**Lesson Plan Outline Geometry in Construction**

**Title:**

Parabolas Definition

General Form of a Parabola

**Objective(s):**

Students will identify a parabola and understand the definition as locus of points equidistant from a line and a focal point.

Students will be able to write and graph the equation of a parabola from a vertex, directrix, and focus.

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.GPE.A.2](http://www.corestandards.org/Math/Content/HSG/GPE/A/2/)

Derive the equation of a parabola given a focus and directrix.

**Activities:**

Equations of Circles Formative Assessment

Paper folding activity to generate a parabola and discuss the definition based on results of the folding

**Materials:**

Equations of Circles Formative Assessment

Parabola W.S.