**NYHS Rocket Park Lighting Concepts Presentation**


**Schematic Lighting Concepts**
28 August 2008

***RS*** *Lighting Design*


*Project Scope*

***RS*** ***Lighting Design***
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**Illuminance (horizontal light level)…**10 foot-candles (fc)

- same as outdoor archery, drag racing, and pistol/rifle ranges
- *20 times greater than parking lot lighting (0.5 fc)*
- *17 times greater than local commercial roadway lighting (0.6 fc)*
- *10 times greater than sidewalk lighting along commercial roads (1 fc)*

Comparisons:

| | |
|---|---|
| Golf Course Tee Boxes: 5 fc | Active Building Entry: 5 fc |
| Golf Course Fairway: 3 fc | Car Dealership: 5 to 10 fc |
| Golf Course Greens: 5 fc | Gas Station Pump island: 5 fc |

*IESNA Illumination Recommendations*

**Criteria…**

Very Important:
- horizontal luminance
- direct glare

Important:
- uniformity
- shadows

Somewhat Important:
- color appearance / color contrast
- light pollution / trespass
- reflected glare
- vertical illuminance

Not Important:
- modeling of faces or objects

*IESNA Illumination Recommendations*

**Lighting the outdoor environment is different from lighting an interior space.**

**Outdoors, the universal standard for light is the daytime sun and sky.**

**Outdoor does not have a ceiling.**

*IESNA Illumination Recommendations*

**The night outdoor environment presents the following design challenges…..**

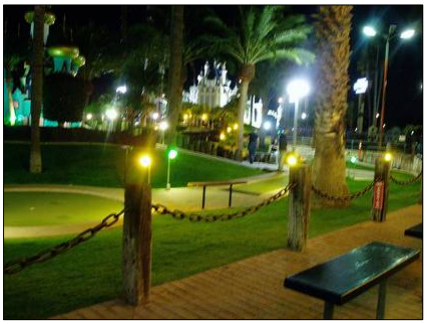
- Electric lighting cannot light the sky as the sun does. No single fabricated light source is as powerful as the sun.
- At low light levels the eye works differently from the way it works at high daylight light levels.
- People experience different emotions at night. Lighting can affect these emotions, not only when viewing dramatic scenery, sporting events, and outdoor entertainment, but it also affects feelings of personal safety and security such as in a parking lot.
- Outdoor lighting can be seen at great distances, and nighttime visual clutter can be distracting and disturbing.
- There is an expectation (or need) to control the light added to the outdoor environment.

*IESNA Illumination Recommendations*




*Project Examples*





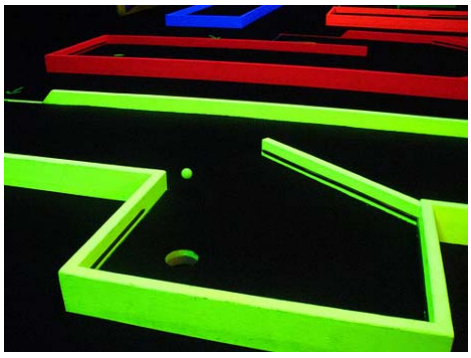
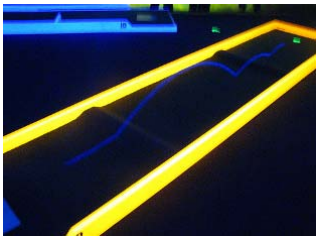


*Project Examples*

**NYHS Rocket Park Lighting Concepts Presentation**




*Project Examples*


*Lunar Golf @ Discover Mills - Suwanee, GA*
*Glow in the dark miniature golf course inside Discover Mills outlet mall.*

*Project Examples*

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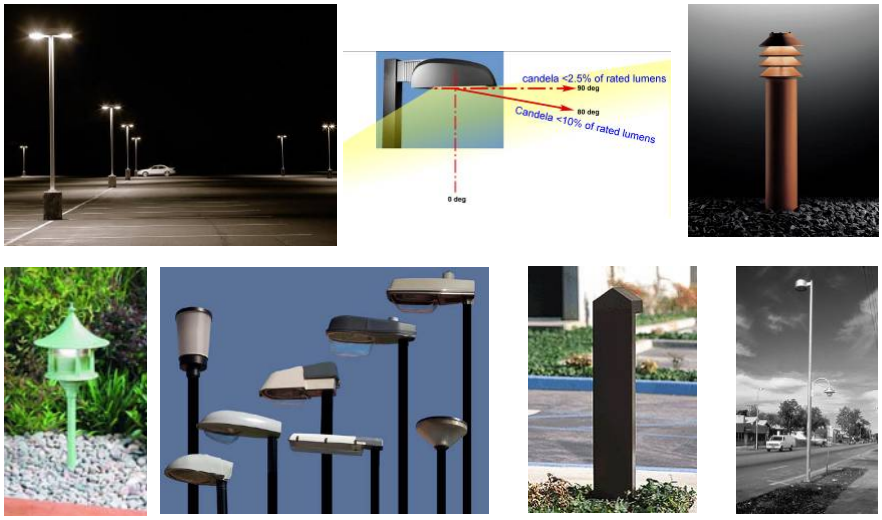


*Typical Lighting Equipment*

*Concept Approaches*

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*Project Scope*

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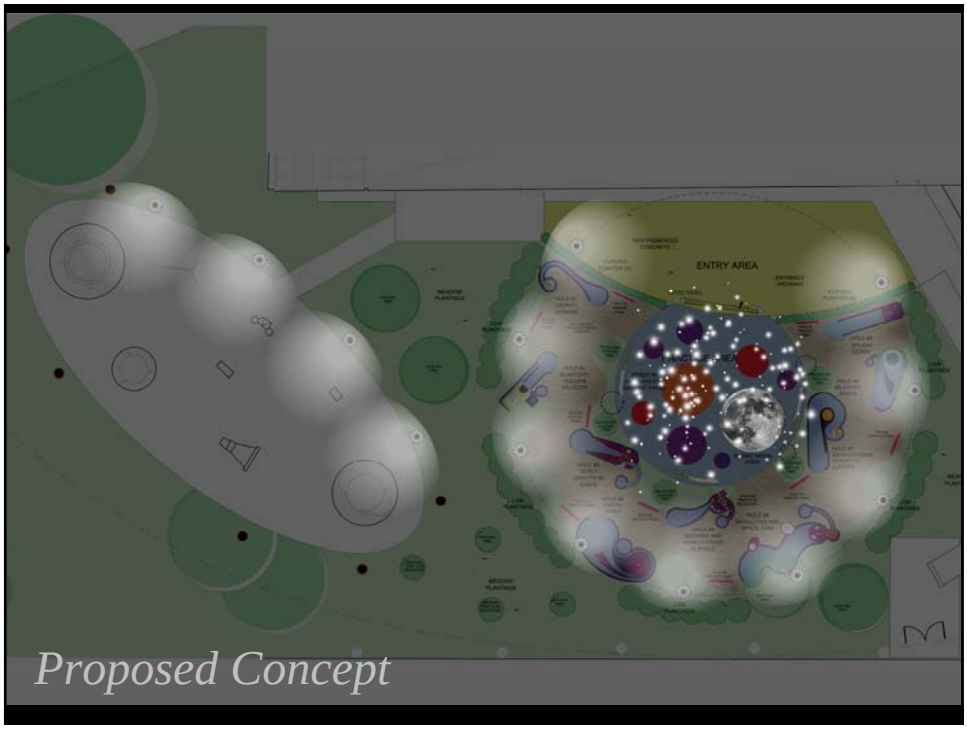
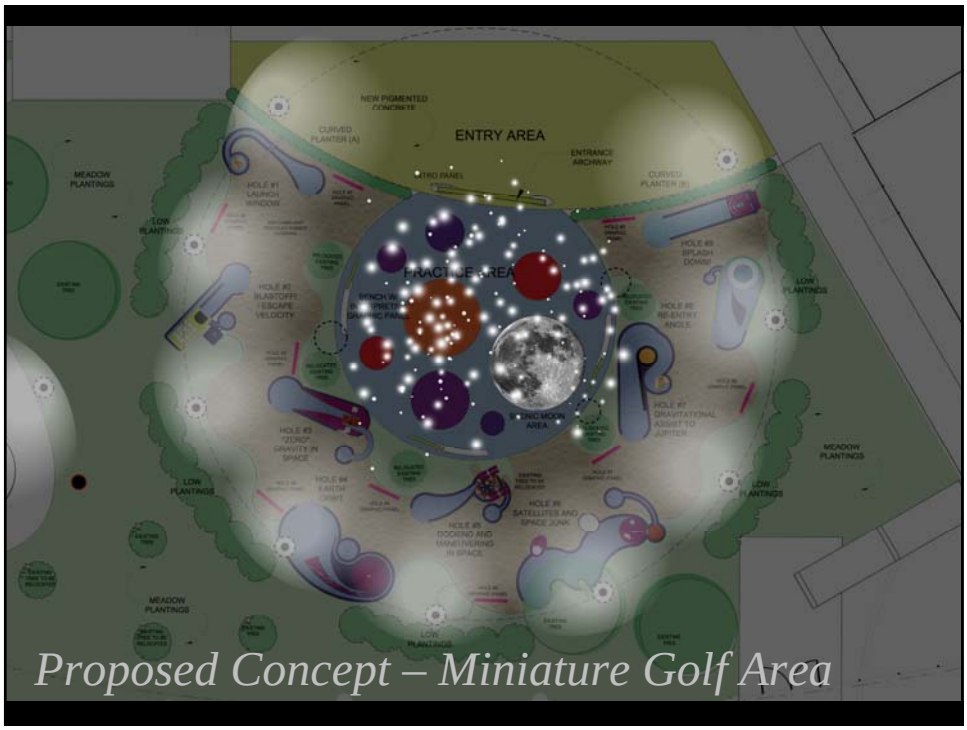



*Proposed Concept*




*Proposed Concept – Miniature Golf Area*

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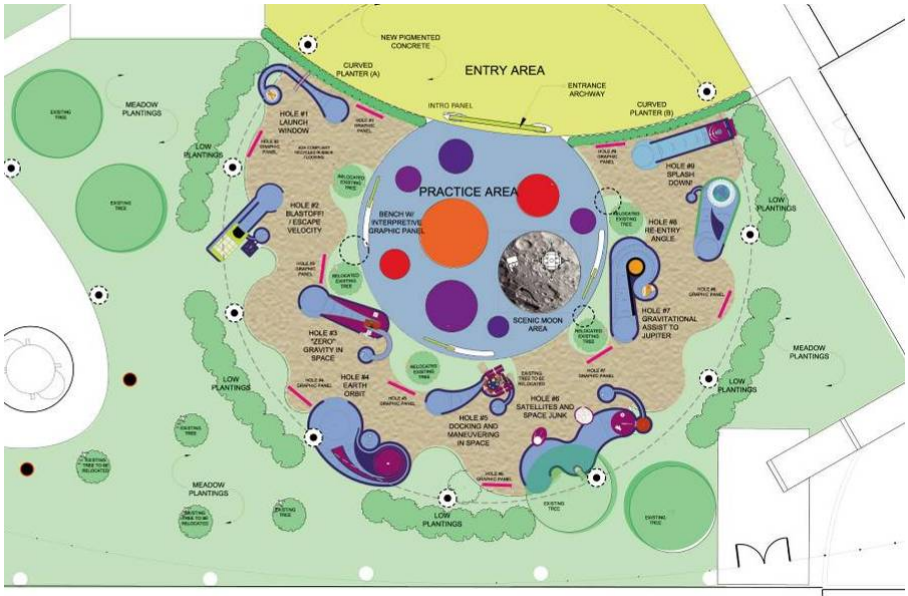


*Proposed Concept – Layout*


*Proposed Post Lantern*

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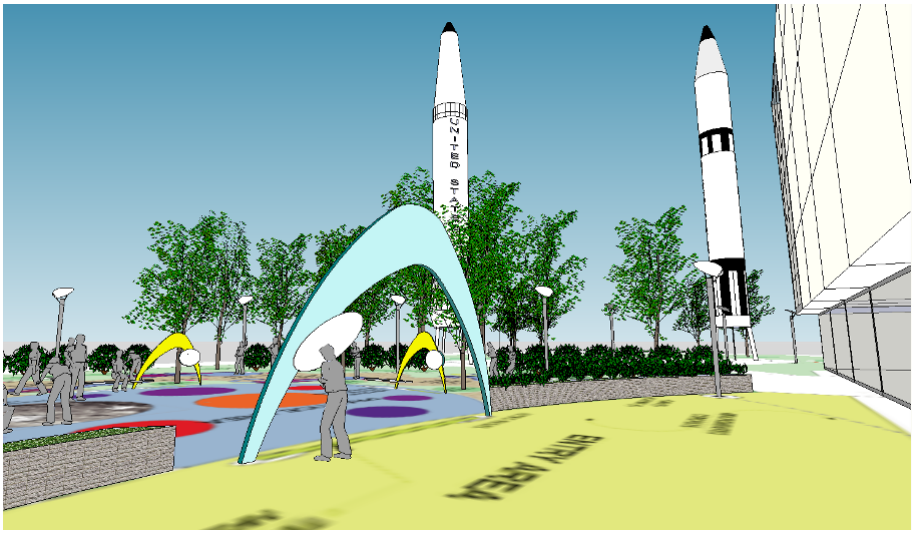

*Proposed Layout Perspective*

*Proposed Layout Perspective*

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*Proposed Layout Perspective*


*Proposed Layout Perspective*

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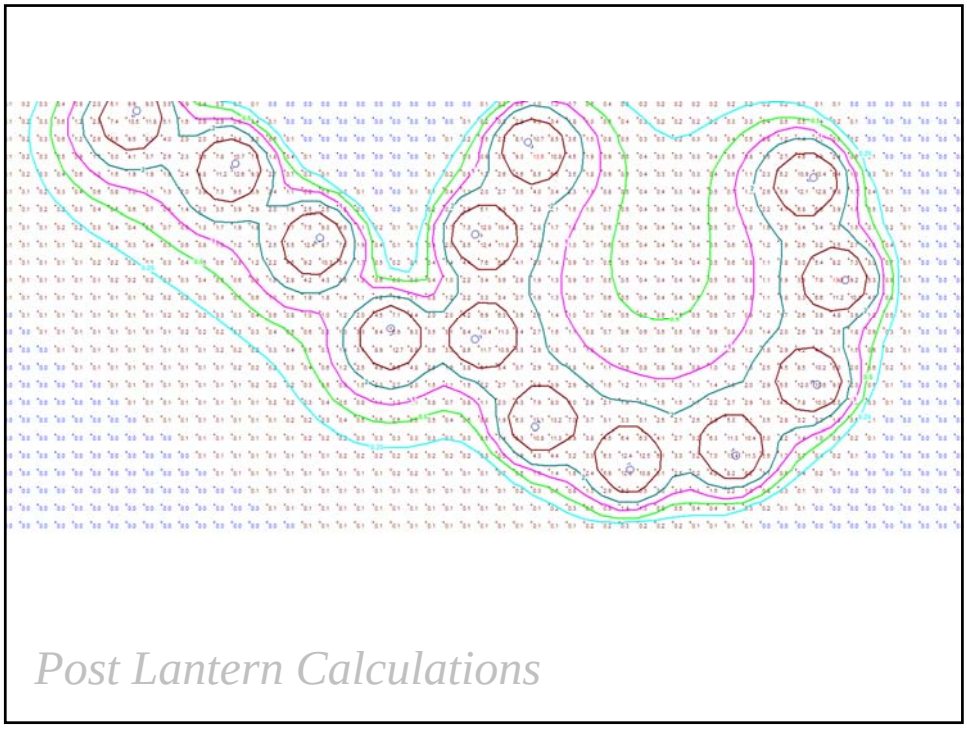
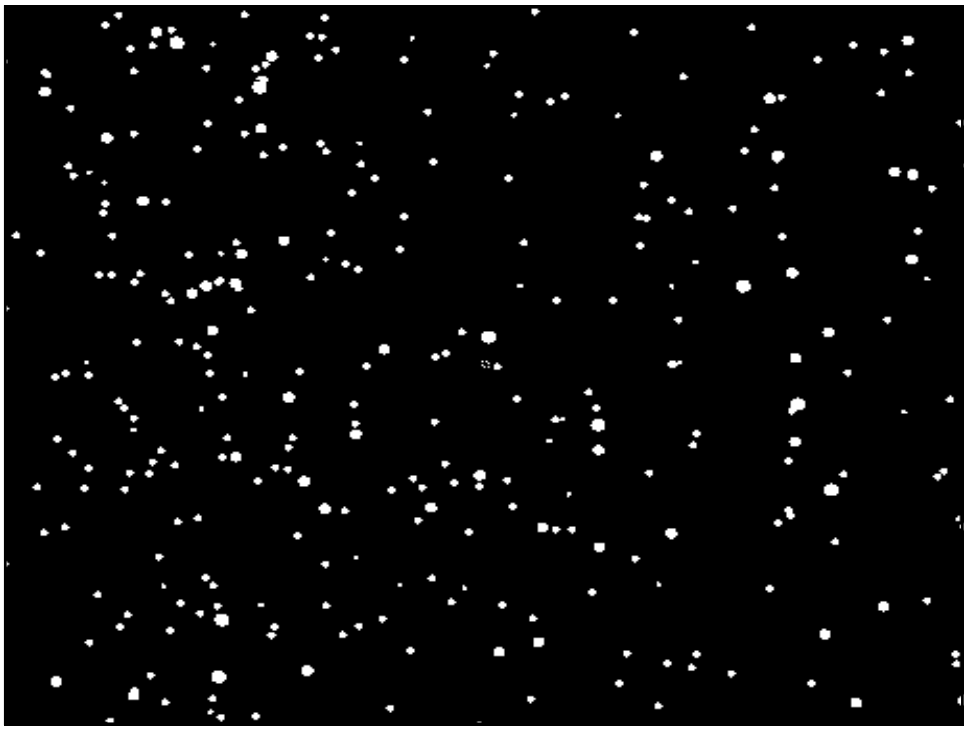


*Post Lantern Calculations*



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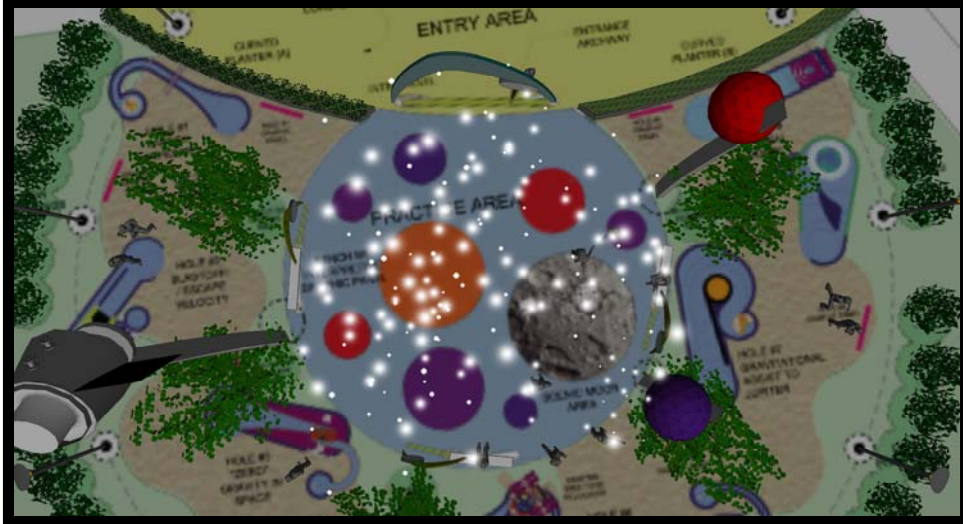
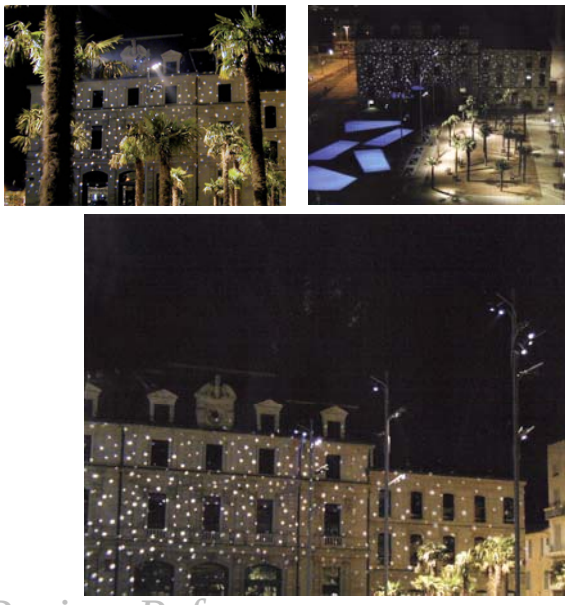



*Proposed Layout - Practice Area*



*Project Reference*

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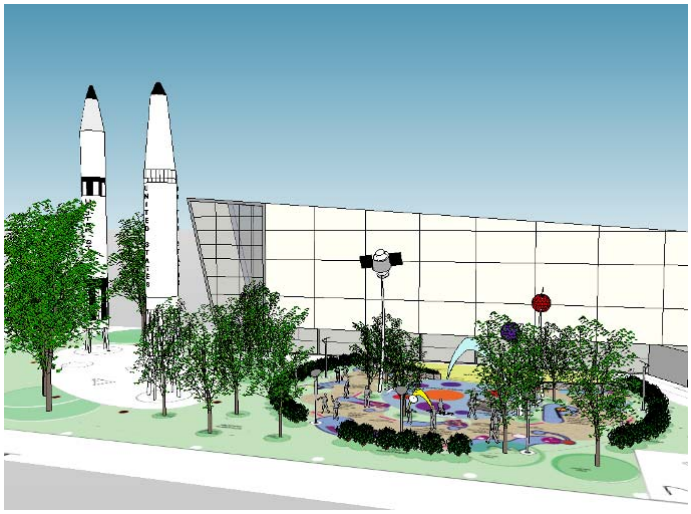
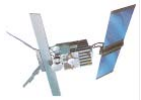
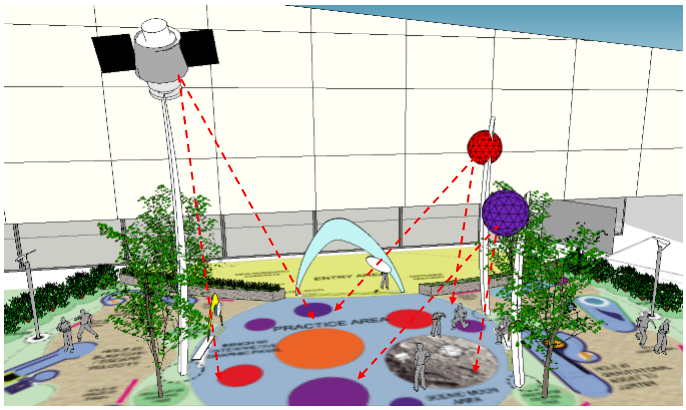
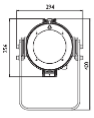
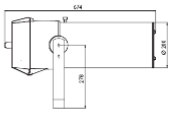




*Proposed Layout – Practice Area*





*Proposed Layout – Practice Area*

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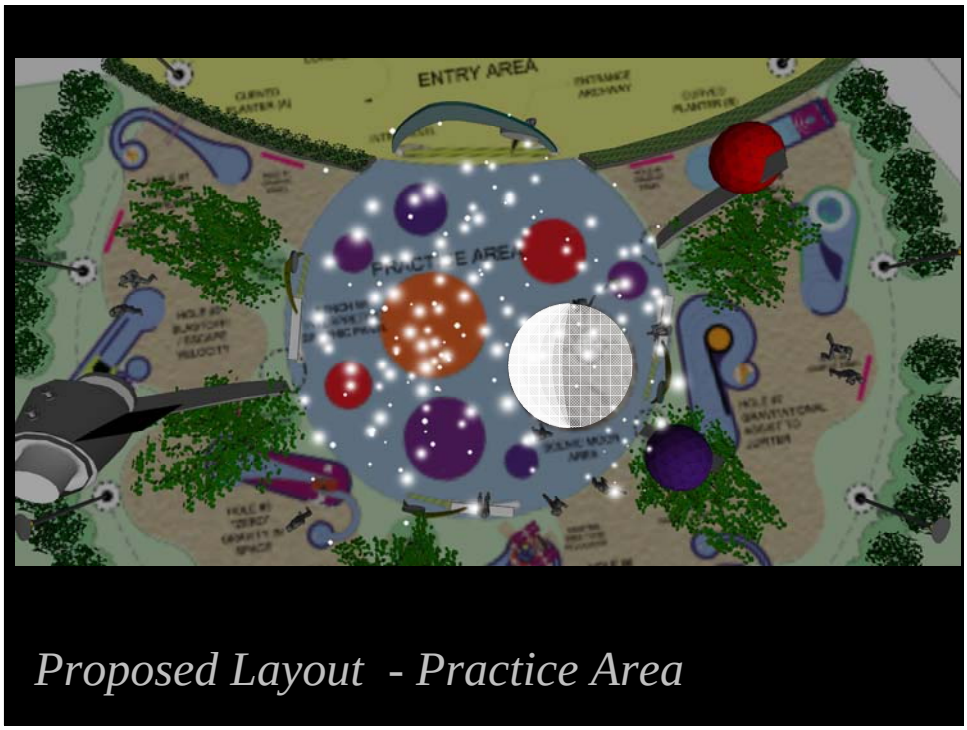


*Proposed Layout - Practice Area*

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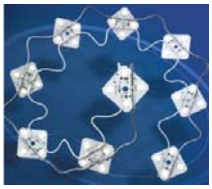
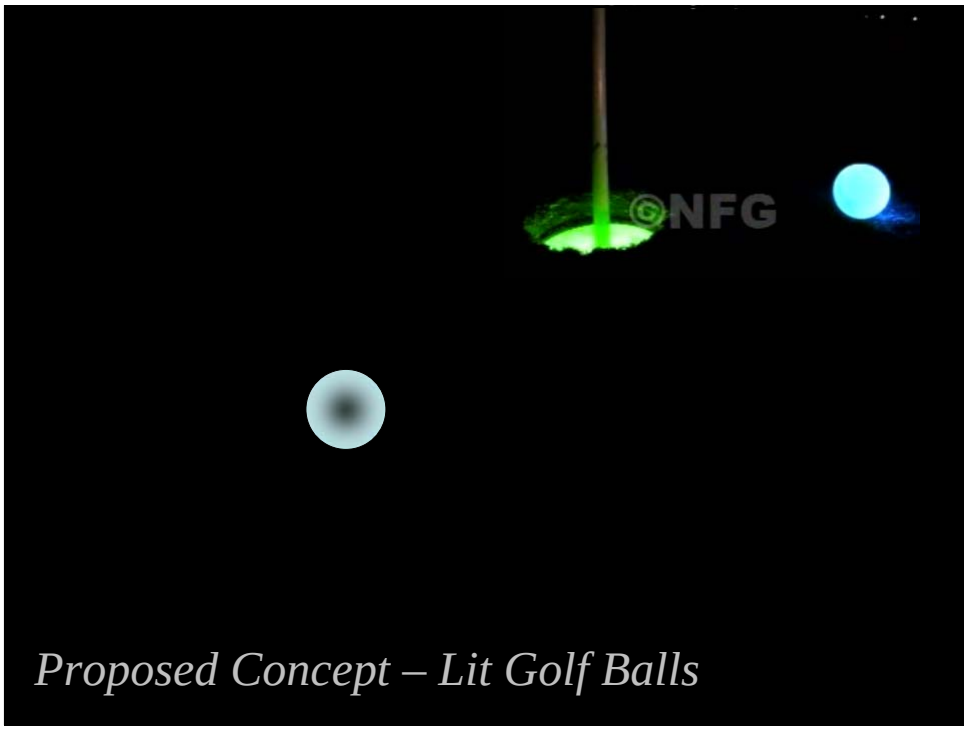


*Proposed Concept – Practice Area*




*Proposed Concept – Lit Golf Balls*

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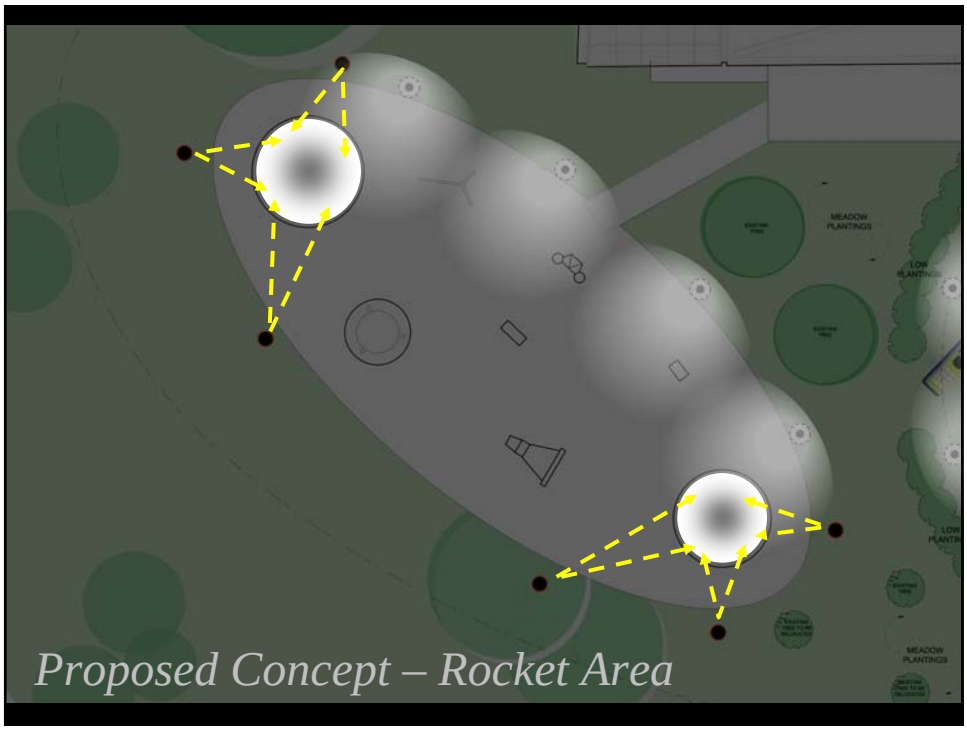


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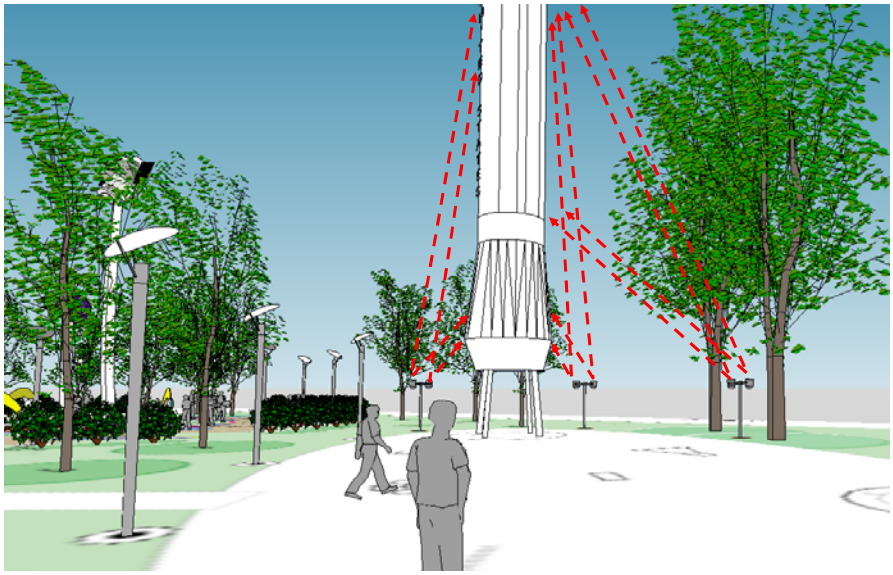
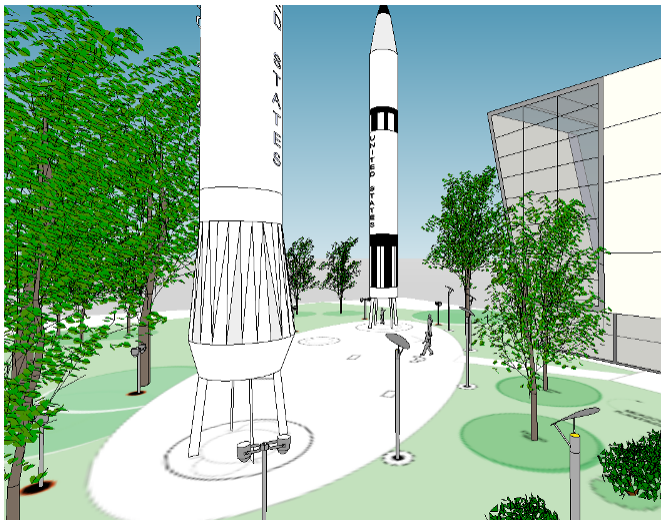


*Proposed Concept – Rocket Area*



*Proposed Concept – Rocket Area*

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**NYHS Rocket Park Lighting Concepts Presentation**

*Proposed Concept – Facade Lighting*

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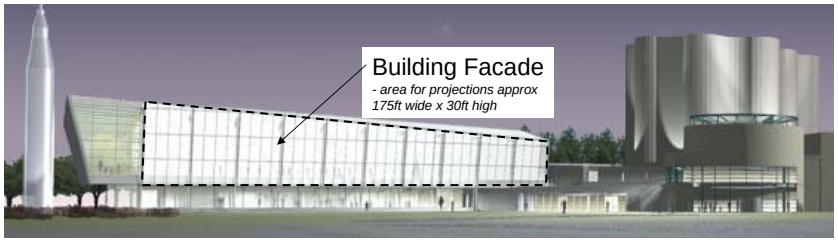


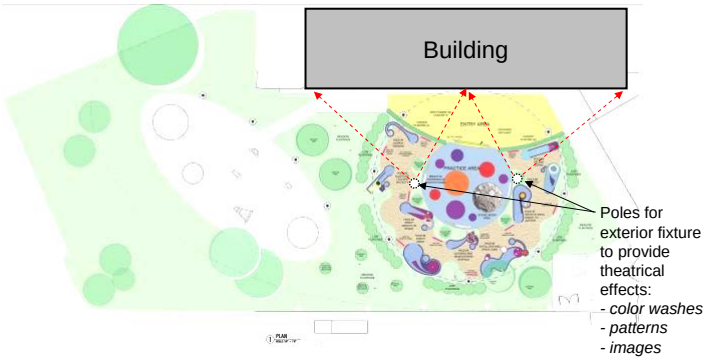


*Proposed Concept – Facade Lighting*

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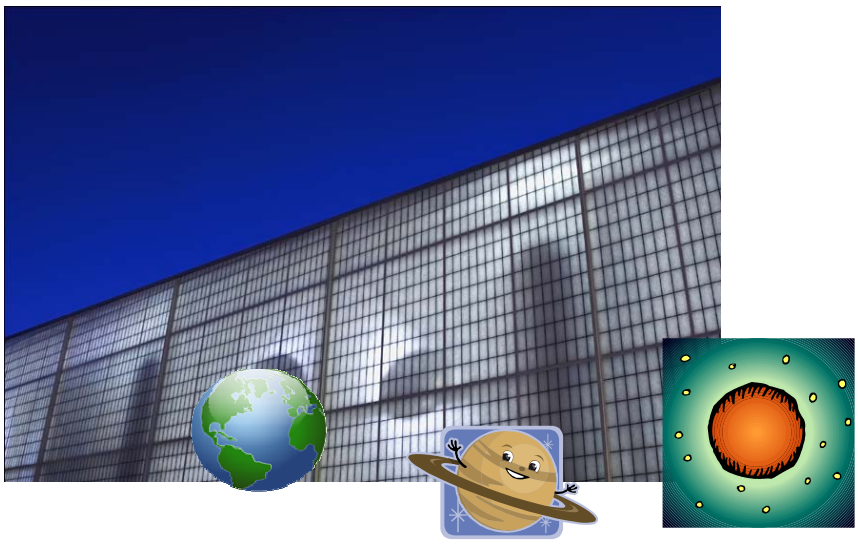
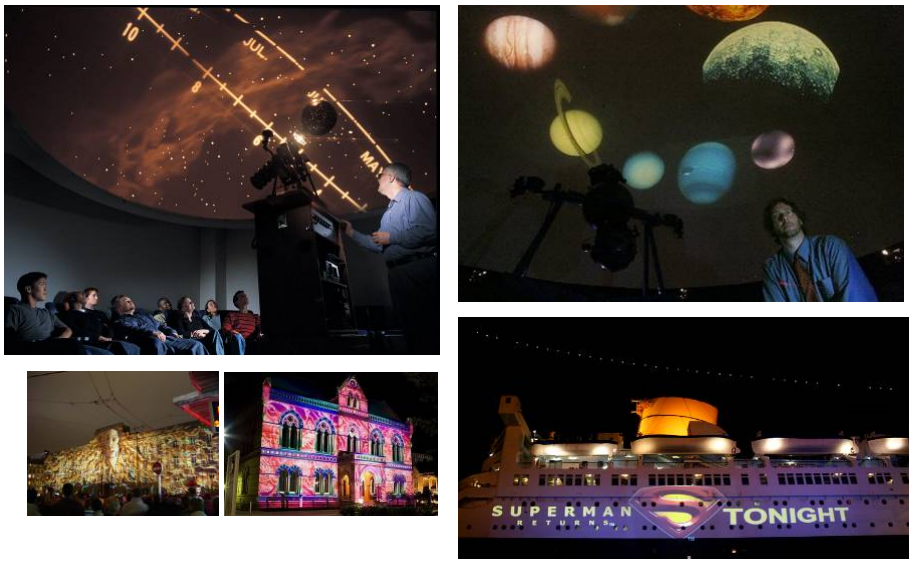


*Proposed Concept – Facade Lighting*




*Proposed Concept – Facade Lighting*

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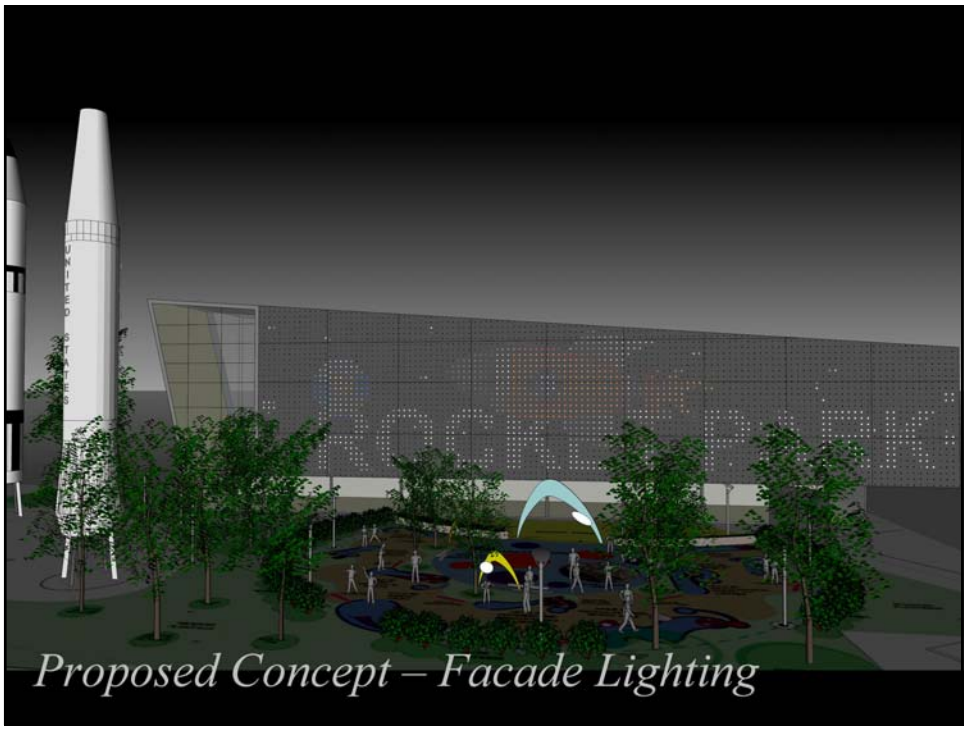
*Proposed Concept – Facade Lighting*

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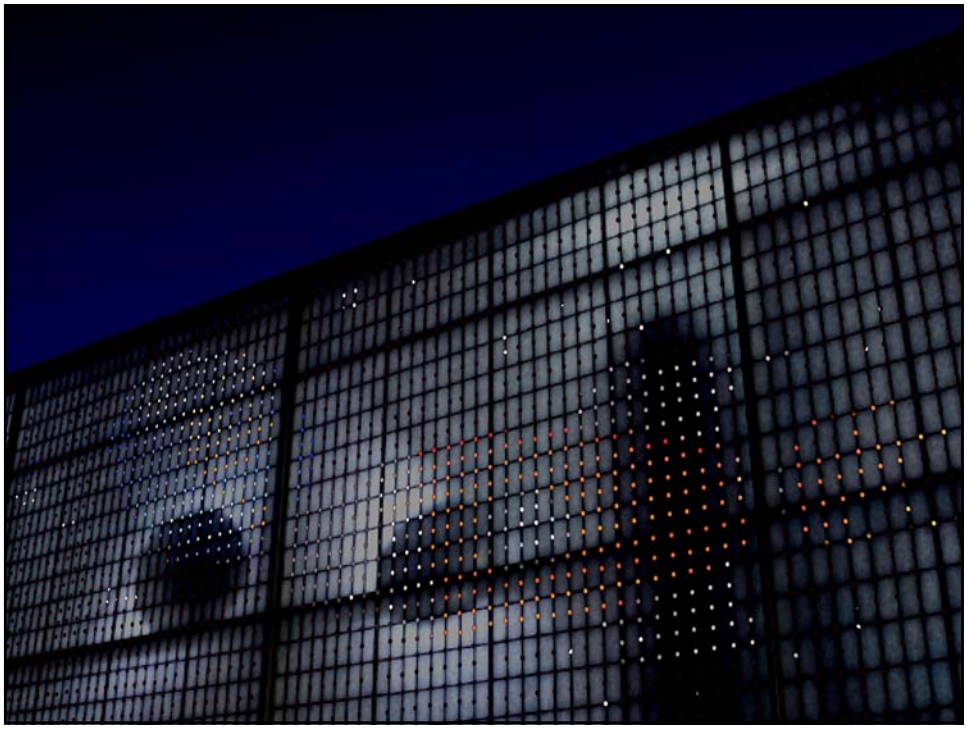

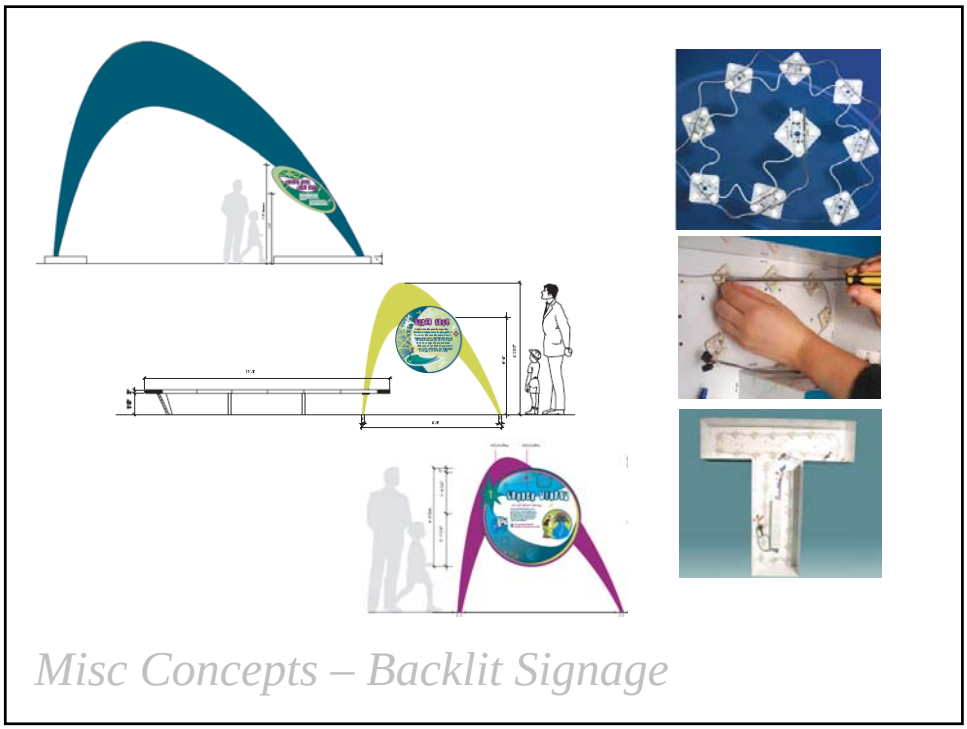

*Misc Concepts – Backlit Signage*

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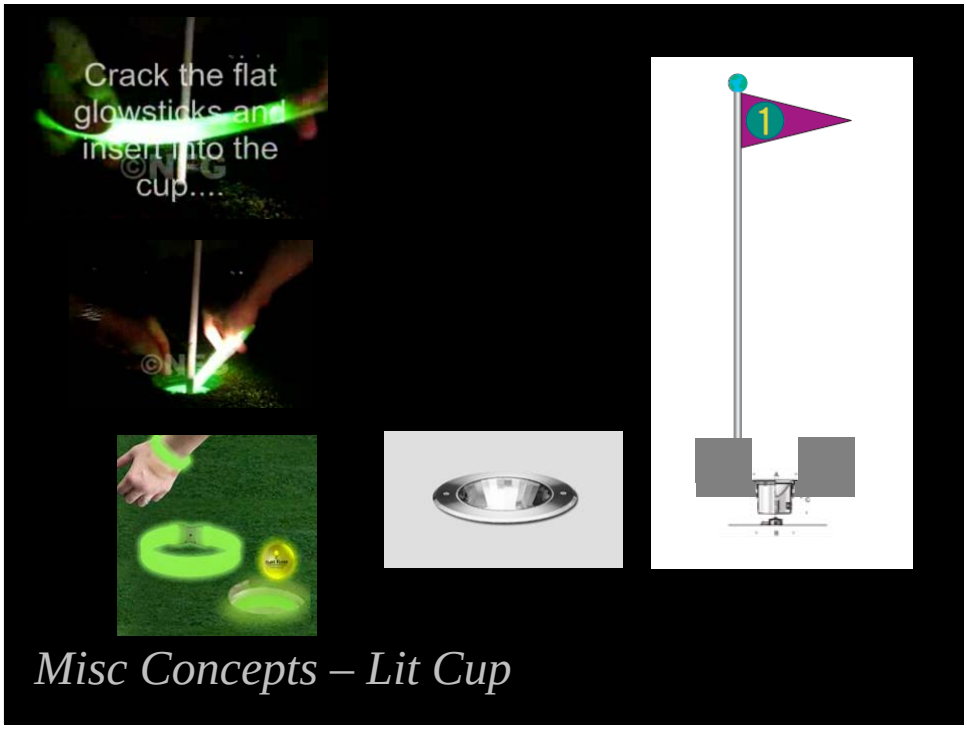



*Misc Concepts – Lit Cup*

*Misc Concepts – Contrast of Course Curb*

## NYHS Rocket Park Lighting Concepts Presentation

**Post Lanterns** **$26,000**
*- Selux "Ritorno"*
*- 13 posts at $2,000 ea*

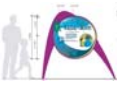
**Rocket Floodlights** **$25,500**
*- Bega floodlights at poles*
*- 6 post with twin floodlights at $4,250 ea*
*- qty may reduce with mock-up*

**Practice Area Stars** **$18,000**
*- Exterior "ProFlood"*
*- 6 pattern projector fixtures at $3,000 ea*
*- does not include mounting "objects"*
*- qty may reduce with mock-up*

**Video Facade** **$500,000**
*- Osram Sylvania "ColorPod" System*
*- approx 5,000 linear ft at $100 per ft*
*- video content by others*

**Moon Phases** **$15,000**
*- Osram Sylvania "ColorPod" System*
*- approx 150 linear ft at $100 per ft*
*- video content by others*
*- does not include "moon" glass paver*

**Flag Cup Lights** **$8,000**
*- Bega*
*- 8 burial uplights at $1,000 ea*



**Backlit Signage** **$9,000**
*- Osram Sylvania "Backlight"*
*- 12 signs approx at $750 ea*

**LED Golf Ball** **$5 ea**

**Glowstick Golf Ball** **$2.50 ea**

*Concepts – Light Fixture Budgets*

*Thank you!*

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