

## Project Overview

- Evaluate a 3.04-acre site along IH-35 in San Marcos, Texas for feasibility of a 120-room hotel development.
- Create a compliant site plan using the developer's building footprint.
- Site constraints include assessing zoning, setbacks, easements, impervious cover limits, parking requirements, and height restrictions.
- Estimate project costs for developer's proforma.
- Address engineering and regulatory requirements.
- Key design components include stormwater management and site grading.



## Constraints

- Land Development Code
- Transportation Master Plan
- Zoning & GIS Maps
- Drainage & Utility Criteria Manuals
- 2021 IFC (International Fire Code)
- Stormwater Technical Manual
- FEMA Flood Map Service Center
- San Marcos River Protection Zone

## C2.04 – Land to Landmark: Hotel Site

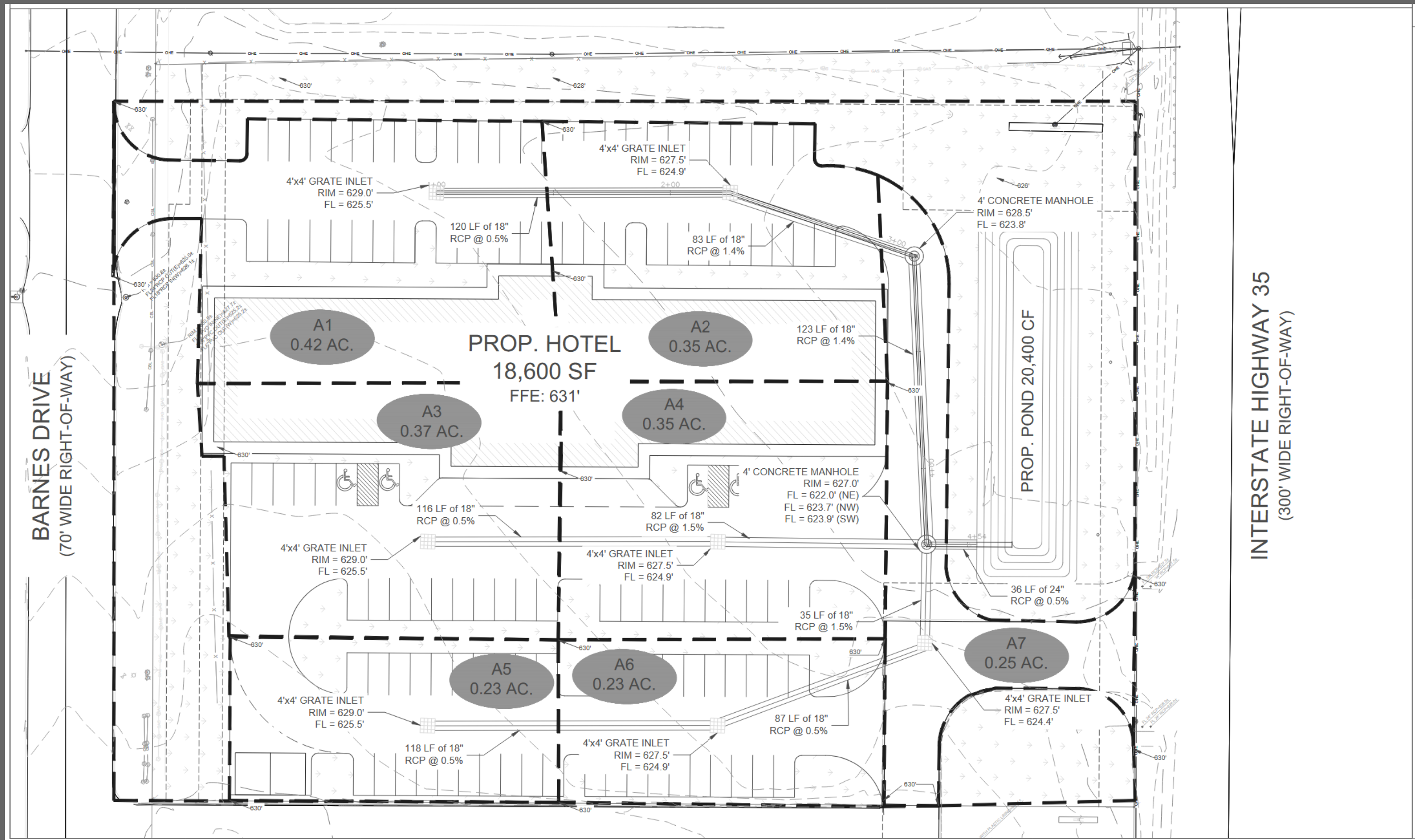
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Sponsor:

Kimley»Horn

Expect More. Experience Better.

## Overall Site Design



- Site area: 3.04 acres
- Parking: 124 w/ 5 accessible
- Impervious cover: 64%
- Retention Pond: 20,400 CF

## Stormwater Management

### Pipe and Pond Sizing

- Rational Method
- Mannings Equation
- Compare Q values

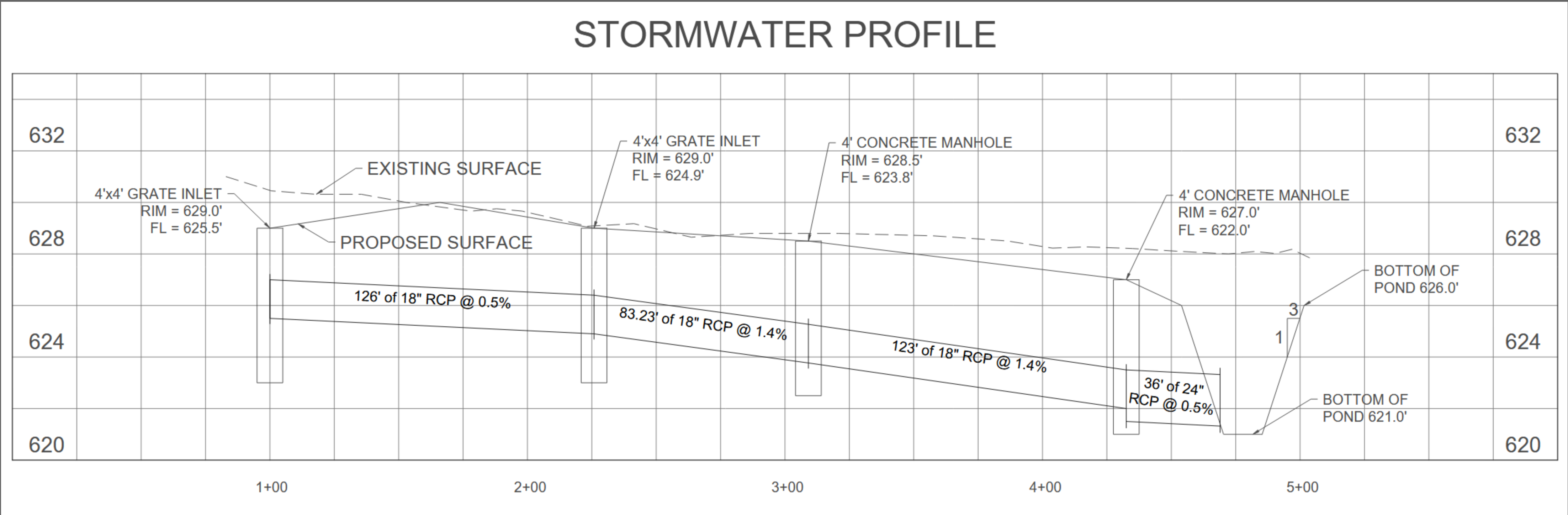
| Diameter (in) | Depth (in) | Roughness | Slope | Flow (cfs) |
|---------------|------------|-----------|-------|------------|
| 18            | 17.9       | 0.015     | 0.50% | 6.64       |

- Hydrograph

| Area (sf) | Elevation (ft) | Volume (cf) | Cumulative (cf) |
|-----------|----------------|-------------|-----------------|
| 1648      | 621            | 0           | 0               |
| 2538      | 622            | 2093        | 2093            |
| 3500      | 623            | 3019        | 5112            |
| 4535      | 624            | 4017.5      | 9129.5          |
| 5641      | 625            | 5088        | 14217.5         |
| 6819      | 626            | 6230        | 20447.5         |

## Site Grading

- FFE (Finished Floor Elevation)
- Flow Lines
- ADA Accessibility



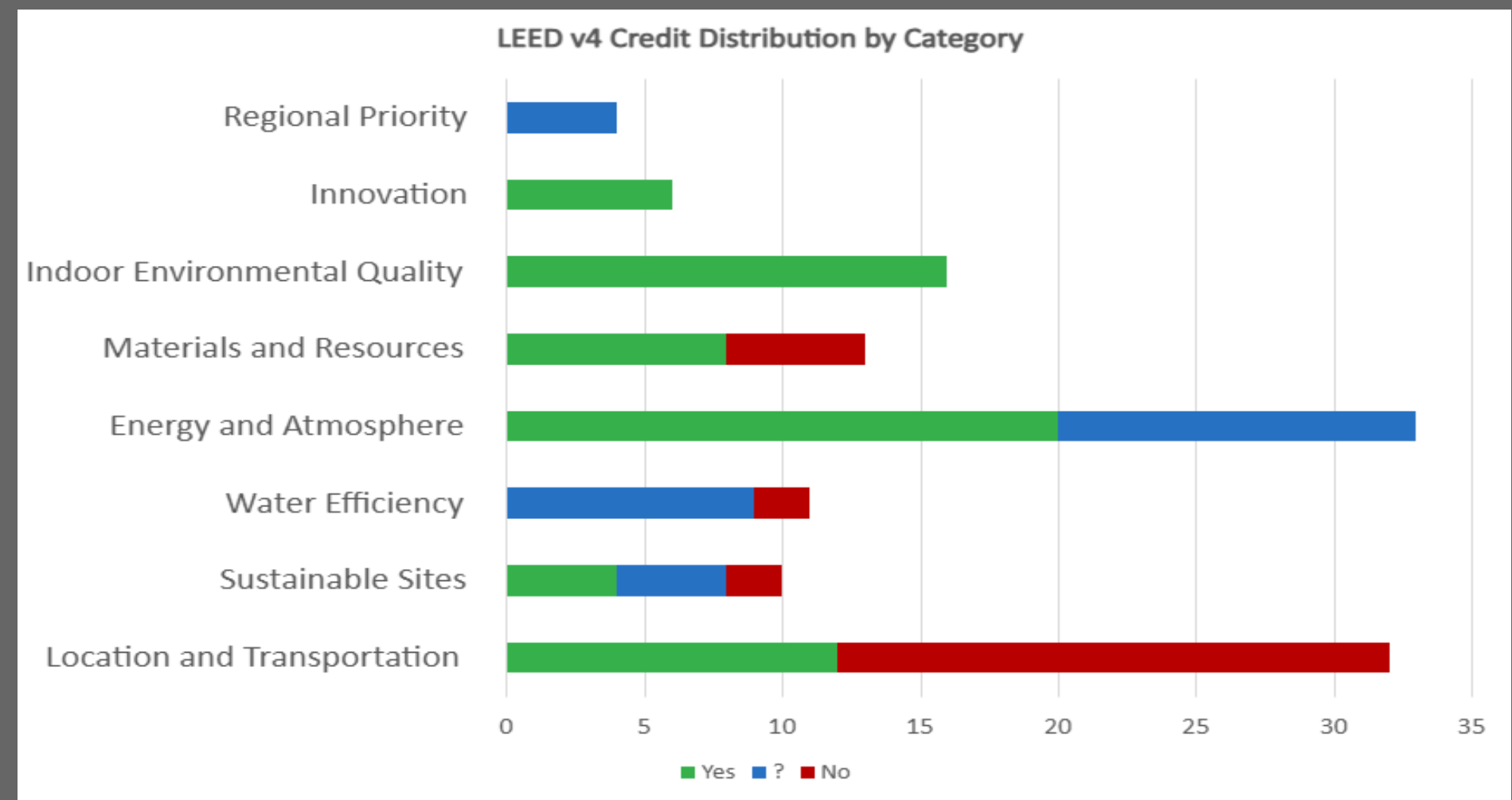
## Capital & Life-Cycle Cost

| Capital Costs     |       |            |
|-------------------|-------|------------|
| Items             | Total |            |
| Rooms             | \$    | 24,000,000 |
| Hotel Supplies    | \$    | 360,000    |
| Concrete          | \$    | 242,000    |
| Sidewalk          | \$    | 45,000     |
| Landscaping       | \$    | 429,200    |
| Retention Pond    | \$    | 46,000     |
| Construction prep | \$    | 18,200     |
| Utilities         | \$    | 24,000     |
| Engineering       | \$    | 2,517,800  |
| TOTAL             | \$    | 27,680,900 |

| Year | Initial      | Maintenance | Rehabilitation | Salvage     |
|------|--------------|-------------|----------------|-------------|
| 0    | \$27,680,900 | \$1,860,000 | \$5,000,000    | \$0         |
| 1    | \$0          | \$1,788,500 | \$0            | \$0         |
| 10   | \$0          | \$1,256,500 | \$3,377,800    | \$0         |
| 20   | \$0          | \$848,900   | \$2,281,900    | \$0         |
| 30   | \$0          | \$573,500   | \$1,541,600    | \$5,539,200 |

Net Present Value \$59,640,700

## Sustainability Summary



## Analysis



- Gold Certification: 60-70 points
- Presents a more complete sustainability profile with fewer required upgrades, making it more efficient and cost-effective candidate for a long-term development