

**DECIDUOUS TREE PLANT LIST:**

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
4	AL10	Allegheny Serviceberry	<i>Aamelanclher naevia</i>	10' Ht.	B&B
2	AS2	Scarlet Sentinel Maple	<i>Acer rubrum 'Scarsen'</i>	2' Cal.	B&B
7	AS3	Scarlet Sentinel Maple	<i>Acer rubrum 'Scarsen'</i>	3' Cal.	B&B
8	BN10	River Birch	<i>Betula nigra</i>	10' Ht.	B&B
3	CC10	Ace of Hearts Redbud-dwarf	<i>Cercis canadensis 'Ace of Hearts'</i>	10' Ht.	B&B
4	CM10	Cornelian Cherry Dogwood	<i>Cornus Mas</i>	10' Ht.	B&B
11	GB3	Fastigiate Ginkgo (columnar)	<i>Ginkgo biloba 'Fastigiata'</i>	3' Cal.	B&B
5	MA2	Adirondack Crab	<i>Malus 'Adirondack' (white, upright)</i>	2.0' Cal.	B&B
6	MR2	Marilee Crab	<i>Malus 'Jarmir' PP14337 (wt, upright, fruitless)</i>	2' Cal.	B&B
5	MR2	Raspberry Spear Crab	<i>Malus JFS KW213MX PP 31009 (purple, narrow upright)</i>	2' Cal.	B&B
4	QB3	Swamp White Oak	<i>Quercus bicolor</i>	3' Cal.	B&B
5	QR3	Red Oak	<i>Quercus rubra</i>	3' Cal.	B&B
8	TA3	American Sentry Linden	<i>Tilia americana 'American Sentry'</i>	3' Cal.	B&B
3	UA3	Accolade Elm	<i>Ulmus japonica x wilsoniana 'Accolade'</i>	3' Cal.	B&B
2	UF2	Frontier Elm	<i>Ulmus 'Frontier'</i>	2' Cal.	B&B
3	UF3	Frontier Elm	<i>Ulmus 'Frontier'</i>	3' Cal.	B&B
80	TOTAL DEC.				

**EVERGREEN TREE PLANT LIST:**

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
2	AC10	Concolor Fir	<i>Abies concolor</i>	10' Ht.	B&B
5	PA8	Norway Spruce	<i>Picea abies</i>	8' Ht.	B&B
5	PA10	Norway Spruce	<i>Picea abies</i>	10' Ht.	B&B
5	PG10	White Spruce	<i>Picea glauca</i>	10' Ht.	B&B
4	PO8	Serbian Spruce	<i>Picea omorika</i>	8' Ht.	B&B
21	TOTAL EVG.				

**SHRUB PLANT LIST:**

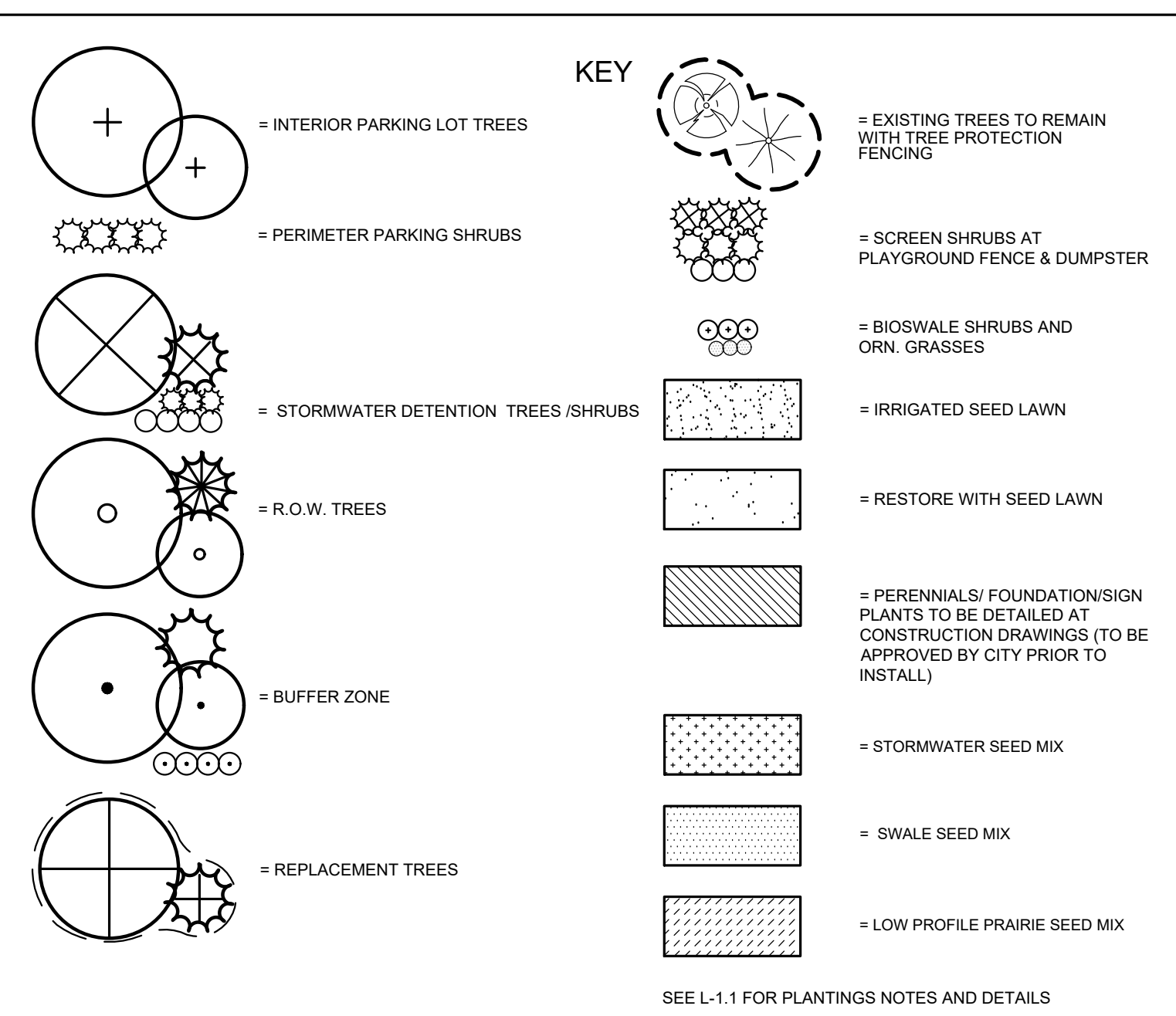
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
31	AM30	Black Chokecherry	<i>Aronia melanocarpa (prunifolia)</i>	30' Ht.	Cont.
48	CS30	Kelseyl Dwarf Dogwood	<i>Cornus sericea 'Kelsey'</i>	30' Ht.	Cont.
12	JG36	Sea Green Juniper	<i>Juniperus chinensis 'Sea Green'</i>	36" Sprd.	Cont.
67	JH6	Hetz Columnar Juniper	<i>Juniperus chinensis 'Hetzii Columnaris'</i>	6' Cont.	
28	JS6	Spartan Columnar Juniper	<i>Juniperus chinensis 'Spartan'</i>	6' Cont.	
10	PO36	Summerwine Ninebark	<i>Physocarpus opulifolius 'Seward'</i>	36" Ht.	Cont.
5	SB36	Blooming Lilac	<i>Syringa x pendula 'Blooming'</i>	36" Ht.	Cont.
28	TM36	Dense Yew	<i>Taxus x media 'Densiformis'</i>	36" Ht.	Cont.
8	VC36	Korean Spice Viburnum	<i>Viburnum carlesii 'Compacta'</i>	36" Ht.	Cont.
237	TOTAL SHRUBS				

**PERENNIAL PLANT LIST:**

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
58	PV	Shenandoah Switch Grass	<i>Panicum virgatum 'Shenandoah'</i>	1 Gal.	Cont.
58	TOTAL PER.				

**CITY OF ROCHESTER HILLS NOTES:**

**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 A PUBLIC WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION.  
 TREES MUST BE 3' OFF ANY SIGHT LINE.  
 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. THESE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.  
**CLOSING COMMENT:**  
 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.  
**NOTE:**  
 ALL GROUND MOUNTED UTILITIES SHALL BE FULLY SCREENED FROM VIEW.  
**IRRIGATION NOTES:**  
 ALL LANDSCAPE AREAS MUST BE IRRIGATED. WATERING WILL ONLY OCCUR BETWEEN THE HOURS OF 12AM-5AM.  
 IRRIGATION OVERSPRAY SHALL NOT BROADCAST ONTO CITY PATHWAYS, TYP.  
 IRRIGATION PLAN TO BE PROVIDED BY OTHERS.  
**PLANT REQUIREMENTS:**  
 NO MORE THAN 20% OF A SINGLE PLANT SPECIES ON SITE. ALL DEC TREES SHOULD BE A MIN OF 3" CAL, ORN TREES SHOULD BE A MIN OF 2" CAL. EVG TREES A MIN OF 10' HT, OR 5' SPREAD. ALL SHRUBS SHOULD BE 30" MIN HEIGHT OR 24" IN SPREAD.  
**TREE NOTE PER CITY OF ROCHESTER HILLS:**  
 ANY PLANT MATERIAL THAT IS DESIGNATED TO BE PRESERVED THAT DIES OR IS DAMAGED DURING OR AS A RESULT OF CONSTRUCTION SHALL BE REPLACED PURSUANT TO ORDINANCE REQUIREMENT



**LANDSCAPE CALCULATIONS: R-4 (ONE FAMILY RESIDENTIAL)**  
 PER CITY OF ROCHESTER HILLS ZONING ORDINANCE

**INTERIOR PARKING LOT LANDSCAPE (FOR 20 CARS OR MORE)**  
 REQUIRED: 5% OF VEHICLE USE AREA SHALL BE LANDSCAPED  
 1 TREE PER 150 SF REQUIRED  
 24,390.5 \* 5% = 1,219.5 SQ FT / 150 SF = 8.1 TREES  
 EACH LANDSCAPE ISLAND SHOULD HAVE 1 DEC TREE  
 PROVIDED: 9 DEC TREES AND 4,012 SF LANDSCAPE ISLAND AREA

**PERIMETER PARKING LANDSCAPE**  
 REQUIRED: 1 DEC TREE / 250 LF AND 1 ORN TREE / 35 LF, ALONG EDGE OF PARKING LOT FACING AND WITHIN 100' OF PUBLIC ROW.  
 ANY PARKING WITHIN 30' OF PUBLIC STREET OR ROW REQUIRES A VEGETATIVE HEDGE FOR SCREENING.  
 PROVIDED: PARKING IS NOT WITHIN 100' OF PUBLIC ROW WHERE FACING PUBLIC ROW - NO TREES REQUIRED OR PROVIDED  
 PARKING LOT IS LOCATED WITHIN 30' OF ROW ALONG S. ROCHESTER RD. 28 EVG SHRUBS PROVIDED IN HEDGE ROW.

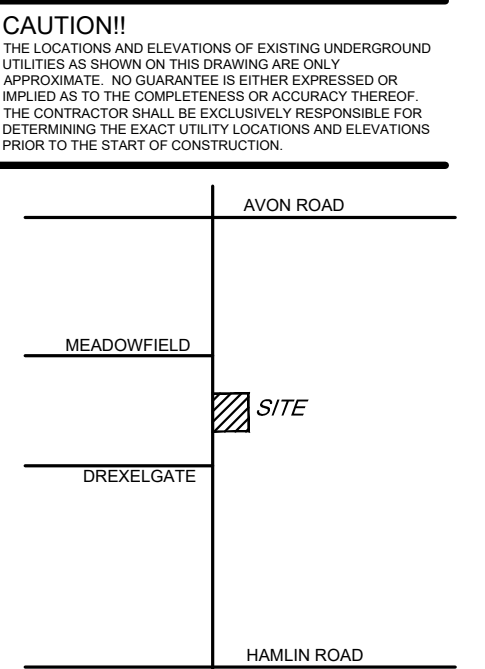
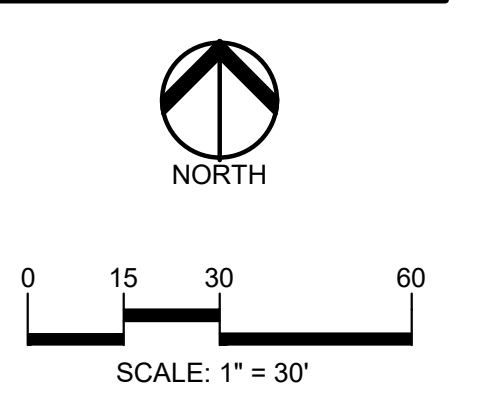
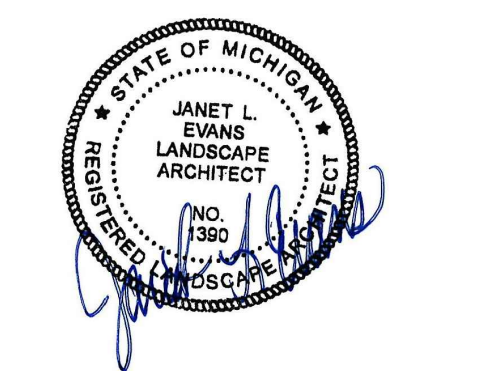
**STORMWATER MANAGEMENT POND LANDSCAPING**  
 REQUIRED: TYPE A BUFFER: 1.5 DEC, 1 EVG TREE AND 4 SHRUBS / 100 LF WITH DEC TREES CLUSTERED AROUND THE S AND W SIDE OF THE BASIN.  
 PLANTINGS / SEED NATIVE TO MICHIGAN  
 422.7 LF PER / 100 = 4.2  
 PROVIDED: 7 DEC, 5 EVG AND 17 SHRUBS AND SPECIAL SEED MIXES PROPOSED BY STANTEC, SEE SHEET L-1.1 FOR DETAILS

**ROW TREES**  
 REQUIRED: 1 DEC OR EVG TREE / 35 LF AND 1 ORN TREE / 60 LF OF ROW.  
 NORTH ACCESS DR: 450 / 35 = 13 DEC. OR EVG. TREES  
 450 / 60 = 8 ORN TREES.  
 S. ROCHESTER RD: 433 / 35 = 13 DEC OR EVG. TREES  
 433 / 60 = 8 ORN. TREES.  
 EDDINGTON BLVD: 380 / 35 = 11 DEC. OR EVG. TREES  
 380 / 60 = 6 ORN. TREES.  
 PROVIDED: NORTH ACCESS DR: 18 EXISTING TREES TO REMAIN WITHIN ROW - NO ADDITIONAL TREES TO BE PROVIDED IN OR ADJACENT TO THE ROW DUE TO EXISTING UTILITIES AND EASEMENTS. 5 TREES PROVIDED SOUTH OF N ACCESS DR PER CITY REQUEST  
 S. ROCHESTER RD: NO ADDITIONAL TREES TO BE PROVIDED IN THE ROW DUE TO EXISTING UTILITIES AND EASEMENTS. TREES ARE LOCATED ADJACENT TO ROW, 1 EXISTING DEC TO REMAIN AND 9 PROPOSED DEC, 1 EXISTING EVG TO REMAIN AND 2 PROPOSED EVG, AND 1 EXISTING ORN TO REMAIN AND 7 PROPOSED ORN PROPOSED.  
 EDDINGTON BLVD: 3 EXISTING TREES TO REMAIN, 8 DEC TREES AND 6 ORN. TREES PROPOSED

**BUFFER ZONE TYPE D, WHEN MAJORITY OF PROPERTY IS DEVELOPED FOR COMMERCIAL USE, PER SECTION 138-8.602 AND ARTICLE 12 (EAST PROP. LINE)**  
 REQUIRED: WHERE ABUTS ONE FAMILY DWELLINGS  
 2.5 DEC, 1.5 ORN, 5 EVG AND 8 SHRUBS PER EVERY 100 LF  
 437.6 LF / 100 = 4.4 ( \* 2.5, 1.5, 5, AND 8 = )  
 = 11 DEC, 7 ORN, 22 EVG AND 36 SHRUBS  
 PROVIDED: 17 EXISTING EVG, 8 PROPOSED EVG, 8 PROPOSED DEC, 7 ORN, AND 36 SHRUBS  
 LANDSCAPE BERM PROVIDED WHERE TREES CANNOT BE PROVIDED DUE TO EXISTING UTILITIES AND EASEMENTS.

**SCREENING AT PLAYGROUND FENCE AND DUMPSTER:**  
 REQUIRED: PER CITY COMMENT, SCREEN WITH 80 % OPACITY WITH EVERGREEN UPRIGHT PLANTINGS AND SHRUBS  
 PROVIDED: UPRIGHT EVERGREEN SHRUBS ADJ TO FENCE AND DUMPSTER

**REPLACEMENT TREES**  
 REQUIRED: 1 TREE REPLACED PER 1 TREE REMOVED (NOT INCLUDING SPECIMEN)  
 (REPLACEMENT TREES CANNOT GO TOWARDS OTHER REQUIRED TREES)  
 36 REPLACEMENT TREES REQUIRED -  
 SEE TREE SHEET T-1.0 OR THIS SHEET FOR CALC DETAILS  
 PROVIDED: 11, 3" DEC. AND 9, 8" HT. EVG. TREES  
 16 TREES PAID INTO TREE FUND IN LIEU OF PROPOSED PLANTING



**CLIENT**  
**EIG14T**  
 3221 W. BIG BEAVER ROAD, SUITE 111  
 TROY, MICHIGAN 48068

**PROJECT TITLE**  
**PRIMROSE SCHOOL**  
 VACANT LOT - ROCHESTER ROAD  
 ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

**REVISIONS**

DATE	DESCRIPTION
04-19-23	SITE PLAN APPROVAL RESUBMITTAL
05-25-23	SITE PLAN APPROVAL RESUBMITTAL
06-23-23	SITE PLAN APPROVAL RESUBMITTAL
07-25-23	SITE PLAN APPROVAL RESUBMITTAL

**ORIGINAL ISSUE DATE:**  
 FEBRUARY 10, 2023

**DRAWING TITLE**  
**PRELIMINARY LANDSCAPE PLAN**

**PEA JOB NO.** 2022-1301  
**P.M.** BK  
**DN.** BGG  
**DES.** JLE  
**DRAWING NUMBER:**

**NOT FOR CONSTRUCTION**  
**CITY FILE NO. 22-041 SECTION 23**

**L-1.0**





**JNRNB2022-0010**  
**PSP2023-0009**  
**Revision #5**  
**(partial submittal)**  
 Received 8/4/2023

**City of Rochester  
 Hills Planning &  
 Economic  
 Development**

### Site Plan Review

A review of this partial submittal was completed by Planning and Natural Resources. Conditions and mark-ups noted throughout plan set must be addressed prior to final approval and are in addition to comments noted on the full site plan set.

Department	Reviewer	Approved
Assessing	N/A	N/A
Building	N/A	N/A
Engineering - Utilities	N/A	N/A
Engineering Legal	N/A	N/A
Fire	N/A	N/A
Natural Resources	Matt Einheuser 248-841-2551 EinheuserM@RochesterHills.org	Yes
Planning	Chris McLeod 248-841-2572 mcleodc@RochesterHills.org	Yes
Traffic	N/A	N/A













**little tikes**

**COMMERCIAL**

Playgrounds Fun & Easy!™

**PRIMROSE  
STANDARD  
PLAYGROUND  
PACKAGE**





Playgrounds Fun & Easy!™

# Standard Primrose Package

- Infant Area
  - PlayBuilder 3-Panel Infant Unit
  - 12' x 12' x 8' Independent Shade
- Early Preschool Area (EPS)
  - Tot Tree (special colors for Primrose)
  - PlayBuilder Ground Unit
  - 14' x 14' Shade Topper (Integrated into Playground Structure)
  - MaxPlay Swing – 8' Beam with Tot Seats
- Pre-School Area
  - KidBuilder Firetruck Unit
  - 18' x 30' Shade Topper (Integrated into Playground Structure)
  - MaxPlay Swing – 8' Beam with Belt Seats
- Additional Items Needed:
  - Junior Picnic Tables – Qty 3 (EPS, PS, and AS Areas)
  - Kid Timbers
    - Primrose Patch (Qty 6)
    - Loose Fill Border if needed







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# INFANT PLAY

## 3-Panel Unit and 12' X 12' X 8' Ind Shade Green







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## ADDITIONAL ITEMS Primrose Patch







Playgrounds Fun & Easy!

Project: Primrose  
 Infant with Shade  
 LTCPS rep:  
 Jolean Boyer  
 LTCPS  
 573-760-7390

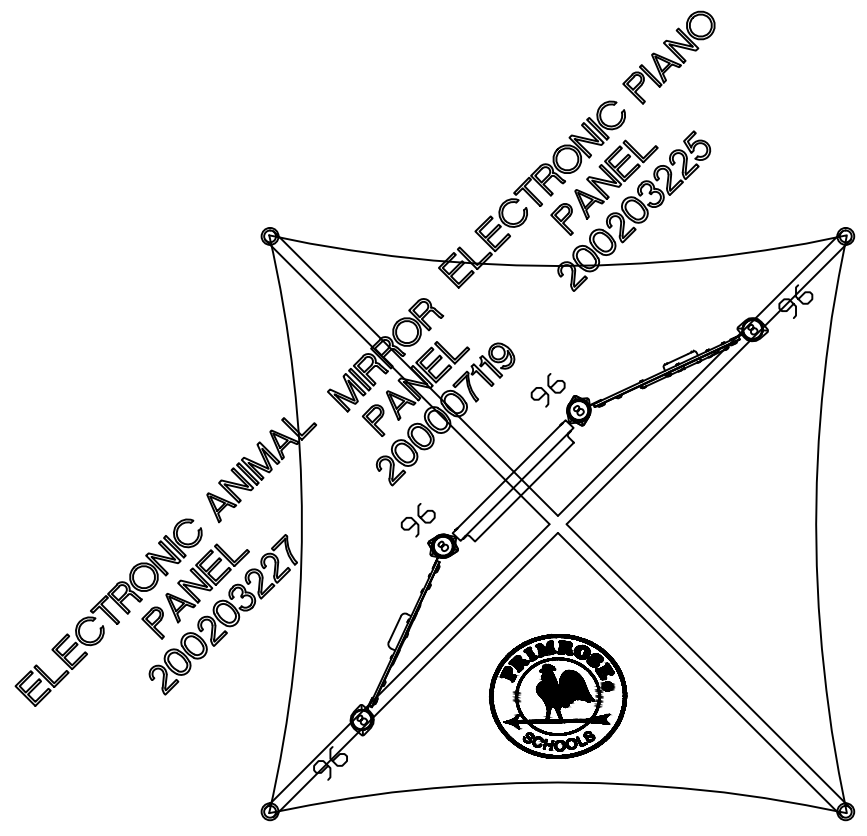
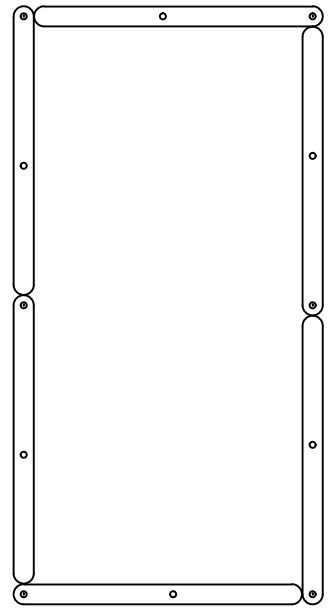
Drawn by: Gabe Lindsey  
 Date: 04/05/2018  
 DWG Name: QU070625  
 Scale: 1/4"=1'  
 Approved by:

LTCPS - Farmington  
 One Iron Mountain Drive  
 Farmington, Missouri 63640  
 Voice: 1-800-325-8828  
 Fax: 573-756-0319

**General Notes:**

Age Group  6-23 months  2-5 years  
 5-12 years  2-12 years

1. The Americans with Disabilities Act (ADA) may require that you make your park and/or playground accessible when viewed in its entirety. Please consult your legal counsel to determine if the ADA applies to you.
2. For playground equipment to be considered accessible, accessible surfacing must be utilized in applicable areas.
3. Although a particular playground design may not meet the proposed Access Board Regulations in regards to the appropriate number of ground level events, the actual playground may be in compliance when considering existing play components.
4. All deck heights are measured from top of ground cover.
5. Fall absorbing ground cover is required under and around all play equipment.
6. The minimum recommended fall zone around the entire playstructure is shown. This zone is to be free of all tripping or collision hazards (i.e. roots, rocks, border material, etc.).
7. All post lengths are identified by text showing the post lengths, i.e. 96 represents a 96 inch post.
8. Not all equipment may be appropriate for all children. Supervision is required.



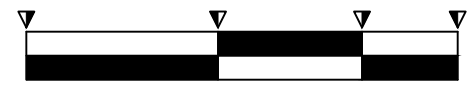
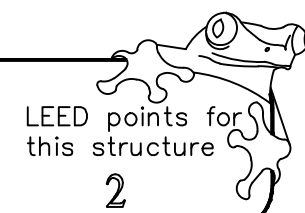
**Playground Layout Compliance:**

- ASTM F1487 - Playground Equipment for Public Use.
- ASTM F2373 - Playground Equipment for Public Use.

- CPSC Handbook for Public Playground Safety
- This playground design meets the final Access Board Regulations



The play components identified in this plan are IPEMA certified. The use and layout of these components conform to the requirements of ASTM F1487.







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## EARLY PRESCHOOL PB Ground Unit with Shade Topper







Playgrounds Fun & Easy!™

# EARLY PRESCHOOL MaxPlay Tot Swings







Playgrounds Fun & Easy!™

# EARLY PRESCHOOL Tot Tree







Playgrounds Fun & Easy!

Project: Primrose Early  
Preschool with Shade Topper  
LTCPS rep:  
Jolean Boyer  
LTCPS  
573-760-7390

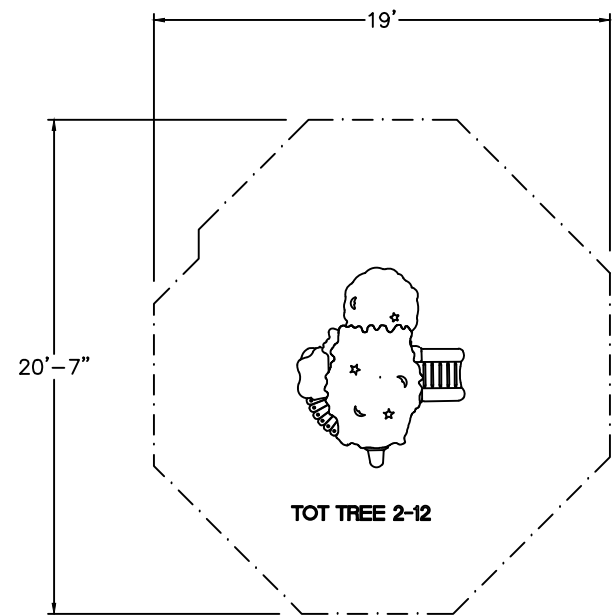
Drawn by: Gabe Lindsey  
Date: 12/3/2020  
DWG Name: QU070623  
Scale: 1/8"=1'  
Approved by:

LTCPS - Farmington  
One Iron Mountain Drive  
Farmington, Missouri 63640  
Voice: 1-800-325-8828  
Fax: 573-756-0319

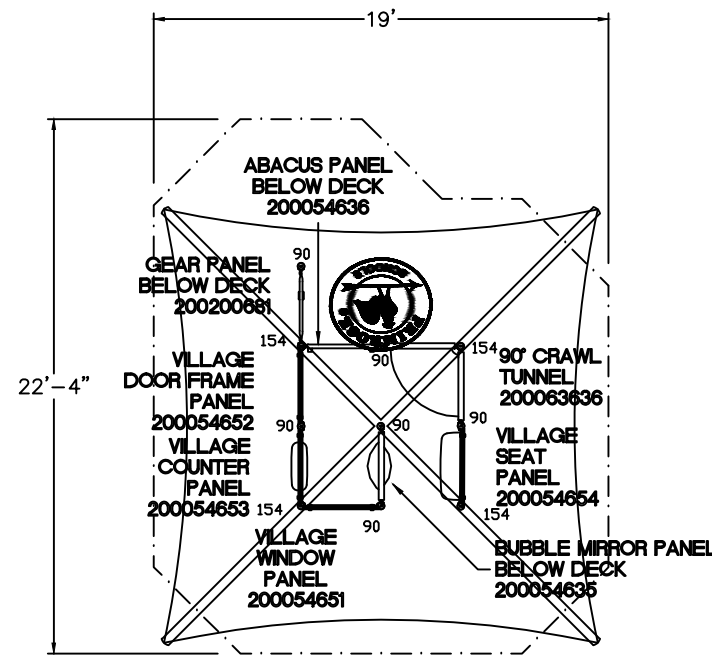
**General Notes:**

Age Group  6-23 months  2-5 years  
 5-12 years  2-12 years

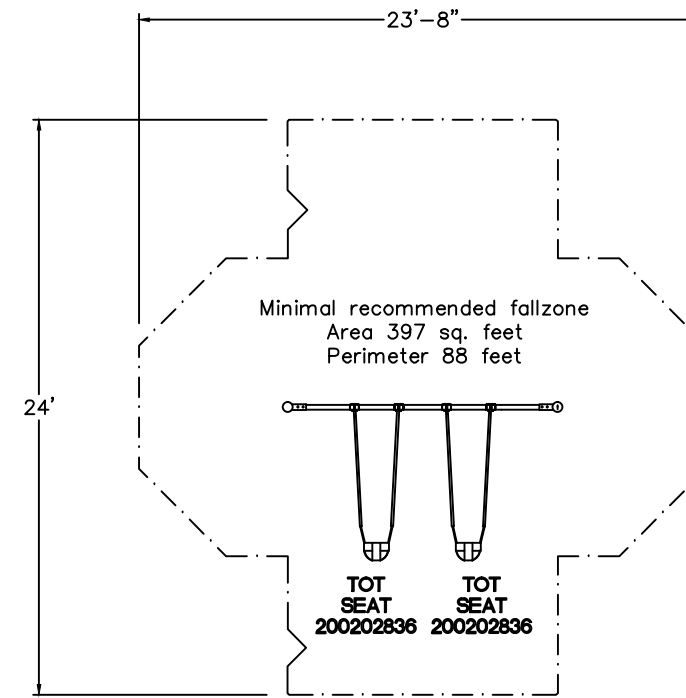
1. The Americans with Disabilities Act (ADA) may require that you make your park and/or playground accessible when viewed in its entirety. Please consult your legal counsel to determine if the ADA applies to you.
2. For playground equipment to be considered accessible, accessible surfacing must be utilized in applicable areas.
3. Although a particular playground design may not meet the proposed Access Board Regulations in regards to the appropriate number of ground level events, the actual playground may be in compliance when considering existing play components.
4. All deck heights are measured from top of ground cover.
5. Fall absorbing ground cover is required under and around all play equipment.
6. The minimum recommended fall zone around the entire playstructure is shown. This zone is to be free of all tripping or collision hazards (i.e. roots, rocks, border material, etc.).
7. All post lengths are identified by text showing the post lengths, i.e. 96 represents a 96 inch post.
8. Not all equipment may be appropriate for all children. Supervision is required.



Minimal recommended fallzone  
Area 308 sq. feet  
Perimeter 64 feet



Minimal recommended fallzone  
Area 368 sq. feet  
Perimeter 72 feet



Minimal recommended fallzone  
Area 397 sq. feet  
Perimeter 88 feet

**Playground Layout Compliance:**

- ASTM F1487 - Playground Equipment for Public Use.
- ASTM F2373 - Playground Equipment for Public Use.

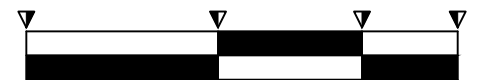
- CPSC Handbook for Public Playground Safety
- This playground design meets the final Access Board Regulations



The play components identified in this plan are IPEMA certified. The use and layout of these components conform to the requirements of ASTM F1487.

LEED points for this structure

2







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# PRESCHOOL Firetruck Unit with Shade Topper







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## PRESCHOOL/AFTER SCHOOL Belt Swings







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## ADDITIONAL ITEMS

### JR Picnic Table – One in Each Play Area





# Play Areas



## Safety First

IPEMA certified, meets ASTM F1292 requirements for up to a 12' fall height, Compliant with HIC standard



## Low Maintenance

Eliminates constant maintenance of loose fill surfacing



## Kid-Friendly

Dries quickly, allowing children to play immediately following a rain, Reduces allergic reactions caused by grass



## Environmentally Friendly

Earn up to 6 LEED points



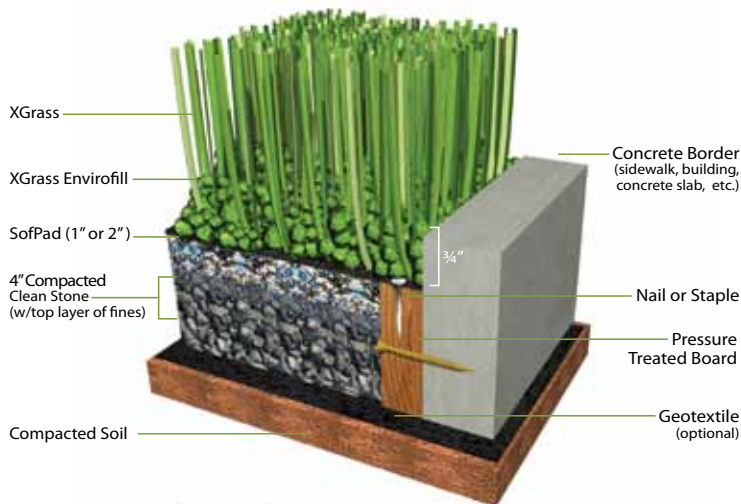
XGrass synthetic turf meets ASTM 1292 requirements.



SofPad is our innovative pad providing the ultimate shock absorption and drainage.



XGrass synthetic turf ensures safety and accessibility across installations.



Components are not drawn to scale.





## SYNTHETIC GRASS PLAYGROUND SAFETY SURFACING SPECIFICATION

### PART 1 - GENERAL

#### 1.1 DESCRIPTION OF WORK

1. Provide all labor, materials, equipment, and tools necessary for the complete installation of synthetic grass safety surface. Surface shall meet the requirements of ASTM F1292-13, that states that the surface must yield both a peak deceleration of no more than 200 g's and a Head Injury Criteria (HIC) value of no more than 1,000 for a headfirst fall from the accessible height of the play equipment. System must be IPEMA certified and supported by test data that is less than 3 years executed. The system shall consist of, but not necessarily be limited to, the following:
  - a. Synthetic grass consisting of fibers that are 1.55" long. Turf fiber construction consisting of polyethylene monofilament and texturized polyethylene thatch tufted to a 2-layer stabilized woven polypropylene fabric (primary backing), with a secondary backing (stitch binder) of DuraFlo. (XGrass<sup>®</sup> Prime synthetic turf).
  - b. Pad underlayment system consisting of porous closed cell composite materials. Thickness and density of panels shall be sufficient so that system meets the requirements of ASTM F1292-13. (SofPad<sup>™</sup>)
  - c. Synthetic Grass Infill, consisting of anti-microbial acrylic coated round silica particles, designed to provide the look, feel, and performance of optimally maintained natural grass. (EnviroFill<sup>®</sup>)
  - d. 1/2" Screenings, 3/4" clean aggregate, compacted 4" deep
  - e. Synthetic grass shall be CPSIA compliant with valid supporting test documents

#### 1.2 SUBMITTALS

1. Product Data: Submit manufacturer's product data, including installation instructions and subsurface instructions.
2. Samples: Submit samples of synthetic grass, infill, pad underlayment.
3. Warranty: Submit manufacturer's standard 10-year warranty.

### PART 2 - PRODUCTS

#### 2.1 SYNTHETIC GRASS SAFETY SURFACE

1. Aggregate Base – Crushed angular hard stone, 3/4" minus compactible stone (not clean) or clean stone with top layer of compacted fines. (Refer to Section 3.2-4).
2. Synthetic grass: 1.55" XGrass<sup>®</sup> Prime Synthetic Turf from XGrass, 1224 Riverbend Dr. Dalton, GA 30721, Phone (877) 881-8477
  - a. Face Weight: 53 oz/sy
  - b. Face Yarn Type: Polyethylene
  - c. Yarn Size: 10800/7300
  - d. Pile Height: 1.55"
  - e. Color: Summer Blend (Heat Block)
  - f. Construction: Broadloom tufted
  - g. Stitch Rate: 8 per 3 inches





- h. Tufting Gauge: 3/8"
  - i. Tuft Bind: 13.1 lbs
  - j. Permeability: 405.7 inches/hour
  - k. Primary Backing: Stabilized dual layered woven polypropylene
  - l. Secondary Backing: 10 oz. DuraFlo
  - m. Total Product Weight: 72.7 oz/sy
  - n. Finished Roll Width: 180" untrimmed
  - o. Warranty: 10 Year
  - p. Manufactured in the USA, Internationally manufactured products will not be accepted
3. Pad Underlayment System: SofPad™ 100% recycled, non-contaminated, Post industrial cross-link, closed cell Polyethylene – polyolefin foam pad from XGrass.
- a. Foam Type: Polyethylene – Polyolefin
  - b. Bulk Density: 5.0-8.0 lb/cu ft
  - c. Effective Size: 24 sq ft (net coverage)
  - d. Tensile Strength: 34-36 psi
4. Synthetic Grass Infill: EnviroFill® from XGrass, 1224 Riverbend Dr. Dalton, GA 30721, Phone (877) 881-8477. Coating: Priority acrylic with Microban®, iron oxide and chromium oxide.
- a. Grain shape: Hardness: 6-8 Mohs
  - b. Curvature: 0.7+
  - c. Specific Gravity: 1.76 g/cm<sup>3</sup>
  - d. Bulk Density: 110 lb/cu ft
  - e. Uniform Coefficient: 1.10 to 1.40
  - f. Effective Size: .84 –1.68 mm
5. Splicing Material: 1000 denier coated nylon (Cordura®) 12" wide minimum.
6. Adhesive: Synthetic Turf Adhesive (from XGrass)

## **PART 3 - EXECUTION**

### **3.1 GROUND PREPARATION**

1. General: The ground area to receive synthetic grass safety surface is indicated on the Drawings.
2. Leveling and Site Preparation: All organic material and organic debris to be removed. Soil to be graded level and stabilized (compacted) 6-7 " below grade, per site requirements. Compaction shall be done with mechanical compactors, including vibratory compactors, and/or powered tampers, and rollers.

### **3.2 BASE AND SYNTHETIC GRASS CONSTRUCTION**

1. General: The area to be smooth and graded to allow for proper drainage. Refer to engineered grading plan if available. The overall grade of the playground is not to exceed 3%.





2. Nailer Board: Installation of pressure treated or composite board per site requirements.
  - a. Concrete edges: Nailer board attached directly to vertical concrete edge with a Tapcon hardware situated 3/4" below concrete grade.
  - b. Non-concrete edges: Nailer board installed with round, steel stake, 3 per 10' board. Top of nailer boards to be situated 3/4" below grade.
3. Optional layer of geotextile fabric
4. Compacted Aggregate Base: Place 4" of 3/4" clean aggregate base and 1/2" of screening as leveling layer compacted to 90% of max density per AASHTO T99 or 3/4" minus compactible stone. Compaction shall be done with mechanical compactors, including vibratory compactors, and/or powered tampers, and rollers.
5. Underlayment Pad: Lay underlayment pad with seam staggered, trimming edge to fit flush against the nailer board.
6. Synthetic Grass: Place turf and cut to fit configuration as shown on Drawings. Splice seams. All seams must be attached with splicing film/fabric and adhesive as approved by the manufacturer for this type of installation of their product.
7. Anchoring/Edging: Edges of turf will be secured to nailer board perimeter.
8. Infill: Apply layers of synthetic grass infill evenly with a drop spreader and broom the turf fibers with stiff bristle broom to stand fibers up and allow infill to settle into the bottom. Broom in infill round quartz silica sand approximately 3 pounds per square foot.

## **PART 4 - WARRANTY**

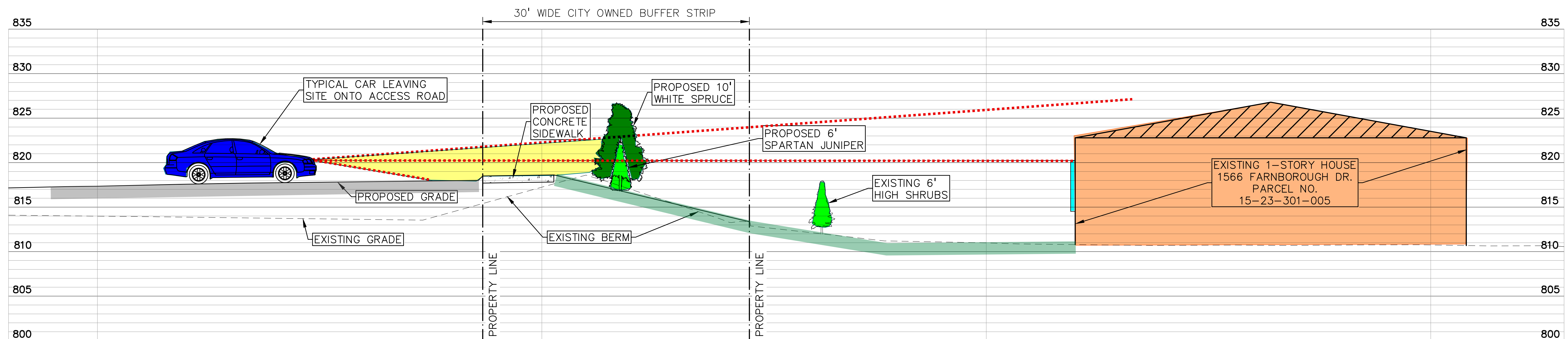
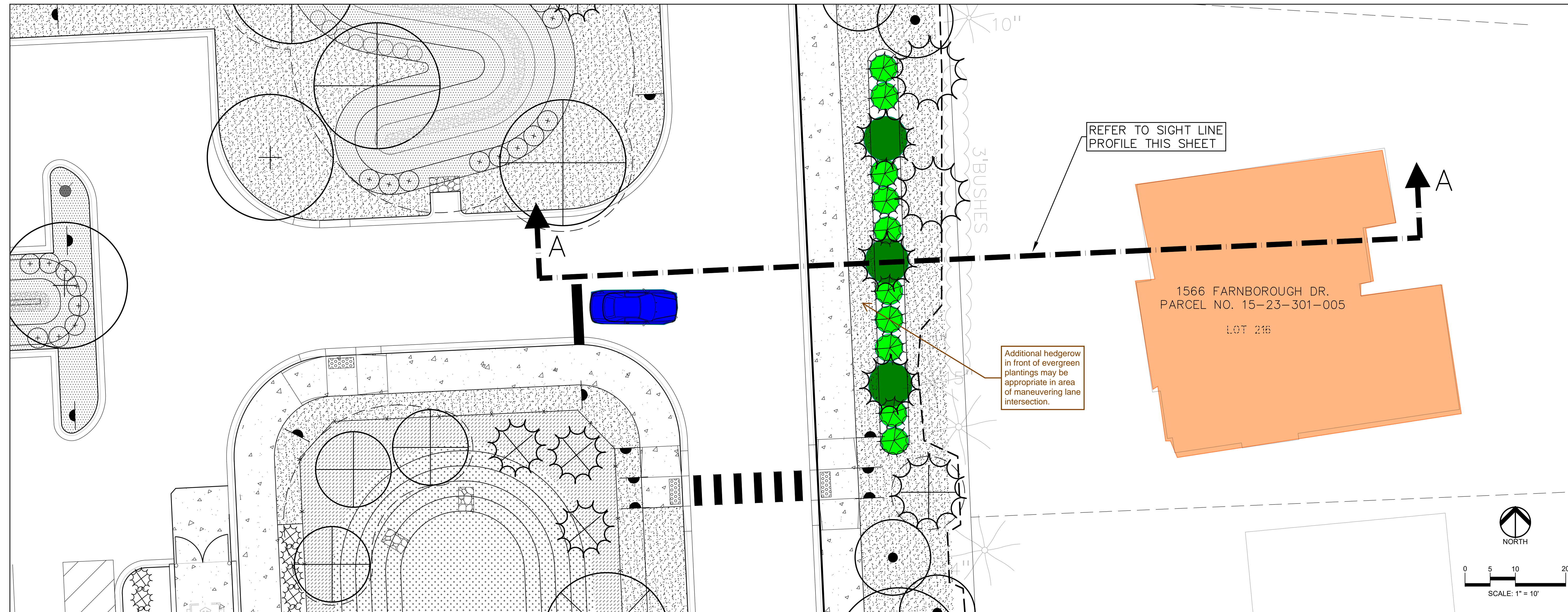
### **4.1 WARRANTY**

1. Please refer to the current XGrass warranty for details.



# PRIMROSE SCHOOL

VACANT LOT - NORTHEAST CORNER  
ROCHESTER ROAD AND EDDINGTON BLVD  
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN



SECTION 'A-A'

SCALE: 1"=5'

# SIGHT PROFILES

CLIENT:  
**EIG14T**  
3221 W. BIG BEAVER ROAD  
SUITE 111  
CITY OF TROY, MICHIGAN, 48064

**PEA**  
GROUP

t: 844.813.2949  
www.peagroup.com

PEA JOB NO. 22-1301  
AUGUST 3, 2023

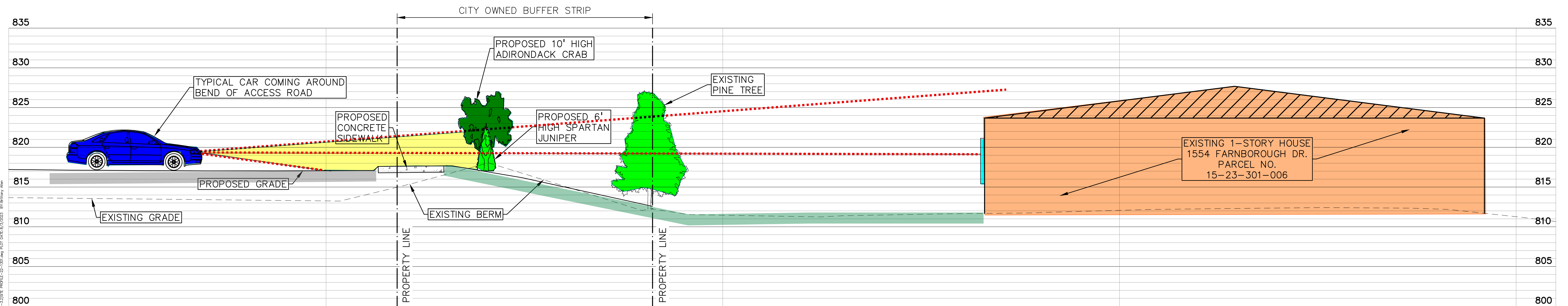
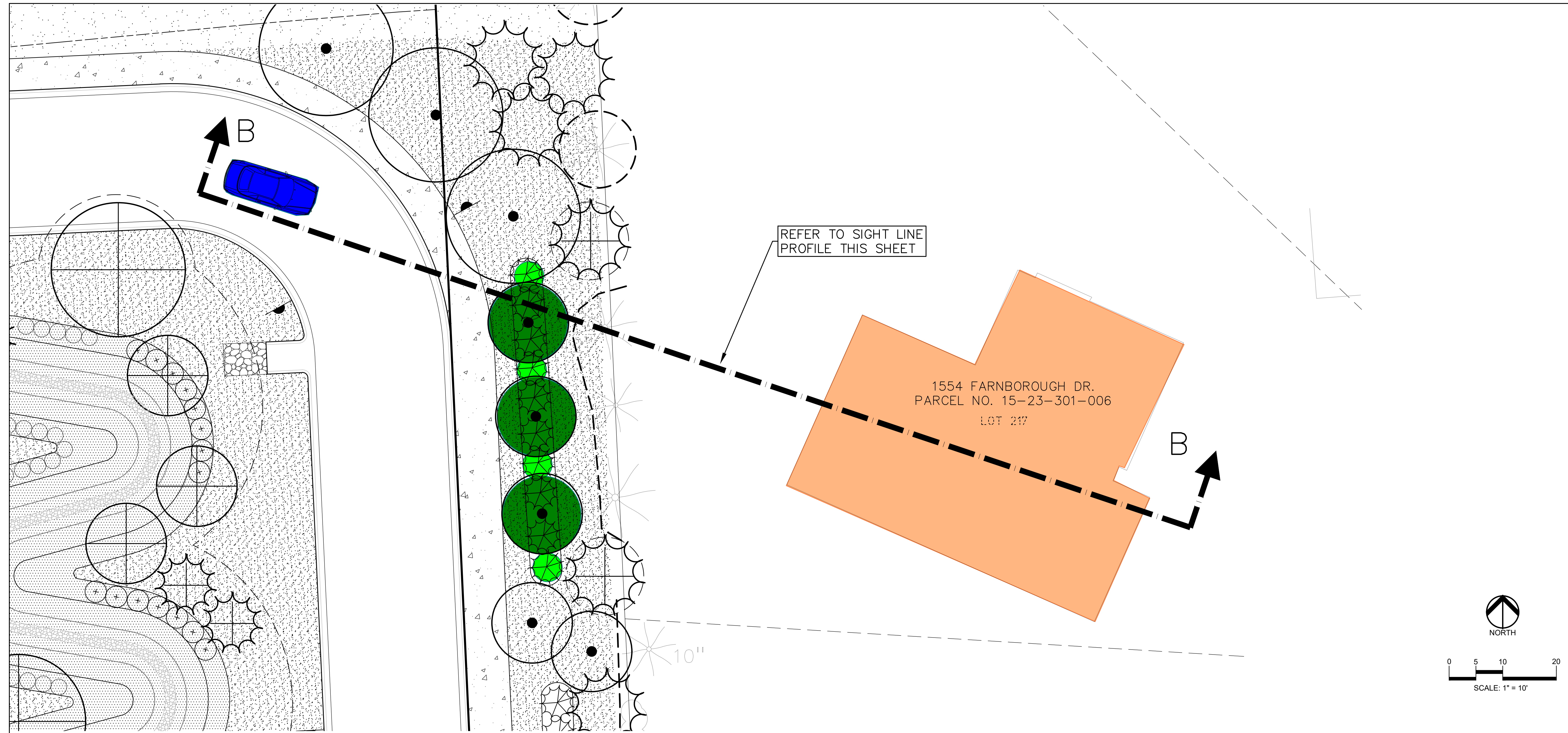
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# PRIMROSE SCHOOL

VACANT LOT - NORTHEAST CORNER  
ROCHESTER ROAD AND EDDINGTON BLVD  
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN



SECTION 'B-B'

SCALE: 1"=5'

CLIENT:  
**EIG14T**  
3221 W. BIG BEAVER ROAD  
SUITE 111  
CITY OF TROY, MICHIGAN, 48064

# SIGHT PROFILES

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