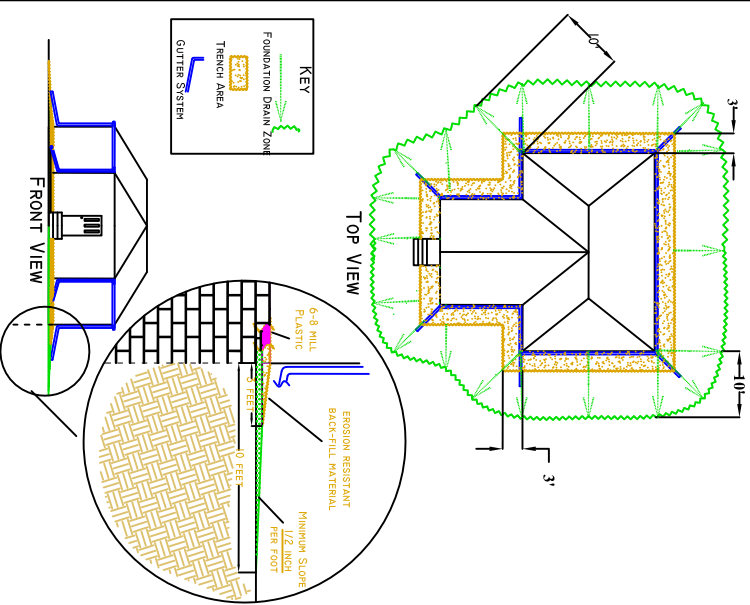


FOUNDATION DRAIN ZONE PROTECTION



3 BUSINESS DAYS BEFORE YOU DIG, CALL DIGGERS HOT LINE. 1

1. The Wisconsin Dept. of Commerce recommends a minimum slope of 1/2 inch per foot for 10 feet away from the foundation wall, or to your property line, whichever comes first.
 2. After utilities have been located through the Diggers Hotline process, remove enough material from next to the foundation area so that plastic (6-8 mill thick) can extend a minimum of 6 inches vertically and 3 feet horizontally so water can drain away from the foundation wall.
 3. The plastic is your final protection to prevent water from seeping down along the foundation wall and must remain intact.
 4. After the trench is dug, remove any sharp stones, sticks etc. that could poke holes.
 5. When placing back-fill, avoid getting any back-fill material between the foundation wall and the plastic.
- The same caution applies when covering any overlap areas; strategic use of duct tape will make this easier. Once the back-fill material is in place, its weight will hold everything together and in place.
- Note:** When calculating plastic lengths, measure corner to corner of trench to allow for an overlap at each corner. Allow at least 1 foot for any overlaps. Use duct tape to hold the plastic in place while fitting secondary pieces. (See Corner Wrapping Illustration)

BACK-FILL MATERIALS :

THE MATERIAL EXCAVATED WHILE FORMING THE TRENCH CAN BE REUSED AS THE FIRST LAYER OF BACK-FILL. LAYERS SHOULD BE COMPACTED TO GET AS MUCH AIR OUT AS POSSIBLE (THE END OF A 2x4 WORKS WELL). PLACE 3-4 INCHES OF BACKFILL IN AT A TIME, TAMP IT DOWN FIRMLY, GIVING SPECIAL ATTENTION TO THE CORNER AREAS.

THE TOP MOST LAYER SHOULD BE OF A MATERIAL THAT WILL NOT WASH AWAY SUCH AS CHIPPED OR PRESORTED STONE OR WOOD CHIPS OR BARK.

CALCULATING FILL QUANTITIES:

ONE METHOD TO CALCULATE THE VOLUME OF MATERIAL NEEDED IS TO SEPARATE THE CROSS SECTION VIEW INTO RECTANGULAR AND TRIANGULAR SHAPES. SEE EXAMPLES BELOW.

VOLUME OF RECTANGULAR SHAPE, $V=(L)(W)(L)$, (SECTION 1)

VOLUME OF TRIANGULAR SHAPE, $V=5(H)(W)(L)$, (SECTIONS 2 AND 3)

1 FOOT=12 INCHES 1 CUBIC YARD= 27 CUBIC FT

SECTION 1

- 1) CONVERT TO LINE UNITS, H=3.5 IN, 3 IN= 292 FT
- 2) USING THE RECTANGULAR SHAPE FORMULA, FIND VOLUME: $(292FT)(3FT)(24FT)=21$ CUBIC FT
- 3) CONVERT CUBIC FEET TO CUBIC YARDS, $21/27=$ ABOUT .78 CUBIC YARD

SECTION 2

- 1) CONVERT TO LINE UNITS FIRST: H=3.5 IN, (H/12)(3.5)=.292FT
- 2) CALCULATE THE VOLUME OF THE TRIANGULAR SECTION: $(.292FT \text{ HEIGHT})(7FT \text{ WIDE})(24FT \text{ LONG})=24.52$ CUBIC FT.
- 3) CONVERT CUBIC FEET TO CUBIC YARDS, $24.52/27=$.91 CUBIC YARD

SECTION 3

- 1) CONVERT TO LINE UNITS, H=7 IN, 7 IN=583 FT
- 2) CALCULATE VOLUME OF THE TRIANGULAR SECTION: $(.5)(583FT)(3FT)(24FT)=20.988$ CUBIC FT
- 3) CONVERT CUBIC FEET TO CUBIC YARDS, $20.988/27=$ ABOUT .78 CUBIC YARD

7 INCHES
3.5 INCHES (HEIGHT)
3 FEET
7 FEET (WIDTH)
TOP OF FOUNDATION (MINIMUM 6 INCHES FROM)
EXCAVATED TRENCH
FOUNDATION DRAIN ZONE
SECTION 1
SECTION 2
SECTION 3
24 FEET (LENGTH)

