

**Black Hills Power  
Customer Call Center  
& Office Campus**

**Project Description  
And  
Letter of Intent**

**Prepared for:  
City of Rapid City**

**Prepared by:  
TSP, INC.  
For  
Black Hills Power**

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September 26, 2008

Black Hills Power  
Customer Call Center and Office Campus  
Rapid City, South Dakota  
Project No. 03070645

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### **PROJECT DESCRIPTION AND INTENT**

Black Hills Power is proposing to build the Black Hills Power Customer Call Center and Office Campus on approximately 40 acres of land they currently own located south of Catron Boulevard and approximately 1.2 miles east of Highway 16. The project is to be phased construction with the Call Center and Commons Building to be constructed in the initial phase, the Office Campus in the second phase, and a Day Care Facility in the third phase. The existing site currently houses a substation for Black Hills Power in the southeast corner of the property and is zoned agricultural.

The intent of this application is to request a change in the Comprehensive Plan and Zoning from that of an Agricultural designation to Office Commercial. Also included in this application is the initial development review package, a request for an exception in the height requirements to allow for the structures to extend above the 35' or three story limits on portions of the buildings, and request for the construction of a Day Care Center for the Black Hills Power employees. In general, the building modules will not exceed two stories in height, but because of the sloping terrain portions of the facility may exceed the 35' restriction. A more detailed description will follow in this narrative.

### **PROJECT PHASING**

The project will be constructed in three separate phases.

Phase 1 Construction will consist of the following and is scheduled for completion in 2009:

- Call Center Building - modules A thru E
- Concourse G
- Commons Building F
- Parking Lots 1
- Parking Lot 2 (may be an optional 2 level structure)
- Parking Lot 4 (If 2 level alternate is not accepted)
- Access Road improvements from Catron Boulevard (unless already constructed by SDDOT project)
- Site collector road to access Parking Lot # 4
- On site water system with fire hydrants and offsite connection to Rapid City water main at Dan Christy Lane

- Onsite sanitary sewer system and offsite connection to sanitary sewer main at Fifth Street (unless already completed with TIF project)
- Storm water metering ponds required for control of runoff and storm sewer infrastructure

Phase 2 Construction will consist of the following: - Schedule – To be determined

- Office Campus Building – modules I thru L
- Concourse H
- Parking Lots 4 thru 6
- If 2 level parking structure is included in Phase 1, add second level to complete the parking structure
- Completion of collector road to the east
- Sanitary sewer connection to main built in Phase 1 (Potential lift station depending on final grade of sewer main)
- Water system service connected to main built in Phase 1

Phase 3 Construction will consist of the following:- Schedule – To be determined

- Construction of the Day Care Facility
- Exterior Play Group
- Access, Drop Off & Parking for Day Care
- Water and sanitary sewer connected to Day Care
- Recreation area improvements to the south

## ARCHITECTURAL DESCRIPTION

### PHASE I – CUSTOMER CALL CENTER

The Customer Call Center will consist of a series of 75' bays (modules) connected by a continuous east / west pedestrian concourse. As the modules step down to accommodate the steep sloping site a combination of elevators, stairs and ramps will provide access to the various levels.

In addition to the Call Center this building will house the following departments;

- Information Technology
- Generation Dispatch
- General Services (Facilities Services)
- Reliability Center
- Customer Service
- Safety & Environmental

The west entrance will be utilized by the public for receiving utility bills. There will also be a drive up drop box in Parking Lot #1.

Modules A & B will be slab on grade construction. Module C will have a full basement for mechanical and electrical equipment. Modules D & E will utilize the steep existing grades to provide parking beneath.

The structure will be supported by deep pier foundations and concrete grade beams. The floor system over the parking area will be precast concrete members supported by precast concrete beams. The remaining structure will be steel frame with a combination of steel bar joists and trusses.

Roofs will be a combination of pitched and low sloped surfaces. HVAC equipment will not be located on the roofs. Roof membrane will be black. Day-lighting will be utilized so skylight structures and light tubes will be located at all roof surfaces.

Exterior finishes are to be determined. We anticipate some Lien limestone along with other materials selected to blend with the natural surroundings. To assist with the day-lighting we anticipate high glazed openings with sunscreen elements.

The Concourse will be a steel frame structure with glazed walls and a low pitched roof.

#### PHASE I – COMMONS BUILDING

This two story building located between the Customer Call Center and the Office Campus will house a central cafeteria, training rooms and other common facilities.

Construction materials will be similar to the Call Center.

An exception to the 35 foot height requirement is requested for this building.

#### PHASE II – OFFICE CAMPUS BUILDING

The Office Campus is a combination of one and two story modules with parking below. Structural support and construction will be similar to the Phase I Call Center. An east / west pedestrian concourse will connect this building to the Commons and the Call Center.

#### PHASE III – DAY CARE CENTER

The Day Care Center will be utilized by Black Hills Corporation employees. Construction type and materials are to be determined.

## SITE DESCRIPTION

### EXISTING SITE

The existing 40 acres generally slopes west to east with an existing drainage swale running west to east through the middle of the property. There are no existing structures on the site with the exception of the existing Black Hills Power Substation located in the southeast corner and power distribution poles along the west and southern portion of the property. Access to the site is via a gravel access road along the west and south section lines bordering the property. This gravel road ties into Catron Boulevard at the northwest corner of the property. With the exception of the substation, the site is covered with natural grasses and the existing drainage covered with oak trees and shrubs.

### PROPOSED SITE

The proposed master plan sites the Black Hills Power Customer Call Center and Office Campus on the north half of the property north of the existing drainage swale that runs west to east through the center of the property. The existing drainage swale and the southwestern half of the property will be used for recreational purposes and remain open. A parking area on the southwest portion of the property may also be constructed for use of the recreation area or for overflow parking if necessary.

Since the site slopes west to east the buildings will be stepped down to take advantage of the terrain and minimize the building heights and prevent excessive cuts and fills. Portions of the buildings will also have understructure parking to minimize the amount of exposed parking area. The balance of the site north of the drainage will accommodate the required parking, vehicle, and pedestrian circulation.

Since the site is located to the south and considerably lower than Catron Boulevard, special design considerations to the buildings will be made to have a functional, but visually attractive roof structure if viewed by the public from residential areas and from Catron Boulevard. Additional landscaping will be added to meet city requirements and also provide screening from the adjoining property owners.

### STREETS AND ROADS

The access from Catron Boulevard will be along a proposed collector that runs north and south on the section line. This access road is to be improved and realigned with the South Dakota Department of Transportation's (SDDOT) widening of Catron Boulevard scheduled for 2011 or 2012. Catron Boulevard will be expanded from a three lane road to a five lane which includes a turning lane. The proposed intersection with the access road to the site is planned to be a full service intersect. The west access road currently intersects Catron Boulevard at an angle. The new alignment will intersect Catron Boulevard perpendicular to the highway as shown on the master plan layout.

A traffic impact study commissioned by Black Hills Power is currently underway to determine the impacts of traffic flow to the proposed facility. Recommendations from this study will be implemented in the design of the roads and streets. Initial results of this study will be available in two to three weeks. The project team is also reviewing the access road design with the SDDOT to determine the optimum design that will minimize the fill requirements to the internal streets.

The internal streets are being designed to City of Rapid City design requirements for a collector street. The new street alignment will extend from the west to east property line with the anticipation it will connect into the major street plan for Rapid City in the future. Access to the Black Hills Power parking areas will tie directly into this street at various locations along the north side of the street. Access to the proposed Child Care Center will be from the south side of the street. See the master plan for location of curb cuts, approaches, street grades and widths, service access locations to the buildings, and parking area access. The street layout and internal road system has had an initial review by the Rapid City Fire Department to help determine design criteria for fire truck access.

All internal streets will be paved with either asphalt or concrete. The access road from Catron is proposed to be paved with asphalt during the SDDOT construction of Catron. If this road is not completed by the SDDOT before the Black Hills Power facility is completed, Black Hills Power will coordinate with the SDDOT and City of Rapid to complete the access road to meet future design criteria required for the connection to Catron Boulevard prior to opening of the facility.

#### PARKING AREAS

The Call Center and Commons Building will have a combination of understructure and at grade parking areas that will serve the faculties. Parking Area #1 will be the main customer parking area for access to the Call Center. Some employee parking will also be available in Parking Area #1, but the majority of the parking for the Call Center and Commons Building will be in Parking Area #2, #3, and #4. An alternate upper level parking structure at Parking Area #2 is also being considered.

The Office Campus Building will also have understructure parking located in Parking Area #6, with the balance of parking located in Parking Lot #5.

Site lighting in the parking area will utilize fixtures with cutoff optics for light pollution reduction. See initial lighting plan for the proposed layout.

See the Parking Plan for the number of spaces available and as required by code.

### WATER AND SANITARY SEWER

The water main and service to the facility will tie into the City of Rapid City water system at Dan Christy Lane located north and east of the site. The system ties into the Skyline and Terricita Reservoirs and initial meeting with the City of Rapid Engineering Department indicate some pressure reducing valves may need to be included in the design. The service to the facility will run along the south side of Catron Boulevard and will be designed to accommodate the future widening of Catron Boulevard. Fire hydrants will be placed appropriately around the facility at an approximate 500' spacing and in compliance with the City of Rapid standards. Building service locations will be determined by the plumbing layout.

Currently a TIF district is proposed to extend the sanitary sewer main from the 5<sup>th</sup> Street intersection with Catron Boulevard along the south side of Catron to the west and tie into Highway 16. The Black Hills Power facility sanitary sewer system is planned to tie into this system. If the TIF system is not designed and approved before the Black Hills Power facility is ready, the project will need to extend the sanitary sewer to the 5<sup>th</sup> Street location. Currently an 8" main is planned for the facility with any oversize design to accommodate the future TIF alignment to be negotiated with the City of Rapid.

See the attached drawings for the initial layouts of the water and sanitary sewer system.

### STORM DRAINAGE PLAN

In general the storm drainage plan will route runoff from the site to the existing drainage swale located near the center of the site and south of the buildings. Metering ponds will be added in the drainage swale to maintain control of the historic flows to the property to the east. Some of the drainage will also be routed along the north side of the buildings and metered through various landscape features as it flows to the east. The storm drainage plan will utilize best management practices to help minimize erosion and utilize runoff water where appropriate to help minimize the use of the water system to water the site vegetation. The storm drainage plan will also need to accommodate runoff water from the west that will be conveyed to the drainage swale via a culvert as located in the SDDOT design.



### LANDSCAPING PLAN AND SITE AMENITIES

The conceptual landscaping plan is highlighted in the attached master plan. One of the amenities to the site will be the location of the Black Hills Power entrance sign. This will be located at the intersection of the section line access road and the main street in the property. The sign will be an on grade sign, landscaped to maintain an appropriate entry to the property. The exact design and size has not yet been determined.

A recreational path is proposed to be constructed to provide a walking path for employees. This proposed path will extend south through the drainage swale utilizing a small bridge that will access a path system on the south portion of the property. This path will be appropriately landscaped for screening and have picnic areas or shelters at various locations to be utilized by employees during their lunch or break periods. The landscape plan will try to keep as much of the natural trees and vegetation as possible in the existing drainage.

**PRELIMINARY CODE REVIEW FOR BLACK HILLS POWER CUSTOMER  
CALL CENTER AND OFFICE CAMPUS**

CH.3	Use and occupancy B – Business with low-hazard Storage, Group S-2 for the parking garage area, open <u>or</u> enclosed.
SECT 406	Motor-vehicle related occupancies
406.2	Parking Garages
406.2.7	Mixed Separation-Per Section 508.3 B & S-2
TABLE 508.3.3	2 Hr. if not Srinklered 1 Hr. if Sprinklered
406.3	Open Parking Garages
706	Fire Barriers – Table 706.3.9 2 Hr. Separation
711	Horizontal Assemblies
SECT 509	Special Provisions - Use this section when considering each occupancy a separate and distinct building. (Area & Height)
509.2	Group S-2 Enclosed or Open parking garage with A, B, M, R on S above.
SECT 707	Shaft Enclosures
707.4	Fire-resistance rating –, 1 hr. if less than 4 stories
SECT 711	
711.3	Horizontal assembly separates mixed occupancies: Rating to be not less than 508.3.2 based on occupancies Therefore 2 hr. if not sprinklered 1 hr. if sprinklered
601	Table 601 – Construction Ratings Type IIA
503	Table 503 – Allowable height & building areas
	Base area for –
	S-2 /IIA: 39,000 s.f.
	S-2 /IIB: 26,000 s.f.
	B /IIA: 37,500 s.f.
	B /IIB: 23,000 s.f.
WORST CASE	Aa = 23,000 + 17,250 + 69,000
B /IIB	(23,000x.75) (23,000x3)
	Aa = 109,250 SF
Or	
B /IIA	Aa = 37,500 + 28,125 + 112,500
	Aa = 178,125 SF

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**PRELIMINARY CODE REVIEW FOR BLACK HILLS POWER CUSTOMER  
CALL CENTER AND OFFICE CAMPUS**

\*SECTION 507      Unlimited Area Buildings:  
Sprinklered, One-story, Group B or S  
Not Type V Construction, Public way at 60 feet in width  
surrounding building

Table 106.1      Exit Access travel distance  
Occupancy B w/ sprinkler      300 ft.  
Occupancy B w/o sprinkler      200 ft.  
Occupancy S-2 w/ sprinkler      400 ft.  
Occupancy S-2 w/o sprinkler      300 ft.

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