TO PARCEL 1. (AS PLOTTED HEREON)
11. UNDERGROUND EASEMENT (RIGHT OF WAY) IN FAVOR OF THE DETROIT EDISON COMPANY AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 17163, PAGE 142, AS TO PARCEL 1. (SAID EASEMENT NOT ON OR ADJACENT TO SUBJECT PROPERTY, NOT PLOTTED)

SURVEY DATA
SITE AREA:
PARCEL 1: 185,660.41 SQ. FT. OR 4.282 ACRES
PARCEL 2: 149,996.79 SQ. FT. OR 3.443 ACRES
OVERALL (GROSS): 335,657.20 SQ. FT. OR 7.705 ACRES
OVERALL (NET): TO 43' R.O.W. LINE: 322,716.50 SQ. FT. OR 7.408 ACRES
OVERALL (NET): TO FUTURE 60' R.O.W. LINE: 312,263.93 SQ. FT. OR 7.168 ACRES
ZONING:
PARCEL 1: SP - SPECIAL PURPOSE DISTRICT
PARCEL 2: R1 & R3, RESIDENTIAL DISTRICT
PARKING SPACES:
PARCEL 1: NONE (VACANT SITE)
PARCEL 2: NONE (VACANT SITE)
NOTE: A ZONING REPORT OR LETTER HAS NOT BEEN FURNISHED BY THE CLIENT TO THE SURVEYOR. THEREFORE NO ADDITIONAL ZONING INFORMATION CAN BE SHOWN.

ALTA SURVEY NOTES
THERE IS NO VISIBLE EVIDENCE OF CURBED EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADJUSTMENTS, EXCEPT AS NOTED.
THERE IS NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES AND THERE IS NO EVIDENCE OF RECORDING FROM SIDEWALK CONSTRUCTION OR REPAIR, EXCEPT AS NOTED.
THERE IS VISIBLE NO EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SNIP OR SANITARY LANDFILL.
THERE IS VISIBLE EVIDENCE OF WETLAND AREAS, AS SHOWN HEREON.
CERTIFIED TO:
ROBERTSON BROTHERS CO., A MICHIGAN CORPORATION, ON BEHALF OF AN ENTITY TO BE FORMED - SAMARITAS A MICHIGAN NON-PROFIT CORPORATION, FORMERLY KNOWN AS LUTHERAN SOCIAL SERVICES OF MICHIGAN, A MICHIGAN NON-PROFIT CORPORATION - FIRST AMERICAN TITLE INSURANCE COMPANY
THE SUBJECT PROPERTY HAS ACCESS TO BREWSTER ROAD, BEING A PUBLICLY DEDICATED ROAD.

MISS DIG / UTILITY DISCLAIMER NOTE
A MISS DIG TICKET NUMBER B90750888, PURSUANT TO MICHIGAN PUBLIC ACT 174 WAS OBTAINED FOR THE SURVEYED PROPERTY. DUE TO THE EXTENDED REPORTING PERIOD FOR UNDERGROUND FACILITY OWNERS TO PROVIDE THEIR RECORDS, THE SURVEY MAY NOT REFLECT ALL THE UTILITIES AT THE TIME THE SURVEY WAS ISSUED ON MARCH 30, 2018. THE SURVEY ONLY REFLECTS THOSE UTILITIES WHICH COULD BE OBSERVED BY THE SURVEYOR. THE FIELD WORK AS DEPICTED BY THE UTILITY COMPANIES FURNISH PRIOR TO THE DATE THIS SURVEY WAS ISSUED. THE CLIENT AND/OR THEIR AUTHORIZED AGENT SHALL VERIFY WITH THE FACILITY OWNER AND/OR THEIR AUTHORIZED AGENTS, THE COMPLETENESS AND EXACTNESS OF THE UTILITIES LOCATION.

TOPOGRAPHIC SURVEY NOTES
ALL ELEVATIONS ARE EXISTING ELEVATIONS, UNLESS OTHERWISE NOTED.
UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.
CERTIFICATE OF SURVEY
ROBERTSON BROTHERS CO., A MICHIGAN CORPORATION, ON BEHALF OF AN ENTITY TO BE FORMED - SAMARITAS A MICHIGAN NON-PROFIT CORPORATION, FORMERLY KNOWN AS LUTHERAN SOCIAL SERVICES OF MICHIGAN, A MICHIGAN NON-PROFIT CORPORATION - FIRST AMERICAN TITLE INSURANCE COMPANY
THIS IS TO CERTIFY THAT THIS MAP OR PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDE ITEMS 1, 2, 3, 4, 6(a), 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17, 18 AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 23, 2018.
DRAWN BY:
M. Carnaghi
DESIGNED BY:
K. Navaroli
DATE:
March 30, 2018
SCALE: N.T.S.

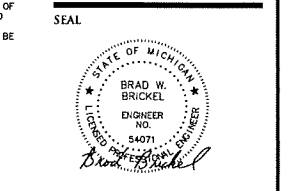


NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUD ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

Colorado Ave.
(60' R.O.W.)

EXISTING DETENTION NOTE
THE EXISTING DETENTION POND SHALL BE EXCAVATED TO REMOVE ALL CATAILS/FRAGITE. THE BOTTOM OF THE DETENTION POND SHALL BE EXCAVATED TO AN ELEVATION THAT MATCHES THE AS-BUILT ELEVATION OF THE POND WHICH FIRST CONSTRUCTED AS PROVIDED BY THE CITY OF ROCHESTER HILLS. THE BOTTOM OF THE POND WOULD BE RE-GRADED TO ALLOW POSITIVE DRAINAGE TO THE EXISTING OUTLET STORM PIPE. THE EXISTING STORM PIPE ENTERING AND EXISTING THE POND SHALL BE CLEANED AND DEBRIS REMOVED.



PROJECT
Vacant Parcels -
Brewster Road
(N. of Walton Blvd.)
Rochester Hills, MI 48309

CLIENT
Robertson Brothers Homes
6905 Telegraph Road,
Suite 200
Bloomfield Hills, MI 48301

Contact: Tim Loughrin
248.282.1428 - Phone
248.282.1432 - Fax

PROJECT LOCATION
Part of the SW 1/4
of Section 8
T.3N., R.11E.,
City of Rochester Hills,
Oakland County, Michigan

SHEET
General Site Plan

Schedule of Regulations and Modifications Compared to R-1 and R-3
Brewster Village

	R1 / R3	Proposed Development	Deviations From R3
Max. Density	1.7 du/ac / 2.8 du/ac	4.1 du/ac	1.3 du/ac
Min. Lot Area	20,000 sf / 12,000 sf	N/A	N/A
Min Lot Width	100' / 90'	N/A	N/A
Min. Building Frontsetback	40' / 30'	20' to back of curb	10'
Side Min. Principal	15' / 10'	20' Between Units In Compliance	
Side Total Principal	30' / 20'	20' Between Units In Compliance	
Rear Setback Principal	35'	15'	
Principal Building Height to Midpoint 2.5 stories/30 feet	1.5 stories/30 feet In Compliance		

SITE DATA

SITE AREA
GROSS: 335,657.00 SFT. OR 7.705 ACRES
NET: 312,263.92 SFT. OR 7.168 ACRES

ZONING
EXISTING: R-1 & R-3 (ONE FAMILY RESIDENTIAL), SP SPECIAL PURPOSE

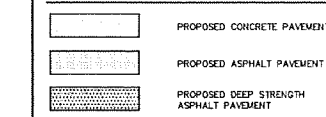
PARKING
REQUIRED: 2 SPACES PER UNIT - 30 UNITS - 60 SPACES
PROVIDED: 2 SPACES PER UNIT - 30 UNITS - 60 SPACES

SITE AREA
BUILDING FOOTPRINT: 312,263.92 SFT. 100.0%

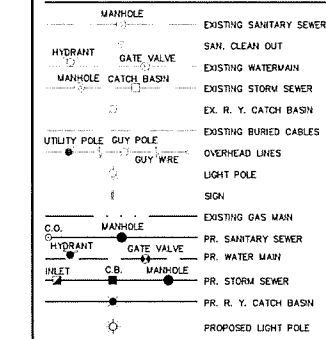
PARKING & DRIVES
71,790.00 SFT. 23.0%

OPEN SPACE
173,700.22 SFT. 55.8%

PAVING LEGEND



LEGEND



DATE ISSUED/REVISED
3-30-18 SURVEY ISSUED
4-4-18 REVISED PER CLIENT
8-2-18 ISSUED FOR SITE PLAN REVIEW
10-12-18 ISSUED FOR SITE PLAN REVIEW
11-13-18 REVISED PER CITY REVIEW
01-23-19 REVISED PER CITY REVIEW

DRAWN BY:
J. Lawrey

DESIGNED BY:
B. Brickel

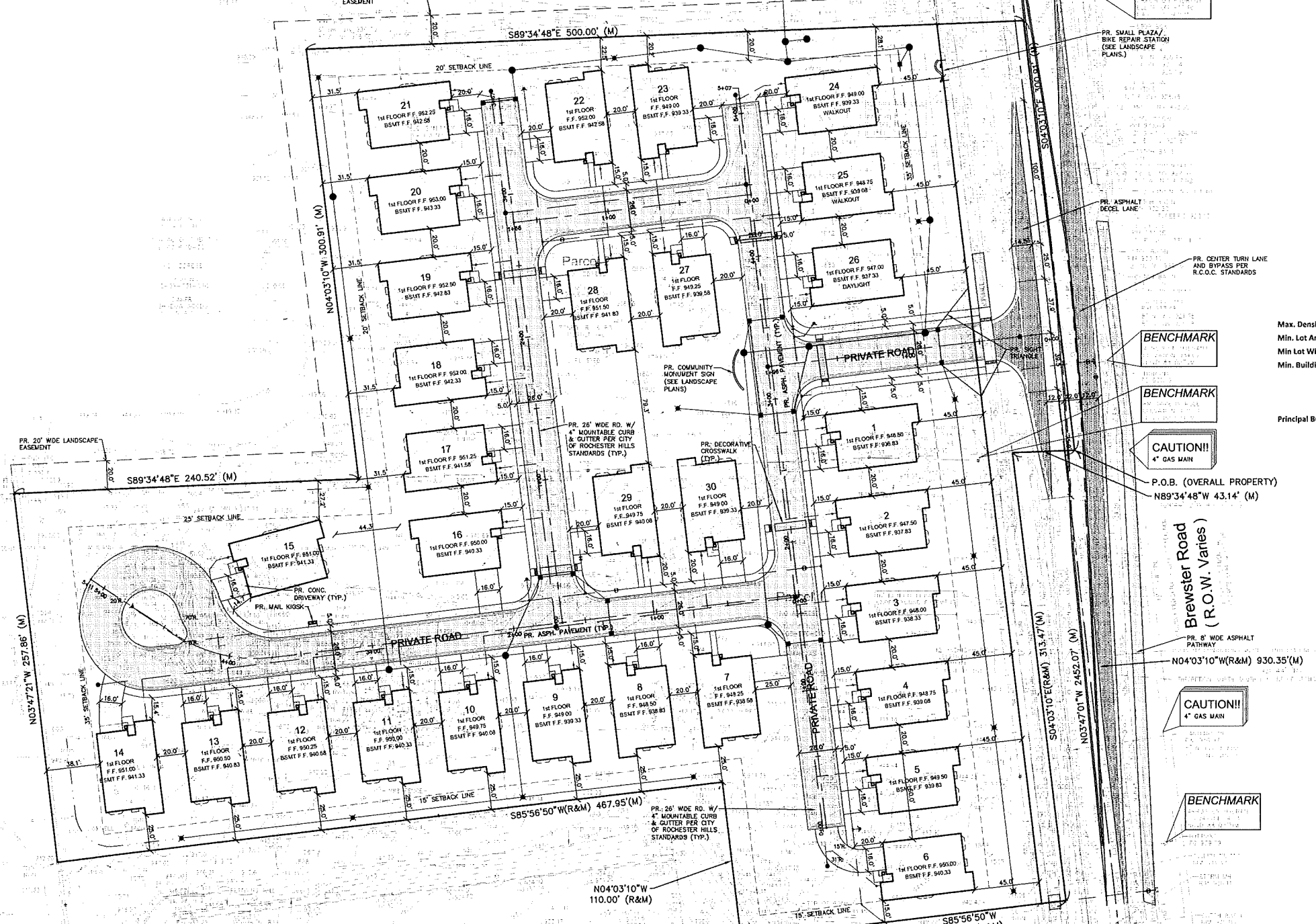
APPROVED BY:
B. Brickel

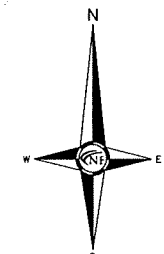
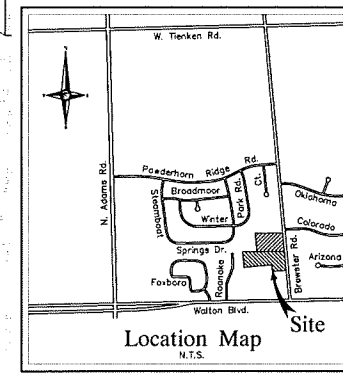
DATE:
March 30, 2018

SCALE: 1" = 40'
40 20 0 20 40 60

NFE JOB NO. SHEET NO.
K342 SP3

CITY FILE #18-015





SEAL



PROJECT
 Vacant Parcels -
 Brewster Road
 (N. of Walton Blvd.)
 Rochester Hills, MI 48309

CLIENT
 Robertson Brothers Homes
 6905 Telegraph Road,
 Suite 200
 Bloomfield Hills, MI 48301

Contact: Tim Loughrin
 248.282.1428 - Phone
 248.282.1432 - Fax

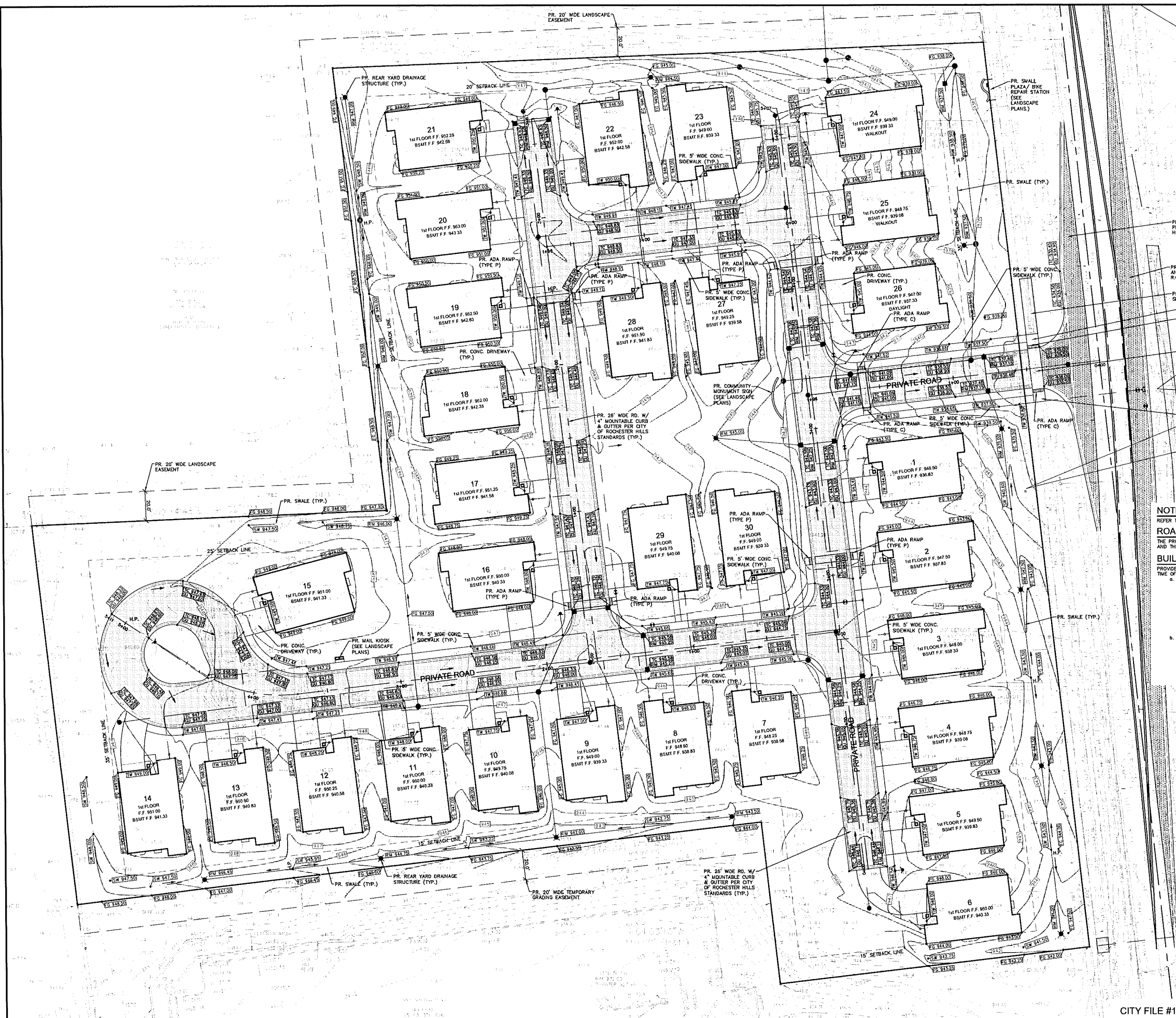
PROJECT LOCATION
 Part of the SW 1/4
 of Section 8
 T.3N., R.11E.,
 City of Rochester Hills,
 Oakland County, Michigan

SHEET
 Paving & Grading Plan



DATE	ISSUED/REVISED
3-30-18	SURVEY ISSUED
4-4-18	REVISED PER CLIENT
8-2-18	ISSUED FOR SITE PLAN REVIEW
10-12-18	ISSUED FOR SITE PLAN REVIEW
11-13-18	REVISED PER CITY REVIEW
01-23-19	REVISED PER CITY REVIEW

DRAWN BY:
 J. Lawrey
 DESIGNED BY:
 B. Brickel
 APPROVED BY:
 B. Brickel
 DATE:
 March 30, 2018
 SCALE: 1" = 30'
 CITY FILE #18-015
 NFE JOB NO. **K342** SHEET NO. **SP4**



- PR. ASPHALT DECEL LANE PER CITY OF ROCHESTER HILLS STANDARDS
- PR. CENTER TURN LANE AND BYPASS PER R.C.O.C. STANDARDS
- PR. ASPHALT SIDEWALK
- PR. 5" CONC. SIDEWALK
- PR. ADA RAMP (TYPE C)
- PR. 8" CONC. SIDEWALK ON 4" AGGREGATE
- BENCHMARK
- PR. 6" CONC. SIDEWALK
- BENCHMARK
- CAUTION!!
4" GAS MAIN

NOTE
 REFER TO SHEET SP6 FOR ADDITIONAL NOTES & DETAILS.

ROADWAY NOTE
 THE PROPOSED ROADS ARE NOT BEING CONSTRUCTED TO CITY PUBLIC ROAD STANDARDS, AND THEREFORE, CANNOT BE CONVEYED TO THE CITY AS PUBLIC ROADS IN THE FUTURE.

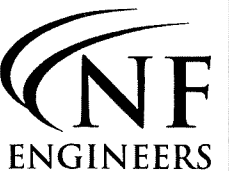
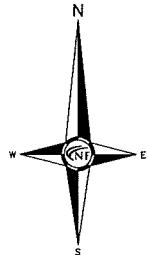
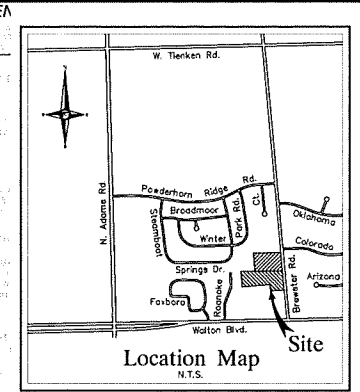
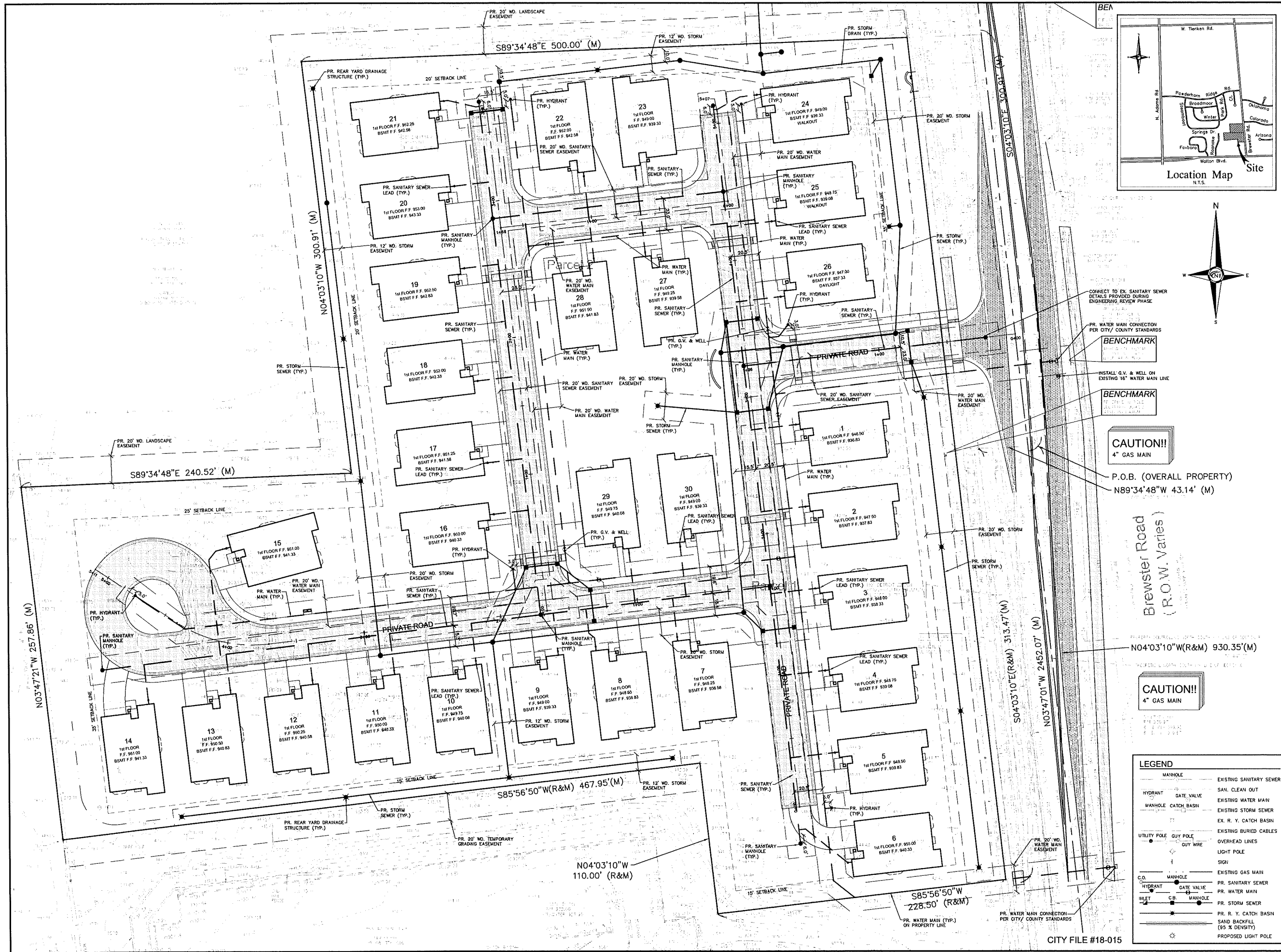
BUILDING NOTES
 PROVIDE INDIVIDUAL RESIDENCE PLOT PLANS FOR CODE COMPLIANT SITE DRAINAGE AT THE TIME OF LOTS SHALL BE GRADED TO FALL AWAY FROM FOUNDATION WALLS A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET.
 EXCEPTION: WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PREVENT 6 INCHES (152 MM) OF FALL WITHIN 10 FEET (3048 MM), THE FINAL GRADE SHALL SLOPE AWAY FROM THE FOUNDATION AT A MINIMUM SLOPE OF 5 PERCENT AND THE WATER SHALL BE DIRECTED TO DRAINS OR SWALES TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE. SWALES SHALL BE SLOPED A MINIMUM OF 2 PERCENT WHEN LOCATED WITHIN 10 FEET (3048 MM) OF THE BUILDING FOUNDATION. SUPERVIOUS SURFACES WITHIN 10 FEET (3048 MM) OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2 PERCENT AWAY FROM THE BUILDING. SECTION R-401.3
 DRIVEWAY SLOPES SHALL MEET THE FOLLOWING REQUIREMENTS:
 I. APPROACH AND DRIVEWAY: 2% MINIMUM - 10% MAXIMUM.
 SIDE-ENTRY GARAGE: 2% MINIMUM, 4% MAXIMUM.
 II. SIDEWALK CROSS-SLOPE (INCLUDING PORTION IN THE DRIVEWAY APPROACH): 1% MINIMUM, 2% MAXIMUM IS ALLOWED BUT A DESIGN SLOPE 1.5% WILL ALLOW FOR CONSTRUCTION INACCURACIES.

PAVING LEGEND

[Pattern]	PROPOSED CONCRETE PAVEMENT
[Pattern]	PROPOSED ASPHALT PAVEMENT
[Pattern]	PROPOSED DEEP STRENGTH ASPHALT PAVEMENT

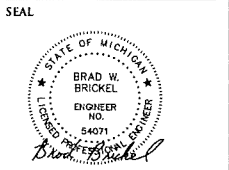
LEGEND

[Symbol]	EXISTING SANITARY SEWER
[Symbol]	SAN. CLEAN OUT
[Symbol]	EXISTING WATERMAIN
[Symbol]	EXISTING STORM SEWER
[Symbol]	EX. R. Y. CATCH BASIN
[Symbol]	EXISTING BURIED CABLES
[Symbol]	OVERHEAD LINES
[Symbol]	LIGHT POLE
[Symbol]	SIGN
[Symbol]	EXISTING GAS MAIN
[Symbol]	PR. SANITARY SEWER
[Symbol]	PR. WATER MAIN
[Symbol]	PR. STORM SEWER
[Symbol]	PR. R. Y. CATCH BASIN
[Symbol]	PROPOSED LIGHT POLE
[Symbol]	PR. TOP OF CURB ELEVATION
[Symbol]	PR. GUTTER ELEVATION
[Symbol]	PR. TOP OF WALK ELEVATION
[Symbol]	PR. TOP OF PAVT. ELEVATION
[Symbol]	FRESH GRADE ELEVATION



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257



PROJECT
Vacant Parcels -
Brewster Road
(N. of Walton Blvd.)
Rochester Hills, MI 48309

CLIENT
Robertson Brothers Homes
6905 Telegraph Road,
Suite 200
Bloomfield Hills, MI 48301

Contact: Tim Loughrin
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PROJECT LOCATION
Part of the SW 1/4
of Section 8
T.3N., R.11E.,
City of Rochester Hills,
Oakland County, Michigan

SHEET
Utility Plan



Know what's below
Call before you dig.

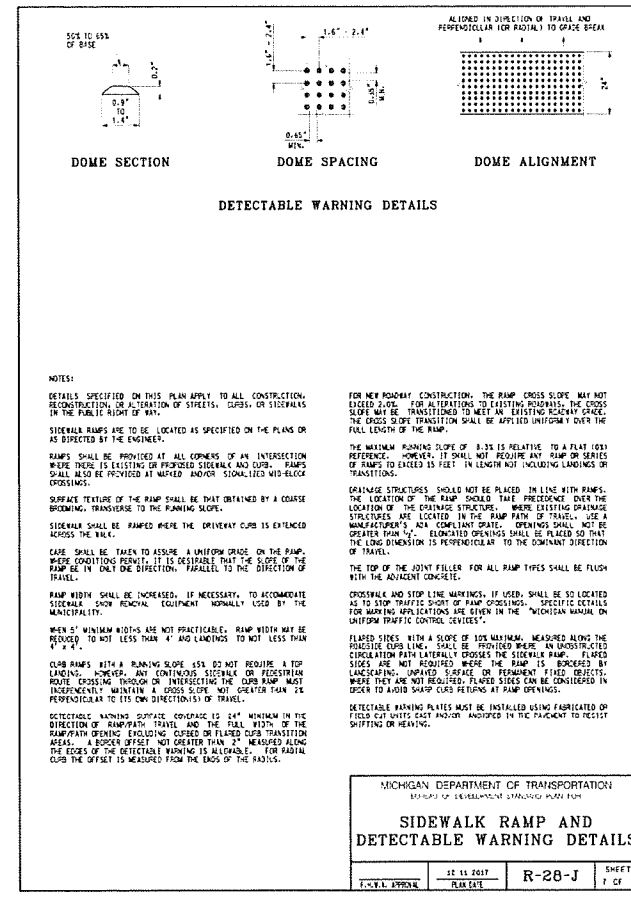
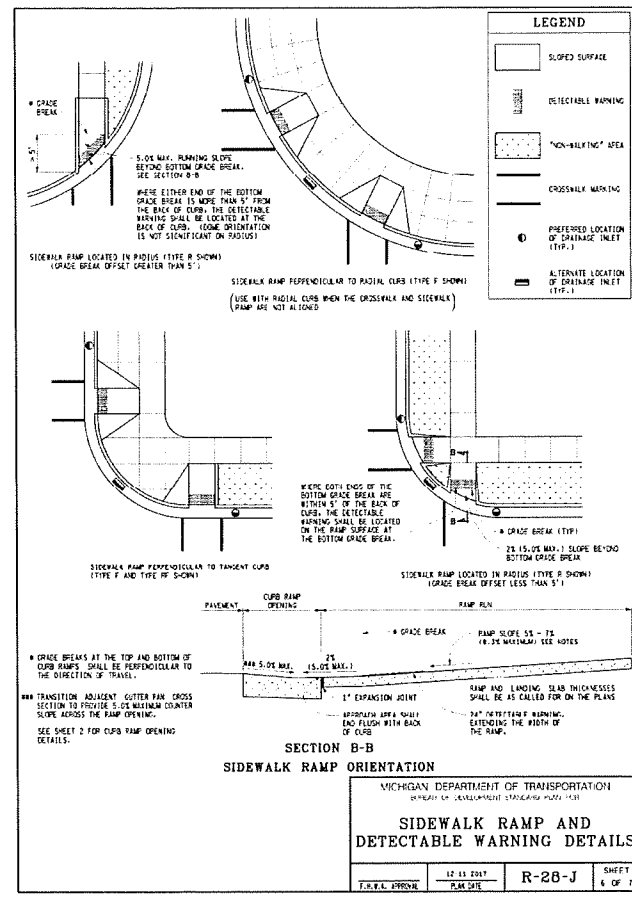
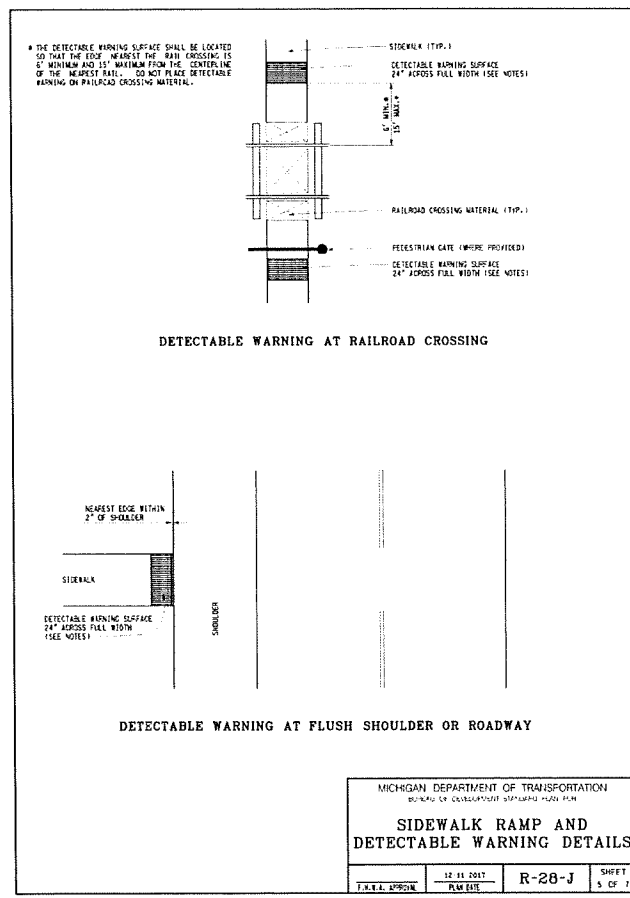
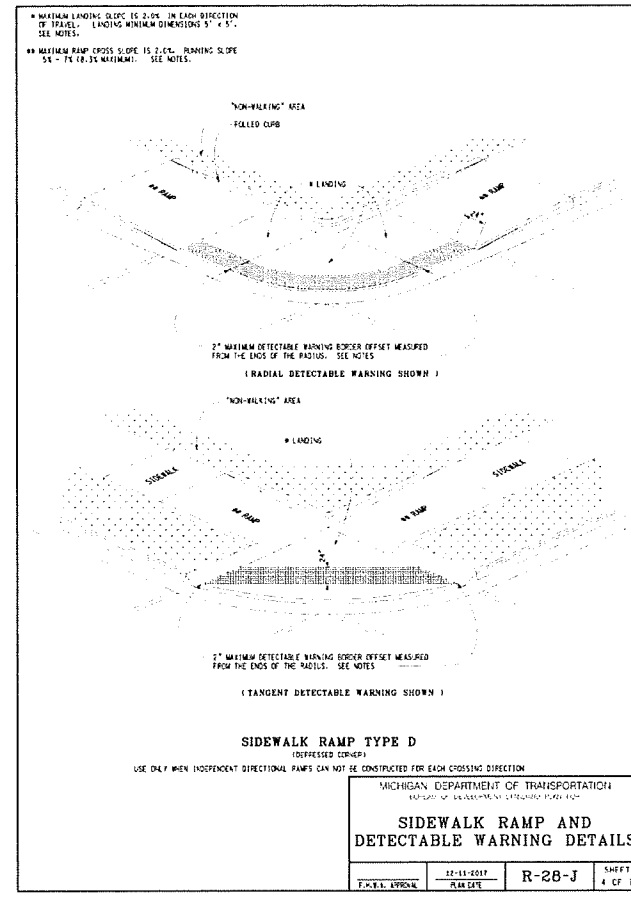
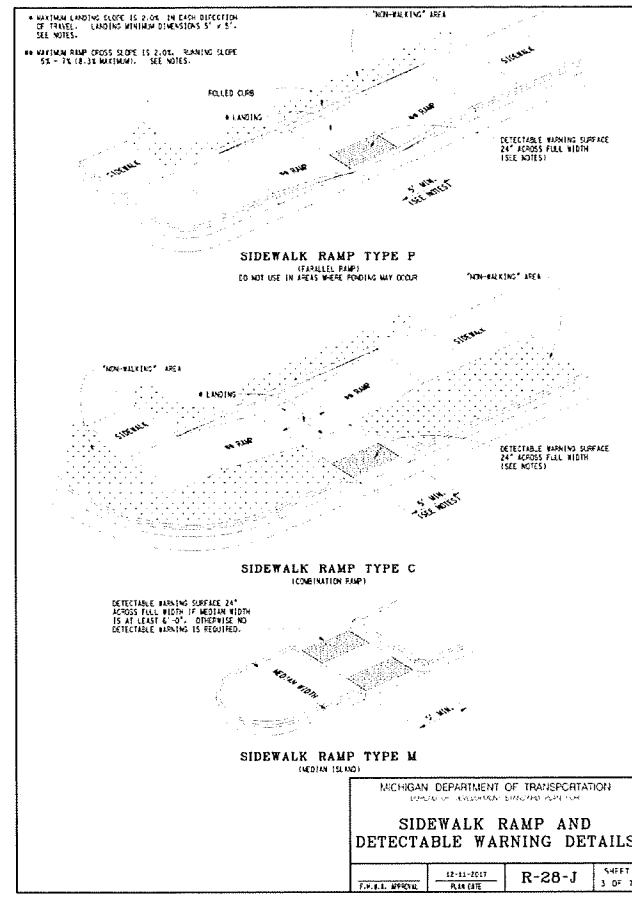
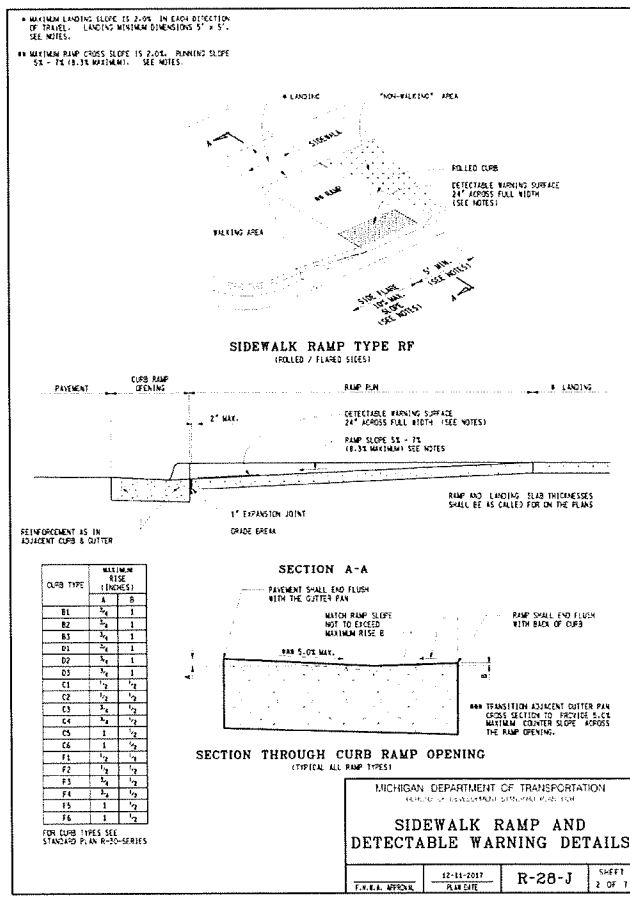
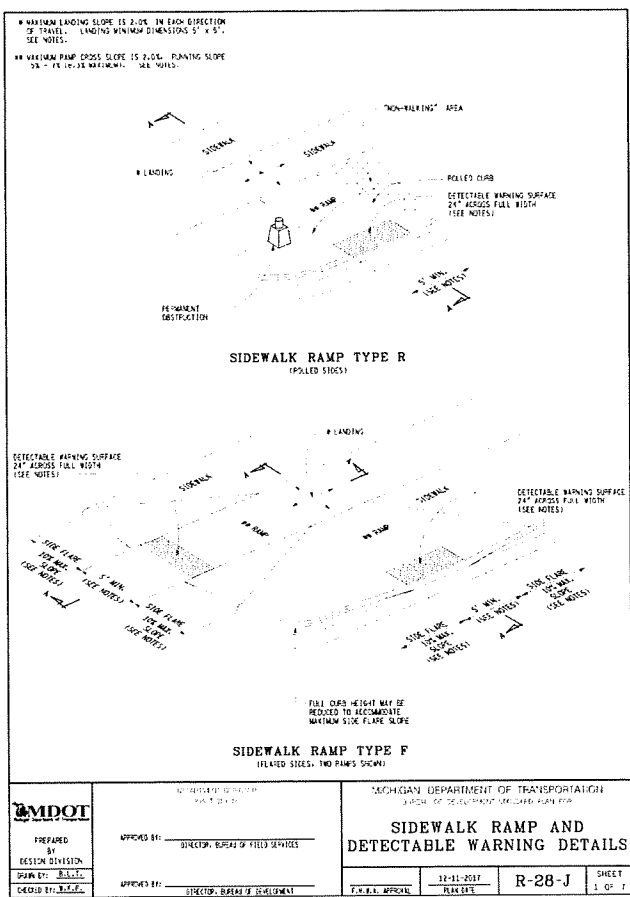
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DRAWN BY:
J. Lawrey
DESIGNED BY:
B. Brickel
APPROVED BY:
B. Brickel
DATE:
March 30, 2018

SCALE: 1" = 30'
30 15 0 15 30 45

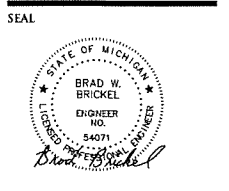
NFE JOB NO. SHEET NO.
K342 SP5

CITY FILE #18-015



**CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS**

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
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PROJECT
Vacant Parcels -
Brewster Road
(N. of Walton Blvd.)
Rochester Hills, MI 48309

CLIENT
Robertson Brothers Homes
6905 Telegraph Road,
Suite 200
Bloomfield Hills, MI 48301

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PROJECT LOCATION
Part of the SW 1/4
of Section 8
T.3N., R.11E.,
City of Rochester Hills,
Oakland County, Michigan

SHEET
MDOT Details



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DRAWN BY:
J. Lawrey

DESIGNED BY:
B. Brickel

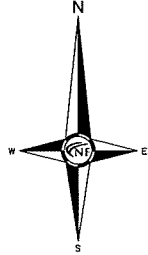
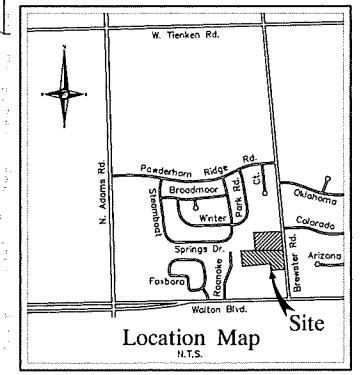
APPROVED BY:
B. Brickel

DATE:
March 30, 2018

SCALE: N.T.S.

NFE JOB NO. SHEET NO.
K342 SP7

CITY FILE #18-015

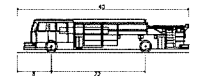


BENCHMARK

BENCHMARK

CAUTION!!
4" GAS MAIN

P.O.B. (OVERALL PROPERTY)
N89°34'48"W 43.14' (M)



Pumper Fire Truck	40,000#
Overall Length	5.167#
Overall Width	7.745#
Min Body Height	0.656#
Min Body Ground Clearance	8.167#
Track Width	5.00#
Lock-to-lock time	45.00"
Max Wheel Angle	

FIRE DEPARTMENT 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 LANE SIGNS, SPACED NOT MORE THAN 100 FEET APART. FIRE LANE SIGNS SHALL READ "NO STOPPING, STANDING, PARKING, FIRE LANE," AND SHALL CONFORM TO THE WORKMAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC 2006 CHAPTER 14.

OPENING 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.

BUILDING CONSTRUCTION NOTES

USE OF OCCUPANCY WOULD BE R-3. "BUILDINGS THAT DO NOT CONTAIN MORE THAN TWO DWELLING UNITS".

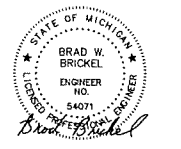
CONSTRUCTION TYPE WOULD BE B-S, "WOOD FRAME".
PROPOSED RESIDENCES SQUARE FEET ARE APPROXIMATELY 2,300 SF.



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FAX. (248) 332-8257

SEAL



PROJECT

Vacant Parcels -
Brewster Road
(N. of Walton Blvd.)
Rochester Hills, MI 48309

CLIENT

Robertson Brothers Homes
6905 Telegraph Road,
Suite 200
Bloomfield Hills, MI 48301

Contact: Tim Loughrin
248.282.1428 - Phone
248.282.1432 - Fax

PROJECT LOCATION

Part of the SW 1/4
of Section 8
T.3N., R.11E.,
City of Rochester Hills,
Oakland County, Michigan

SHEET

Owners & Engineers
General Construction
Requirements
Contractor's Duties



Know what's below
Call before you dig.

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J. Lawrey

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B. Brickel

APPROVED BY:

B. Brickel

DATE:

March 30, 2018

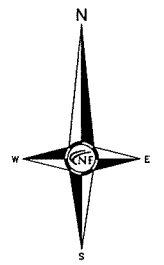
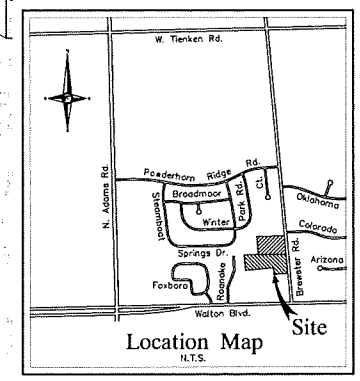
SCALE:

N.T.S.

NFE JOB NO.
K342

SHEET NO.
SP8

CITY FILE #18-015



BENCHMARK
 1985
 1985
 1985

BENCHMARK
 1985
 1985
 1985

CAUTION!!
 4" GAS MAIN

P.O.B. (OVERALL PROPERTY)
 N89°34'48"W 43.14' (M)

Brewster Road
 (R.O.W. Varies)

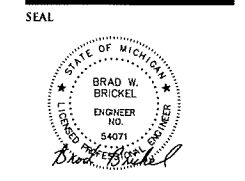
N04°03'10"W(R&M) 930.35'(M)

CAUTION!!
 4" GAS MAIN

BENCHMARK
 1985
 1985
 1985

CFE ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
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PROJECT
 Vacant Parcels -
 Brewster Road
 (N. of Walton Blvd.)
 Rochester Hills, MI 48309

CLIENT
 Robertson Brothers Homes
 6905 Telegraph Road,
 Suite 200
 Bloomfield Hills, MI 48301

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PROJECT LOCATION
 Part of the SW 1/4
 of Section 8
 T.3N., R.11E.,
 City of Rochester Hills,
 Oakland County, Michigan

SHEET
 Soil Boring Location Plan



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 J. Lawrey
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 B. Brickel
 APPROVED BY:
 B. Brickel

DATE:
 March 30, 2018
 SCALE: N.T.S.

NEE JOB NO. CITY FILE #18-015
K342 SHEET NO. **SP9**



McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
21315 Ingham Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2137

LOG OF SOIL BORING NO. 1
PROJECT Soils Investigation
Brewster Road Townhouse Site
LOCATION Walton Boulevard and Brewster Road
Rochester Hills, Michigan
JOB NO. 18-031 DATE 2/21/2018

Length (ft)	Depth	Legend	SOIL DESCRIPTION	Penetration (lb/ft²)	Hours	Moisture (%)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)
1	0'		Moist dark brown clayey TOPSOIL							
A	2		Firm moist brown sily CLAY with sand and pebbles and occasional moist fine sand lenses							
UL	3		28'							(2000)
B	4		Stiff moist brown sily CLAY with sand and pebbles and wet fine sand seams							
UL	5		6'							(4500)
C	7		Extremely stiff moist brown sily CLAY with sand and pebbles and moist to wet fine sand seams							
UL	8		8'							
D	9		Extremely stiff moist brown sily CLAY with sand and pebbles and occasional stones							
UL	10		13'							
E	14		Stiff moist blue sily CLAY with sand and pebbles							
UL	15		15'							
	16									
	17									
	18									
	19									
	20									
	21									
	22									
	23									
	24									
	25									

Note: Used Track Rig

TYPE OF SAMPLES: D - DISTURBED, UL - UNDISTURBED, S1 - SHALLOW, S2 - DEEP, RC - ROCK CORE, () - PENETROMETER

REMARKS: * Calibrated penetrometer

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 3 FT 6 INS, G.W. ENCOUNTERED AT 4 FT 0 INS, G.W. AFTER COMPLETION 4 FT 0 INS, G.W. AFTER 7 HRS 7 FT 6 INS, G.W. VOLUMES Heavy - Cave-in at 4'



McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
21315 Ingham Avenue • Ferndale, MI 48220
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LOG OF SOIL BORING NO. 2
PROJECT Soils Investigation
Brewster Road Townhouse Site
LOCATION Walton Boulevard and Brewster Road
Rochester Hills, Michigan
JOB NO. 18-031 DATE 2/21/2018

Length (ft)	Depth	Legend	SOIL DESCRIPTION	Penetration (lb/ft²)	Hours	Moisture (%)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)
1	0'		Moist dark brown clayey TOPSOIL, fill							
A	2		Stiff moist discolored brown sily CLAY with topsoil and trace of vegetation, fill							
UL	3		27'							
B	4		Compact moist dark brown sandy TOPSOIL with moist brown fine sand seams and trace of vegetation, fill							
UL	5		3'11"							(3000)
C	7		Stiff moist brown sily CLAY with sand and pebbles							
UL	8		6'							
D	9		Extremely stiff moist brown sily CLAY with sand and pebbles and moist fine sand seams							
UL	10		11'							
E	14		Extremely stiff moist brown sily CLAY with some sand and pebbles and light stone							
UL	15		15'							
	16									
	17									
	18									
	19									
	20									
	21									
	22									
	23									
	24									
	25									

Note: Used Track Rig

TYPE OF SAMPLES: D - DISTURBED, UL - UNDISTURBED, S1 - SHALLOW, S2 - DEEP, RC - ROCK CORE, () - PENETROMETER

REMARKS: * Calibrated penetrometer

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 7 FT 6 INS, G.W. ENCOUNTERED AT 11 FT 6 INS, G.W. AFTER COMPLETION 11 FT 6 INS, G.W. AFTER 7 HRS 11 FT 6 INS, G.W. VOLUMES Heavy - Cave-in at 4'



McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
21315 Ingham Avenue • Ferndale, MI 48220
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LOG OF SOIL BORING NO. 3
PROJECT Soils Investigation
Brewster Road Townhouse Site
LOCATION Walton Boulevard and Brewster Road
Rochester Hills, Michigan
JOB NO. 18-031 DATE 2/21/2018

Length (ft)	Depth	Legend	SOIL DESCRIPTION	Penetration (lb/ft²)	Hours	Moisture (%)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)
1	0'		Moist dark brown clayey TOPSOIL, fill							
A	2		15'							
UL	3		3							(2000)
B	4		Firm moist brown sily CLAY with sand and pebbles							
UL	6		35'							
C	7		Extremely stiff moist brown sandy CLAY with pebbles and wet fine sand seams							
UL	8		53'							(5000)
D	9		Extremely compact wet brown SILT							
UL	10		810'							
E	14		Extremely stiff moist blue sily CLAY with sand and pebbles							
UL	15		149'							
	16									
	17									
	18									
	19									
	20									
	21									
	22									
	23									
	24									
	25									

Note: Used Track Rig

TYPE OF SAMPLES: D - DISTURBED, UL - UNDISTURBED, S1 - SHALLOW, S2 - DEEP, RC - ROCK CORE, () - PENETROMETER

REMARKS: * Calibrated penetrometer

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 3 FT 6 INS, G.W. ENCOUNTERED AT 5 FT 11 INS, G.W. AFTER COMPLETION 5 FT 11 INS, G.W. AFTER 7 HRS 7 FT 6 INS, G.W. VOLUMES Heavy



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LOG OF SOIL BORING NO. 4
PROJECT Soils Investigation
Brewster Road Townhouse Site
LOCATION Walton Boulevard and Brewster Road
Rochester Hills, Michigan
JOB NO. 18-031 DATE 2/21/2018

Length (ft)	Depth	Legend	SOIL DESCRIPTION	Penetration (lb/ft²)	Hours	Moisture (%)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)	Unit Weight (pcf)
1	0'		Moist dark brown clayey TOPSOIL, fill							
A	2		14'							
UL	3		3							
B	4		Stiff moist brown sily CLAY with sand and pebbles							
UL	5		21.4'							(3000)
C	7		45'							
UL	8		2							(2000)
D	9		Stiff moist brown sily CLAY with sand and pebbles and wet fine sand seams							
UL	10		5'							(2000)
E	14		Firm moist variegated sandy CLAY with sand and pebbles, and occasional wet fine sand seams							
UL	15		7'							
	16		Stiff moist brown sandy CLAY with silt and pebbles							
	17		8'							(3500)
	18		12'							
	19		15'							
	20		Extremely stiff moist brown sily CLAY with sand and pebbles and moist brown fine sand seams							
	21									
	22									
	23									
	24									
	25									

Note: Used Track Rig

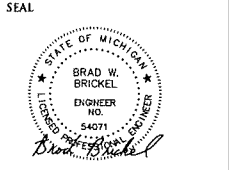
TYPE OF SAMPLES: D - DISTURBED, UL - UNDISTURBED, S1 - SHALLOW, S2 - DEEP, RC - ROCK CORE, () - PENETROMETER

REMARKS: * Calibrated penetrometer

GROUND WATER OBSERVATIONS: G.W. ENCOUNTERED AT 4 FT 6 INS, G.W. ENCOUNTERED AT 6 FT 11 INS, G.W. AFTER COMPLETION 6 FT 11 INS, G.W. AFTER 7 HRS 13 FT 3 INS, G.W. VOLUMES Heavy



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PROJECT LOCATION
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T.3N., R.11E.,
City of Rochester Hills,
Oakland County, Michigan

SHEET
Soil Boring Log Plan



DATE ISSUED/REVISED
3-30-18 SURVEY ISSUED
4-4-18 REVISED PER CLIENT
8-2-18 ISSUED FOR SITE PLAN REVIEW
10-12-18 ISSUED FOR SITE PLAN REVIEW
11-13-18 REVISED PER CITY REVIEW
01-23-19 REVISED PER CITY REVIEW

DRAWN BY:
J. Lawrey
DESIGNED BY:
B. Brickel
APPROVED BY:
B. Brickel

DATE:
March 30, 2018
SCALE: N.T.S.

NFE JOB NO. SHEET NO.
K342 SP10

LEGEND

= Existing Tree To Remain

Landscape Summary

Right-of-Way Trees: Brewster Road
Length of Frontage: 615.71 LF
Required: 1 Deciduous Tree / 35 LF
Required: 1 Ornamental Tree / 60 LF
Required: 18 Deciduous & 11 Ornamental Trees
Provided: 11 Deciduous Trees (7 Proposed & 4 Existing)*
0 Ornamental Trees*

West Buffer along RM-1

Length of Boundary: 257.86 LF
Required: Buffer Type B
- 10' Width Greenbelt
- 2 Deciduous Trees per 100 LF
- 1.5 Ornamental Trees per 100 LF
- 2 Evergreen Trees per 100 LF
- 4 Shrubs / 100 LF
Required: 10' Width Greenbelt
6 Deciduous Trees
4 Ornamental Trees
6 Evergreen Trees
11 Shrubs
Provided: 10' Width Greenbelt
6 Deciduous Trees (3 Proposed + 3 Existing)
4 Ornamental Trees
6 Evergreen Trees
12 Shrubs

*Note: All required trees cannot fit in the required locations due to infrastructure and corner clearance conflicts. In lieu of planting, a payment of \$3,901.50 (\$216.75 per tree) shall be made to the City of Rochester Hills tree fund. A final amount shall be determined during final site plan approval.

Tree Replacement Summary

Total Trees Surveyed: 317
- Total Trees Offsite: 52
Total Onsite Trees: 265
- Total Landmark Trees: 0
- Total Historic Trees: 0
Total Trees Saved: 31
- Required: Per Sec. 126-327.2, a minimum of 37% of the total number of regulated trees on site shall be preserved and undamaged
99 Trees
- Provided: 11.70% Saved
Total Trees Removed: 234
- Exempt Trees: 9 (These trees include poor quality Elm and Ash Trees)

Replacement Requirements:

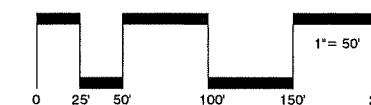
Required: Equivalency of 225 Trees (1 Tree / 1 Tree Removed) per the following replacement rates:
Deciduous Trees
- 2" replacement caliper = 1 Tree
- 2.5" replacement caliper = 1.5 Trees
- 3" or greater replacement caliper = 2 Trees
Evergreen Trees
- 8' replacement height = 1 Tree
- 9' replacement height = 1.5 Trees
- 10' or greater replacement height = 2 Trees
Provided: 225.50 Total Tree Equivalency at the following calculations:
Deciduous Trees
- 79 Trees at 2" caliper
- 29 Trees at 2.5" caliper
Evergreen Trees
- 103 Trees at 8' ht.

Plant Schedule (This Sheet)

Trees							
sym.	qty.	botanical name	common name	size	spacing	root	notes
Brewster Road R.O.W. Trees							
AR-S	4	<i>Acer rubrum 'Armstrong'</i>	Armstrong Red Maple	3" cal.	per plans	B&B	
LT-S	3	<i>Liriodendron tulipifera</i>	Tulip Tree	3" cal.	per plans	B&B	
Buffer Screen Trees							
AG-B	4	<i>Amelanchier x grandiflora 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	2" cal.	per plans	B&B	Multistem
PG-B	6	<i>Picea glauca</i>	White Spruce	10' ht.	per plans	B&B	
QB-B	3	<i>Quercus bicolor</i>	Swamp White Oak	3" cal.	per plans	B&B	
Woodland Replacement Trees							
AC-R	44	<i>Abies concolor</i>	White Fir	8' ht.	per plans	B&B	
AG-R	3	<i>Amelanchier x grandiflora 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	2" cal.	per plans	B&B	Multistem
AR-R	14	<i>Acer rubrum 'Armstrong'</i>	Armstrong Red Maple	2.5" cal.	per plans	B&B	
GT-R	24	<i>Gleditsia triacanthos f. inermis 'Skyline'</i>	Skyline Thornless Honeylocust	2" cal.	per plans	B&B	Thornless
LT-R	12	<i>Liriodendron tulipifera</i>	Tulip Tree	2" cal.	per plans	B&B	
PA-R*	15	<i>Platanus x acerifolia 'Exclamation'</i>	Exclamation London Planetree	2.5" cal.	per plans	B&B	
PG-R	29	<i>Picea glauca</i>	White Spruce	8' ht.	per plans	B&B	
PS-R	30	<i>Pinus strobus</i>	Eastern White Pine	8' ht.	per plans	B&B	
QB-R	11	<i>Quercus bicolor</i>	Swamp White Oak	2" cal.	per plans	B&B	
ZS-R	29	<i>Zelkova serrata</i>	Japanese Zelkova	2" cal.	per plans	B&B	
Shrubs							
sym.	qty.	botanical name	common name	size	spacing	root	notes
PO-B	12	<i>Physocarpus opulifolius 'Diabolo'</i>	Diabolo Ninebark	#5	5' o.c.	cont.	

General Notes:

This Landscape Plan is Conceptual and further details, calculations, and enlargements shall be determined and included for Final Site Plan Approval



sheet title:
Overall Landscape Plan

project title:
Brewster Village

City of Rochester Hills, MI

prepared for:
Robertson Brothers Homes
6905 Telegraph Rd. - Suite 200
Bloomfield Hills, MI 48301

Phone: 248.644.3460

job number: 17031
date: 08.02.2018

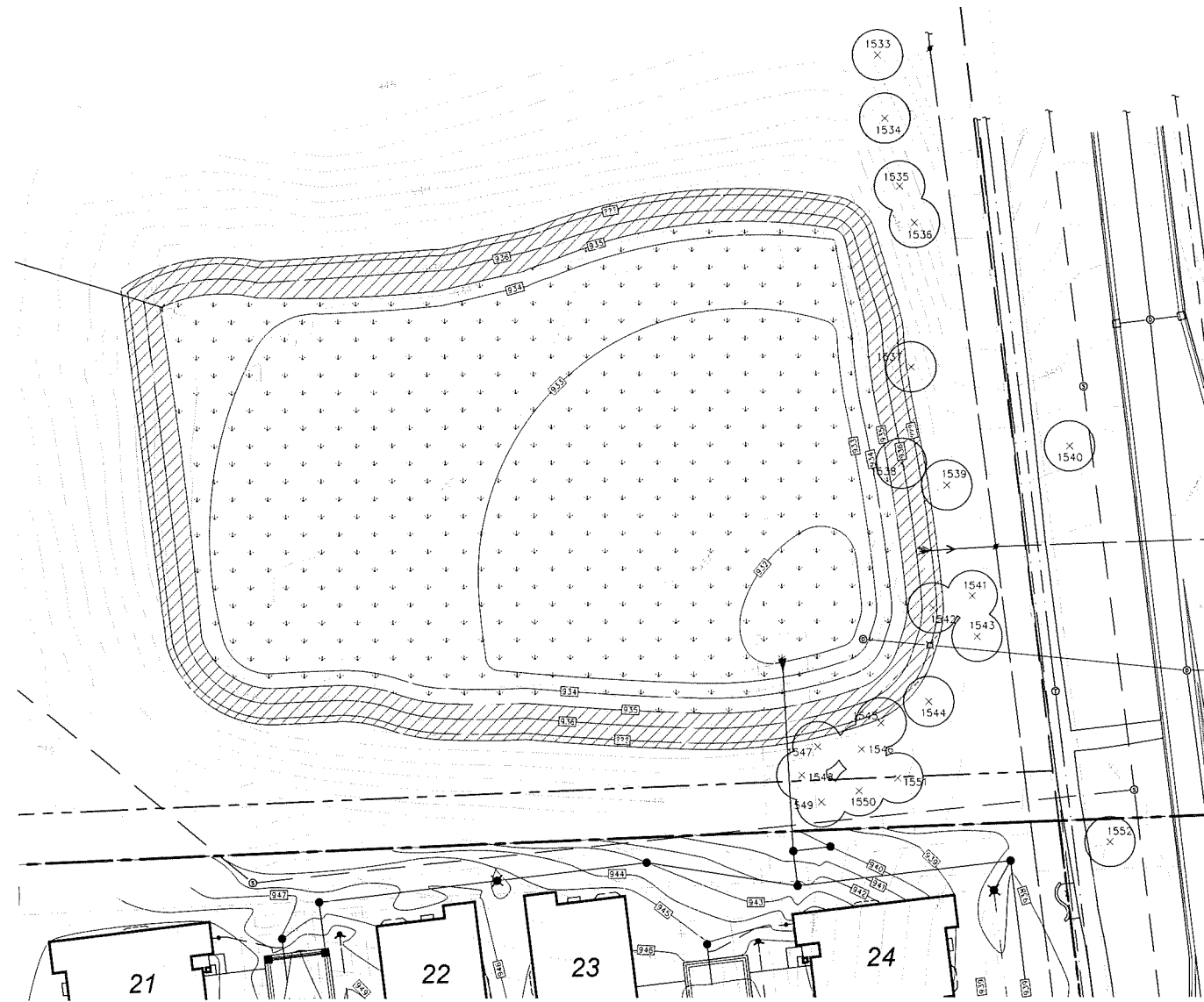
drawn by: EMJ
checked by: WTK



revisions:
10.12.2018 Per Site Redesign
11.13.2018 Per Municipal Review
01.23.2019 Per Municipal Review

LEGEND

= Existing Tree To Remain



Stormwater Seed Mix - Basin Zone

Botanical Name	Common Name	PLS Ounces/Acre	Seeds/Oz	Seeds/SQ FT
Permanent Grasses/Sedges/Rushes:				
<i>Bolboschoenus fluvialis</i>	River Bulrush	0.25	27500	0.16
<i>Carex cristatella</i>	Crested Oval Sedge	2.00	59000	2.71
<i>Carex lurida</i>	Bottlebrush Sedge	3.00	12000	0.83
<i>Carex vulpinoidea</i>	Brown Fox Sedge	6.00	125000	17.22
<i>Elymus virginicus</i>	Virginia Wild Rye	13.50	4375	1.36
<i>Glyceria striata</i>	Powr Manna Grass	1.25	125000	3.59
<i>Juncus effusus</i>	Common Rush	2.00	281000	12.90
<i>Leersia oryzoides</i>	Rice Cut Grass	1.00	94500	2.17
<i>Panicum virgatum</i>	Switch Grass	2.00	28356	1.30
<i>Schoenoplectus tabernaemontani</i>	Softstem Bulrush	3.00	37813	2.6
<i>Scirpus atrovirens</i>	Dark Green Rush	2.00	187500	8.61
<i>Scirpus cyperinus</i>	Wool Grass	1.00	562500	12.91
		Total	37.00	66.19
Temporary Cover:				
<i>Avena sativa</i>	Common Oat	360.00	8125	67.15
<i>Lolium multiflorum</i>	Annual Rye	100.00	14188	32.57
		Total	460.00	99.72
Forbs & Shrubs:				
<i>Alisma spp.</i>	Water Plantain (Varic)	4.25	70175	6.85
<i>Asclepias incarnata</i>	Swamp Milkweed	1.50	4540	0.16
<i>Bidens spp.</i>	Bidens (Various Mix)	2.00	14175	0.65
<i>Helenium autumnale</i>	Sneezeweed	2.00	141750	6.51
<i>Irish virginica</i>	Blue Flag	4.00	1400	0.13
<i>Lycopus americanus</i>	Common Water Hore	0.25	235000	1.35
<i>Mimulus ringens</i>	Monkey Flower	1.00	283500	6.51
<i>Oligoneuron rigidum</i>	Ridgell's Goldenrod	0.50	94500	1.06
<i>Pantherinum sedoides</i>	Ditch Stonecrop	0.50	36063	0.41
<i>Polygonum spp.</i>	Pinkweed (Various M)	4.00	4063	0.37
<i>Rudbeckia subtomentosa</i>	Sweet Black-Eyed Si	1.00	46000	1.06
<i>Rudbeckia triloba</i>	Brown-Eyed Susan	1.50	33000	1.14
<i>Sagittaria latifolia</i>	Common Arrowhead	1.00	56700	1.30
<i>Senna hebecarpa</i>	Wild Senna	1.00	1400	0.03
<i>Symphoricarum novae-angliae</i>	New England Aster	1.50	76000	2.62
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	2.00	13500	0.62
		Total	28.00	30.78

Mix Statistics

Native Component	PLS lbs /Acre	PLS Seeds/Acre	PLS Seeds/Sq. Ft.	% of Native Mix
Forbs	1.75	1,340,887	30.78	31.74%
Grasses	2.31	2,883,281	66.19	68.26%
Total Natives	4.06	4,224,168	96.97	100.00%
Cover	28.75	4,343,800	99.72	
Totals	32.81	8,567,968	196.69	

Low-profile Prairie Seed Mix - Upland Zone

Botanical Name	Common Name	PLS Ounces/Acre	Seeds/Oz	Seeds/SQ FT
Permanent Grasses:				
<i>Bouteloua curtipendula</i>	Side Oats Grama	16.00	9375	3.44
<i>Carex spp.</i>	Prairie Carex Mix	4.00	33422	3.07
<i>Elymus canadensis</i>	Canada Wild Rye	32.00	4258	3.13
<i>Koeleria pyramidata</i>	June Grass	1.00	15000	3.44
<i>Panicum virgatum</i>	Switch Grass	1.00	28356	0.65
<i>Schizachyrium scoparium</i>	Little Bluestem	36.00	8500	7.27
		Total	90.00	21.01
Temporary Cover:				
<i>Avena sativa</i>	Common Oat	360.00	8125	67.15
<i>Lolium multiflorum</i>	Annual Rye	100.00	14188	32.57
		Total	460.00	99.72
Forbs:				
<i>Amorpha canescens</i>	Lead Plant	0.50	17000	0.20
<i>Anemone cylindrica</i>	Thimbleweed	0.50	20938	0.24
<i>Asclepias syriaca</i>	Common Milkweed	2.00	4500	0.18
<i>Asclepias tuberosa</i>	Butterfly Milkweed	2.00	3500	0.16
<i>Baptisia alba</i>	White Wild Indigo	2.00	1600	0.07
<i>Chamaecrista fasciculata</i>	Partridge Pea	12.00	3800	1.05
<i>Coreopsis lanceolata</i>	Sand Coreopsis	5.00	12500	1.43
<i>Coreopsis palmata</i>	Prairie Coreopsis	1.00	11500	0.26
<i>Dalea candida</i>	White Prairie Clover	1.50	26250	0.90
<i>Dalea purpurea</i>	Purple Prairie Clover	1.50	20000	0.69
<i>Desmanthus illinoensis</i>	Illinois Sensitive Plant	3.00	4888	0.34
<i>Echinacea purpurea</i>	Broad-leaved Purple Coneflower	7.00	6500	1.06
<i>Eryngium yuccifolium</i>	Rattlesnake Master	3.00	8000	0.55
<i>Lespedeza capitata</i>	Round-Head Bush Clover	2.00	10000	0.46
<i>Liatris aspera</i>	Rough Blazing Star	0.50	13000	0.15
<i>Lupinus perennis</i>	Wild Lupine	4.00	1000	0.09
<i>Monarda fistulosa</i>	Wild Bergamot	0.75	78000	1.34
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	1.00	46000	1.06
<i>Parthenium integrifolium</i>	Wild Quinine	1.00	6800	0.16
<i>Penstemon digitalis</i>	Foxglove Beard Tongue	0.50	115000	1.32
<i>Penstemon hirsutus</i>	Hairy Beard Tongue	0.50	125000	1.43
<i>Pycnanthemum virginianum</i>	Common Mountain Mint	1.00	331250	7.60
<i>Ratibida pinnata</i>	Yellow Coneflower	4.00	25250	2.32
<i>Rudbeckia hirta</i>	Black-Eyed Susan	5.00	110000	12.63
<i>Rudbeckia subtomentosa</i>	Sweet Black-Eyed Susan	1.00	46000	1.06
<i>Silphium terebinthinaceum</i>	Prairie Dock	0.50	1100	0.01
<i>Solidago speciosa</i>	Showy Goldenrod	0.50	105000	1.21
<i>Symphoricarum eicoides</i>	Heath Aster	0.25	140000	0.80
<i>Symphoricarum laeve</i>	Smooth Blue Aster	1.00	48000	1.10
<i>Symphoricarum novae-angliae</i>	New England Aster	0.50	76000	0.87
<i>Tradescantia ohiensis</i>	Common Spiderwort	0.75	8000	0.14
<i>Verbena stricta</i>	Hoary Vervain	1.00	32000	0.73
<i>Vernonia spp.</i>	Ironweed (Various Mix)	1.75	24000	0.96
<i>Veronicastrum virginicum</i>	Culvers Root	0.25	750000	4.30
		Total	68.75	46.89

Mix Statistics

Native Component	PLS lbs /Acre	PLS Seeds/Acre	PLS Seeds/Sq. Ft.	% of Native Mix
Forbs	4.30	2,042,608	46.89	69.06%
Grasses	5.63	915,100	21.01	30.94%
Total Natives	9.92	2,957,708	67.90	100.00%
Cover	28.75	4,343,800	99.72	
Totals	38.67	7,301,508	167.62	

General Notes:
Should the Storm System Improvement result in the removal of any tree(s), replacement trees shall be installed.

Detention Pond Seeding Summary

Basin Zone - Elev. 932'-935'

Seeding Area: 48,505 s.f.
Application Rate: 32.81 lbs./Ac
Required Quantity: 36.54 lbs. of Stormwater Seed Mix

Notes:
- Install 3"-6" of Topsoil or Wetland Mulch prior to seeding
- Use Seed Mat

Upland Zone - Elev. 935'-937'

Seeding Area: 13,476 s.f.
Application Rate: 38.67 lbs./Ac
Required Quantity: 11.96 lbs. of Low-profile Prairie Seed Mix

Notes:
- Install 3"-6" of Topsoil or Wetland Mulch prior to seeding
- Use Seed Mat

Seed Mixes available from Cardno JFNew
- www.cardnovegetation.com
(574) 585-2412
All Seed shall be protected with mulch blanket

Native Seeding Maintenance

During the first growing season, native areas should be mowed two to four times to a height of about 4'-6" when the growth reaches 10"-12". Selective herbicide applications or hand pulling may be needed to control unwanted weed populations. If a mower cannot be set high enough, a string trimmer can be used.

During the second growing season, native areas should be mowed a few times to a height of about 8" when the growth reaches 10"-18". Selective herbicide applications or hand pulling may be needed to control unwanted weed populations.

By the second growing season it should be apparent if some areas need reseeding. Reseed or overseed as needed.

Long term management may include prescribed burning, moving, hand pulling, and selective herbicide applications. If burning is not allowed or feasible, the planting may be moved to a short height and the clippings removed in the early spring before ground-nesting birds begin nesting.

sheet title:
Detention Pond Seeding Plan

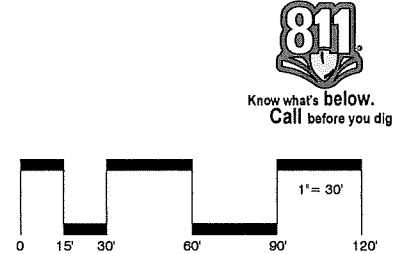
project title:
Brewster Village
City of Rochester Hills, MI

prepared for:
Robertson Brothers Homes
6905 Telegraph Rd. - Suite 200
Bloomfield Hills, MI 48301
Phone: 248.644.3460

job number: 17031
date: 10.12.2018

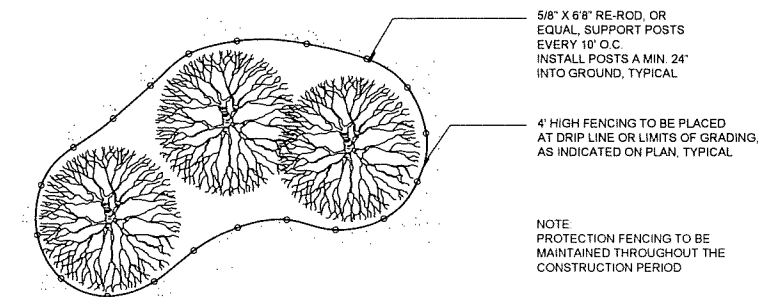
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11.13.2018 Per Municipal Review
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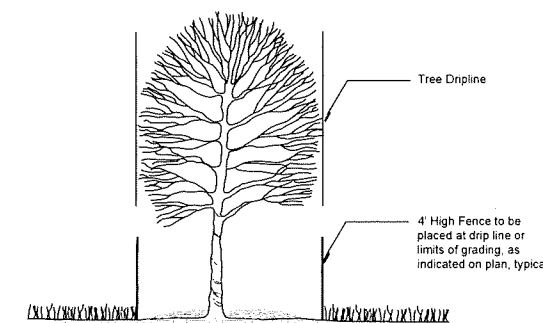
LEGEND

- = Existing Tree To Remain
- = Existing Tree To Be Removed
- = Approximate Location of Proposed Tree Protection Fence



Tree Protection Detail - Plan

Scale: NTS



Tree Protection Detail - Section

Scale: NTS

Tree Protection Notes

1. Approved tree protection shall be erected prior to the start of construction activities and shall remain in place until construction is complete.
2. No person may conduct any activity within the drip line, or protected area, of any designated tree to remain, including but not limited to placing solvents, building materials, construction equipment, etc.
3. Grade changes may not occur within the drip line of protected trees.
4. During construction, no person shall attach any device or wire to any remaining tree.
5. All utility service requests must include notification to the installer that protected trees must be avoided. All trenching shall occur outside of the protective fencing.
6. Swales shall be routed to avoid the area within the drip lines of protected trees.
7. Trees located on adjacent properties that may be affected by construction activities must be protected.
8. Trees to be removed shall be flagged by the Owner Representative prior to site grading.
9. Root zones of protected trees should be well marked with bright colors and surrounded with rigidly staked fencing.
10. The parking of kile and running equipment shall be prohibited under the drip line of protected trees.
11. The stripping of topsoil from around protected trees shall be prohibited.
12. Trees to be removed shall be left away from trees to be saved.
13. Girdling of understory vegetation in construction areas should be cleared by cutting vegetation at ground level with a chain saw or minimally with a hydro-axe.
14. The Landscape Architect shall be notified immediately if any protected tree is damaged or removed.

Tree Replacement Notes

1. See Sheet L-1 for Tree Replacement Calculations
2. See Sheets L-4 & L-5 for Tree Survey, Tree Designations and Tree Replacement Exemptions



sheet title:

Tree Preservation Plan

project title:

Brewster Village

City of Rochester Hills, MI

prepared for:

Robertson Brothers Homes
6905 Telegraph Rd. - Suite 200
Bloomfield Hills, MI 48301

Phone: 248.644.3460

job number:

17031

date:

08.02.2018

drawn by:

EMJ

checked by:

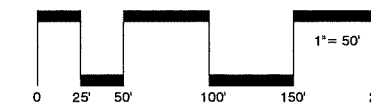
WTK

revisions:

- 10.12.2018 Per Site Redesign
- 11.13.2018 Per Municipal Review
- 01.23.2019 Per Municipal Review



Know what's below.
Call before you dig.



sheet no.

L-3

LEGEND

Note: This Tree Survey was prepared by Nowak & Fraus Engineers



sheet title:

Tree Survey

project title:

Brewster Village

City of Rochester Hills, MI

prepared for:

Robertson Brothers Homes 6905 Telegraph Rd. - Suite 200 Bloomfield Hills, MI 48301

Phone: 248.644.3460

job number: date:

17031 08.02.2018

drawn by: checked by:

EMJ WTK

revisions: 10.12.2018 Per Site Redesign 11.13.2018 Per Municipal Review 01.23.2019 Per Municipal Review



Know what's below. Call before you dig.

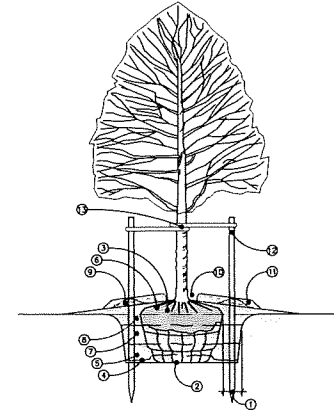
sheet no.

Table with columns: Tree #, Botanical Name, Common Name, To be Saved/Removed, Landmark/Historic, Exempt, Dia., Type, Other Dia., Condition, Comments, Tree #, Botanical Name, Common Name, To be Saved/Removed, Landmark/Historic, Exempt, Dia., Type, Other Dia., Condition, Comments. Contains detailed tree inventory data for Brewster Village.

LEGEND

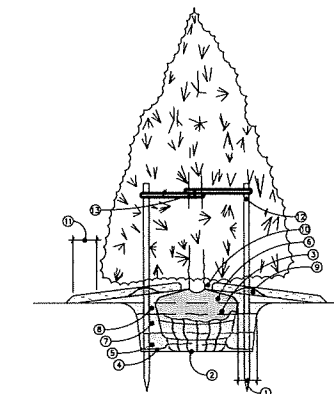
Tree #	Botanical Name	Common Name	To be Saved/			Dia.	Type	Other Dia.	Condition	Comments
			Removed	Historic	Exempt					
1774	Acer negundo	BOXELDER	Remove	-	-	6		POOR	VINES	
1775	Acer negundo	BOXELDER	Remove	-	-	6		FAIR	VINES	
1776	Fraxinus pennsylvanica	GREEN ASH	Remove	-	Yes	9		POOR	VINES	
1777	Acer negundo	BOXELDER	Remove	-	-	13	TWIN	6	POOR	LEAN, VINES, DIEBACK
1778	Acer negundo	BOXELDER	Remove	-	-	13	TWIN	8	POOR	ROT, DIEBACK, INSECT
1779	Malus spp.	APPLE	Remove	-	-	6	TWIN	6	GOOD	
1780	Prunus serotina	BLACK CHERRY	Remove	-	-	19	TWIN	12	POOR	ROT, DIEBACK, VINES
1781	Prunus serotina	BLACK CHERRY	Remove	-	-	16		POOR	ROT, DIEBACK, INSECT	
1782	Ulmus americana	AMERICAN ELM	Remove	-	-	13		FAIR	VINES	
1783	Crataegus spp.	HAWTHORN	Remove	-	-	7		FAIR	VINES	
1784	Prunus serotina	BLACK CHERRY	Remove	-	-	9		GOOD		
1785	Pyrus spp.	PEAR	Remove	-	-	10		FAIR	UTILITY TRIM	
1786	Malus spp.	APPLE	Remove	-	-	6		POOR	LEAN, VINES, DIEBACK, UTILITY TRIM	
1787	Malus spp.	APPLE	Remove	-	-	6		FAIR	VINES	
1788	Prunus serotina	BLACK CHERRY	Remove	-	-	7		POOR	UTILITY TRIM, SEAM, ROT	
1789	Malus spp.	APPLE	Remove	-	-	7		FAIR	VINES	
1790	Acer negundo	BOXELDER	Remove	-	-	7		POOR	VINES, ROT, DIEBACK	
1791	Acer negundo	BOXELDER	Remove	-	-	6		POOR	VINES	
1792	Prunus serotina	BLACK CHERRY	Remove	-	-	6		POOR	VINES	
1793	Prunus serotina	BLACK CHERRY	Remove	-	-	8		GOOD		
1794	Prunus serotina	BLACK CHERRY	Remove	-	-	8		POOR	VINES, DIEBACK, ROT	
1795	Ulmus americana	AMERICAN ELM	Remove	-	-	11		FAIR	INSECT	
1796	Pyrus spp.	PEAR	Remove	-	-	10		GOOD	DIEBACK, SUPPRESSION	
1797	Malus spp.	APPLE	Remove	-	-	7		GOOD		
1798	Prunus serotina	BLACK CHERRY	Remove	-	-	13	MULTI	11,11	POOR	ROT, FUNGUS, DIEBACK, VINES
1799	Ulmus americana	AMERICAN ELM	Remove	-	-	12		FAIR	VINES, COMPETITION	
1800	Malus spp.	APPLE	Remove	-	-	8		FAIR	VINES	
1801	Prunus serotina	BLACK CHERRY	Remove	-	-	6		POOR	FUNGUS	
1802	Prunus serotina	BLACK CHERRY	Remove	-	-	7		POOR	FUNGUS, ROT	
1803	Prunus serotina	BLACK CHERRY	Remove	-	-	7		POOR	FUNGUS, VINES	
1804	Prunus serotina	BLACK CHERRY	Remove	-	-	6	TWIN		POOR	MECHANICAL DAMAGE, ROT
1805	Prunus serotina	BLACK CHERRY	Remove	-	-	6	TWIN		POOR	VINES, DIEBACK
1806	Acer negundo	BOXELDER	Remove	-	-	8		POOR	MECHANICAL DAMAGE, ROT	
1807	Pyrus spp.	PEAR	Remove	-	-	8		FAIR	VINES	
1808	Pyrus spp.	PEAR	Remove	-	-	8		FAIR	COMPETITION	
1809	Pyrus spp.	PEAR	Remove	-	-	14	TWIN	8	FAIR	DIEBACK, UTILITY TRIM
1810	Pyrus spp.	PEAR	Remove	-	-	8		FAIR	VINES, COMPETITION	
1811	Pyrus spp.	PEAR	Remove	-	-	7		FAIR	COMPETITION	
1812	Pyrus spp.	PEAR	Remove	-	-	6		FAIR	COMPETITION	
1813	Pyrus spp.	PEAR	Remove	-	-	6	TWIN		POOR	UTILITY TRIM, COMPETITION
1814	Pyrus spp.	PEAR	Remove	-	-	9		GOOD		
1815	Pyrus spp.	PEAR	Remove	-	-	6		FAIR	COMPETITION	
1816	Pyrus spp.	PEAR	Remove	-	-	6		GOOD		
1817	Pyrus spp.	PEAR	Remove	-	-	8		GOOD		
1818	Prunus serotina	BLACK CHERRY	Remove	-	-	15	MULTI	11, 10	POOR	ROT, DIEBACK, FUNGUS
1819	Quercus rubra	RED OAK	Remove	-	-	10		GOOD		
1820	Prunus serotina	BLACK CHERRY	Remove	-	-	11	MULTI	6	POOR	DIEBACK, ROT
1821	Prunus serotina	BLACK CHERRY	Remove	-	-	15	MULTI	7,6,6,6	FAIR	DIEBACK
1822	Ulmus pumila	SIBERIAN ELM	Remove	-	Yes	13		FAIR	FUNGUS, VINES	
1823	Rhamnus cathartica	COMMON BUCKTHORN	Remove	-	-	8		FAIR	VINES	
1824	Malus spp.	APPLE	Remove	-	-	6	MULTI		FAIR	VINES
1825	Prunus serotina	BLACK CHERRY	Remove	-	-	7		FAIR	WEAK UNION	
1826	Malus spp.	APPLE	Remove	-	-	6		POOR	LEAN, VINES, SUPPRESSION	
1827	Prunus serotina	BLACK CHERRY	Remove	-	-	7		FAIR	VINES	
1828	Acer platanoides	NORWAY MAPLE	Remove	-	-	19		FAIR	DIEBACK	
1829	Prunus serotina	BLACK CHERRY	Remove	-	-	13	TWIN	10	FAIR	ROT, DIEBACK
1830	Prunus serotina	BLACK CHERRY	Remove	-	-	6	TWIN	6	FAIR	COMPETITION
1831	Prunus serotina	BLACK CHERRY	Remove	-	-	6	MULTI		FAIR	COMPETITION
1832	Prunus serotina	BLACK CHERRY	Remove	-	-	6		FAIR	COMPETITION	
1833	Prunus serotina	BLACK CHERRY	Remove	-	-	6		FAIR	COMPETITION	
1834	Prunus serotina	BLACK CHERRY	Remove	-	-	8	MULTI	6	FAIR	LEAN, COMPETITION
1835	Prunus serotina	BLACK CHERRY	Remove	-	-	13	MULTI	11,8,6	FAIR	VINES, DIEBACK
1836	Prunus serotina	BLACK CHERRY	Remove	-	-	10	TWIN	8	GOOD	
1837	Prunus serotina	BLACK CHERRY	Remove	-	-	7		FAIR	LEAN, VINES, SEAM	
1838	Prunus serotina	BLACK CHERRY	Remove	-	-	6		FAIR	LEAN, SUPPRESSION	
1839	Prunus serotina	BLACK CHERRY	Remove	-	-	10	TWIN	6	FAIR	DIEBACK, VINES
1840	Prunus serotina	BLACK CHERRY	Remove	-	-	10	TWIN	6	FAIR	DIEBACK, COMPETITION
1841	Prunus serotina	BLACK CHERRY	Remove	-	-	10		FAIR	VINES, COMPETITION	
1842	Prunus serotina	BLACK CHERRY	Remove	-	-	16	TWIN	10	FAIR	DIEBACK
1843	Pyrus spp.	PEAR	Remove	-	-	10	MULTI		FAIR	COMPETITION
1844	Prunus serotina	BLACK CHERRY	Remove	-	-	8	MULTI		POOR	VINES, ROT, DIEBACK
1845	Prunus serotina	BLACK CHERRY	Remove	-	-	21		FAIR	VINES, DIEBACK	
1846	Prunus serotina	BLACK CHERRY	Remove	-	-	8		FAIR	ROT, SUPPRESSION	
1847	Prunus serotina	BLACK CHERRY	Remove	-	-	10	TWIN	8	FAIR	DIEBACK, FUNGUS
1848	Prunus serotina	BLACK CHERRY	Remove	-	-	8	TWIN	6	FAIR	FUNGUS
1849	Acer negundo	BOXELDER	Remove	-	-	13		FAIR	FUNGUS, COMPETITION	
1850	Prunus serotina	BLACK CHERRY	Remove	-	-	16	TWIN	13	POOR	ROT, DIEBACK, INSECT

Note: This Tree Survey was prepared by Nowak & Fraus Engineers



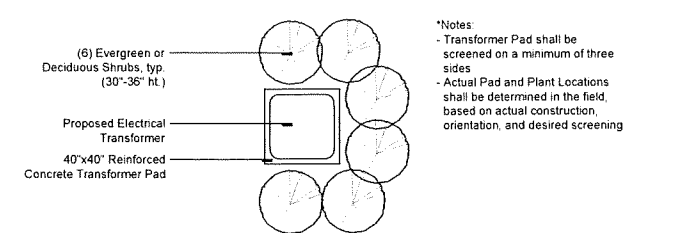
Deciduous Tree Planting Detail - 4" Cal. and Under Scale: NTS

- INSTALLATION NOTES:**
- 1" DIG PLANT POCKET 12" WIDER THAN EDGE OF ROOTBALL
 - THOROUGHLY COMPACT BOTTOM OF PLANT POCKET
 - REMOVE ALL TWIGS FROM TOP OF ROOTBALL, EXAMINE TRUNK COLLAR & REMOVE EXCESS SOIL FROM TOP OF ROOTBALL DOWN TO THE UPPER LEVEL OF THE ROOT SYSTEM. SET ROOTBALL WITH TOP 1/3 OF BALL ABOVE FINISH GRADE.
 - PLACE BACKFILL UNDER & AROUND BASE OF BALL TO STRAIGHTEN TREE. THOROUGHLY COMPACT TO FILL ALL VOIDS.
 - BACKFILL PLANT POCKET WITH PLANTING MIX CONSISTING OF 70% TOP SOIL & 30% NATIVE SOIL & COMPACT THOROUGHLY. ASSURE TREE IS STILL STRAIGHT.
 - BEFORE CONTINUING WITH BACKFILL, REMOVE TOP WIRE LOOPS OR END DOWN WIRE. THEY TOUCH SIDE OF BALL. REMOVE EXCESS BURAP.
 - BACKFILL PLANT POCKET SECOND TO WITH PLANTING MIX & COMPACT THOROUGHLY. ASSURE TREE IS STILL STRAIGHT. SLOPE GRADE AWAY FROM TREE.
 - BACKFILL PLANT POCKET LAST 1/3 WITH PLANTING MIX & COMPACT THOROUGHLY. ASSURE TREE IS STILL STRAIGHT. SLOPE GRADE AWAY FROM TREE.
 - IF PLANTED IN NON-RIGID AREAS FORM A SAUCER WITH SOIL AT OUTSIDE EDGE OF ROOTBALL.
 - SHREDDED BARK MULCH 4" DEPTH. MULCH TO BE NATURAL IN COLOR. LEAVE 3" RING EXPOSED AT BASE OF TRUNK.
 - MULCH RINGS TO BE CONSISTENT WITH PLANT TYPE SIZE THROUGHOUT PROJECT & SHOULD NOT EXTEND BEYOND PLANT POCKET.
 - MINIMUM 2"x4" HARDWOOD STAKES TO EXTEND INTO UNDISTURBED SOIL UNDER PLANT POCKET. STAKE LOCATIONS PER TREE TO BE CONSISTENT THROUGHOUT PROJECT.
 - 1" WIDE BELT LIKE TUBULE PLASTIC OR OTHER ACCEPTABLE MATERIAL, NO WIRE OR HOPE TO BE USED TO CUT TREES. TWO (2) CUPS PER TREE.



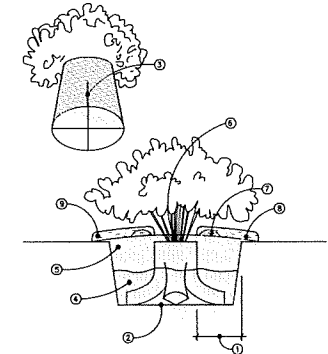
Evergreen Tree Planting Detail - 10' Ht. and Under Scale: NTS

- INSTALLATION NOTES:**
- 1" DIG PLANT POCKET 12" WIDER THAN EDGE OF ROOTBALL
 - THOROUGHLY COMPACT BOTTOM OF PLANT POCKET
 - REMOVE ALL TWIGS FROM TOP OF ROOTBALL, EXAMINE TRUNK COLLAR & REMOVE EXCESS SOIL FROM TOP OF ROOTBALL DOWN TO THE UPPER LEVEL OF THE ROOT SYSTEM. SET ROOTBALL WITH TOP 1/3 OF BALL ABOVE FINISH GRADE.
 - PLACE BACKFILL UNDER & AROUND BASE OF BALL TO STRAIGHTEN TREE. THOROUGHLY COMPACT TO FILL ALL VOIDS.
 - BACKFILL PLANT POCKET WITH PLANTING MIX CONSISTING OF 70% TOP SOIL & 30% NATIVE SOIL & COMPACT THOROUGHLY. ASSURE TREE IS STILL STRAIGHT.
 - BEFORE CONTINUING WITH BACKFILL, REMOVE TOP WIRE LOOPS OR END DOWN WIRE. THEY TOUCH SIDE OF BALL. REMOVE EXCESS BURAP.
 - BACKFILL PLANT POCKET SECOND TO WITH PLANTING MIX & COMPACT THOROUGHLY. ASSURE TREE IS STILL STRAIGHT. SLOPE GRADE AWAY FROM TREE.
 - BACKFILL PLANT POCKET LAST 1/3 WITH PLANTING MIX & COMPACT THOROUGHLY. ASSURE TREE IS STILL STRAIGHT. SLOPE GRADE AWAY FROM TREE.
 - IF PLANTED IN NON-RIGID AREAS FORM A SAUCER WITH SOIL AT OUTSIDE EDGE OF ROOTBALL.
 - SHREDDED BARK MULCH 4" DEPTH. MULCH TO BE NATURAL IN COLOR. LEAVE 3" RING EXPOSED AT BASE OF TRUNK.
 - MULCH RINGS TO BE CONSISTENT WITH PLANT TYPE SIZE THROUGHOUT PROJECT & SHOULD EXTEND 6" BEYOND LOWER BRANCH OF EVERGREEN TREES.
 - MINIMUM 2"x4" HARDWOOD STAKES TO EXTEND INTO UNDISTURBED SOIL UNDER PLANT POCKET. STAKE LOCATIONS PER TREE TO BE CONSISTENT THROUGHOUT PROJECT.
 - 1" WIDE BELT LIKE TUBULE PLASTIC OR OTHER ACCEPTABLE MATERIAL, NO WIRE OR HOPE TO BE USED TO CUT TREES. TWO (2) CUPS PER TREE.



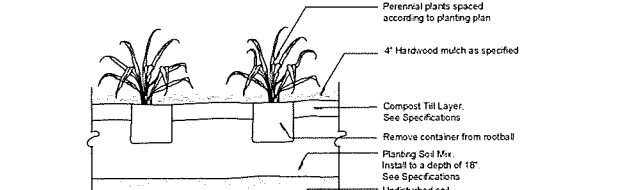
Optional Transformer Screening Detail Scale: 1/2" = 1'

- *Notes:
- Transformer Pad shall be screened on a minimum of three sides
 - Actual Pad and Plant Locations shall be determined in the field, based on actual construction, orientation, and desired screening



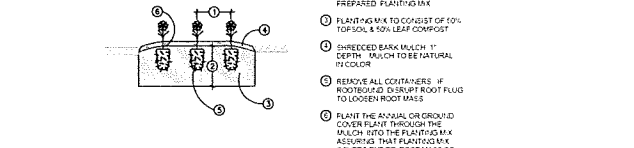
Shrub Planting Detail - Container Scale: NTS

- INSTALLATION NOTES:**
- 1" DIG PLANT POCKET 12" WIDER THAN EDGE OF ROOTBALL
 - THOROUGHLY COMPACT BOTTOM OF PLANT POCKET
 - REMOVE PLANT FROM CONTAINER (E.G. 4" EXAMPLE ROOTBALL) & REPAIR ROOTBALL AS NEEDED. INTEGRATE PLANT ROOTS & POTTING MIX INTO THE BACKFILL. IF A ROOTBALL IS COEXISTING WITH PLANTING MIX, REMOVE THE ROOTBALL BY CUTTING THROUGH BOTTOM HALF OF ROOTBALL. ROTATE ROOTBALLS OF AND CUT WITH PORTABLE HOSE (LINES) SPREAD THE ROOTS & LINES IN PLANTING MIX. ROTATE ROOTBALLS OF AND CUT WITH PORTABLE HOSE (LINES) SPREAD THE ROOTS & LINES IN PLANTING MIX. PLACE PLANT IN POCKET SLIGHTLY ABOVE GRADE.
 - BACKFILL PLANT POCKET WITH PLANTING MIX CONSISTING OF 70% TOP SOIL & 30% NATIVE SOIL. ASSURE TREE IS STRAIGHT.
 - BACKFILL REMAINING 1/3 OF PLANT POCKET WITH PLANTING MIX & COMPACT THOROUGHLY. ASSURE TREE IS STILL STRAIGHT.
 - SPREAD 1" OF PLANTING MIX OVER TOP OF CONTAINER. ROOTBALL SLOPE GRADE AWAY FROM SHRUB.
 - IF PLANTED IN NON-RIGID AREAS FORM A SAUCER WITH SOIL AT OUTSIDE EDGE OF ROOTBALL.
 - SHREDDED BARK MULCH 4" DEPTH. MULCH TO BE NATURAL IN COLOR. LEAVE 1.2" RING EXPOSED AT BASE OF PLANT.
 - IF NOT PLANTED WITH A LANDSCAPE BED, MULCH RINGS TO BE CONSISTENT IN SIZE WITH PLANT TYPE SIZE THROUGHOUT PROJECT.



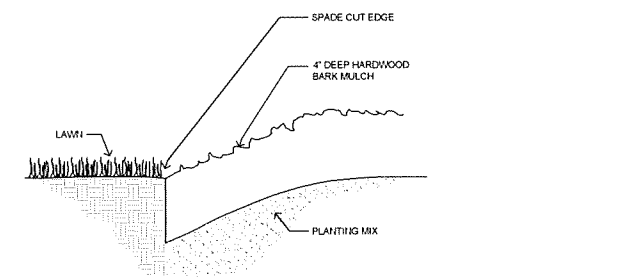
Perennial Planting Detail NTS

- INSTALLATION NOTES:**
- Perennial plants spaced according to planting plan
 - 4" Handwood mulch as specified
 - Compost Till Layer. See Specifications
 - Remove container from rootball
 - Planting Soil Mix. Install to a depth of 18". See Specifications
 - Undisturbed soil



Annual & Ground Cover Planting Detail Scale: NTS

- INSTALLATION NOTES:**
- 1" SEE DRAWING FOR PLANT SPACING
 - EXCAVATE BED TO A MINIMUM 6" DEPTH. BACKFILL WITH PREPARED PLANTING MIX
 - PLANTING MIX TO CONSIST OF 70% TOP SOIL & 30% LEAF COMPOST
 - SHREDDED BARK MULCH 1" DEPTH. MULCH TO BE NATURAL IN COLOR
 - REMOVE ALL CONTAINERS IF ROOTBALLS. DISBURT ROOT FLING TO LOOSEN ROOT MALES
 - PLANT THE ANNUAL OR GROUND COVER PLANT THROUGH THE MULCH INTO THE PLANTING MIX. ASSURE THE PLANTING MIX COVERS ENTIRE ROOT MASS OF PLANT



Spade Cut Edging Detail NTS

- INSTALLATION NOTES:**
- SPADE CUT EDGE
 - 4" DEEP HARDWOOD BARK MULCH
 - PLANTING MIX

Tree Survey & Detail

sheet title: **Tree Survey & Detail**

project title: **Brewster Village**
City of Rochester Hills, MI

prepared for: **Robertson Brothers Homes**
6905 Telegraph Rd. - Suite 200
Bloomfield Hills, MI 48301

Phone: 248.644.3460

job number: **17031** date: **08.02.2018**

drawn by: **EMJ** checked by: **WTK**

revisions:

10.12.2018	Per Site Redesign
11.13.2018	Per Municipal Review
01.23.2019	Per Municipal Review



LEGEND



sheet title:
Details & Notes

project title:
Brewster Village

City of Rochester Hills, MI

prepared for:
Robertson Brothers Homes
6905 Telegraph Rd. - Suite 200
Bloomfield Hills, MI 48301

Phone: 248.644.3460

job number: 17031
date: 08.02.2018

drawn by: EMJ
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revisions:
10.12.2018 Per Site Redesign
11.13.2018 Per Municipal Review



sheet no.

L-6

Landscape Notes

- All plant material shall be true to name and free from physical damage and wind burn.
- Plants shall be full, well-branched, and in a healthy, vigorous growing condition.
- Plants shall be watered before and after planting is complete.
- All trees must be staked, fertilized, and mulched and shall be guaranteed to exhibit a normal growth cycle for at least one (1) full year following planting.
- 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 screened and free of any debris, foreign material, or stone.
- "Agriform" tabs or similar slow-release fertilizer shall be added to the planting pits before being backfilled.
- Amended planting mix shall consist of 1/3 screened topsoil, 1/3 sand, and 1/3 peat.
- All plantings shall be mulched with shredded 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.
- Any planting area within a wetland, watercourse, or floodplain shall not receive mulch, as it is considered fill.
- 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 Landscape Architect or Owner's representative.
- The Landscape Architect 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 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 and specifications, if requested by the owner.
- The 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 or sod (as indicated on plans) all areas disturbed during construction, throughout the contract limits.
- A pre-emergent weed control agent, "Preen" or equal, shall be applied uniformly to all planting beds prior to mulching.
- All lawn areas to be irrigated.
- The Developer and Landscape Architect reserve the right to change location of plant material and alter plant species/variety at the time of installation based upon availability and quantity of material as well as site conditions. Materials will be of similar size, appearance and growth habit.
- All Lawn areas shall be Seeded or Sodded
- All Landscape Areas shall be irrigated by an automatic irrigation system with separate zones for Lawn and Plants. Irrigation systems shall only be permitted to run between the hours of 12am & 5am.
- Prior to the release of the performance bond, the City of Rochester Hills must inspect all landscape plantings.
- Irrigation shall not broadcast onto CITY pathway.

Site Maintenance Notes

- The owner of the property shall be responsible for all maintenance of site landscaping according to the rules and standards herein.
- Landscape shall be kept neat, orderly and healthy growing condition, free from debris and refuse.
- Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to achieve their approved purpose.
- All dead, damaged, or diseased plant material shall be removed immediately and replaced within six months after it dies or in the next planting season, whichever occurs first. For purposes of this Section, the planting season for deciduous plants shall be March 1 and June 1 and from October 1 until the prepared soil becomes frozen. The planting season for evergreen plants shall be between March 1 and June 1. Plant material installed to replace dead or diseased material shall be as close to practical to the size of the material it is intended to replace. The City may notify property owners of the need to replace dead, damaged, or diseased material.
- The approved landscape plan shall be considered a permanent record and integral part of the Site Plan Approval. Unless otherwise approved in accordance with the aforementioned procedures, any revisions to or removal of plant materials, or non-compliance with the maintenance requirements of this Section 13B-12.109 will place the parcel in non-conformity with the approved landscape plan and be in violation of this ordinance.
- If protected trees are damaged, a fine shall be issued on an inch-by-inch basis at a monetary rate as defined by the Forestry Department.

R.O.W. Landscape Notes:

- 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. (Trees must be planted at least 15' away from curb or road edge where the speed limit is more than 35 mph.)
- 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 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.
- 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.
- The above requirements are incorporated into the plan.



Decorative Mailbox - 16 Gang CBU

Manufacturer: Salsbury Industries
1010 E. 62nd St.
Los Angeles, CA 90001
www.mailboxes.com
Model: Regency Decorative CBU
#3316R
Black
Quantity: 2

Scale: NTS



Bike Repair Station Detail

Manufacturer: Duo-Gard Industries, Inc.
40442 Koppernick Rd.
Canton, MI 48187
734.207.9700
Model Number: BBRS01B
Color: Various Powdercoat Options Available
Quantity: 1

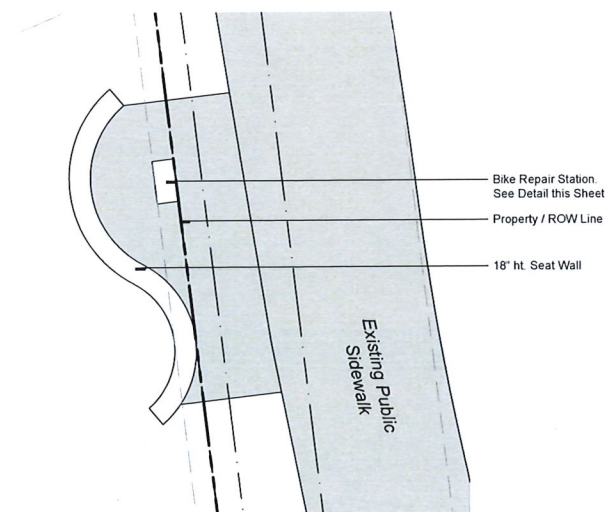
Scale: NTS

Mail Kiosk Plant Schedule

sym.	qty.	botanical name	common name	size	spacing	root	notes
CA	12	<i>Calamagrostis x acutiflora</i> 'Karl Foerster'	Karl Foerster Feather Reed Grass	#2	24" o.c.	cont.	
PD	16	<i>Penstemon</i> 'Dark Towers'	Dark Towers Penstemon	#1	18" o.c.	cont.	

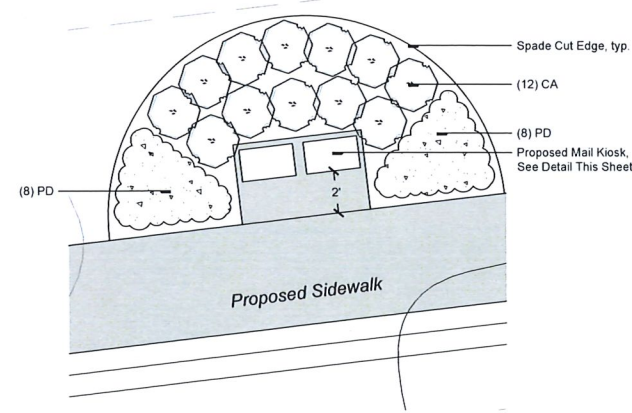
**Brewster Village
Rochester Hills, Michigan
Landscape Cost Estimate - 01/23/2019**

Item	Quantity	Unit Price	Amount
Trees			
Armstrong Red Maple (3" cal.)	4 EA	\$ 489.00	\$ 1,956.00
Armstrong Red Maple (2.5" cal.)	14 EA	\$ 405.00	\$ 5,670.00
Autumn Brilliance Serviceberry (2" cal.)	7 EA	\$ 340.00	\$ 2,380.00
Eastern White Pine (8' ht.)	30 EA	\$ 385.00	\$ 11,550.00
Exclamation London Planetree (2.5" cal.)	15 EA	\$ 436.00	\$ 6,540.00
Japanese Zelkova (2" cal.)	29 EA	\$ 373.00	\$ 10,817.00
Skyline Thornless Honeylocust (2" cal.)	24 EA	\$ 340.00	\$ 8,160.00
Swamp White Oak (3" cal.)	3 EA	\$ 450.00	\$ 1,350.00
Swamp White Oak (2" cal.)	11 EA	\$ 325.00	\$ 3,575.00
Tulip Tree (3" cal.)	3 EA	\$ 425.00	\$ 1,275.00
Tulip Tree (2" cal.)	12 EA	\$ 338.00	\$ 4,056.00
White Fir (8' ht.)	44 EA	\$ 369.00	\$ 16,236.00
White Spruce (10' ht.)	6 EA	\$ 450.00	\$ 2,700.00
White Spruce (8' ht.)	29 EA	\$ 300.00	\$ 8,700.00
Shrubs			
Diabolo Ninebark (#5 cont.)	12 EA	\$ 46.00	\$ 552.00
Perennials			
Dark Towers Penstemon (#1 cont.)	16 EA	\$ 15.00	\$ 240.00
Karl Foerster Feather Reed Grass (#2 cont.)	12 EA	\$ 19.00	\$ 228.00
Landscape Materials			
Mulch (4" depth)	41 CY	\$ 55.00	\$ 2,255.00
Irrigation			
Irrigation System	1 LSUM	\$20,000.00	\$ 20,000.00
		Estimated Total	\$ 108,240.00



Proposed Plaza w/ Bike Repair Station

Scale: 1/4" = 1'



Proposed Mail Kiosk Landscape Enlargement

Scale: 1/4" = 1'