

The background is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main title is centered in a large, bold, black sans-serif font.

DRAFT RAIN GARDEN TECHNICAL STANDARD

LEIF HAUGE, PE, P HYDROLOGIST

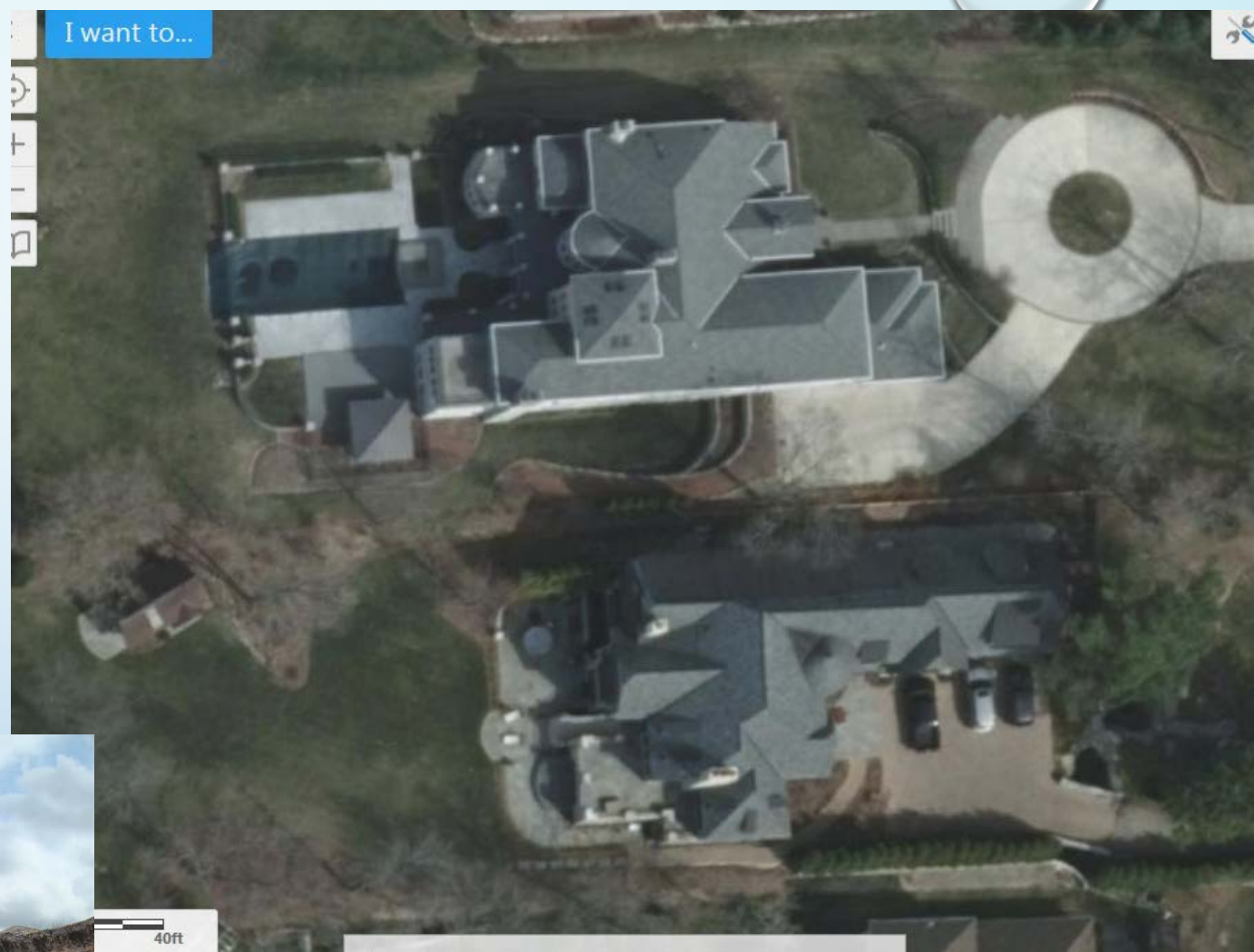
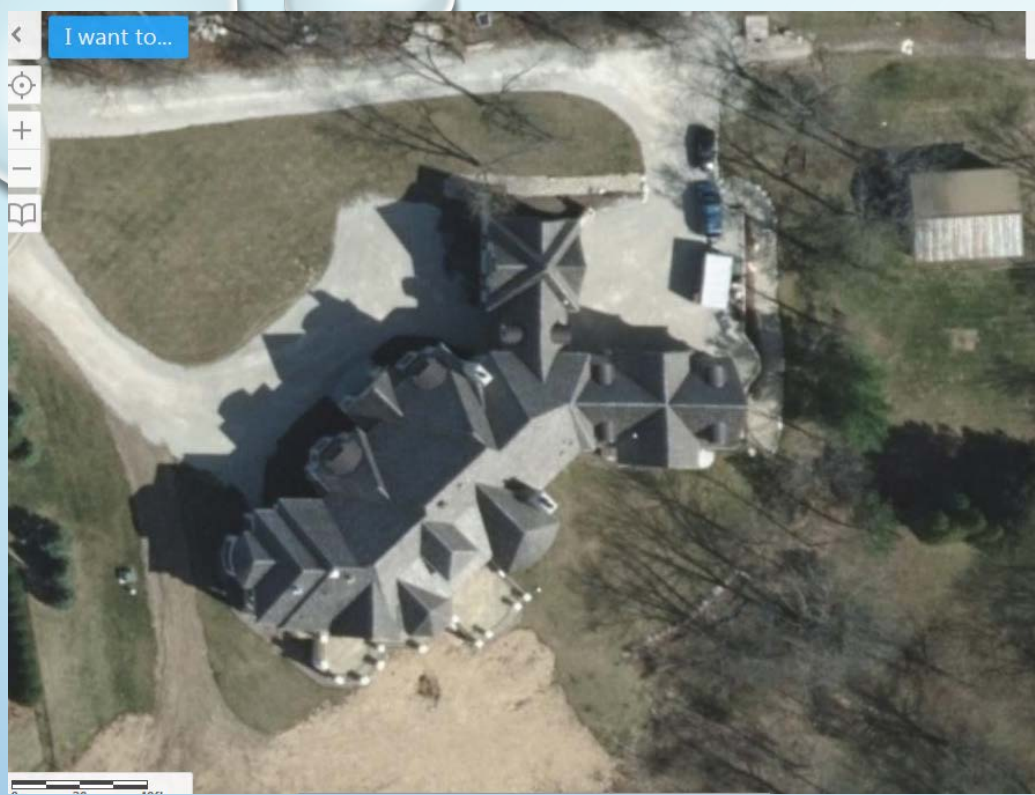
SR CIVIL ENGINEER, WAUKESHA COUNTY LAND RESOURCES DIVISION

MOTIVATION

- ADOPTION OF SHORELAND ZONING ORDINANCE THAT ALLOWS FOR “TREATED IMPERVIOUS SURFACE”
- ORDINANCE SETS LIMITS FOR PERCENT IMPERVIOUS SURFACE
- ALLOWS FOR EXCEEDANCE OF LIMITS IF EXCESS IS “TREATED”
- RAIN GARDENS ARE ONE APPROVED FORM OF TREATMENT
- R.G. SIZES ARE OFTEN SMALL: E.G. ~10% OF CONTRIBUTING IMP. SURF. AREA

OBJECTIVES

- STARTING WITH 1002, 1003, 1004 TECHNICAL STANDARDS AS A BASE, CREATE A TECHNICAL STANDARD THAT
 - MINIMIZES THE COST OF PLAN DEVELOPMENT AND IMPLEMENTATION FOR SITES THAT ARE MICRO-SCALE
 - DEFINES DESIGN PARAMETER “COOKBOOK” THAT WILL MEET REGULATORY REQUIREMENTS BASED ON SIMPLE, PHYSICAL DIMENSIONS



CHALLENGES

- DIFFERENT COMMUNITIES HAVE DIFFERENT STANDARDS
 - WAUKESHA COUNTY SHORELAND = FIRST ½ INCH OF RUNOFF
 - DANE COUNTY = CONTROL / INFILTRATE 100% OF 1981 RAIN YEAR RUNOFF
 - NR 151 = 60 / 75 / 90% OF THE PRE-DEVELOPMENT INFILTRATION VOLUME
- HOW BIG IS ENOUGH?
- HOW MUCH SITE EVALUATION / DESIGN DETAIL TO REQUIRE?
- FINDING PLANTINGS THAT ARE “BOMBPROOF”

LIKELY OUTCOMES

- STANDARD WILL GIVE SIZING MATRIX FOR
 - THREE DIFFERENT TREATMENT OBJECTIVES (75 / 90 / 100%) – DESIGNED TO MEET NR 151 PERFORMANCE STANDARDS
 - 5 DIFFERENT SOIL TYPES
- SIZING WILL BE CONSERVATIVE ENOUGH THAT SOIL TESTING CAN BE DONE WITH SIMPLE PROCEDURE FOR NON-PROFESSIONALS
- RUNOFF AREA CAPPED AT $<1/4$ ACRE TOTAL (3,000 SF IMPERVIOUS)
- RAIN GARDENS RANGE FROM 18 TO 1,000 SF
- FILL-IN-THE-BLANKS SCHEMATIC DRAWINGS

SCHEDULE

- APRIL– REVISIONS
- MAY - FINAL DRAFT (????)
- JUNE – READY FOR REVIEW?
- JULY – REVISIONS?
- AUGUST – PUBLICATION?