

Rifle Parks & Recreation Advisory Board
Agenda
May 8, 2006
5:30 PM
Rifle City Hall

1. Call to Order
2. Minutes of April 24th Meeting
3. Comments from Public
4. Secretary – Stephanie Samson
5. Pool Evaluation
6. Pool Filters
7. Sign Bids
8. Playgrounds
9. Fencing and Netting
10. Action Park
11. Parking Lot
12. Next Meeting – May 22nd
13. Other
14. Adjourn



Date: May 4, 2006
To: PRAB
From: Aleks Briedis, Recreation Director
RE: May 8th Meeting

Below is a brief overview for the May 8th meeting.

Secretary

Our seasonal Recreation Supervisor, Stephanie Samson has started working. She is also willing to be PRAB's secretary and take minutes. Welcome Stephanie!!!

Pool Evaluation

The preliminary report from Water Designs is attached in this packet. This report was also given to Reavely Engineers, for them to include their information. This report is for your information and we plan on discussion once the complete report is given to us.

Pool Filters

We will have a pool company coming to Rifle to look at replacing our main pool filter the beginning of the week of May 8th. They will be giving us a quote and if the quote works, we will install the new filters.

Sign Bids

We completed the bid process as required by the City. We received one bid from Microplastics for the amount of \$1375 per sign. Bid is attached. Staff has not had time to finalize the amount of signs or wording on the signs.

Playgrounds

Heinze's playground is ready for play! We already have kids using it. We currently have a temporary fence between the playground and alley, which we will be changing with a permanent fence (see next item). Deerfield's playground is almost complete. We found a few spots where the red and green surfacing did not completely bond. Child's Play will fix this the week of May 8th. We are also working on the fencing and netting of the playground (see next item). We are still waiting on the final play structure at Davidson. It should be delivered and installed on May 4th. Child's Play will be installing the surfacing the week of May 8th.

Fencing and Netting

We will be installing fencing at Heinze and Deerfield. We are also having the netting engineered that will protect Deerfield's playground. Tom will give detailed information at the meeting.


CITY OF RIFLE

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RE: April 24th meeting
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Action Park

Construction has started. During excavation, we found remains of the housing development and/or hospital, a 10' x 30' x 8'(deep) water or sewer concrete compartment. We will have a change order for the project to either remove it or change the design and fill it with sand. This snag was presented to City Council on May 3rd.

Parking Lot

Once again, the paving is on hold. A few wet spots were found. Public Works is currently debating on the next action.

Next Meeting

A reminder that our original meeting date of May 29th has been moved up a week to May 22nd due to the Memorial Day holiday.

Should you have any questions or concerns, please contact me.

Thanks.





**PARK AND RECREATION ADVISORY BOARD MINUTES # 8, 2006
MONDAY, APRIL 24, 2006
RIFLE CITY HALL CONFERENCE ROOM**

CALLED TO ORDER: Meeting was called to order by chairman Steve Carter.
Moved by Mark Lapka and seconded by Kelly Bina to excuse Rich Carter. Motion passed by voice vote.

MEMBERS PRESENT:

Kelly Bina	5:34	Jim Boone	5:33	Rich Carter	absent
Steve Carter	5:30	Mark Lapka	5:30	Betsy Rice	5:30
Ed Weiss	5:30	Mildred Whitt	5:35		

Staff Present: Aleks Briedis; Rec. Director, Tom Whitmore; Parks Director.

MINUTES OF THE PREVIOUS MEETING: Ed stated that there was no mention of what the *proposed* light and field use fee was. Mark Lapka, asked about the discussion of free pool passes for the board in the March 6 minutes. We verified where these were in the minutes. We did not in fact discuss the proposed fee at the April 10th meeting. Little League parents were protesting a fee in general.

Betsy Rice moved to accept minutes. Seconded by Kelly.

ACT VOTER:	Yes	No	Abstain
2 Kelly Bina	x		
Jim Boone	x		
absent Rich Carter			
Steve Carter	x		
Mark Lapka			x
1 Betsy Rice	x		
Ed Weiss			x
Mildred Whitt	x		

COMMENTS FROM PUBLIC: None

LoVA TRAILS PRESENTATION: No-one was present from LoVA.
It was moved by Mildred to table this item, 2nd by Jim. Passes by unanimous voice vote.





FREE POOL PASSES FOR PRAB MEMBERS AND FAMILIES:

Jim Mentioned the cost of bringing a family to the pool and that this is a small perk for a volunteer board. Besty stated that the former board was more of a working board. As former chairman, Mark explained how that worked. Kelly asked about board guidelines in the past. Kelly stated that she missed the meeting when the discussion took place and could understand the need to not get perks on one thing or another. Ed stated that anything that appears to be preferential treatment can cause questions but this probably isn't that big of a deal. Free passes used to be for board members and their families and employees of the pool. Steve mentioned that it looks phony if we as board members get freebies. Maybe a discount would be in order.(?) Jim stated that it had already been in affect and might not be a big deal. Lifeguards doing laps as a job requirement would not be charged. Jim asked about pool fees. Aleks verified the fees from the rec. brochure. Jim mentioned that there are lower costs in the mid-west. Tom stated that costs continue to increase and that seasonal wages are being increased to draw applicants. City fees have historically been low and are being raised across the board to try to catch up. Steve stated that he doesn't want the pool to be a money pit.

Moved by Jim Boone and seconded by Mark Lapka to allow free pool passes for board members and families.

ACT VOTER:	Yes	No	Abstain
Kelly Bina		x	
1 Jim Boone	x		
absent Rich Carter			
Steve Carter		x	
2 Mark Lapka	x		
Betsy Rice		x	
Ed Weiss		x	
Mildred Whitt		x	

FRISBEE GOLF COURSE:

Jim stated that he had some money left over in his P.E. budget and thought it could go for some Frisbee Golf baskets. He briefly explained the sport. These wouldn't take a lot of maintenance or space. Betsy mentioned a course in Palisade and Ed had seen one in at Canyon View Park in Grand Junction. Steve asked what park might be suitable. Jim suggested Deerfield. Aleks reviewed some obstacles that we ran into when looking into a frisbee golf course a few years ago. Tom stated that we need to maintain a list of items such as this that are suggested so we can work them in when possible.





EARMARKING MONEY FOR GAME PREP AND ELECTRICAL: Aleks expressed concerns about setting aside some funds to cover additional expenses related to ballfield utilities and maintenance expenses. We wish to put money aside to cover lights and staff overtime. Steve asked Ed for advice on having little league pay the incremental cost and let the school pay the demand.

ACT VOTER:	Yes	No	Abstain
Kelly Bina	x		
Jim Boone	x		
absent Rich Carter			
Steve Carter	x		
Mark Lapka	x		
Betsy Rice	x		
Ed Weiss	x		
Mildred Whitt	x		

STRATEGIC PLANNING: Steve mentioned that it would be good to do a cost benefit analysis on programs. Mark mentioned meeting at the airport fire station. Steve suggested that Aleks surprise us with a location. Consensus agreed.

POOL EVALUATION: Aleks reported that we couldn't find anyone to sandblast and paint in time for the pool opening. We will spot prep and paint for now with sandblasting in the fall and complete painting the spring of 2007. There were questions about leaving the pool unpainted over the winter and painting in the spring. Aleks and Tom emphasized that we had similar questions for the contractors. The contractors specialize in pool painting and all three contractors stated that they preferred to sandblast in the fall, leave the concrete open during the winter, and paint in the spring. Aleks stated that we hope to have the pool evaluation in hand by the next meeting. The pool opens on Memorial Day. The schools would be able to use the pool the week before and there is no swim team.

Kelly asked about Swim registrations. Aleks said that over 70 registered online.

PLAYGROUNDS:

Deerfield is almost done. Web climber problems: Need to have access to turnbuckles. This will be done with crumb rubber. Betsy asked about the net. This is being engineered. Davidson Park--almost all structures are done. There were problems with kids tampering with the Davidson playground. Heinze Park is underway.

PARK SIGNAGE:

Waiting for bids. This is already approved and we will go ahead once we have bids. Jim complemented staff on the sign mock-up and the digital photos and the presentation at the earlier meeting. We had questions on the bids etc. Steve stated that he didn't want



the board to micro-manage what was on the sign and which way it would face etc. He felt staff should recommend this.

ACTION PARK:

Pre-construction meeting was last Tuesday. The bond paperwork is in and the contract is signed. The crew will be breaking ground tomorrow.

RE-2/COUNCIL JOINT MEETING REPORT:

The meeting was last Tuesday. Tom and Aleks attended. Fee structure for facility use for school facilities: There is discussion of an intergovernmental agreement between the City and the RE-2. Betsy briefly explained the school's fee structure.

The high school may be expanded. The expansion would sacrifice the existing high school soccer field. The High School would like to use a city soccer field. We may need to improve Quagmire and/or build a joint use field.

OTHER: Completing the Deerfield Amphitheatre area and expanding the pump system. Tom brought up the situation with the amphitheatre area and the need to expand the pump station at Deerfield. Tom Stated that he proposed this during budget but it was not approved for 2006. It may cost approximately \$35,000 to complete some blading, expand the pump station, and seed the area. Steve suggested that, without complete plans, it may not be worth it. Ed stated that there may be some private dollars available for that park area. Steve feels that, with everything else going on, this is a low priority right now. There were no other comments at this time. The board took no action on this item.

Aleks reported that the internet access point has been set-up at the pool. It still needs some tweaking, but it should be ready by pool opening.

Rec. Brochures are out. The board was complimentary about the rec. brochure. Aleks explained how the brochure was done.

Steve asked Mildred about the music at the Sr. Center
Mark commented on population projections from the county by 2030, 130,000-150,000 people. An up valley moratorium on rentals may force more people down valley to the Rifle/Parachute area. Mark would like to have realistic population projection numbers for strategic planning. Steve had a question about the RFTA bus shelter. Whose is that and who takes care of it? Steve would like to see a nicer bus shelter. How do those get built up valley?

Kelly complimented staff, Aleks and Tom, on providing the organization and the work to get ready for each meeting. Steve referred to an article on the CU board of regents





deciding to meet less because they were micromanaging too much and asked staff to let the board know if they are micro-managing.

Steve asked about getting some meeting dates out. Several members stated that they did not receive e-mails this past week.

The May 29th meeting day will not work because of Memorial Day. May 8th and May 22nd will work instead of the 29th. Aleks stated he will not be here for the next meeting on the 8th. Jim suggested less dialogue and pre-reading memos to expedite the agenda.

Chairman Steve Carter declared the meeting adjourned at 7:51 p.m.

Respectfully submitted,

Tom Whitmore
Acting Secretary





April 27, 2006

Mr. Aleks Briedis
Parks and Recreation Dept.
202 Railroad Ave.
Rifle, Colorado 81650
Fax: 970-6256285

Re: Rifle Metropolitan Park District Swimming Pool - Swimming Pool Assessment Study
Our Project No. 06-058

Dear Mr. Briedis,

Water Design, Inc. visited the Rifle Metropolitan Park District swimming pool facilities in Rifle, Colorado on April 7, 2006. The visit was requested to perform the following scope of services;

1. A thorough site visit and assessment of the facility to field measure, review, and assess each existing pool and its associated equipment.
2. Performing an engineering analysis of the existing swimming pools conditions.
3. Provide written comments and/or findings regarding the code status of each piece of equipment or pool system, current technology and other industry standards, and the expected life of major components (as applicable).

Water Design will utilize the State Board of Health – Swimming Pools and Mineral Baths Regulations (The Code) as published by the Colorado Department of Health along with the National High School Competition Standards as a reference for this report. The code will be used as the basis for this report and its findings. The findings and recommendations formulated from my site visit will be presented in this report as follows:

Summary of Existing Pool Installation:

The above referenced project includes a swimming pool and a wading pool that were built approximately 37 years ago. Renovations of the pool and wading pool were completed in 1988. The addition of a flume slide and slide pool were completed in 1992.

Combination Swimming Pool & Wading Pool: The existing swimming pool and existing wading pool are both operated through one common shared set of equipment. Both pools utilize the existing circulation pump to filter the water. The existing swimming pool has two (2) 1 meter diving boards installed at the deep end of the pool. The deep end of the pool is approximately 9’-6” deep at the deepest point (per field measurements). The swimming pool is a gutter type pool that utilizes a perimeter overflow gutter to skim the surface of the water for cleaning. The wading pool, on the other hand, utilizes an overflow drain and fixed skimmer weir to clean the surface of the water in the wading

pool. The swimming pool also contains race lane markings and starting platforms which are utilized for competitive events.

Slide Pool: The splash pool operates on its own set of circulation equipment and the water slide feature utilizes its own pump. The slide pool is a gutter type pool that utilizes a perimeter overflow gutter to clean the surface of the water. The slide pool utilizes a surge tank for balancing flows and providing surge capacity from bathers.

Calculations were performed to determine the existing performance properties of both the pool and splash pool circulation systems. The results of these calculations are tabulated below.

Existing Swimming Pool Conditions:

Existing System Data for Combined Pool/Splash Pool:

Swimming Pool Size:	84'-0" long x 75'-0" wide –“Z” shaped pool
Pool Depths:	2'-2" to 5' -0" to 9'-6" water depths
Pool Surface Area:	3,758 Sq. Ft.
Estimated Pool Volume:	~ 134,061 Gallons
Pool Perimeter:	318 feet
Original Design Flow Rate:	311GPM
Original Design Turn-over Rate:	8 hours (actual rate of 7 hours 10 minutes)
Code Required Turn-over Rate:	6 Hours
Code Required Flow Rate:	373 GPM
Wading Pool Size:	20'-0" long x 10'-0" wide – Rectangle shaped
Wader Depths:	0'-9" to 1'-0" to 1'-3" water depths
Wader Surface Area:	200 Sq. Ft.
Estimated Wader Volume:	~ 1,328 Gallons
Wader Perimeter:	60 feet
Original Design Flow Rate:	11 GPM (calculated)
Original Design Turn-over Rate:	2 hours
Code Required Turn-over Rate:	1 Hours
Code Required Flow Rate:	22 GPM
Circulation Pump (pool/wader):	10hp Paco Pump 3095-7 (designed for 311GPM at 84ft TDH)
Hair & Lint Strainer:	4" Cast Iron, hair and lint strainer
Pool/Wader Filter:	One (1) Miami Filter # SFV 66 (High Rate Sand -23.7 Sq. Ft. of Filter Area)
Max Allowed Flow through Filter:	474 GPM (per code requirements and NSF Standards)
Main Drain Piping (pool):	6" Cast Iron (from M.D. to pump)
Gutter Piping (pool):	6" Cast Iron (from Pool Gutter to Pump)
Face Piping:	4" Cast Iron (from pump to filters)
Return Piping to Pool:	6" Cast Iron (from filter to pool)
Return Piping to Wader:	4" Cast Iron (from filter to wader)
Wader Return Piping Penetrations:	2" Stainless Steel (through pool wall at wader)
Wading Pool Drain Down (Plug):	2" Cast Iron to waste (storm drain)
Wading Pool Skimmer:	4" Cast Iron (from wader to pool pump)

Chemical Controller:	None
Chlorine Feeder:	Rainbow HC3340 (tri-chlor tablets)
pH Feeder:	Hydrochloric Acid -Stenner 45M5 Peristaltic Pump
CO2 Feeder:	None
Heater:	Teledyne Laars 1010 I (1,100,000 Btu input)
Water Level Controller:	N/A

Existing System Data for Slide Pool:

Slide Pool Size:	40'-0" long x 23'-10" wide –Rectangle shaped
Slide Pool Depths:	2'-6" to 3' -6" to 3'-0" water depths
Slide Pool Surface Area:	953.33 Sq. Ft.
Estimated Splash Pool Volume:	~ 19,611 Gallons
Slide Pool Perimeter:	127.66 feet
Original Design Flow Rate:	120 GPM
Original Design Turn-over Rate:	3 hours
Code Required Turn-over Rate:	6 Hours
Code Required Flow Rate:	55 GPM
Slide Pool Circulation Pump:	5 hp Paco Pump 1595-7(listed for 120 GPM at 70ft TDH)
Hair & Lint Strainer:	4" Cast Iron, hair and lint strainer
Slide Pool Filter:	One (1) Miami Filter # SFV 54 (High Rate Sand -15.9 Sq. Ft. of Filter Area)
Max Allowed Flow through Filter:	318 GPM (per code requirements and NSF Standards)
Main Drain Piping:	8" Cast Iron (from M.D. to Surge Tank –combined flow of circulation pump and slide pump)
Pool Gutter Piping:	4" Cast Iron (from gutter to surge tank)
Pool Suction Piping:	4" Cast Iron (from surge tank to pump)
Face Piping:	3" Cast Iron (from pump to filters)
Return Piping to Slide Pool:	4" Cast Iron (from filter to slide pool)
Slide Pool Vacuum Pipe:	Not Installed (even though shown on plans)
Chemical Controller:	None
Chlorine Feeder:	Rainbow HC3330 (tri-chlor tablets)
pH Feeder:	None
CO2 Feeder:	None
Heater:	Jandy Lite 2 LJ400NHX (399,000 Btu input)
Water Level Controller:	N/A
Slide Pump:	15hp Paco Pump 5095-7(listed for 1000GPM at 48ft TDH)
Slide Suction Piping :	8" PVC (from Surge tank to pump)
Return Piping to Slide:	6" PVC (from pump to slide)

Based on the existing conditions and the information tabulated above, this report will address the major components of both pool systems that will require work in order to provide pools that will meet current code requirements and/or substantially extend the life of each pool system. A summary of major components are listed below. They will address three categories. The categories are as follows: 1. Code Deficiencies, 2. Industry Standard Deficiencies, and 3. Other Existing Condition Concerns.

Code Deficiencies:

From Colorado State Pool Code... **Article III – Design Criteria**

3.1 Surface, Shape, Design, Slopes:

a. Wading Pool:

Deficiency: The code requires maximum depth of 12” at the sidewalls of the wader. The depth of the wader at the north end sidewall is 15”.

Possible Solutions: Re-contour floor slopes to maintain maximum depth of 12” around sidewalls of wader (see “3.6 Main Drain” for additional information).

b. Swimming Pool Diving Bowl:

Deficiency: The diving bowl depths and slope configuration does not meet code requirements for the existing 1 meter by 16’ long diving boards.

Possible Solutions: Re-contour floor slopes, deepen diving bowl to meet code requirements or remove the diving boards from the existing pool configuration.

c. Swimming Pool Competition Lanes:

Deficiency: The code requires the minimum depth of water in areas dedicated for competitive events to be four (4) feet. The depth at the shallow end of the race lanes is only three (3) feet. This also does not meet the minimum standards for High School Competition and related flip turns in the shallow end of the pool.

Possible Solutions: Reshape and re-contour the pool floor to meet code requirements or no longer hold competitive events at this facility.

d. Swimming Pool Competition Markings:

Deficiency: The existing competition markings (i.e. Lane markings and targets) do not meet the requirements of the High School standards for competition. The existing markings are 6” wide and create 18” tees at the ends of each lane and on the walls. The competition standards are for 12” wide markings that create 3’ wide tees and targets. The lane markings should terminate exactly 5 feet from the end walls of the pool. The existing markings terminate 5’-8” from the walls.

Possible Solutions: Re-mark the pool to create competition compliant markings (if competition swimming is still going to be offered at this pool) or keep markings and eliminate competitive swimming and training in this pool.

e. Depth Markers:

Deficiency: The code requires that the water depth be marked on the pool deck and on the vertical pool wall with minimum 4” high numbers around the pool at every one (1) foot of depth. The existing pools do not meet this requirement. There are not depth markers on the vertical pool walls at either pool. The quantity and spacing of the deck markings do not meet

code. The wading pool does not have any depth markers on the deck or on the vertical pool wall.

Possible Solutions: Add new depth markings at each one foot depth on both the horizontal pool deck and vertical pool wall as required by the pool code. Depths should be marked in feet and inches with numbers that are minimum 4" high. Markings should be placed at every 1 foot increment of depth with spacing not to exceed 25 feet to be consistent with national standards.

3.2 Deck Areas:

a. Unobstructed Deck Width:

Deficiencies: The code requires all pools to have a minimum of five (5) feet unobstructed deck around the entire pool as measured from water's edge. The existing pool deck at the South East corner of the slide pool is only 3'-7".

Possible Solutions: Move fence and extend concrete deck as needed to provide the required five (5) foot minimum unobstructed deck. Modifications to the deck shall meet all other code requirements for decking.

3.3 Overflow Gutters:

a. Gutter Design and Capacity:

Deficiency: The code requires that the pool gutters be capable of handling 100% of the circulation flow through the gutter system. The existing gutter and associated piping for both the swimming pool and the slide pool can not handle the full flow of the circulation system within the constraints of the code requirements. The code also requires that the gutter be designed with outlets spaced no farther than 15 feet apart along the gutter. The existing gutter has one outlet along the entire perimeter of the pool (over 300 feet long gutter with one outlet).

Possible Solutions: The gutter system would need to be replaced/modified to provide a gutter system that has outlets every 15 feet around the pool. Alternately, if the gutter were replaced with a larger gutter system that could handle 100% of the flow with a single outlet, the single outlet design may be justifiable to the health department.

b. Surge Tank:

Deficiency: The code requires that all overflow gutters shall be connected to the recirculation system through a properly designed surge system. The existing swimming pool does not have a surge system installed. The slide pool does have a surge system installed, but the surge tank that has been provided is not properly designed to handle the full surge of maximum bather load.

Possible Solutions: Add properly sized surge tanks for both pools. These surge tanks should be designed to handle the full surge of maximum bather load without surcharging the gutter system in the pool. This would require finding a location to place two large subterranean reservoirs that could provide the surge capacity needed while providing an automatic balancing system to assure skimming during all surge conditions. Any new tank design should allow for valve extensions, waterproofing, deeper pipe penetrations and seals, and a new modulating float valves on the main drain lines. The modulating float valve will act as an automatic surge

tank water level control system to provide for maximum surge capacity and skimming while protecting against a low water condition that could potentially harm the pumps.

c. Operating level of the pool:

Deficiency: Gutter systems are intended to operate at the overflow rim of the gutter. We understand that the existing pool has typically been operating approximately 2” below the rim of the gutter. The original gutter had some weir plates at certain locations around the pool to protect the system from air entrapment in the event of low water. These weir plates appear to have broken off and are no longer functioning. This means there are large openings into the gutter that are located below the gutter lip. These opening do not allow the gutter to properly operate at the overflow rim as intended without flooding the gutter system.

Possible Solutions: The gutter should be repaired and/or replaced to restore the gutter to the original intended design. This means that the weir plates would need to be replaced and/or these gutter openings sealed to restore the intended gutter operation at the rim of the gutter.

3.4 Skimmers:

a. Wading Pool:

Deficiency: Code requires a minimum of 2 skimmers with equalizer lines and check valves. The current wader does not have appropriate number of functioning skimmers. Additionally the existing skimmer does not meet the code requirements for NSF approval and the presence of an equalizer line.

Possible Solutions: Replace the existing skimmer and add one additional skimmer to the pool. All skimmers should be NSF approved skimmers with the required equalizer lines and check valves. The skimmers shall be adjustable and operate freely with continuous action over a range of at least four (4) inches.

3.5 Inlets:

a. Wading Pool Inlets:

Deficiency: Code requires wall inlets located to produce uniform water and chemical circulation with a maximum interval of fifteen (15) feet center to center. Wall inlets shall also have adjustable orifices. The wader has two (2) non-adjustable inlets spaced closely together on one end wall of the pool.

Possible Solutions: Replace existing wall inlets with minimum four (4) adjustable wall inlets, equally spaced to meet fifteen (15) foot interval.

3.6 Main Drains:

a. Wading Pool:

Deficiency: The code requires that each pool have minimum two outlets located at the deepest point of the pool and evenly spaced to facilitate proper bottom circulation and permit the pool to be completely and easily emptied. The outlets are required to be designed to handle 100% of the design flow rate. No direct connection to sewer drain is permitted (see 4.12 Waste Disposal). The Wading pool currently does not have a main drain and the Slide pool is

currently equipped with only one main drain. The single main drain is a code deficiency but does not, in our opinion, create a safety concern at the slide pool because the outlet grate is extremely large and extends most of the pool width (not possible for a bather to completely obstruct).

Possible Solutions: Add two (2) new main drains in the wader floor at the deepest part of the pool. Remove/replace concrete and pool finish as necessary to provide two outlets per code requirements. The outlets should be connected by a new properly sized piping back to a circulation pump and with the tee occurring at the approximate middle between the outlets. The outlet system should be redesigned and the outlet sizes increased to provide code compliance. The new outlet grates should be designed to meet the requirements of the code for spacing and maximum velocity of water flow through the open area of the designed grating. This will need to be engineered based on the design flow rates for the wader.

3.7 Steps, Ladders, Diving Platforms and Diving Towers:

a. Pool Entry Step:

Deficiency: The code requires that entry steps be provided at the shallow end when vertical distance from the bottom of the pool to the deck is greater than 2 feet. Although a bench extending the length of the shallow end is currently utilized as a means of entry, the design of this bench exceeds the maximum height of 10” allowed by the code. The code also requires a 2” wide contrasting color tread edge to be clearly visible to the user. The existing pool does not meet these requirements.

Possible Solutions: Replace a section of bench with code compliant entry steps designed to meet the shape and size the code requires. Any design should include a properly sized and placed hand rail.

b. Pool Starting Blocks:

Deficiency: Code requires Maximum height of starting blocks over water less than four (4) feet deep is eighteen (18) inches above the water surface and that starting blocks be clearly labeled, “NO DIVING”. Starting blocks do not have “NO DIVING” label. High School standards do not allow starting blocks to be used in water depths less than 4 feet deep. There are anchors for starting blocks on the end of the pool with a water depth of 3 feet.

Possible Solutions: Add “NO DIVING” label to each starting block. Verify that the starting blocks are maximum 18” above the water level when installed. Also it is suggested that the starting block anchors be removed from the shallow end of the pool if pool is not re-contoured (see 3.1 Surface, Shape, Design, Slopes) to make sure they are not accidentally or unintentionally used improperly in the shallow end of the pool. This is a major safety issue related to diving related accidents in shallow water.

3.8 Hose Bibs:

Beyond scope of this report.

3.9 Suction Cleaner:

Existing portable electric vacuum is utilized. No deficiencies observed in this regard.

3.10 Equipment Rooms/Recirculation Systems/Appurtenances:

a. Pool Turnover Rate:

Deficiency: The code requires a minimum six (6) hour turnover rate for swimming pools with the exception of spas and wading pools. Wading pools shall have a minimum one (1) hour turnover rate and a spa pool shall have a one half (1/2) hour turnover rate. The existing circulation pump will not allow for a minimum turnover rate of six (6) hours as required for a swimming pool.

Possible Solutions: Replace existing pump with new pump engineered to be capable of producing six (6) hour turnover rate.

b. Hair and Lint Strainer:

Deficiency: The code requires the basket to be constructed of corrosion resistant material and that the area of the basket openings be at least ten (10) times the area of the inlet pipe into the basket. Existing baskets for both systems are cast iron and severely corroded, also the basket areas are too small per code.

Possible Solutions: Replace hair and lint strainer with proper size strainer made of corrosive resistant materials.

3.11 Disinfectant and Chemical Feeders:

Existing chemical feeders appear to meet code requirements for capacity. No deficiencies observed.

3.12 Sand Filters:

a. High Rate Sand Filters

Deficiency: The existing filters for both pools are showing signs of leaking and corrosion. The pool filter is reportedly not operational due to piping damage inside the filter (i.e. broken laterals). The code requires Backwash lines to drain to sanitary sewer (also see 4.12 Waste Disposal). The existing configuration of the waste system connects to storm drain which dumps into a local creek. This does not meet the code requirements.

Possible Solutions: The existing pool filter requires repair or replacement at this time. Since the filter is nearing the end of its useful life, it would make sense to replace the filter if a long term solution is required. We recommend replacing the filter with either new high rate sand filters or cartridge filters sized to handle the required flow rate for a 6 hour turn-over. We recommend that the filter selection should consist of NSF approved corrosion resistant filter design (fiberglass or equal) rated for minimum 50 psi operating pressures. The existing slide pool filter is also nearing the end of its life cycle but could be placed in service until replacement is required. As far as the backwash cycle goes, by converting to cartridge type filters, the need for a large sanitary sewer is reduced since cartridge filters do not backwash like

sand filters do. The internal cartridges (filters) are replaced or cleaned occasionally. This type of filter typically requires less equipment space to accommodate but does require a little more time be allocated for maintenance because of the manual cleaning and/or filter cartridge replacement process which is required from time to time. In any event, a re-design of the waste system will be required to some degree whichever type of filters are selected to assure that the pool water drains to a sanitary sewer system (also see 4.12 Waste Disposal). Connection shall be made with a suitable air gap to stop the possibility of backflow of sewage or waste from entering into the circulation system.

3.13 Diatomeaceous Earth Filters:

Not Applicable to this pool

3.14 Cartridge Filters:

Not Applicable to this pool at this time (see discussion under 3.12).

3.15 Make-up Water Facilities and Cross Connections:

No deficiencies observed.

3.16 Piping Systems:

a. Piping Velocities:

Deficiency: The code requires that all suction pipes be designed for maximum 7 feet per second of flow velocity through the pipes. The following pipes are undersized for the code required flow rates for turn-over (i.e. flow velocities exceed the maximum allowable).

8" Slide Pool Main Drain Piping (combined circ & slide flow = 1,120 GPM) is undersized to meet the velocity requirements of the code at the design flow rates.

8" Flume Slide Suction Piping is undersized to meet the velocity requirements of the code at the slide design flow rates.

6" Flume Slide Return Piping is undersized to meet the velocity requirements of the code at the slide design flow rates.

Possible Solutions: The existing piping sections listed above do not meet code and would require replacement in order to meet flow requirements. It is possible (and likely), however that the slide is not operating at the 1,000 GPM flow it was designed for on the plans. The pools were not in operation at the time of our visit and there is not a flow meter on the slide return line so the actual flow rate information could not be collected. A flow meter could be installed on the slide return piping when the pool is started up to confirm what flow Rifle has been operating the slide at. The actual slide flow rate could then be re-analyzed to determine if the actual flow velocities are code deficient before consideration is given to increasing the size of the underground (under pool) piping.

- b. Pipe Labeling:
Deficiency: The code requires the piping system of the pools to be labeled and color coded to identify filtered water, raw water, wastewater, vacuum cleaning lines, heating lines.
Possible Solutions: Label and color code piping to meet code requirements. It is also recommended that flow direction arrows be added to each pipe to assist the operator in system flow mapping.
- c. Vacuum Gauge:
Deficiency: The code requires vacuum gauges on the suction side of each pump. Although they exist on the suction side of each pump, they appear to be inoperable. Inoperable vacuum gauges make it difficult to determine the status of the hair and lint strainers as well as to troubleshoot pump flow problems that may occur from time to time.

Possible Solutions: Replace existing vacuum gauges at each pump with new vacuum gauges that work properly.
- d. Flow Meter:
Deficiency: The code Requires flow meters to be installed per manufacturer's recommendations on a straight pipe length of no less than eight (8) feet and away from elbows and other flow restrictive equipment. The existing flow meters appear to be inoperable and do not have enough straight pipe. The flow meters are also installed pre-filter which is not recommended and may certainly be a contributing factor the flow meters being inoperable.

Possible Solutions: Replace with new flow meters on pipe section that meets code criteria and manufacturer's recommendations. All new flow meter shall be installed in the piping system located downstream of the filter(s).
- e. Pool Schematic:
Deficiency: The code requires that a complete schematic diagram of the entire pool system be posted in the mechanical room. This diagram could not be located and does not appear to be existing.

Possible Solutions: Prepare and post the required diagram. The diagram shall be constructed of proper materials so as to remain in good condition and readable at all times.

3.17 Emergency Shutdown Control:

No deficiencies observed.

3.18 Mechanical Room:

Not applicable to the scope of this report.

3.19 Lighting Electrical Requirements:

- a. Pool Lights:
Deficiency: The code requires all pools which are operated at night must have artificial lighting sufficient to permit the main drains to be clearly visible at all times. The pool facility

currently is utilized (during normal operation) until 9:00pm at night. On occasion the pool is utilized until 10:00 pm for special parties or activities. The pool does not currently have underwater lights installed.

Possible Solutions: Discontinue the night use of the pool or if night time operation is required and is expected to continue, underwater lights should be added per code. Underwater lights should be designed for not less than 500 watts/1000 Sq. Ft. of pool surface area such that all locations of the pool can be seen with out glare.

3.20 Dressing Rooms:

Construction materials, finishes, architectural issues, etc. are beyond scope of this report.

3.21 Toilets:

Existing number of toilets and urinals appear to meet code requirements based on the posted bather load of 225. Construction materials, finishes, architectural issues, etc. are beyond scope of this report.

3.22 Shower Facilities:

Existing number of showers appear to meet code requirements based on the posted bather load of 225. Construction materials, finishes, architectural issues, etc. are beyond scope of this report.

3.23 Swimmer Load:

The pool code allowed swimmer load for this facility is calculated at 310 bathers (total for all pools). The facility appears to have chosen to limit this occupancy based on information provided by the fire department. The owner can control and limit occupancy loads in the pools as they desire so long as they don't exceed the maximum allowed occupancy. The posted occupancy is below the code allowed maximum bathers, so no deficiency was observed.

3.24 Fencing:

The code requires every swimming pool in a non-restrictive public place be fenced to prevent unauthorized access to the pool except through controlled entrances. A building or structure can serve as a fence or barrier. Fencing shall be a minimum of sixty (60) inches high, and shall have self-closing, self-latching gates, with the latch a minimum of fifty four (54) inches high. Wrought iron fence picket spacing shall not be greater than four (4) inches. Entrance shall be handicapped accessible. Local Building codes or ordinances shall preempt this requirement, provided that said codes or ordinances are more stringent than the requirements in this section.

Possible Solutions: Analysis of fencing is beyond the scope of this report. We recommend that the owner inspect the fencing and gates to assure that they meet the requirements of the pool code as summarized above.

Article IV – Sanitary Standards

4.1 Disinfection:

a. Chemical Feeders:

Deficiency: Chemical feeder piping for both pools are broken (appears to have broken due to freezing pipes which were likely not properly winterized and/or drained)

Possible Solutions: Replace any damaged piping and assure proper working condition of feeders.

b. General Requirements (Disinfection Equipment):

Deficiency: The code requires that Y-strainers be installed in the disinfectant feeder supply line. Y-strainers are not currently installed on the existing system.

Possible Solutions: Add y-strainers to each disinfectant feeder supply line per code.

4.2 Blank

Blank section that has been deleted from the code.

4.3 Swimming Pool Water Supply:

No deficiencies observed.

4.4 thru 4.11

These sections address items that are operational in nature. These items are beyond scope of this report.

4.12 Waste Disposal:

a. Backwash:

Deficiency: The code requires backwash of a filter to discharge into the sanitary sewer system via a required air gap. Additionally, a backwash tank (vessel) is required and must be designed to hold a minimum of a 5 minute volume of backwash water (at the backwash design rate). The existing pool systems do not backwash to sewer. There is also not a backwash retention tank nor is there an air gap.

Possible Solutions: redesign and install piping with required air gap. Add a properly sized backwash tank (5 minute flow retention) that drains to the sanitary sewer per code requirements. This will require extending a sanitary sewer line to the pool equipment room location.

4.13 thru 4.15

These sections address items that are operational in nature. These items are beyond scope of this report.

Article IV – Article V – Public Bath

Not applicable

Other Deficiencies Observed:

1. Pool Leaking:

Deficiency: The pool has been reportedly losing up to eight (8) inches of water per day. This means there is a substantial leak in the shell or in the piping that needs to be repaired. There are some cracks observed in the pool shell that could certainly be contributing to the water loss. Some of the piping and a possible leak in the piping may also be contributing to the water loss. There were also some areas of the pool where the finish (paint product) appears to be delaminating.

Possible Solutions: The pool could be tested for leaking. This may include a combination of die testing the pool inlets and outlets, die testing pool cracks and finishes, and pressure testing existing piping systems. The underground piping is mostly cast iron and is showing signs of heavy corrosion. Most of the piping observed was installed in 1989. We know that the main drain pipes are from the original construction (making them approximately 37 years old). Any leaks that are discovered should be repaired. All pool cracks should be properly repaired. The repair procedures should be developed and specified by a structural engineer.

2. Swimming Pool Heater

Deficiency: The pool heater calculations indicate that the existing pool heater by itself appears to be undersized for this application (and elevation and weather of the region). The pool heater is also in poor condition and appears to be nearing the end of its useful life (maybe a few more years are possible with some upkeep and maintenance). The existing solar heating system appears to have originally been intended to supplement the pool boiler/heater in an attempt to provide the required heat needed to operate the pool. The reports are that this solar heating system has worked in the past and has provided enough heat to adequately supplement the pool boiler and adequately heat the pool water. The solar panels, however, are aging and are showing signs of nearing the end of their expected life cycle. Two of the solar panels have already been abandoned and capped off due to problems with the internal piping while another panel has been abandoned due to broken glass in the panel which has never been replaced.

Possible Solutions: The pool heater will likely require some maintenance to place in operation this year. It is anticipated that it may need to be replaced within a few years. If the pool is having problems maintaining desired water temperatures this year, the solar panel system could be cleaned and repaired to activate those panels that have been taken out of service.

3. Slide Pool Heater

Deficiency: The pool heater appears to be recently installed. It was observed that there is a wood roof structure that was recently build over the slide pool equipment and heater to protect the equipment from the elements. The heater that was installed is an outdoor model heater that was designed to be installed in outdoor applications. According to the manufacturers installation instructions, the outdoor model heaters should be installed in an open unroofed area. This is not the case with the existing installation.

Possible Solutions: Have an experienced pool contractor address the heater under the roof structure. The heater and/or roof structure may have to be moved to meet the requirements for heater installation of an outdoor heater model and or the heater may require conversion to an indoor model with proper venting of the heater.

4. Combined Swimming Pool and Wading Pool

Deficiency: The national standard relative to wading pools require that wading pools be placed on separate and independent circulation systems from other pools. This is to protect bathers from potential water contamination due to fecal release and urination. Fecal accidents and urination are much more likely in a wading pool than a standard pool. If such an event occurs in a wading pool that is combined with a swimming pool circulation system, there is a high risk that the swimming pool will become contaminated because of the accident in the wading pool. Current codes require that all wading pools be separately circulated, filtered, and chemically treated.

Possible Solutions: The wading pool should be separated from the swimming pool and new equipment installed specifically to treat the wading pool as a separate circulation system. If this is not possible, the wading pool could be abandoned and the piping disconnected and capped off.

5. Pool Piping and valves

Deficiency: The existing piping and valves in all of the pool systems consist primarily of cast iron piping and valves. The majority of the piping and valves show signs of high amounts of corrosion. It is our experience that cast iron piping, when utilized in chlorinated swimming pools, can reach the end of its useful life in less than 15 years. These pools were renovated approximately 14 to 17 years ago and the majority of the piping was replaced at that time. We would suspect that the pool piping is nearing the end of its useful life. It is difficult to predict when the piping will ultimately fail, but experience tells us that it is likely to be within the next 1 to 10 years.

Possible Solutions: Since the pool is showing signs of leaking and the pool piping is one suspected cause of this, the piping should be hydrostatically pressure tested to 25 psi for minimum 24 hours to determine if there are any pipe leaks. If leaks are detected, they should be repaired.

6. Pool Pump Electrical Conduit

Deficiency: Although electrical design and installation is beyond the scope of this report, we observed that the electrical feed wiring to the swimming pool circulation pump is cracked open. This appears to be a safety hazard.

Possible Solutions: This should be addressed by a licensed electrical contractor to assure that the wiring and conduit meet the requirements of the code and don't create a safety hazard.

7. ADA accessibility of the swimming pools

Deficiency: Currently all three (3) bodies of water do not have any means of ADA access provided. The current ADAAG guidelines require a self operated swimming pool lift and/or a sloped ramp entry for pools with less than 300 linear feet of pool wall (slide pool). For pools

with more than 300 linear feet of pool wall (swimming pool), the guidelines require at least two (2) accessible means of entry. The primary means of entry shall be a swimming pool lift or a sloped entry. The secondary means of entry shall be a swimming pool lift, sloped entry, a transfer wall, a transfer system, or pool stairs. Under the ADAAG Guidelines, the wading pool requires a ramp as the primary means of entry. It is important to understand that the ADAAG guidelines have not been adopted by the U.S. Justice Department yet, but are at this point a guideline. It is expected that this guideline will get adopted and become ADA law within the next couple of years. Currently the ADA requires that pools are made accessible, but the exact means are not well defined. Many facility operators and owners have chosen to provide a manual assisted lifting device to each pool as a means of providing ADA accessibility in lieu of following the ADAAG guidelines. Often times they will provide a deck anchor at each pool and provide one lift that can be shared/moved from pool to pool as needed.

Possible Solutions: Follow the proposed ADAAG Guidelines for each pool and add self operated lifts and ramps as required at each pool. Alternately, in an attempt to meet the minimum requirements of the ADA laws, lift anchors could be provided at each pool with one portable manually operated lift (assisted lift) that can be cross-utilized at all pools as needed.

Conclusion:

The items discussed in this report are based on an analysis of the currently adopted pool code which is in effect at the time of this report. The deficiencies and solutions discussed in this report deal with the current code as adopted. The deficiencies as discussed may not necessarily impact the ability of the City of Rifle to obtain a pool operating permit for this coming season from the health department (since the pool have been in operation for many years with many of the deficiencies as noted). We would recommend that you discuss these issues with the local health department prior to implementation of any changes. The health department may have the authority to exempt existing pools such as yours from meeting some of these requirements under some sort of grandfather clause.

The above recommendations are the professional opinion of Water Design, Inc. and are based only upon our site visit and observations. They are intended to address the pools as they exist today. The observations in this report should not be relied upon as all inclusive since they deal primarily with some of the larger items that are concerns for the pools. They deal with pool specific items only and do not address soils, structural, electrical, or mechanical items. Prior to construction and implementation of these recommendations, the complete pool systems shall be designed and bid out. Construction documents stamped by a qualified engineer shall be submitted to the local health and building departments for their approval.

If you have any questions, please call me at (801) 261-4009.

Cordially,

Thomas P. Anderson
Water Design, Inc.

END OF REPORT

BID FORM

Bidding Company Name: MICRO PLASTICS, INC.

Bidding Contact Name: RIFLE RECREATION PARK SIGN BID

Address: 531 RAILROAD AVE

City: RIFLE State: CO Zip: 81650

Phone: 970 625-1718 E-mail: RANDY@MPSIGNS.COM

25 signs as specified \$ 1,375⁰⁰ ea.

Amount of time from order to delivery 3 WEEKS

1 additional sign order \$ SAME PRICE

Additional comments TOP (CIRCLE) SECTION WILL BE DIGITALLY PRINTED AND LAMINATED - BOTTOM SECTION WILL BE VINYL DIE-CUT LETTERING, 3M HIGH PERFORMANCE VINYL


Signature

RANDY WINKLER
Print Name

OWNER
Title

27 APR 06
Date