To Access the Agenda and Backup Materials electronically, go to www.gjcity.org

PLANNING COMMISSION AGENDA
CITY HALL AUDITORIUM, 250 NORTH 5TH STREET
TUESDAY, JUNE 26, 2012, 6:00 PM

Call to Order

Welcome. Items listed on this agenda will be given consideration by the City of Grand Junction Planning Commission. Please turn off all cell phones during the meeting.

If you wish to speak, please sign in prior to coming up to the podium. Sign in sheets are located on the table in the back of the auditorium. In an effort to give everyone who would like to speak an opportunity to provide their testimony, we ask that you try to limit your comments to 3-5 minutes. If someone else has already stated your comments, you may simply state that you agree with the previous statements made. Please do not repeat testimony that has already been provided. Inappropriate behavior, such as booing, cheering, personal attacks, applause, verbal outbursts or other inappropriate behavior, will not be permitted.

Copies of the agenda and staff reports are located at the back of the Auditorium.

Announcements, Presentations and/or Prescheduled Visitors

Consent Agenda

Items on the consent agenda are items perceived to be non-controversial in nature and meet all requirements of the Codes and regulations and/or the applicant has acknowledged complete agreement with the recommended conditions.

The consent agenda will be acted upon in one motion, unless the applicant, a member of the public, a Planning Commissioner or staff requests that the item be removed from the consent agenda. Items removed from the consent agenda will be reviewed as a part of the regular agenda. Consent agenda items must be removed from the consent agenda for a full hearing to be eligible for appeal or rehearing.

1. **Minutes of Previous Meetings** **Attach 1**
   None available at this time.

2. **Vodopich Subdivision – Subdivision – Extension** Attach 2
   Request approval of a one-year extension of the Preliminary Subdivision Plan for Vodopich Subdivision, a 10-lot subdivision on 3.22 acres in an R-4 (Residential 4 du/ac) zone district.
   FILE #: PFP-2006-243
   PETITIONER: Bill Nesheim – JBB Corporation
   LOCATION: 3023 F 1/2 Road
   STAFF: Greg Moberg

3. **Ute Water Tank Tower #2 – SBT Internet – Conditional Use Permit** Attach 3
   Request approval of a Conditional Use Permit to allow the construction and maintenance of a telecommunications facility and support structure.
   FILE #: CUP-2012-276
   PETITIONER: Rex Jennings – SBT Internet
   LOCATION: 380 South Camp Road
   STAFF: Senta Costello

*** * * END OF CONSENT CALENDAR * * ***

*** * * ITEMS NEEDING INDIVIDUAL CONSIDERATION * * ***

Public Hearing Items

On the following items the Grand Junction Planning Commission will make the final decision or a recommendation to City Council. If you have an interest in one of these items or wish to appeal an action taken by the Planning Commission, please call the Public Works and Planning Department (244-1430) after this hearing to inquire about City Council scheduling.

General Discussion/Other Business

Nonscheduled Citizens and/or Visitors

Adjournment

Attach 1
No minutes available at this time.

Attach 2
Vodopich Subdivision

CITY OF GRAND JUNCTION — MEETING DATE: July 26, 2012
PLANNING COMMISSION — PRESENTER: Greg Moberg

AGENDA TOPIC: Vodopich Subdivision Extension – PFP-2006-243

ACTION REQUESTED: A request for a one-year extension of the approved Preliminary Subdivision Plan.

BACKGROUND INFORMATION					
Location:		3023 F ½ Road			
Applicants:		Owner/Developer: JBB Corporation			
Existing Land Use:		Single-family Residential			
Proposed Land Use:		Single-family Residential			
Surrounding Land Use:	North	Residential			
	South	Residential			
	East	Residential			
	West	Vacant			
Existing Zoning:		R-4 (Residential 4 du/ac)			
Proposed Zoning:		N/A			
Surrounding Zoning:	North	RSF-R (County)			
	South	RMF-5 (County)			
	East	RSF-R (County)			
	West	RSF-R (County)			
Comprehensive Plan Designation:		Residential Medium Low – RML (2-4 du/ac)			
Zoning within density range?		X	Yes		No

PROJECT DESCRIPTION: Request approval of a one-year extension to the Preliminary Subdivision Plan for Vodopich Subdivision a 10-lot subdivision on 3.22 acres in an R-4 (Residential 4 du/ac) zone district.

RECOMMENDATION: Approval of the one-year extension request.

ANALYSIS:

The Preliminary Subdivision Plan for Vodopich Subdivision was approved on September 11, 2007. No phasing was proposed at the time of approval.

On August 24, 2009, the Developer requested a one-year administrative extension. The Developer reported that due to restrictions placed on financial institutions, it had been unable to secure financing to develop the project. The request for a one year administrative extension was approved on August 26, 2009 extending the expiration date of the Preliminary Development Plan to September 11, 2010.

On June 11, 2010, the Developer requested a two-year extension due to the depressed real estate market and the inability to find a buyer interested in completing the development of the property. On July 26, 2010, the Planning Commission approved the request extending the expiration date of the Preliminary Subdivision Plan to September 11, 2012.

On May 2, 2012, the Developer requested a one-year extension. The request indicated that the Developer had been unable to sell as there are still a large number of undeveloped parcels for sale due to the depressed economy. The request for extension was timely submitted.

In accordance with Section 21.02.070(u)(4) of the Grand Junction Municipal Code:

> "If the applicant does not complete all steps in preparation for recording a final plat within two years of approval of the preliminary subdivision plan, the preliminary subdivision plan shall require another review and processing as per this section and shall then meet all the required current code regulations at that time. One extension of 12 months may be granted by the Director so long as the plan is consistent with the Comprehensive Plan and current zoning requirements. Additional extensions may be granted by the Planning Commission so long as the plan is consistent with the Comprehensive Plan and current zoning requirements."

The proposed Subdivision is a 10 lot single-family detached subdivision. The parcel to be developed consists of 3.22 acres with one existing single-family residence. According to the approved preliminary subdivision plan, the existing residence will remain as part of the development and the garage for the residence will be relocated prior to recording the final plat. The proposed plat meets the current standards and requirements found within the Zoning and Development Code. To date, no improvements have been made to the property nor has any infrastructure been installed.

Furthermore, the proposed density of 3.11 dwelling units per acre, meets the current density requirements of the R-4 zoning and the Residential Medium Low (2-4 du/ac) designation of the Comprehensive Plan Future Land Use Map.

If the Planning Commission grants the requested extension, the Developer will have until September 11, 2013 to complete all steps in preparation for recording the final plat.

FINDINGS OF FACT AND CONCLUSIONS:

After reviewing the request for a one-year extension to the approved Preliminary Subdivision Plan for Vodopich Subdivision, PFP-2006-243, the following findings of fact and conclusions have been determined:

1. The requested extension is consistent with the goals and policies of the Comprehensive Plan.

2. The requested extension is consistent with the current zoning and development requirements.

STAFF RECOMMENDATION:
I recommend that the Planning Commission approve the request for a one-year extension for the Vodopich Preliminary Subdivision Plan, file number PFP-2006-243, with the findings of facts and conclusions listed above.

RECOMMENDED PLANNING COMMISSION MOTION: Mr. Chairman, I move we approve a one-year extension of the Preliminary Subdivision Plan approval for Vodopich Subdivision, file number PFP-2006-243, in accordance with Grand Junction Municipal Code Sections 21.02.070(u)(4) and 21.02.070(r)(6) with the findings of fact and conclusions in the staff report.

Attachments:
Staff Report from September 11, 2007.

CITY OF GRAND JUNCTION
PLANNING COMMISSION

MEETING DATE: September 11, 2007
STAFF PRESENTATION: Ken Kovalchik

AGENDA TOPIC: PFP-2006-243 Vodopich Subdivision

ACTION REQUESTED: Preliminary Subdivision Plan Approval

BACKGROUND INFORMATION					
Location:		3023 F ½ Road			
Applicants:		Owner/Developer: JBB Corporation Representative: Austin Civil Group, Inc.			
Existing Land Use:		Single-family Residential			
Proposed Land Use:		Single-family Residential			
Surrounding Land Use:	North	Residential			
	South	Residential			
	East	Residential			
	West	Residential			
Existing Zoning:		R-4 (Residential 4 du/ac)			
Proposed Zoning:		R-4 (Residential 4 du/ac)			
Surrounding Zoning:	North	RSF-R (County)			
	South	RMF-5 (County)			
	East	RSF-R (County)			
	West	RMF-5 (County)			
Growth Plan Designation:		Residential Medium Low – RML (2-4 du/ac)			
Zoning within density range?		X	Yes		No

PROJECT DESCRIPTION: A request for Preliminary Subdivision Plan approval for a 10-lot subdivision containing single-family detached units on each lot, on 3.22 acres in an R-4 (Residential 4 du/ac) zone district. This is a combined Preliminary/Final Plan submittal, the Final Plat is under administrative review concurrent with the request for approval of the Preliminary Plan.

RECOMMENDATION: Approval, with conditions, of the Vodopich Subdivision Preliminary Plan

ANALYSIS

1. Background

The proposed Vodopich Subdivision, a 10 lot single-family detached subdivision is located south of F ½ Road, east of 30 Road and west of 30 ½ Road. The current one (1) unplatted parcel of land consists of 3.22 acres with one existing single-family residence. The existing residence will remain as part of the development and the garage for the residence will be relocated prior to recording the final plat.

The density of the proposed subdivision will be approximately 3.11 dwelling units per acre, which meets the minimum density requirements of the Zoning and Development Code. The Growth Plan Future Land Use Map indicates Residential Medium Low (2-4 du/ac) and the existing zoning designation is R-4 (Residential 4 du/ac).

The proposed subdivision has one ingress/egress point, with access provided from F ½ Road. The internal streets for the proposed subdivision are designed according to the urban residential street standards. A stub street connection, from Vodopich Drive, is provided to the adjacent parcel to the east. As required by Code a 14' wide landscape buffer will be installed adjacent to F ½ Road, which is a designated Major Collector Street (Tract A and Tract B on the plans).

Tract C is a proposed shared driveway and Tract D will be used as a detention pond. Tract D also provides a 10 foot wide concrete path to Tract E. Tract E is a 15 foot wide pedestrian/irrigation easement as required by the Urban Trails Plan, which designates the canal road as a future off road urban trail. All tracts will be owned and maintained by the Home Owner's Association, with Tract E being designated as an easement for public pedestrian use.

Section 3.2.E.5 of the Zoning and Development Code permits setbacks to be reduced by the Director on lots that abut a tract, if conditions provided therein are met. The applicant has requested to reduce the rear setback in Lots 3-5 in Block 2 and use a portion of Tract E as part of the setback. The 15 foot setback reduction is equal to the 15 foot width of Tract E. The conditions set forth in Section 3.2.E.5 of the Code have been met and the director has approved the rear setback reduction on Lots 3-5 Block 2.

2. Consistency with the Growth Plan

The Future Land Use Map of the Growth Plan designates this parcel as Residential Medium Low (2-4 units per acre). The proposed density of Vodopich Subdivision is 3.11 units per acre, which is consistent with the Future Land Use Map designation (RML 2-4 du/ac).

3. Section 2.8.B.2 of the Zoning and Development Code

The preliminary subdivision plan meets all the required criteria of Section 2.8.B.2 of the Zoning and Development Code.

a. The Growth Plan, Grand Valley Circulation Plan, Urban Trails Plan and other adopted plans.

   Applicant's Response: This subdivision is in accordance with the Growth Plan of future land use zoning within this area. The street plan for this subdivision is for a City of Grand Junction approved urban residential local street section. The pedestrian trail tract along the Price-Thayer Drain is in compliance with the Urban Trails Master Plan.

   Staff's Response: The proposed Vodopich Subdivision with a density of 3.11 dwelling units per acre is in compliance with the Growth Plan designation of Residential Medium Low (2-4 du/ac). Public roads within the subdivision will be dedicated and constructed according to Urban Residential section standards.

b. The Subdivision standards of Chapter 6.

   Applicant's Response: Vodopich Subdivision has been developed to meet the City of Grand Junction Subdivision standards including the utilization of any unique features on the land. The use of this subdivision does not vary from the future land use indicated by the City of Grand Junction. The lot layout has been designed to provide constructible lots. All lots have access to Vodopich Drive and none have access to F ½ Road. There are no flag lots in this subdivision. A 20 foot wide shared asphalt driveway will allow access to Vodopich Drive for three (3) of the lots in block 2. The road has been designed to the City of Grand Junction criteria and provides future expansion for the properties to the east. There are no Hazard Areas within this subdivision. The detention pond is located near the Price-Thayer Drain and is designed as Tract D.

   Staff's Response: The design of the proposed subdivision complies with the standards required by the Code.

c. The Zoning standards contained in Chapter 3.

   Applicant's Response: The subdivision falls within the future land use zoning of RML 2-4 with a zoning of R-4 and there is no plan to change the zoning. Due to minimal lot depth for Lots 3-5, Block 2 put upon by Tract E and the Vodopich Drive the applicant will be utilizing the newly implemented Zoning and Development Code Text Amendment on setbacks for lots abutting tracts.

   Staff's Response: The design of the proposed subdivision complies with the standards required by the Code.

d. Other standards and requirements of this Code and all other City policies and regulations.

   Applicant's Response: Vodopich Subdivision is in compliance with all standards, requirements and policies for the City of Grand Junction.

Staff's Response: The proposed subdivision meets all requirements of the Transportation Engineering Design Standards (TEDS) and Stormwater Management Manual (SWMM). All internal streets will be constructed according to the urban residential street standards.

e. Adequate public facilities and services will be available concurrent with the subdivision.

Applicant's Response: There is an existing 8-inch Central Grand Valley Sanitation District sanitary sewer main approximately 265 feet to the west that the subdivision will connect to. This connection will be in compliance with the 201 Boundary Agreement. Clifton Water has reviewed the proposed subdivision and is able to provide service from their 16-inch main in F ½ Road. This project will install an 8-inch water main in Vodopich Drive and stub to the east property line for a future loop system. The required fire hydrants and water service will be provided from this new system.

Staff's Response: Public and community facilities are adequate to serve the proposed residential density. Needed infrastructure is in place or will be extended by the applicant to serve the proposed subdivision. Infrastructure to be developed by the applicant will be secured by a Development Improvements Agreement (DIA).

f. The project will have little or no adverse or negative impacts upon the natural or social environment.

Applicant's Response: The subdivision will not adversely or negatively impact the environment. The existing land consists of one home with associated outbuilding that will remain with the developed subdivision. Bare ground with sparse amounts of grass and weeds consist of the remaining area of the site. Two (2) 14-foot wide landscape tracts, Tract A & B, run along F ½ Road and will provide a visual screening from street traffic. Tract D, proposed detention pond, will also be landscaped and provide access to the Urban Master Plan Trail Tract along the Price-Thayer Drain.

Staff's Response: The Colorado Geological Survey conducted a technical review of the proposed subdivision and found that there are no potential geologic hazards that would preclude the development as intended. The primary geologic conditions likely to affect the development plan for this property are: surface drainage, erosion, and swelling / consolidating soils. Regional conditions such as radon, seismicity, and water availability may also affect development plans. CGS offers the following suggestions to be incorporated into the planning process for the proposed development of this property: 1) The geotechnical investigation conducted by Capstone West indicates a low to moderate swell/consolidation potential within the on-site soils. CGS is in general agreement with the mitigation recommendations detailed in the Capstone West report; and, 2) Site grading should be designed with consideration for increased erosion potential due to changes in

stormwater runoff and surface flows. Additionally, site grading should be designed to shed stormwater runoff away from the proposed structural foundations.

g. Compatibility with existing and proposed development on adjacent properties.

Applicant's Response: The 3.22-acre subdivision has recently been annexed into the City of Grand Junction with an R-4 zone district. The surrounding properties are currently zoned in Mesa County with future land use designation of RML 2-4 du/ac. Buffering as described in the Zoning and Development Code will be used for this subdivision.

Staff's Response: The proposed subdivision is of the same or similar type of residential use and density as exists in the vicinity.

h. Adjacent agricultural property and land uses will not be harmed.

Applicant's Response: Surrounding agricultural properties adjacent to Vodopich Subdivision will not be harmed with the development. As discussed above, Vodopich Subdivision's zoning is compatible with surrounding future land uses.

Staff's Response: Compliance with the SWMM requirements as well as with the required stormwater discharge permit will ensure runoff does not harm adjacent agricultural uses.

i. Is neither piecemeal development nor premature development of agricultural land or other unique areas.

Applicant's Response: There are no agricultural or unique areas within the subdivision. The subdivision is the start of residential development in the area. Future land uses will be similar as the Vodopich Subdivision.

Staff's Response: The proposed Vodopich Subdivision will better utilize the sewer service and streets that have been made available to the property. It is a logical extension of adjacent development.

j. There is adequate land to dedicate for provision of public services.

Applicant's Response: There is adequate land for public services. Complying with the 201 Boundary Agreement, Vodopich Subdivision will connect to the existing 8-inch Central Grand Valley Sanitation District sanitary main in F ½ Road. An existing 16-inch water main will allow an 8-inch water main to service the subdivision. There is a 14 foot multi-purpose easement along the road right-of-way of each lot for the use of electricity, gas and telephone and other service providers.

Staff's Response: The proposed subdivision design provides appropriate residential density while accommodating existing conditions and providing the needed public infrastructure.

k. This project will not cause an undue burden on the City for maintenance or improvement of land and/or facilities.

Applicant's Response: This project will be developed using the City of Grand Junction standards for streets, access, storm sewer, storm water management and landscaping. Therefore, there will be no burden on the City.

Staff's Response: As required by Code, the applicant is responsible for construction of all infrastructure and private improvements for the development as well as payment of applicable impact fees. There will be no burden on the City other than the typical ongoing maintenance of the public facilities (streets, utilities) within the development.

FINDINGS OF FACT/CONCLUSIONS

After reviewing the Vodopich Subdivision application, PFP-2006-243 for preliminary subdivision plan approval, I make the following findings of fact and conclusions:

1. The proposed preliminary subdivision plan is consistent with the goals and policies of the Growth Plan.

2. The preliminary subdivision plan is consistent with the purpose of Section 2.8 and meets the review criteria in Section 2.8.B.2 of the Zoning and Development Code.

3. The recommendations in the geotechnical report shall be followed in the development process.

4. The garage will be relocated and portion of driveway removed prior to recording of the final plat

STAFF RECOMMENDATION:

The Planning Commission approve the proposed preliminary subdivision plan, PFP-2006-243 with the findings, conclusions and conditions listed above.

RECOMMENDED PLANNING COMMISSION MOTION:

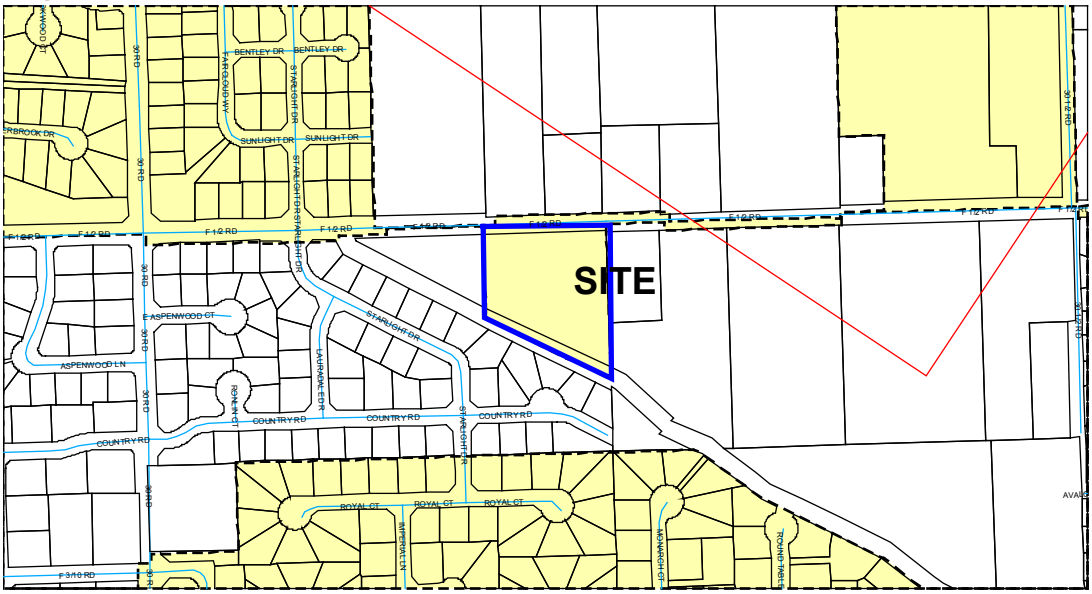
Mr. Chairman, I move that we approve the Preliminary Subdivision Plan for Vodopich Subdivision, PFP-2006-243, with the findings, conclusions and conditions listed in the staff report.

Attachments:

Site Location Map / Aerial Photo Map
Future Land Use Map / Existing City and County Zoning Map
Preliminary Subdivision Plan

Site Location Map

Figure 1

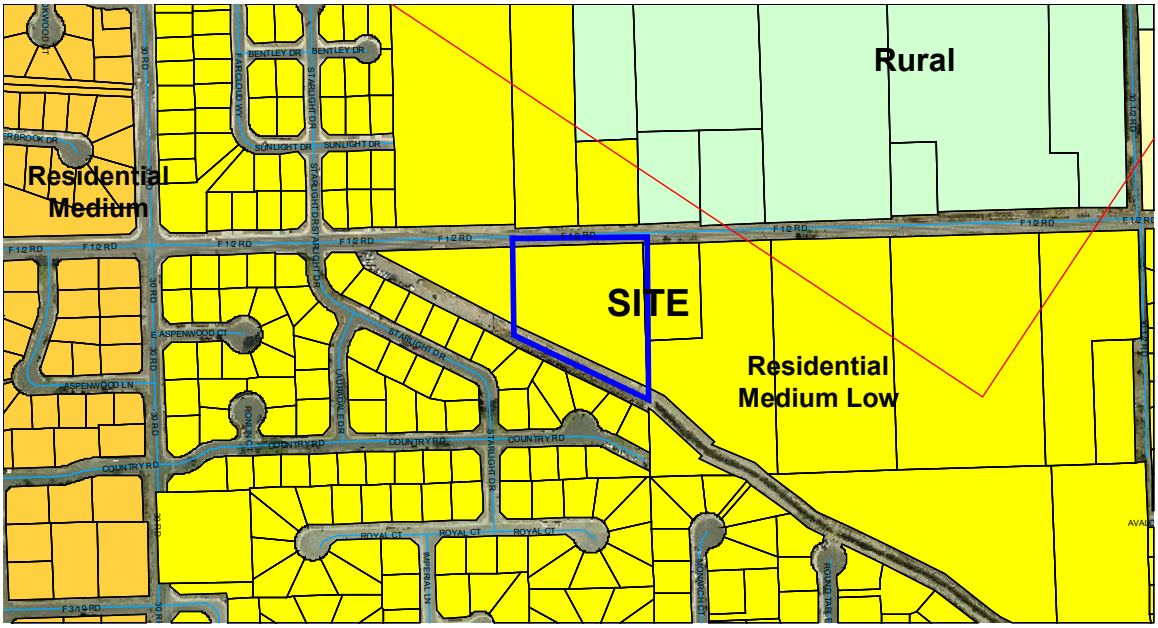


Aerial Photo Map

Figure 2

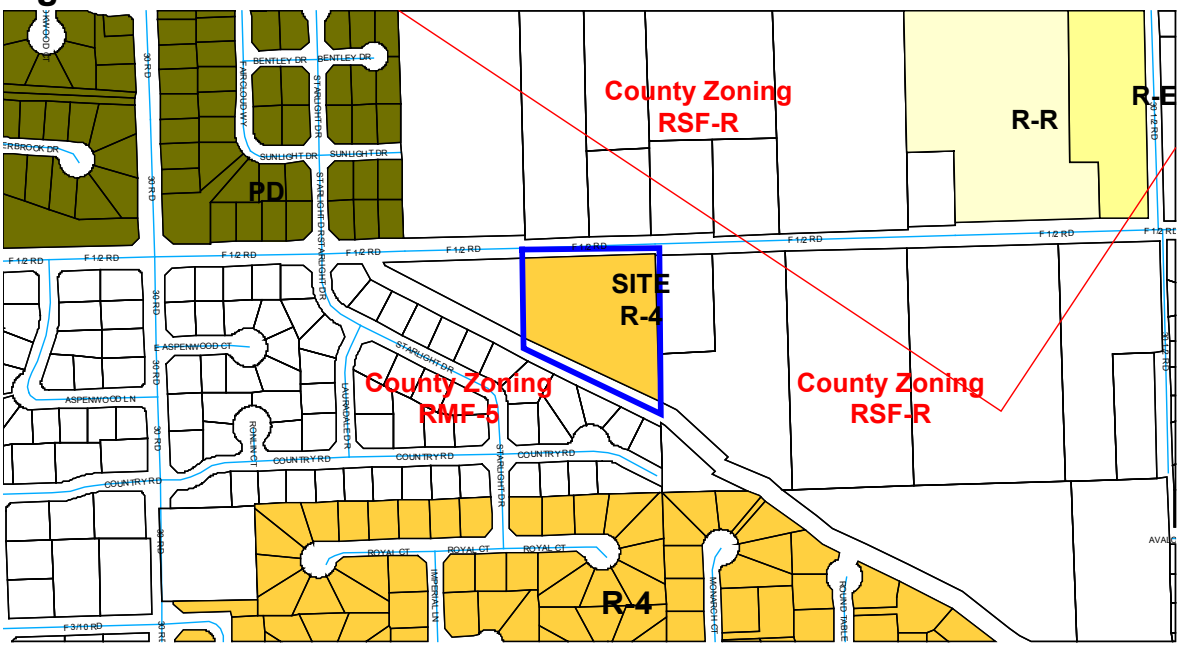
Future Land Use Map

Figure 3

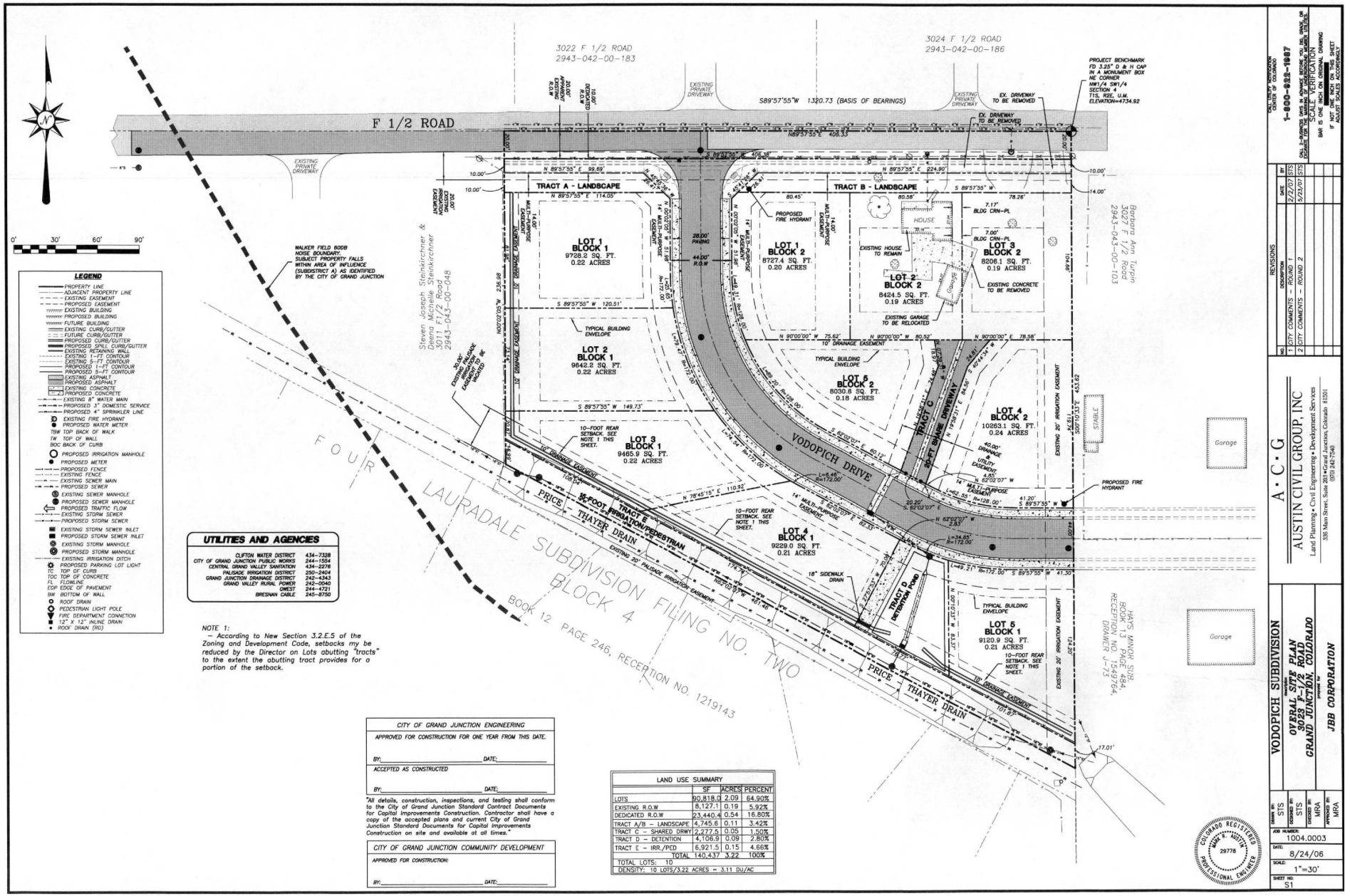


Existing City and County Zoning

Figure 4



NOTE: Mesa County is currently in the process of updating their zoning map. Please contact Mesa County directly to determine parcels and the zoning thereof."



LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- FUTURE BUILDING
- EXISTING CURB/GUTTER
- FUTURE CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- EXISTING 8" WATER MAIN
- PROPOSED 3" DOMESTIC SERVICE
- PROPOSED 4" SPRINKLER LINE
- EXISTING FIRE HYDRANT
- PROPOSED WATER METER
- TBW TOP BACK OF WALK
- TW TOP OF WALL
- BOC BACK OF CURB
- PROPOSED IRRIGATION MANHOLE
- PROPOSED METER
- PROPOSED FENCE
- EXISTING FENCE
- EXISTING SEWER MAIN
- PROPOSED SEWER
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED TRAFFIC FLOW
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING IRRIGATION DITCH
- PROPOSED PARKING LOT LIGHT
- TC TOP OF CURB
- TOC TOP OF CONCRETE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- BW BOTTOM OF WALL
- ROOF DRAIN
- PEDESTRIAN LIGHT POLE
- FIRE DEPARTMENT CONNECTION
- 12" X 12" INLINE DRAIN
- ROOF DRAIN (RD)

UTILITIES AND AGENCIES

CLIFTON WATER DISTRICT	434-7328
CITY OF GRAND JUNCTION PUBLIC WORKS	244-1554
CENTRAL GRAND VALLEY SANITATION	434-2276
PALISADE IRRIGATION DISTRICT	250-2404
GRAND JUNCTION DRAINAGE DISTRICT	242-4343
GRAND VALLEY RURAL POWER	242-0040
QWEST	244-4721
BRESNAN CABLE	245-8750

NOTE 1:
– According to New Section 3.2.E.5 of the Zoning and Development Code, setbacks my be reduced by the Director on Lots abutting "tracts" to the extent the abutting tract provides for a portion of the setback.

CITY OF GRAND JUNCTION ENGINEERING
APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.
BY: _____ DATE: _____
ACCEPTED AS CONSTRUCTED
BY: _____ DATE: _____

"All details, construction, inspections, and testing shall conform to the City of Grand Junction Standard Contract Documents for Capital Improvements Construction. Contractor shall have a copy of the accepted plans and current City of Grand Junction Standard Documents for Capital Improvements Construction on site and available at all times."

CITY OF GRAND JUNCTION COMMUNITY DEVELOPMENT
APPROVED FOR CONSTRUCTION:
BY: _____ DATE: _____

LAND USE SUMMARY			
	SF	ACRES	PERCENT
LOTS	90,818.0	2.09	64.90%
EXISTING R.O.W	8,127.1	0.19	5.92%
DEDICATED R.O.W	23,440.4	0.54	16.80%
TRACT A/B – LANDSCAPE	4,745.6	0.11	3.42%
TRACT C – SHARED DRWY	2,277.5	0.05	1.50%
TRACT D – DETENTION	4,106.9	0.09	2.80%
TRACT E – IRR./PED	6,921.5	0.15	4.66%
TOTAL	140,437	3.22	100%
TOTAL LOTS: 10			
DENSITY: 10 LOTS/3.22 ACRES = 3.11 DU/AC			

COLORADO REGISTERED MARK E. AUSTIN 29778 PROFESSIONAL ENGINEER

CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES
CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

NO.	REVISIONS DESCRIPTION	DATE	BY
1	CITY COMMENTS – ROUND 1	2/2/07	STS
2	CITY COMMENTS – ROUND 2	5/23/07	STS

A · C · G
AUSTIN CIVIL GROUP, INC
Land Planning • Civil Engineering • Development Services
336 Main Street, Suite 201 • Grand Junction, Colorado 81501
(970) 245-7540

VODOPICH SUBDIVISION

OVERALL SITE PLAN
3029 F-1/2 ROAD
GRAND JUNCTION, COLORADO

prepared for
JBB CORPORATION

DRAWN BY: STS
DESIGNED BY: STS
CHECKED BY: MRA
APPROVED BY: MRA
JOB NUMBER: 1004.0003
DATE: 8/24/06
SCALE: 1"=30'
SHEET NO: S1

Attach 3
Ute Water Tank Tower #2

CITY OF GRAND JUNCTION **MEETING DATE:** June 26, 2012
PLANNING COMMISSION **PRESENTER:** Senta Costello

AGENDA TOPIC: SBT Telecommunications Tower – CUP-2012-276

ACTION REQUESTED: Approval of a Conditional Use Permit (CUP)

BACKGROUND INFORMATION					
Location:		380 South Camp Road			
Applicants:		Owner: Ute Water Conservancy District Applicant: SBT Internet – Rex Jennings			
Existing Land Use:		Ute water tank; 80' monopole telecommunications tower w/ 6 providers			
Proposed Land Use:		New 110' lattice telecommunications tower			
Surrounding Land Use:	**North**	Vacant residential			
	South	Vacant residential			
	East	Vacant residential			
	West	Vacant residential			
Existing Zoning:		PD (Planned Development)			
Proposed Zoning:		PD (Planned Development)			
Surrounding Zoning:	**North**	PD (Planned Development)			
	South	PD (Planned Development)			
	East	PD (Planned Development)			
	West	PD (Planned Development)			
Future Land Use Designation:		Conservation			
Zoning within density range?		X	Yes		No

PROJECT DESCRIPTION: A request for approval of a Conditional Use Permit to construct a new 110' lattice telecommunications tower in a PD (Planned Development) zone district in accordance with Table 21.04.010 of the Grand Junction Municipal Code.

RECOMMENDATION: Approval of the Conditional Use Permit

ANALYSIS:

1. Background

In 1999, the Applicant submitted an application for a telecommunications facility at 380 South Camp Road. The request was reviewed, approved, and constructed. The following is a chronology of events relevant to the current application.

October 20, 1999 Emergency Ordinance #3184, amending the Zoning and Development Code for the regulation of Telecommunications Facilities and Towers adopted.

December 13, 1999 Application received for Site Plan Review to construct a new telecommunications facility at 380 South Camp Rd (Ute Water Tanks property). The proposed monopole was 54' with antennae that extended an additional 4'6" above the top of the monopole. The tower was to be located approximately 21' from the water tank and 35' from the nearest property line. The application included a letter from the applicant's engineer stating that the tower had to be a minimum of 13' above the top of the tank in order to meet performance specifications.

January 10, 2000 Site Plan Review approval for a monopole 56' in height with an overall height of 58'6" including antennae located at the top of the telecommunications tower.

March 7, 2001 Planning Clearance issued for an 8' extension on top of the existing tower for co-location purposes making the overall height 66'6". 1'6" was for a new monopole section and 6'6" for a new steel pipe extension and antennae.

January 15, 2002 The Grand Junction Planning Commission approved with conditions the request for a Variance from the setback requirements and Conditional Use Permit for the height extension of the telecommunications facility to 80'. The Variance and Conditional Use Permit approval were subject to the following Conditions:

1. The tower cannot be extended above 80'.
2. The tower must be maintained painted in color "Desert Sand" as stated on plans to match the water tank. If the water tank should ever be removed, the tower will be painted with an earth tone color, to be approved by the Community Development Department, and the site be brought up to current Code requirements regarding landscaping.

May 23, 2006 The Grand Junction Planning Commission approved a Conditional Use permit to allow T-Mobile to co-locate on the existing tower. T-Mobile proposed to mount 3 new antennae, each approximately 5'

high, on the tower at a height of 57', below the existing Cingular antennae. They are painted to match the existing tower and facilities. Structural information was provided that showed the tower could support the proposed T-Mobile facilities. Updated structural information showing the tower can support any additional co-locates will be required to be provided before any additional facilities will be approved.

The current request is to construct a new 110' lattice tower, southwest of the existing monopole structure. The proposed tower is designed to support future collocates of up to 4 additional carriers.

2. Consistency with the Comprehensive Plan

The site is currently zoned PD (Planned Development) with the Comprehensive Plan Future Land Use Map identifying this area as Conservation. While the zoning is Planned Development, no active plan exists for the property.

The application is consistent with the Comprehensive Plan and implements the following Goals and Policies:

Goal 11: Public safety facilities and services for our citizens will be a priority in planning for growth.

This application provides for a current and future collocation on this facility, providing additional opportunities for communications growth and coverage in the community and the region for private and emergency communications needs.

Goal 12: Being a regional provider of goods and services the City and County will sustain, develop and enhance a healthy, diverse economy.

The tower will provide opportunities for wireless collocation to serve the Grand Junction area, as well as the applicant's Vernal, Utah customers. The wireless industry has built more than 250,000 cell sites in the United States in the past 20 years, but many more cell sites are needed as iPhones, iPads and the like strain existing network capacity with data, email, computer and video applications. New cell sites and significant modifications to existing cell sites are also needed to further the federal government's goal of using wireless to increase broadband speeds and coverage. The proposed new tower will provide additional opportunities for meeting the increasing demand for wireless services in our modern, growing community.

3. Section 21.02.110 the Grand Junction Municipal Code

A conditional use permit shall be required prior to the establishment of any conditional use identified in Chapter 21.04 Grand Junction Municipal Code (GJMC) or elsewhere in the Code. Requests for a Conditional Use Permit must demonstrate that the proposed development will comply with all of the following:

(1) *Site Plan Review Standards.*

All applicable site plan review criteria in GJMC 21.02.070(g) and conformance with Submittal Standards for Improvements and Development (GJMC Title 22), Transportation Engineering Design Standards (GJMC Title 24), and Stormwater Management Manual (GJMC Title 26) manuals. Site plan review standards have been met.

(2) *District Standards.*

The underlying zoning districts standards established in Chapter 21.03 GJMC, except density when the application is pursuant to GJMC 21.08.020(c). District standards are met by the proposal.

(3) *Specific Standards.*

The use-specific standards established in Chapter 21.04 GJMC. The use specific standards are discussed below.

(4) *Availability of Complementary Uses.*

Other uses complementary to, and supportive of, the proposed project shall be available including, but not limited to: schools, parks, hospitals, business and commercial facilities, and transportation facilities. The site is accessible by gravel road and electricity is available to support the project. Public emergency communication facilities will be allowed to collocate on the tower.

(5) *Compatibility with Adjoining Properties.*

Compatibility with and protection of neighboring properties through measures such as;

> *Protection of Privacy. The proposed plan shall provide reasonable visual and auditory privacy for all dwelling units located within and adjacent to the site. Fences, walls, barriers and/or vegetation shall be arranged to protect and enhance the property and to enhance the privacy of on-site and neighboring occupants;*
>
> The tower will have some visual effects which will be minimized by its design, including the lattice type and paint color (dull gray). The terrain blocks view from closer neighborhoods. Further away the tank and tower will be more visible but less noticeable.
>
> *Protection of Use and Enjoyment. All elements of the proposed plan shall be designed and arranged to have a minimal negative impact on the use and enjoyment of adjoining property;*

Electromagnetic emissions will comply with federal law. Service providers will not be allowed to install facilities that interfere with emergency communications frequencies. The tower will have some visual effects which will be minimized by its design, including the lattice type and paint color (the structure below the water tank height, including the antennas, will be painted the same color as the tank to camouflage the structure. The structure above the tank will be left the dull gray that blends well with the changing color of the sky). The terrain blocks view from closer neighborhoods. Further away the tank and tower will be more visible but less noticeable. No outdoor storage will be allowed on the site.

Compatible Design and Integration. All elements of a plan shall coexist in a harmonious manner with nearby existing and anticipated Development. Elements to consider include; Buildings, outdoor storage areas and equipment, utility structures, Buildings and paving coverage, Landscaping, lighting, glare, dust, signage, views, noise, and odors. The plan must ensure that noxious emissions and conditions not typical of land Uses in the same Zoning district will be effectively confined so as not to be injurious or detrimental to nearby properties.

The building will blend with the surrounding terrain; all equipment will be stored inside the building. Electrical lines will be underground. The tower will be visible but as mentioned above is designed to minimize visual impact.

Staff has reviewed the project and finds that all applicable review criteria as listed above have been met. Specifically, the request meets the requirements of Section 21.04.030(q), Telecommunication Facilities/Tower, in the following ways:

- *(vii) Location. Shared use/colocation of wireless communications facilities on existing structures, towers or buildings in a manner that precludes the need for the construction of a freestanding structure of its own is encouraged.* This application provides for a current and future co-locates on this facility, providing additional opportunities for communications growth and coverage in the community and the region for private and emergency communications needs,
- *(i)Towers and telecommunications facilities shall be located to minimize any visual and other adverse impact to the neighborhood, especially residential areas and land uses.* The tank and proposed tower will be visible from several different angles, but the closer you are to the tank the less you can see, because the terrain blocks the view. The further away from the tank the more visible it is but less noticed. Also, the self supporting lattice tower has less visible light reflected from the surface area than a monopole tower. Even though the surface area may be the same as a monopole, the background color is seen through the lattice structure and allows the dull gray color to blend easier than the solid monopole.
  The structure below the water tank height, including the antennas, will be painted the same color as the tank to camouflage the structure. The structure above the tank will be left the dull gray that blends well with the changing color of the sky.

- *(ii) Telecommunications facilities and towers shall be set back from all adjacent residentially zoned or used property by a minimum of 200 feet or 200 percent of the height of the proposed tower or facility, whichever is greater.* Federal law supersedes application of zoning and development restrictions on wireless communications facilities where the applicant can demonstrate a gap in coverage. (Telecommunications Act, 47 U.S.C. §332, and In re Cell Tower Litigation, 807 F. Supp.2d 928 (S.D. Cal. 2011).) In this situation, a coverage gap is evidenced by "The City of Grand Junction needs better radio coverage for their police, fire and emergency response. Their current coverage is from Black Ridge; it shoots over the top of the Redlands area and they lose communication. This communication loss may be when entering buildings, or just in an area that has a dead spot." And "The Redlands area also has issues with cell phone coverage. I received several reports that residents cannot use their cell phone in their homes."
- *(iii) All telecommunications facilities and towers shall be set back a minimum of 85 feet from the property line or at a 2:1 ratio (two feet of setback for every foot of tower height from the property boundary of the facility), whichever is greater, from non-residentially zoned or used property.* Federal law supersedes application of zoning and development restrictions on wireless communications facilities where the applicant can demonstrate a gap in coverage. (Telecommunications Act, 47 U.S.C. §332, and In re Cell Tower Litigation, 807 F. Supp.2d 928 (S.D. Cal. 2011).) In this situation, a coverage gap is evidenced by "The City of Grand Junction needs better radio coverage for their police, fire and emergency response. Their current coverage is from Black Ridge; it shoots over the top of the Redlands area and they lose communication. This communication loss may be when entering buildings, or just in an area that has a dead spot." And "The Redlands area also has issues with cell phone coverage. I received several reports that residents cannot use their cell phone in their homes."
- *(v) Monopole tower structures shall be separated from all other towers, whether monopole, self-supporting lattice or guyed, by a minimum of 750 feet.* Federal law supersedes application of zoning and development restrictions on wireless communications facilities where the applicant can demonstrate a gap in coverage. (Telecommunications Act, 47 U.S.C. §332, and In re Cell Tower Litigation, 807 F. Supp.2d 928 (S.D. Cal. 2011).) In this situation, a coverage gap is evidenced by "The City of Grand Junction needs better radio coverage for their police, fire and emergency response. Their current coverage is from Black Ridge; it shoots over the top of the Redlands area and they lose communication. This communication loss may be when entering buildings, or just in an area that has a dead spot." And "The Redlands area also has issues with cell phone coverage. I received several reports that residents cannot use their cell phone in their homes."
- *(vi) Self-supporting lattice or guyed towers shall be separated from all other self-supporting lattice or guyed towers by a minimum of 1,500 feet.* The new tower will be at least 1500 feet from all other existing self-supporting lattice or guyed towers.
- *(x) No new tower or facility shall be permitted unless the applicant demonstrates to the satisfaction of the Director that no existing tower, structure or utility facility can be used in lieu of new construction for the applicant's use.* The applicant has demonstrated to the Director's satisfaction that no existing

facility can be used by the applicant for its purposes. The applicant has also demonstrated that the height of the proposed tower is the minimum necessary for the facilities it needs to accomplish its goals and to provide reasonable collocation potential. See attached General Project Report by SBT Internet.

FINDINGS OF FACT/CONCLUSIONS AND CONDITIONS:

After reviewing the SBT Telecommunications Tower application, CUP-2012-276 for a Conditional Use Permit, I make the following findings of fact, conclusions and conditions:

1. The requested Conditional Use Permit is consistent with and meets the goals and policies of the Comprehensive Plan.

2. The review criteria in Section 21.02.110 of the Grand Junction Municipal have all been met.

3. Applicable and enforceable use-specific standards of Section 21.04.030(q) have been met.

4. Approval of the project being conditioned upon the following:
   - The structures below the top of the water tank, including antennae, shall be painted the same color as the tank; the structures/facilities above the top of the tank will be painted dull gray to blend with the sky.
   - No signage other than that required by applicable telecommunications laws will be allowed.
   - Tower must be designed and constructed to allow, include and support no fewer than five collocations (the applicant's proposed use plus four others).

STAFF RECOMMENDATION:

I recommend that the Planning Commission approve the requested Conditional Use Permit, CUP-2012-276 with the findings, conclusions and condition of approval listed above.

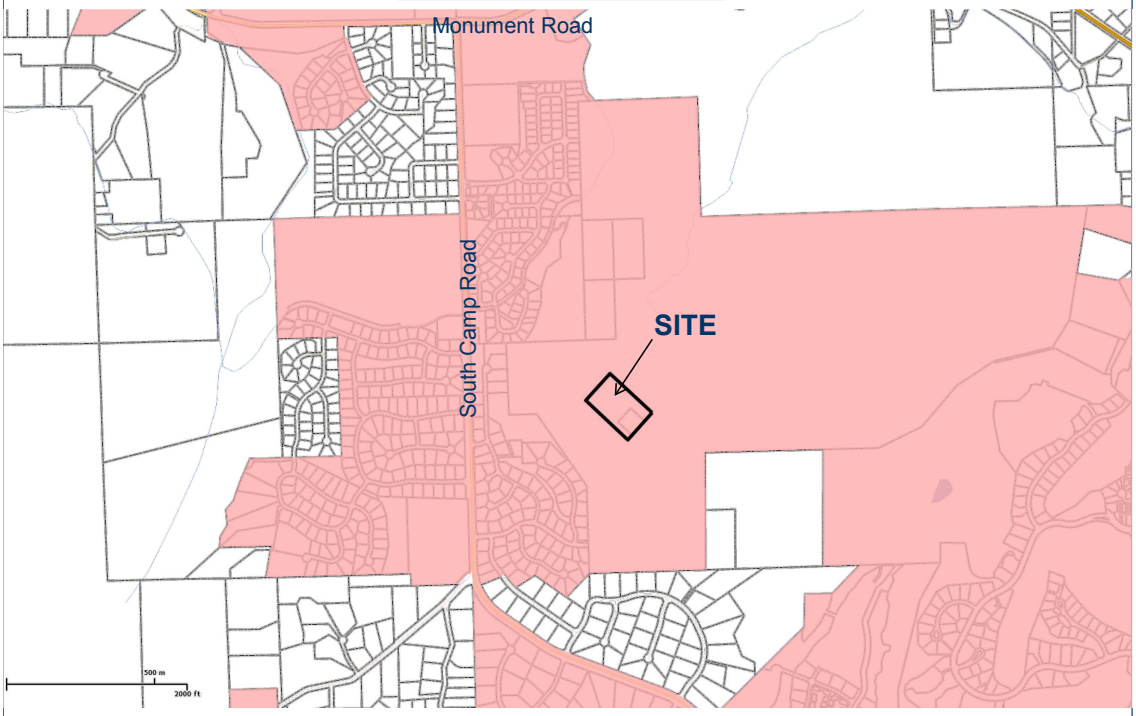
RECOMMENDED PLANNING COMMISSION MOTION:

Mr. Chairman, on the request for a Conditional Use Permit for SBT Telecommunications Tower application, number CUP-2012-276 to be located at 380 South Camp Road, I move that the Planning Commission approve the Conditional Use Permit with the facts, conclusions and conditions listed in the staff report.

Attachments:

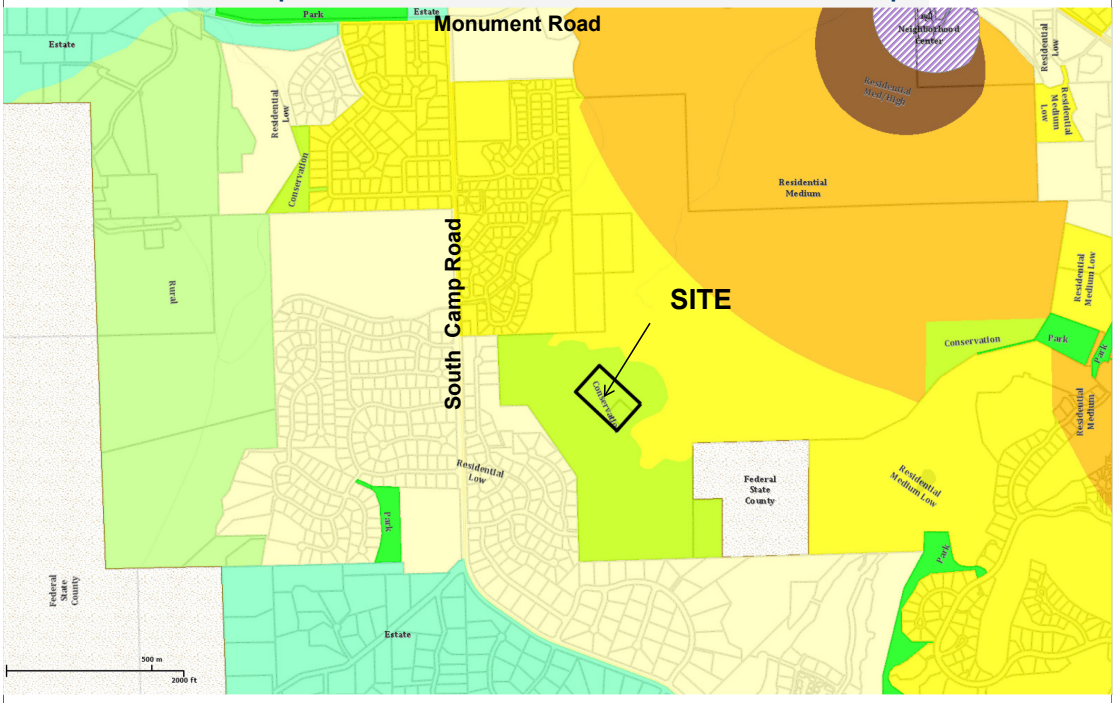
Site Location Map / Aerial Photo Map
Future Land Use Map / Existing Zoning Map
Letter from Grand Junction Regional Communication Center Board
General Project Report
Site Plans
Tower elevations

Site Location Map

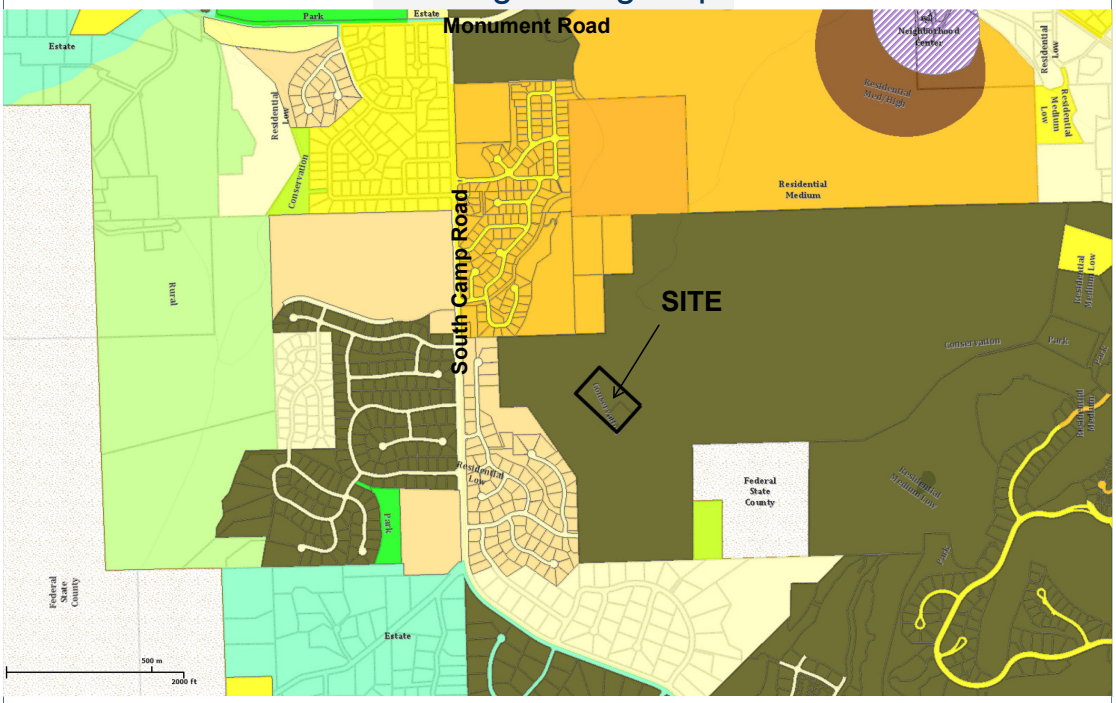


Aerial Photo Map

Comprehensive Plan Future Land Use Map



Existing Zoning Map



CITY OF Grand Junction COLORADO

POLICE

June 8, 2012

To: City of Grand Junction Planning Department

RE: Ute Water Tank Communications Tower Site

SBT Internet is interested in building a communications tower at the Ute Water Tank Site on the Redlands. SBT Internet has contacted the Grand Junction Regional Communication Center to inquire if the public safety communications network could benefit from using this tower to install additional communications infrastructure for its use. The Grand Junction Regional Communication Center Board met on June 1 and discussed this project. Public safety radio coverage in this area is currently spotty. Additional 800 MHz radio equipment in this location would be beneficial and provide better coverage for public safety agencies that respond to calls for service in that area.

The equipment and specifications that would be needed at this location to enhance the public safety radio communications system coverage are listed below:

- Tower height 40 feet
- Microwave link to the Water Plant radio site
- Building that would house radio equipment
- Backup power equipment

It is the Grand Junction Regional Communication Center Board's recommendation that SBT Internet be granted permission to build a tower at the Ute Water Tank Site on the Redlands. Further it is our understanding that SBT Internet has offered to allow the Communications Center to install its equipment on this tower, at no cost, for a period of at least five years. It is the intention of the communications center to move forward with the installation of its equipment, should this tower be approved and subsequently constructed.

I hope that this information assists you in making a decision regarding the permit and design process for this proposed radio communications tower. If you have any questions, please contact me or any member of the Communications Center Board.

John Camper, Police Chief, GJRCC Board Chair.

c: GJRCC Board

General Project Report
SBT Internet

Introduction

SBT Internet was founded in Vernal, Utah over 10 years ago and has always been family owned and operated. Over the years we have constructed over 14 towers with the largest at 195 feet tall. Our main business however is not building towers, rather it's to provide reliable and reasonable priced internet to the community of Vernal and its many outlying areas. A large portion of our customers are in rural areas and have no other options for accessing the internet; wireless is an ideal medium for connecting remote customers of this type.

Over the last few years internet has experienced a growth and demand for faster and more reliable speeds. This change is due to how we now use the internet; from on line classes in all age groups to watching Netflix. With all of these new demands for the internet, bandwidth is scarce and therefore cost a premium price in Vernal, Utah. Currently there is only one fiber line that runs into Vernal. Not only is this line very limited in its maximum capacity but it is also owned and controlled by one company, Strata. This Company can dictate the price and availability of the internet to the entire area.

The solution to our problem was finding reasonably priced quality bandwidth in Grand Junction. The challenge is transporting this bandwidth to Vernal over a microwave repeater backbone or a series of towers that link together to transport large amounts of data almost instantaneously.

Inventory of Existing Sites

To date we have completed three of the four required towers for this project; a 160 foot Tower on Asphalt Ridge in Vernal, a 120 foot Tower on Mellen Hill in Rangley, CO and a 195 foot Tower on Douglas Pass between Rangley and Grand Junction. The only tower remaining for the completion of this project is the 120 foot tower in Grand Junction at the Ute Water tank site.

Mapping & Description of Coverage Area

The location for this tower was not an easy one to find. This tower is the most important one because it is the beginning of the microwave link and will require four key elements to accomplish the task.

1. The path from Grand Junction to Douglas Pass must be a line of site shot for the microwave to work.
2. You must have a Fiber Optic connection to provide the volume of bandwidth needed.
3. Access to electrical power.
4. Land to install the tower and communication equipment.

What makes the Ute Water Tank area an essential site is that it meets all of these crucial items; but what is most important is the line of site. Finding a piece of land that can see Douglas Pass was the difficult issue. There are two ridges that block the view; one on the West side and one on the East side (see below). Not only are the ridges in the way, there is also a height issue. The elevation must be close to 5,000 feet or you cannot see over the distant terrain as you leave the valley.

The other locations we searched include the following: The established site on BLM land (Black Ridge) has over 15 towers with some producing too much interference to be a viable option. Also, Black Ridge is almost out of room with little or no new construction. BLM indicated there is a waiting list of about 2 to 3 years.

The Glade Park area has terrain problems of its own; and where you can see Douglas Pass, there is no land to rent. Glade Park is also too far from a reliable source of fiber optics to provide the bandwidth.

The Little Park area is high enough to see Douglas Pass, but there is no land to rent.

The SBA tower located on the water tank area is already loaded, and it cannot support a 10 foot dish.

In summary after searching for 4 months in about 40 different locations, the Water Tank area is not only the best location for SBT Internet, but the only one.

Project Description

The repeater tower project for SBT internet is located at 380 South Camp Road, Grand Junction, Colorado above the Redlands area. This location is on Ute Water Conservancy District land next to their water tank. It is a piece of leased property that is 50 feet by 80 feet or 0.092 acres. This tower will be used for relaying internet bandwidth over a microwave radio licensed under the Federal Communication Commission (FCC). This tower will also be used for Collocation for the 911 radios for emergency response, and other communication needs for the Redlands area. The collocation design for five carriers and a ten foot dish requires a 110 foot tall tower.

Public Benefit

The City of Grand Junction needs better radio coverage for their police, fire and emergency response. Their current coverage is from Black Ridge; it shoots over the top of the Redlands area and they lose communication. This communication loss may be when entering buildings, or just in an area that has a dead spot. SBT Internet will provide a location on the tower free of charge for all emergency radio equipment, for the five year term of the contract. This is a value of $120,000.

The Redlands area also has issues with cell phone coverage. I received several reports that residents cannot use their cell phone in their homes. This tower will accommodate collocation of cell phone companies that will alleviate the problem. The selection of this 110 foot tower was a result of understanding the needs of the city and the water district for collocation and additional growth. This ultimately provides the best use of the land, by serving the public's needs now and for the future.

SBT Internet will provide collocation to qualified communication companies at the fair market value rate set by Ute Water Conservancy District. Qualified communication companies are ones that will not create interference with other facilities on the water tank site. They will use sectorical type antennas that will not diminish the loading capacity of the towers design. They will follow established Motorola tower and communication practices.

Neighborhood Meeting

A neighborhood meeting was conducted on March 8th 2012 at the Liberty Baptist Church 448 South Camp Road, Grand Junction, Co. starting at 5:30 p.m.

Project Impacts

The only impact that we have found is a visual impact.

This tank and tower can be seen from several different angles, but the closer you are to the tank the less you can see, because the terrain blocks the view. The further away from the tank the more visible it is but less noticed. The self supporting lattice tower has less visible light reflected from the surface area. Even though the surface area may be the same as a monopole, the back ground color is seen through the lattice structure and allows the dull gray color to blend easier than the solid monopole. The structure below the water tank height, including the antennas will be painted the same color as the tank to camouflage the structure. The structure above the tank will be left the dull gray that blends well with the changing color of the sky.

Project Compliance, Compatibility, and Impact

1. The adopted plans and policies for this project is a Conditional Use Permit. The above narrative has covered the explanation of why this site is the only one that is capable of providing all of the required elements.

2. Land use in the surrounding area is conservation.
3. Site access and traffic patterns. The Site access is a gravel road starting from Road 23 and South Broadway. This road has limited access with a locked gate permitting authorized personnel. The access road is a little over a mile long, and has a locked gate at the site entrance that restricts traffic as well. The water tank area has traffic that is limited to Ute Water Conservancy District, SBA Towers, and occasionally a designated contractor.
4. At the water tank area there is a power transformer box that will provide power to the communication site. This is the only utility in this area. There are no fire hydrants on the site; the closest one is 900 feet away.
5. There are no special or unusual demands on utilities.
6. Effects on public facilities should be minimal. This site is in a remote area with locked gates, and consists of a concrete building with a steel tower. There is no sanitation, school, or irrigation needs; gravel roads have minimal authorized traffic.
7. (Not Applicable) Site soils and geology (such as Soils Conservation Service (SCS) soils mapping)
8. (Not Applicable) Impact of project on site geology and geological hazards, if any
9. Operations for this facility do not fall under standard hours of business. It is an unmanned operation that runs continuously with periodic maintenance.
10. Number of employees on site will vary. Normal day to day operation requires no employees, periodic maintenance requires only one, and tower work as needed requires two employees.
11. Signage plans: The signage we will install is federally required. It will include FCC required license number and RF exposure warnings, OSHA required placards and warnings identifying all hazards, all emergency numbers, Site designation and owner contact information, FAA site designation numbers.

12. Must address the review criteria contained in the Zoning and Development Code for the type of application being submitted.

    I have reviewed the Zoning and Development Code and have address all I could find in the above narrative.

E. Development Schedule and Phasing

Site Design and Structural pattern

Using the site plan, we will mark site structures on the ground. Staking out the area is not only for digging purposes but also to show Blue Stakes or One Call where we plan to dig.

Contact Xcel Power Company designer for estimate on power location and establish location for riser.

Contract a local electrical construction company for permitting with State or local authority and building the electrical distribution structure.

Excavating the site

Call Blue Stakes or One Call to mark the underground lines and hazards, then trench for underground electric supply.

Construct electrical riser mounting board for meter and distribution to communication building.

Dig foundations according to engineering design marked on grounds.

Dig depth using laser level for proper elevation.

Forming The Foundations

Form and install rebar and anchor bolts according to engineering drawings for the tower and building foundations.

Construct pier orientation jig to hold anchor bolts in place on the tower foundation, but do not install. This jig is light weight angle iron and three bolt templates.
Verify all elevations and locations with laser level and tape measure.
Call City Inspection for both foundations prior to pouring concrete.

Pouring The Concrete and Sampling

After all inspection are done and approved; call for concrete delivery. While contacting the already scheduled concrete company, also call your accredited scheduled quality testing company to pull samples of the concrete. This verifies the compressive strength of 3000 psi.
Have a crew on hand to handle the concrete, at least three people. Include: rubber boots, shovels, wheel barrel, concrete rakes, finishing trowel, 8 foot concrete vibrator (recommend two), bull float, and edger.
Pull at least two to three samples per each test. This gives you one to test and one to keep as a backup. Pull a test on the first truck arriving, one about midway of the pour and one out of the last or second to last truck delivering. You should have at least 6 samples or more. Store the samples on site for 24 hours, do not disturb until the next day. The tester will pick up the samples and store for testing on designated days. Usually at 7 days, 14 days and 28 days; keeping one sample past 28 days as a backup test.
Pour about a yard or two of concrete in each corner and center to stabilize the rebar matt and keep it from moving. Bring the level of the concrete up evenly throughout the pour, not loading anyone side at a time. This practice prevents any movement or skewing of the rebar matt and anchor bolts. Vibrate throughout the pour to insure all voids are gone and no holes or bubble spots remained. Do not over vibrate the concrete and separate the concrete from the sand and gravel. Vibrate each level of pour penetrating approximately 3 inches into the lower pour. This bonds the two layers together without disturbing the lower lay more than needed. Cover concrete with blankets if needed and let cure for a day, remove form boards if any.

Pier Pour

On the morning after the foundation pour, install your pier forms and anchor bolts with templates and jig. Verify level and measurements. Call city for inspection if needed. Pour and sample concrete as before on each pier to specified height. Remove pier support and orientation jig about 3 days after pour.

Assemble The Tower

While foundation and piers are curing start assembling or finish assembling the tower sections, all but the base section. The concrete should reach 3000 psi in 7 to 10 days, if it was a good pour. Having extra samples allows you to call for a test early to see if the concrete is ready to stack the base section. While the engineering requirement is 3000 psi, we will use a 6 bag mix for the foundation and a 7 bag mix for the piers. When the concrete is fully cured it should yield well above the required amount and closer to a 4,000 psi which gives us added strength for our base. The base section will be assembled on the foundation. This gives us the ability to perfectly level the base section verifying its plum and symmetry. This is the bases for how well the entire tower turns out and its final completion. Tighten all bolts on the base section. The base section is set and needs tight bolts to keep it from moving. However, do not tighten the assembly bolts for the top sections. The bolts on braces to legs should only be finger tight. This allows the tower to settle after it has been stacked; some refer to it as shaking down the tower, before tightening the bolts. These bolts are tightened after the tower is standing.
After all top sections are assembled, stage sections in order of crane lift. Bolt the separate sections together based on weight and in accordance to the crane's capacity, and crane operator's requirements, but connect no more than three tower sections together. More sections can be lifted but limiting the sections to three reduces the stress on the tower braces and members as they are lifted into position. The flange bolts that bolt the sections together are different from the bolts that bolt the braces to the legs.

These flange bolts should be tightened with the sections still on the ground, before they are lifted into place.

Lifting The Tower and Building Into Place

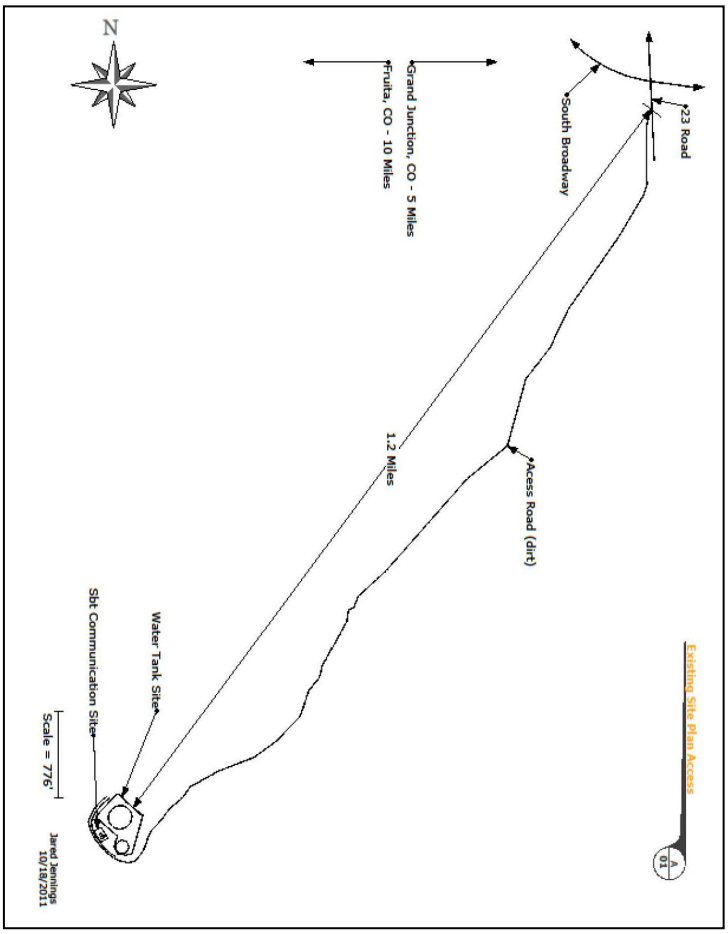
Both the tower and building are in Grand Junction, the one that is lifted into place first depends on its orientation. Placing the communication building on the east side would put the building slightly behind the tower, so the building should be lifted into place first. The concrete pour will be at the same time for both of them so the concrete should cure the same time. The tower will have three climbers, one for each leg. They will use safety harnesses and fall and backup fall protection while climbing. Each climber will install the remaining flange bolts connecting the remaining sections together. One climber will use a bosun chair with backup fall protection. This winch operated chair will allow the climber to use an impact wrench to shake down and tighten the brace bolts up and down the inside of the tower. This completes the tower assembly.

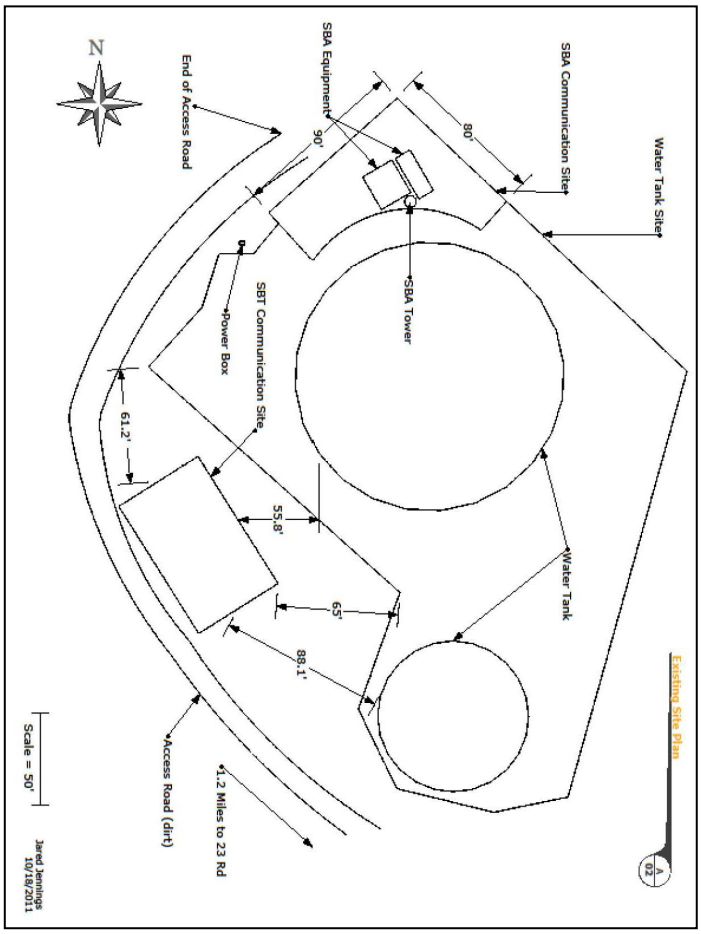
Communication Building and Antennas

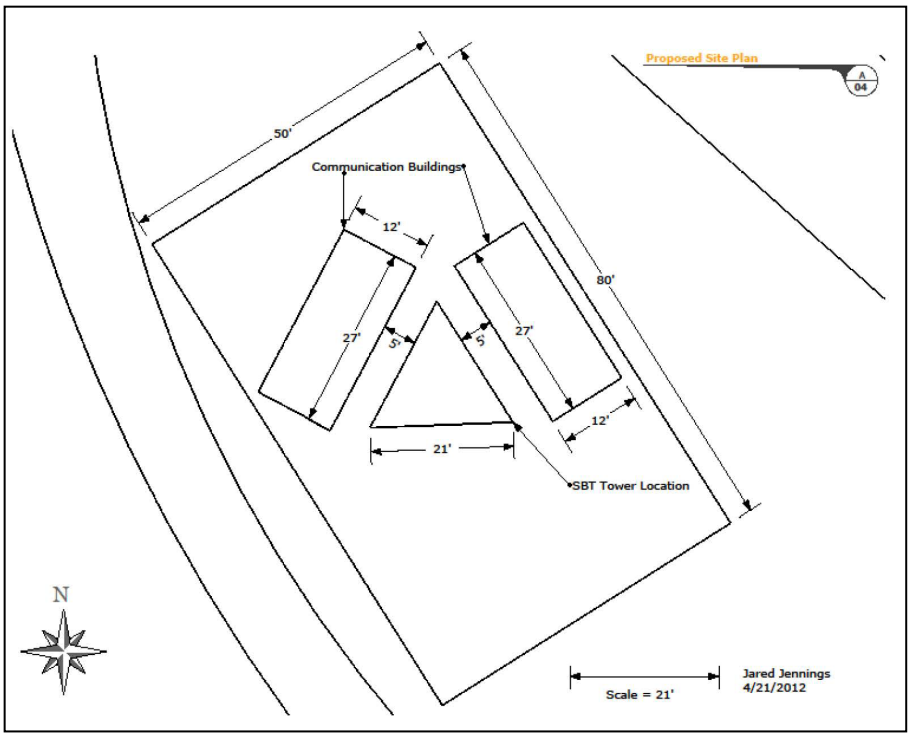
The communication building comes almost complete from the factory. We will connect the electrical power, mount the radios, mount the antennas, and run the waveguide (coaxial cable) to the antennas.

Fiber Optic Connection

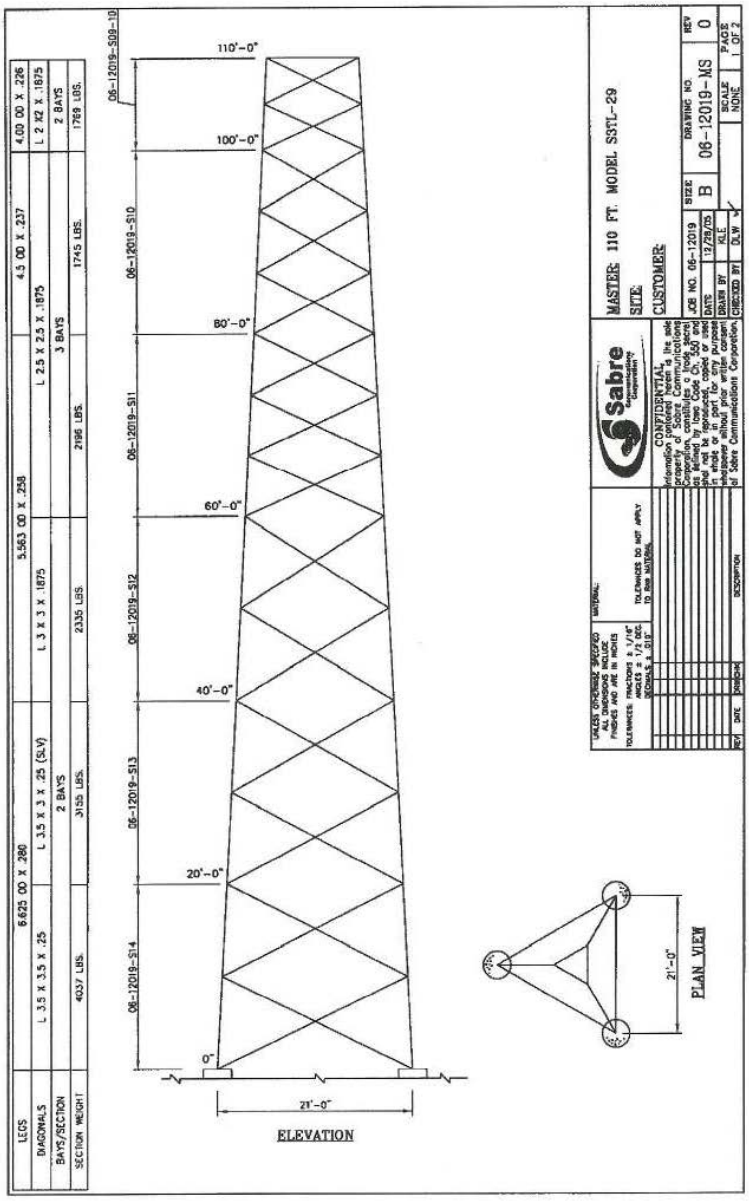
We are waiting on Century Link for final plans on the fiber connection.


N
23 Road
South Broadway
Grand Junction, CO - 5 Miles
Fruita, CO - 10 Miles
1.2 Miles
Access Road (dirt)
Sbt Communication Site
Water Tank Site
Scale = 776'
Jared Jennings
10/18/2011
Existing Site Plan Access
A
01


N
End of Access Road
SBA Equipment
90'
80'
SBA Communication Site
Water Tank Site
SBA Tower
Power Box
SBT Communication Site
61.2'
55.8'
65'
88.1'
Water Tank
Access Road (dirt)
1.2 Miles to 23 Rd
Scale = 50'
Jared Jennings
10/18/2011
Existing Site Plan
A
02

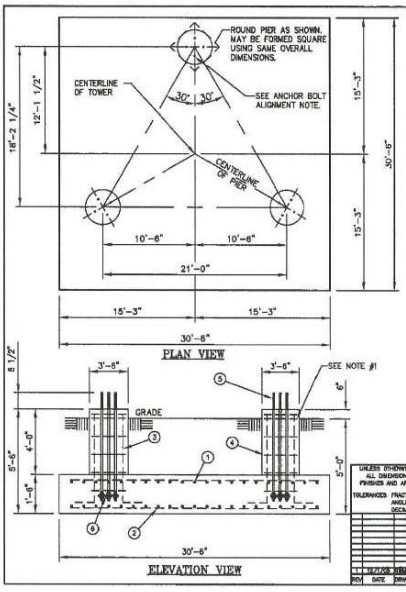

Proposed Site Plan
A
04
50'
Communication Buildings
12'
80'
27'
5'
5'
27'
12'
21'
SBT Tower Location
N
Scale = 21'
Jared Jennings
4/21/2012

Tower Elevation



LEGS	6.625 OD X .280		5.563 OD X .258		4.5 OD X .237	4.00 OD X .226
DIAGONALS	L 3.5 X 3.5 X .25	L 3.5 X 3 X .25 (SLV)	L 3 X 3 X .1875	L 2.5 X 2.5 X .1875		L 2 X2 X .1875
BAYS/SECTION	2 BAYS		3 BAYS			2 BAYS
SECTION WEIGHT	4037 LBS.	3155 LBS.	2336 LBS.	2196 LBS.	1745 LBS.	1769 LBS.

Tower Foundation Elevation



REINFORCING STEEL SCHEDULE

ITEM	LOCATION	NO. REQ'D.	BAR SPC'G.	SIZE	CUT LGTH.	TOTAL LGTH.	TOTAL WT.	SHAPE
①	PAD TOP REINFORCING	64	EQUALLY SPACED	#8	30'-0"	1920'-0"	5126 LBS.	STRAIGHT
②	PAD BOTTOM REINFORCING	64	EQUALLY SPACED	#8	30'-0"	1920'-0"	5126 LBS.	STRAIGHT
③	PIER VERTICAL REINFORCING	36	EQUALLY SPACED	#7	5'-11"	213'-0"	435 LBS.	
④	PIER TIES	18	SPACED 12" C/C	#4	10'-4"	186'-0"	124 LBS.	
					TOTAL REBAR WT.		10811 LBS.	

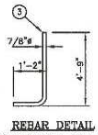
ANCHOR BOLT SCHEDULE

ITEM	PART NO.	NO. REQ'D.	ANCHOR BOLT SIZE	SPACING
⑤	C4D041004	12	1 1/2 ø X 5'-9"	EQUALLY SPACED

TEMPLATE SCHEDULE

ITEM	PART NO.	NO. REQ'D.	BOLT CIRCLE
⑥	C3D139001	6	1'-6"

CONCRETE REQ'D	ROUND PIERS	SQUARE PIERS
PAD	51.68 CU. YDS.	51.68 CU. YDS.
PIERS	4.28 CU. YDS.	5.44 CU. YDS.
TOTAL	55.96 CU. YDS.	57.12 CU. YDS.



REBAR DETAIL
(PIER VERTICAL REBAR)

GENERAL NOTES

1. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI IN ACCORDANCE WITH ACI 318-02. (2 REBAR TIES REQ'D IN THE TOP 5')
2. REBAR TO CONFORM TO ASTM SPECIFICATION A615 GRADE 60.
3. ALL REBAR TO HAVE A MINIMUM OF 3" CONCRETE COVER.
4. ALL EXPOSED CONCRETE CORNERS TO BE CHAMFERED 3/4".
5. THE FOUNDATION DESIGN IS BASED ON "NORMAL SOILS" AS DEFINED IN ANSI/TIA/EIA-222-F.
6. ONE ANCHOR BOLT MUST BE ALIGNED DIRECTLY WITH THE CENTER OF THE TOWER (TYPICAL)

FOUNDATION: 110 FT. MODEL S3TL-29
SITE:
CUSTOMER:
JOB NO. 06-10349 SIZE B DRAWING NO. 06-10349-F2 REV 1
DATE 11/20/06
DRAWN BY RWM
CHECKED BY MWR
SCALE NONE PAGE 1 OF 1

CONFIDENTIAL
Sabre Communications Corporation