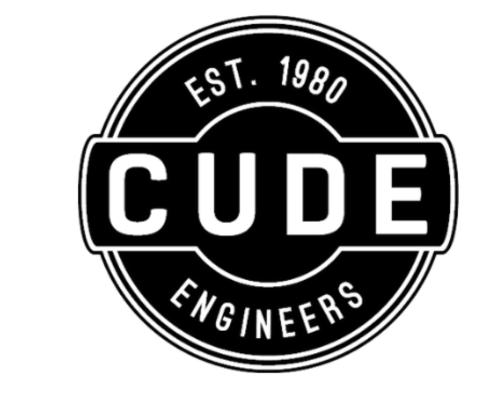
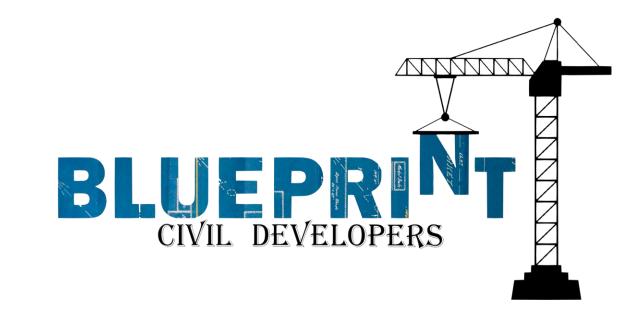


C2.08 - BLUEPRINT CIVIL DEVELOPERS

Ruth Jarrett, David Hakim, Natalie George

Sponsor Name: CUDE ENGINEERS





Project Overview

Site location: 600 Center Point Road,

San Marcos, Texas

Goal: Develop a fully functional industrial site that meets all regulatory

requirements

Scope: Construction of a 40,000 SF

industrial warehouse.

Sustainability: LEED Gold Certified

Constraints and Standards

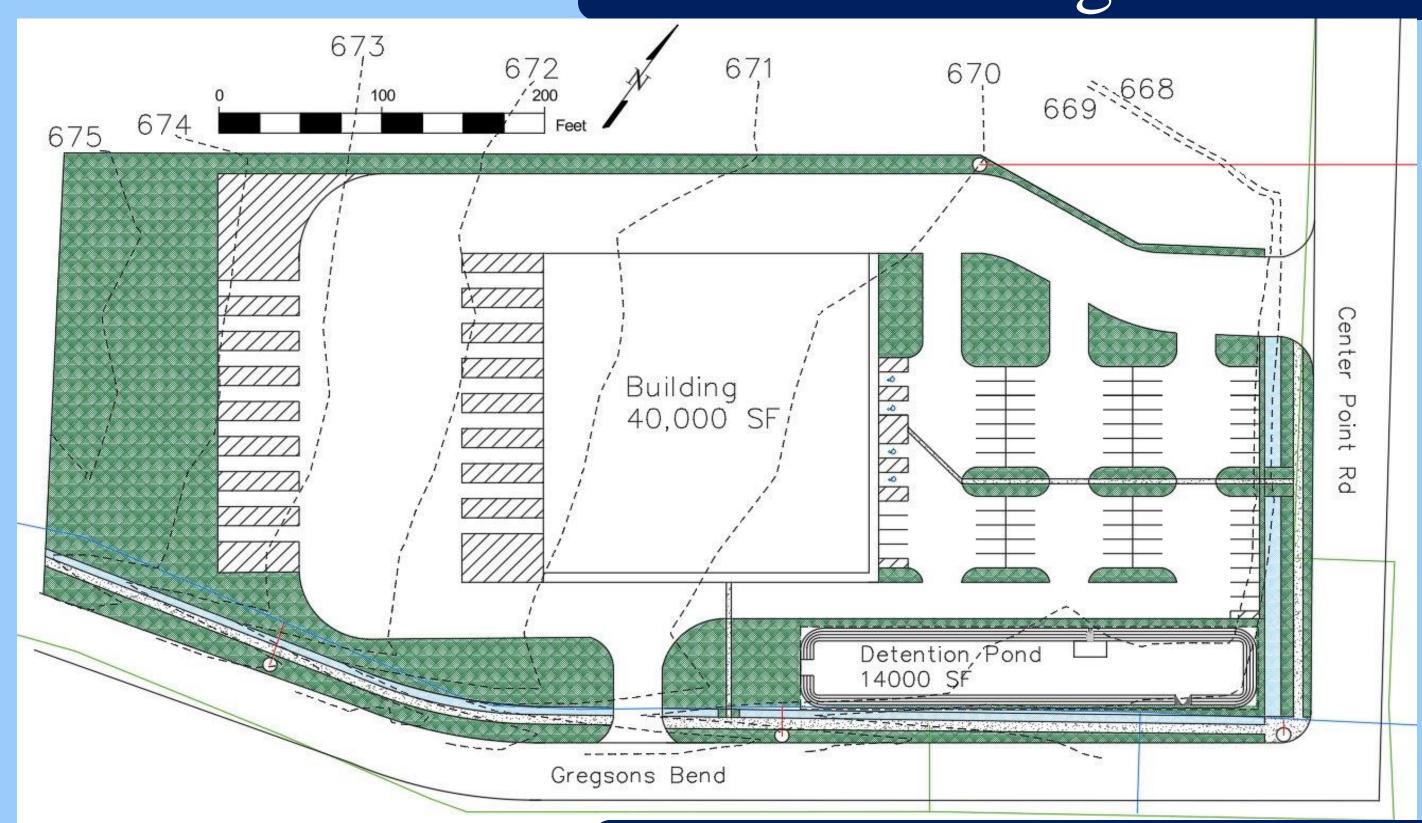
- Topography
- Protected areas
- Code and regulation
- Road access
- Utility
- Fire safety
- Flood and storm drain
- Budgeting
- Zoning regulations

Sustainability Overview

LEED Checklist	Total credits available	Total Credits Obtained
Location and Transportation	16	7
Sustainable Sites	10	6
Water Efficiency	11	9
Energy and Atmosphere	33	23
Materials and Resources	13	13
Indoor Environmental Quality	16	7
Innovation	6	4
Regional Priority	4	4
Total	109	73

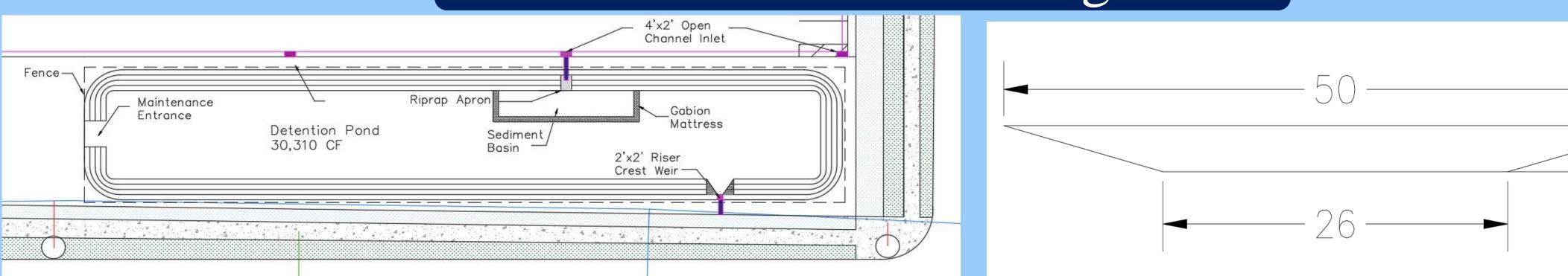
System and Element Design

R-Design Site Plan

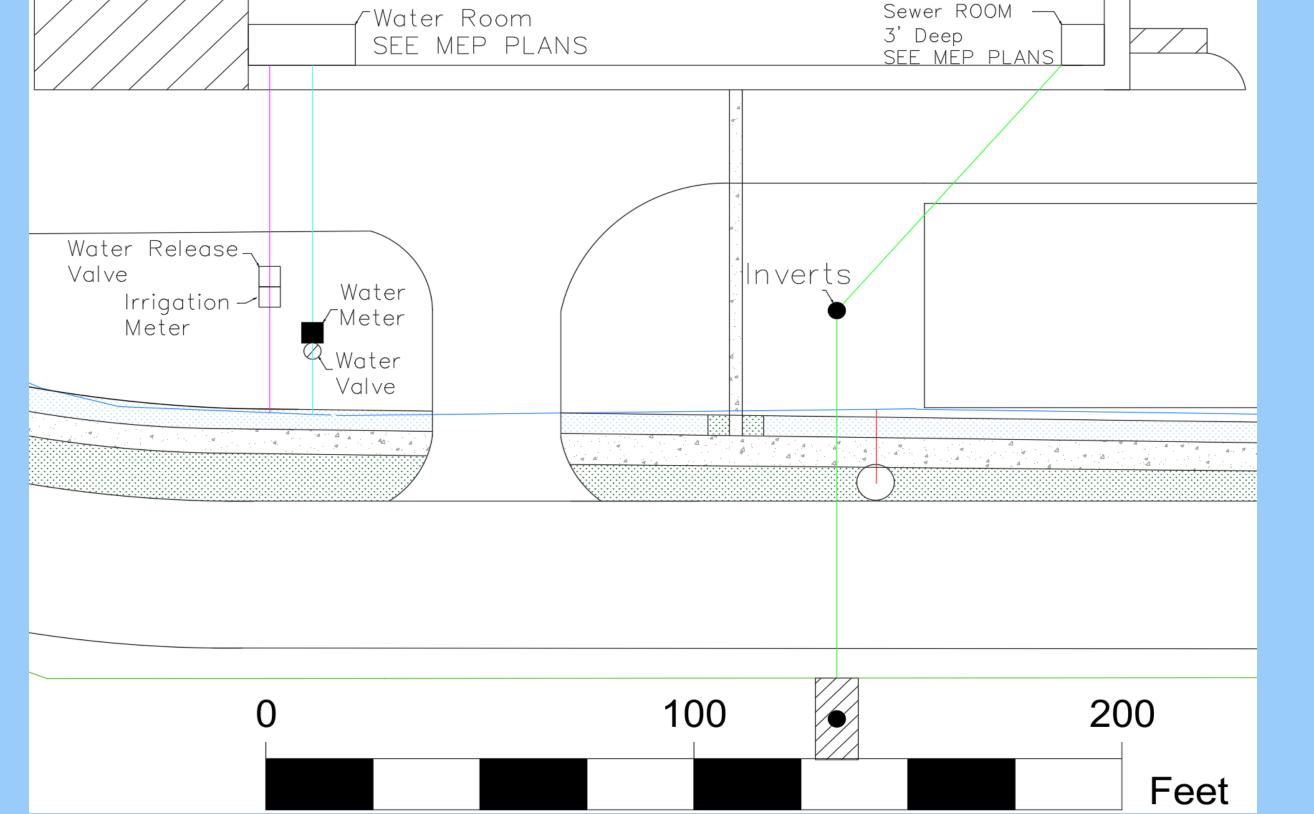


- 67 Standard Parking
- 4 Accessible Parking
- 8 Truck Parking and Loading Docks
- 1400 LF sidewalk for pedestrian circulation
- 30,300 CF Detention pond
- 27,000 CF Stormwater Runoff
- 116,900 SF Pavement
- 96,000 SF Green Space

Detention Pond Design



Water/Sewer Laterals



- Sewer Lateral:
 - o 8in to 6in Reducer
 - o 165 LF
 - Clean outs every90ft
- Water Lateral:
 - 10in to 3inreducer
 - o 85 LF

Life Cycle Cost

Year	Capital Cost	Operational Cost	Maintenance Cost	Salvage Value	NPV
1-40	\$5,375,000	\$440,000	\$1,700,000	\$1,220,000	\$3,200,000

Team Members



Name according to standing position: Natalie George, Ruth Jarrett, David Hakim

Capital Cost

R-Design	Cost \$		
Pavement	\$2,350,000		
Green Space	\$77,000		
Street	\$22,000		
Pond/Drainage	\$320,000		
Water Lateral	\$15,000		
Sewer Lateral	\$8,500		
Stormwater Runoff	\$545,000		
Permits and Fees	\$190,000		
Fire Protection	\$180,000		
Electric	\$590,000		
Opinion of Probable Cost (OPC)	\$4,300,000		
Allowance (10%)	\$430,000		
Contingency (15%)	\$645,000		
Total	\$5,375,000		