SWIMMING POOL EVALUATION

WAYNE, NEBRASKA

JANUARY, 2014

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FOR

CITY OF WAYNE, NEBRASKA

JANUARY, 2014

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EXECUTIVE SUMMARY

ES-1 GENERAL DISCUSSION

The purpose of this evaluation is to evaluate the condition of the existing pool facility, make recommendations for improvements for the existing facility and provide alternatives for a new aquatic facility. The pool facility is now close to 60 years old, but main pool renovations where done in 1990. This evaluation will identify and evaluate various alternatives for the follow:

- Provide an evaluation of the existing pool and bathhouse;
- Provide recommendations for improvements for four different scenarios:
    A. Renovation of the existing pool and bathhouse
    B. Build new Outdoor aquatic facility
    C. Build new Indoor/Outdoor aquatic facility attached to the existing Community Activity Center
    D. Renovate existing Swimming Pool/Bathhouse and add an Indoor pool to the Community Activity Center
    E. New Bathhouse at existing facility and convert wading pool to Splashpad
    F. New Outdoor Pool only at existing Community Center
- Provide concept drawings of the proposed improvements;
- Provide an opinion of cost for the proposed improvements.

ES-2 EXISTING MAIN POOL

The main pool structure appears to be structural sound with no evidence of bowing walls or buckling floors and the paint system appears in good condition. A stainless steel gutter system is utilized around the main pool which provides both the inlets and the perimeter overflow and skimming needed. The filter tank for the main pool is over 20 years old and appears in fair condition. The main pool pump has had electrical motor work performed on it in the past and shows signs of deterioration. The gas pool heater for the main pool only is in good condition and is operating correctly. The acid for the chemical feed system is housed in a separate room and appears in good condition. The chlorine storage is housed in the same room as the filter and pump which is the cause of some the deterioration noted. The current turnover rate for the main pool is 8.75 hours which is above the 1979 standard or any other current design standards which is now approximately 3-4 hours for the entire pool. The deck appears in good condition. The main pool does not meet current ADA standards.

ES-2 EXISTING WADING/BABY POOL

The wading pool structure appears to be structural sound with no evidence of bowing walls or buckling floors and the paint system appears in good condition. A separate filter tank for the wading pool is a fiberglass vessel and appears in good condition. The dedicated wading pool pump has an unreadable name plate but appears in good condition. The wading pool in not heated and the chemical tablet feed system is housed next the wading pool pump and filter and appears in good condition. The existing turnover rate for the wading pool is approximately 30 minutes or less and appears to meet the current

standards. A separate gate is provided for ingress and egress into the area from the outside and the main pool side.

ES-3 BATHHOUSE

The bathhouse structure has some cracks in the masonry walls and appears to be in fair condition. Each men's and women's dressing areas has gang showers with toilets, sinks and urinals (men's only). Metal partitions on both sides show an extreme amount of deterioration. The walls are colorfully painted in all interior areas of the bathhouse. The center/admission houses clothes baskets, refrigerator, freezer, desk and other items. Ceilings and lack of ventilation in all areas does not provide adequate air flow. Overall the bathhouse lacks in privacy areas to change or to shower and is considered in overall poor condition, nor is it aesthetically pleasing. The current patron loading for the bathhouse limits the capacity to approximately 200 patrons.

Neither of the existing pools or the bathhouse meets the current ADA regulations for accessibility. The life expectancy of the existing pool and bathhouse is difficult to determine based a number of factors. We cannot predict hidden piping leaks that would cause structural failures in the future. The bathhouse has cracks in the walls which will deteriorate the bathhouse structure in the near future. The normal life expectancy of a pool facility is 25 to 30 years,

ES-4 RECOMMENDATIONS

This study resulted in six different recommendations and is illustrated as options in Appendix "A".

Option "A" – Widen existing main pool from 4 lanes to 6 lanes, add zero depth into main pool, deepen and lengthen the diving well, eliminate the wading pool, replace the pool slide and new bathhouse.

Option "A" $2.2 to $2.5 Million

Option "B" - Build a new 5-6,000 SF pool north of the existing facility with zero depth entry, diving well and 6 lanes by 25 meter with new parking lot. Existing pool facility could remain open until new facility opens.

Option "B" $2.8 to $3.5 Million

Option "C" – Build a new 4,000 SF Indoor (6 lane by 25 meter) pool with bleachers at the Community Activity Center. Building addition for the Indoor pool could also include additional area for other Indoor activities that are left undefined.

Option "C" $4.5 to $5.0 Million

Option "D" – Build a new 4,000 SF Indoor (6 lane by 25 meter) pool with bleachers and new 5-6,000 SF zero depth entry Outdoor pool with slides with water play features at the Community Activity Center.

Building additions include a filter room with storage for the Indoor pool portion and also additional building area for Outdoor pool filters.

Option "D" $6.6 to $7.5 Million

Option "E" - Included no physical changes to the existing main pool but build a new Bathhouse and convert the existing wading pool into a splashpad at the existing facility location.

Option "E" $0.9 to $1.2 Million

Option "F" – Build a new 5-6,000 SF Outdoor pool only at the Community Activity Center with a slide, zero depth entry, 6 lane swimming/lap lanes and bleachers.

Option "F" $2.2 to $2.9 Million

All options proposed at the Activity Center did not include any new bathhouse features and would use using the existing dressing/locker/restroom facilities already based there. During certain activities at the Community Activity Center the dressing/locker/restroom facilities could be crowded and hard to manage.

ES-5 SUMMARY

The main pool and bathhouse are close to 60 years old and have significantly surpassed the life expectancy of a facility like this. The facility is not in compliance with the ADA regulations. The City can make improvements to the existing facility as presented in this study, but further structural investigations would need to take place before finalizing those improvements. Parking is inadequate during swim meets at the present location. Landscaping is adequate for the present site.

Some discussion was held with the Wayne State College and Wayne School system staff during this study phase. At the present time is does not appear to be feasible to partner with either entity on any these proposed options.

The pool committee and JEO Consulting Group, Inc. recommend Option "D" as their first alternative which includes an Indoor/Outdoor pool at the Activity Center. Either the Indoor or the Outdoor pool could be built first before the other one if funding for both is not available. Some overall cost savings would be realized if they were built at the same time over constructing them separately and years apart. Expected cost savings for building both the Indoor and Outdoor pool at the Activity Center at the same time can be $200,000 to $400,000. The Committee's second alternative chose is Option "A".

Engineering ■ Architecture ■ Planning ■ Surveying

DRAFT RENDERING - OPTION D

Scale: Not To Scale

JEO CONSULTING GROUP INC
800.723.8567

WAYNE, NEBRASKA AQUATIC CENTER

Date: September 26, 2013

Project No. P110845.00

SECTION 1.0 INTRODUCTION

The City of Wayne, Nebraska has retained the engineering services of JEO Consulting Group, Inc. (JEO) to perform a study and report on the City's existing swimming pool and bathhouse facility. The purpose of the study is to provide a brief evaluation of the existing facility as well as provide recommendations for improvements on a few different scenarios. Specifically, this report addresses the following areas:

- Provide an evaluation of the existing pool and bathhouse.
- Provide recommendations for improvements for four different scenarios.
    1. Renovation of the existing pool and bathhouse
    2. Build new Outdoor aquatic facility
    3. Build new Indoor/Outdoor aquatic facility attached to existing Community Activity Center
    4. Renovate existing Swimming Pool/Bathhouse and add an Indoor pool only to the Community Activity Center
- Provide concept drawings of the proposed improvements.
- Provide an opinion of cost for the proposed improvements.

However, during the course of the writing of this study, it was determined by the Owner to add two more options listed as "E" and "F" to this report. Several other improvement scenarios were discussed, evaluated and did not merit further investigation or inclusion into this report.

1.1 POOL PLANNING

Swimming pools/aquatic facilities appeal to community members of all ages. They provide a place to gather and enjoy safe, family-oriented, fun-filled summertime or year round recreation. Communities throughout the Midwest appreciate and understand the value that a swimming pool/aquatic facility adds to the quality of life in a small, medium or large sized community.

For many communities, it is a challenge to agree on the wants and needs for an upgraded swimming pool/aquatic facility or pool. In the case of Wayne, Nebraska, the preliminary indications are that the City Pool Committee is interested in renovation of the existing pool along with other possible new additions/facilities, provided that it is the most cost effective route to take. Listed below are several questions that may help in determining if a new or renovated facility is right for your community:

- Have members of your community expressed an interest in a new or a renovated swimming pool/aquatic facility?
- Do members of your community travel to other communities to use newer facilities that provides amenities or features the existing pool facility does not have?
- Does your current swimming pool/aquatic facility meet the needs of your users?
- Does your current swimming pool/aquatic facility have high operating costs and low user turnout?
- Will your local government support a new facility or renovation of an older one?
- Does your current facility support patronage by physically challenged individuals?
- Would a modern swimming pool/aquatic facility in your community draw customers from surrounding communities?

Since your community has a pool, it may or may not be more cost-effective to renovate it. Depending on several factors, including but not limited, 1) room for expansion, 2) existing components' and structures' conditions, and efficiency of the systems etc., it may be in the communities' best interest to construct a new pool. Older pools often suffer from water loss, poor water recirculation, and accessibility issues. This study includes options to repair the above mentioned issues affecting an older pool, as well as, constructing a new pool at the current site or the Community Activity Center site. This will also give the City Council information of what the cost of renovation and new construction would be.

For information only, there are 38 municipal/class 'A' pools within a 50 mile radius of Wayne.

1.2 POOL STANDARDS

The original pool was built between 1954 and 1955. Renovations to the pool were also made in 1990, which, among other things, included: 1) building a new pool inside the old pool basin, 2) renovating the bathhouse, 3) building a new wading pool inside the old wading pool, 4) replacing the water circulation system. There have been modifications made to the Nebraska DHHS Title 178 NAC 4 Public Swimming Pool Design and Construction Standards (Swimming Pool Rules), as amended September 17, 2010. Therefore, due to the pools age, the current pool facility will not meet some of the pool design standards. Presently, for most modifications to an existing facility (as well as for all new facilities), it will be necessary to submit the plans and specifications to the Nebraska DHHS for its review. A copy of the aforementioned Swimming Pool Rules is included in the Appendix "C" of this report.

1.3 GEOGRAPHY AND DEMOGRAPHICS

Wayne is located in the North Eastern part of Nebraska and in the North Central part of Wayne County on Nebraska State Highway 35 and Nebraska State Highway 15. The 2010 census has Wayne's population at 5660 people. The current census indicates an increase of 1.4% from the previous census, which is contrary the general population trend in the area. The median age of residents is 22.9 years, which is lower than the Nebraska median age by 12.4 years. Further census data shows the population separated by age group as indicated on the next page:

Group	*Pop.*	*%*
Under 5 years	260	4.6
5 to 9 years	245	4.3
10 to 14 years	227	4
15 to 19 years	915	16.2
20 to 24 years	1,481	26.2
25 to 29 years	301	5.3
30 to 34 years	225	4
35 to 39 years	210	3.7
40 to 44 years	210	3.7

Group	*Pop.*	*%*
45 to 49 years	221	3.9
50 to 54 years	232	4.1
55 to 59 years	245	4.3
60 to 64 years	184	3.3
65 to 69 years	135	2.4
70 to 74 years	140	2.5
75 to 79 years	146	2.6
80 to 84 years	120	2.1
85 years and over	163	2.9

Family Type

With Children under 18 years	436
Under 6 years only	127
Under 6 and 6 to 17 years	89
6 to 17 years only	220

SECTION 2.0 BACKGROUND AND POOL HISTORY

2.1 BACKGROUND AND POOL HISTORY

The pool and bathhouse are located on the Southwest corner of the intersection of Lincoln Street and W 13th Street. J.M. Thorburn was the designer of the original pool and bathhouse. It appears that the pool and bathhouse were originally constructed between 1954 and 1955. Gilmore and Associates designed some renovations which included a stainless steel gutter recirculation system, new pool wall and floors within the existing pool structure, piping, deck, and bathhouse renovations which were constructed in 1990. The existing pool facility is normally open from approximately Memorial Day through mid-August.

Bruce Gilmore and Associates designed and produced a set of construction plans for improvements to the facility that were dated 1990. The improvements included the following:

- Built new walls and floor within the existing pool
- Added a stainless gutter system around the perimeter of the pool
- Removed and replaced various areas of concrete on the deck
- Poured a new wading pool inside the old wading pool
- Replaced the piping for the wading pool
- Added a pitched roof and asphalt shingles to the bathhouse.

A site visit by Dave Henke and George Parizek of JEO Consulting Group, Inc., was made in the spring of 2012 to visually inspect the existing condition of the main pool, wading pool, pool equipment and the bathhouse facility when the pool was still closed for the season. Pictures were taken of the pool and bathhouse facility along with verifying the dimensions of the facility. This site visit included comments and discussions regarding operational issues from Alex Koch, Community Activity Center Administrator, and Todd Hoeman, Pool Manager. Plans of the original pool, bathhouse and renovation were provided by the City of Wayne and have been scanned for future use and preservation. It is believed that the original construction was funded in part by municipal funds and part by local donations.

A subsequent site visit in late June 2012, while the pool was in operation, was also held with Todd Hoeman. The pool had approximately 125 patrons in the pools at that time. The wading pool recirculation pump had recently been replaced and was operated effectively. Other recent (2012) upgrades including relocating the pool pump kill switch to the outside of the pump room, added a backflow preventer on the incoming water service line and creating a swale behind the slide to drain the deck off better.

Overall, the pool staff appeared to be very knowledgeable with the operations of the pool facility and the pool has been well maintained over the years.

SECTION 3.0 EXISTING CONDITIONS

3.1 FACILITY

The Outdoor main swimming pool is an "L" shaped structure with maximum dimensions of 108'-4" long x 75'-1" wide. The main pool has a water surface area totaling 5,740 square feet with 370" linear feet of perimeter and holds approximately 213,000 gallons. The wading pool is circular shaped with interior diameter of 22' – 8". The wading pool has a water surface of 403 square feet and a perimeter of 71 linear feet and holds approximately 5,160 gallons. The combined water surface and volumes of the main and wading pools together is 6,200 square feet, and 218,160 gallons respectively.

This is classified as a Class A pool under the current Nebraska DHHS Swimming Pool Rules. The bathhouse, per the posted signage at the pool, is posted for a patron loading of 350 people.

Per section 4-006.04A of the Swimming Pool Rules, the patron loading of the shallow end of the pool

15 ft^2/patron for $\leq$ 5 feet water depth, which calculates: 4,472 ft^2 / 15 ft^2 / patron = 298 patrons;

and the deep end of the pool

25 ft^2/patron for > 5 feet water depth, which calculates: (1268-300) ft^2 / 25 ft^2 / patron = 38 patrons, excluding 300 ft^2 for each diving board, and adding 10 patrons per diving board;

combined, calculates to be 298 + 38 + 20 = 356 patrons, even before considering the additional patronage allowed for deck space around the pool.

The bathhouse capacity is determined by the number of bathroom fixtures supplied in each the men's and women's restrooms. Since there is only 1 sink in each, this fixture count is the limiting factor, and would set the capacity of the entire facility at 200 patrons under the current regulations and at 150 patrons based on the 1979 regulations (note: the 1990 renovation would have been under the 1979 regulations). As stated before the current swimming pool facility capacity is posted to be 350 patrons.

After a check of the local demographics within a 50 mile radius, it does appear to be able to support a pool facility that has a patron loading of 400 swimmers.

3.2 MAIN SWIMMING POOL

The main pool walls are monolithically formed, poured in-place concrete construction with stainless gutters. The deck elevation is 6" above the water level. The recirculation system consists of three (3) anti-vortex main drains, interconnected with a 10" main drain line to the pump. The main form of recirculating water from the pool through the filter is through the gutter system. The stainless gutter has integral supply track inside with small ports on the bottom to return filtered water back to the pool. The majority of pools are designed with this system today. To meet the surge requirements the gutter has been designed with surge weirs. These hold the level of the water

down 2" from the overflow point to provide excess volume. Thus, when several swimmers get in the water the pool water isn't lost down the overflow drain.

As stated before there are three anti-vortex main drains in the diving area of the pool, approximately 10 feet apart. They have been fitted recently with square, anti-vortex, VGB Act (Virginia Graeme Baker Act) compliant grates. A visual inspection of the drains would indicate that they are in fairly decent shape with no readily visible defects. The existing three main drains do not appear to have hydrostatic relief valves. These are normally installed if there is a potential for the water table to be higher than the bottom of the pool and could cause serious damage. It is our understanding that the water table is greater than 20 below grade thus relief valve were not likely installed during the renovation.

From a visual inspection, it appears that the main structure of the pool is in fairly good condition considering its age. There appears to be very little sagging, movement, or differential settling of the concrete and only minor cracking of the pool walls and floor. The pool walls are all straight and the pool floor is in good condition. Joints between the walls and floor and on the floor are in good shape with some needing to be re-caulked. Also, the two skimmers on the south side of the pool are functioning, though not optimally, and the southwest corner of the pool appears to be slightly lower than the rest of the pool. However, overall, the pool is in good shape for its age, a testament to the knowledgeable of the current and past pool staffs.

The pool slide was donated by the United Way at some point. It is fed through potable water from a deck hydrant.

3.3 WADING POOL

The wading pool is located on the south side of the bath house. The wading pool is circular shaped with interior diameter of 22' – 8". It has a total volume of 5,160 gallons. There is a drain in the middle for return water and there are 4 inlets around the perimeter to supply the pool with filtered water. The wading pool structure appears to be in good condition with all of its walls straight and with little to no sagging or differential settling. The recirculation system for the wading pool is independent from the main pool recirculation system. This is ideal; because, if there is a fecal accident in the wading pool, the main pool would not need to be shut down for cleanup.

3.4 DECKS

A concrete deck surrounds both the main and wading pools and varies from 12 feet to 20 feet wide. The decks slope away from the pool and this meets current design standards. There is a galvanized chain link fence all of the way around the outside of the main and wading pool deck and a shorter chain link fence and gate separating the main pool from the wading pool. The City purchased new shade shelters in the winter of 2011 and is installing them for the 2012 swimming season.

3.5 FILTER/RECIRCULATION EQUIPMENT

The existing filtration equipment is a vertical steel high rate sand-type unit, rated for 905 GPM. It filters water directly from the pools by a "deck" mounted suction pump (Pentair CMK-75, self-priming commercial bronze pump). At the current flow of approximately 300 GPM, the turnover rate provided by the existing pump/filter equipment is approximately 8.75 hours, which is less than the "industry standard" 6-hour turnover rate. Under the current Nebraska Swimming Pool Rules, a filter/pump assembly capable of approximately 550 GPM would have to be installed on the main pool and a separate filter/pump assembly capable of 86 GPM would have to be installed for the wading pool. The current pump and filter can remain 'as is' until major re-construction is done and then the recirculation system would have to be brought up to current turnover rates. Furthermore, based on correspondence with Pentair engineers and DHHS staff in the past, the existing pump is not (required now by DHHS) NSF-50 rated for self-priming applications unless installed with a net positive suction head which requires a more cumbersome and expensive installation, i.e. installing it in a pump pit.

3.6 BATHHOUSE

The 70-foot x 26-foot rectangular shaped bathhouse was constructed at the same time as the original pool. The exterior and interior walls are masonry construction. There is some cracking of the masonry on the interior walls. A sloped roof with asphalt shingles was added during the 1990 renovation. The bathhouse consists of an administration area & dressing rooms. The filter/mechanical room was fenced in the initial design, but was closed in with masonry walls and attached to the bathhouse sometime thereafter.

An administrative area/check room is located between the two dressing rooms. There have been several complaints that the admin area gets really hot. Access to the dressing rooms is through an outside entrance on either side of the admin admission counter. The dressing rooms for each sex are located on either side of the administrative area. These dressing areas have toilets, urinals, sinks, showers and sitting benches located within them. The bathhouse has been reasonably well taken care of and is in fair condition for a structure of its age. The interior paint is in moderate to poor condition and probably will need repainting. The exterior brick is in good condition overall. The current layout does not provide the required width between walls to meet all current ADA regulations. The water heater servicing the women's and men's showers and lavatories is located in the filter room and is showing the affects of the corrosive environment that exist in that room.

3.7 ELECTRICAL

The existing electrical service (panels, starters, disconnects, etc.) in the existing bathhouse have deteriorated due to the fact that are located in the same room where the chemicals are also stored. We did not review in great detail until renovation becomes a viable option for improvements. It is usually assumed that the electrical grounding system was not constructed in a manner that would meet the new safety standards. Code requires that all electrical conductive objects and reinforcing in the pool floor, walls ladders, diving towers, lifeguard chairs and decks shall be grounded to a grid system. This grounded grid system helps prevent possible electrical shocks or electrocution. We assume this wasn't done to an extent necessary to meet the current standards because our past experience with pools constructed in this time period has indicated that this was rarely completed. When a new deck is being constructed, reinforcing in the new pool floor and the deck and other necessary items will need to be properly grounded to the grid system. Any renovations/improvements will likely require a new electrical service be constructed.

3.8 ADA COMPLIANCE

On May 15, 2012 the 2010 ADA guidelines that were adopted by the United States Department of Justice into effect. This had an effect on the City or Wayne's pool facility. More specifically the new law requires municipalities to provide access under the new guidelines to all of their "Programs" (i.e. Swimming lessons, aerobics classes, and swim meets). The City of Wayne can learn more about the new requirements at this website: https://www.ada.gov/.

The following is a description of items that would enable the existing pools to meet the ADA guidelines:

There is currently no handicap access into the existing main pool. The pool's 370 linear feet of perimeter would require two means of primary (stairs and a lift) handicap access. The facility currently owns and utilizes a portable stair section that upon a quick visual inspection will not meet the ADA access requirements. The most feasible way to meet the requirement would be to install a lift. A lift is considered a primary means of access and can be relatively cost effective. There is a good chance that modifications to the deck would need to be made to ensure that the slope around the lift does not exceed 2%.

If a major renovation were to take place, a permanent stair can be installed and act as a primary means of handicap access with the strategic incorporation of railings. The second access point would be of a different type so as to serve the needs of different disabled individuals. Other means of handicap access include chairlifts or transfer walls.

Wading pools require an access ramp to the deepest portion of the pool. However, if there are no programs in this wading pool; the City may be justified in foregoing this access requirement. The City of Wayne should put together a policy stating no programs will be held in this wading pool. If programs are held, then an access ramp should be provided. Keep in mind that access ramps to wading pools do not require hand rails.

The bathhouse has a few items that do not meet the current guidelines. The doors leading into the Men's and Women's restrooms are currently 2'-8" wide. The current regulations require clear opening of 2'-8". Further investigation would need to take place to check if the doors have a clear opening of 2'-8" or if it is just under that dimension. The restrooms would each need to have an accessible toilet and shower stall. The drinking fountain(s) would need to be modified, or added, so that there is one high and one low. This would provide one drinking fountain for those who need access from a wheel chair as well as those who have difficulty bending over. Finally, an evaluation of the parking lot would need to be made to make sure accessible parking spaces are provided.

The Department of Justice allows public entities to undergo a self-evaluation and put into place a written transition plan for bringing access to their programs up to ADA compliance. This also includes plans in which full compliance is not reached until after the May 15, 2012 deadline. The deadline has been extended to January 31, 2013. The City should take some time to find all access shortfalls and assemble a document describing when each will be corrected. Cost and administrative burden can be a legitimate consideration for completing the compliance requirements after the deadline. If a complaint or lawsuit were to arise, the programs would be less subject to jeopardy if the plan is reasonable and being followed than if nothing had been completed.

Another way that ADA compliance may be triggered is by an individual or a specific class of individuals or their representative alleging discrimination on the basis of disability by a state or local government may either file –

(1) An administrative complaint with the Department of Justice or another appropriate federal agency; or

(2) A lawsuit in federal district court.

If an individual files an administrative complaint, the Department of Justice or another federal agency may investigate the allegations of discrimination. Should the agency conclude that the public entity violated Title II of the ADA, it will attempt to negotiate a settlement with the public entity to remedy the violations. If settlement efforts fail, the agency that investigated the complaint may pursue administrative relief or refer the matter to the Department of Justice. The Department of Justice will determine whether to file a lawsuit against a public entity to enforce Title II of the ADA.

Potential remedies (both for negotiated settlements with the Department of Justice and court ordered settlements when the Department of Justice files a lawsuit) include:

- injunctive relief to enforce the ADA (such as requiring that a public entity make modifications so a building is in full compliance with the ADA Standards for Accessible Design or requiring that a public entity modify or make exceptions to a policy);
- compensatory damages for victims; and/or
- back pay in cases of employment discrimination by state or local governments.
- In cases where there is federal funding, fund termination is also an enforcement option that federal agencies may pursue.

3.9 OPERATING HOURS

The normal operating hours for the Outdoor pool is 1:00 to 8:00 PM and offers lap swimming from 5:00 to 6:00 on weekdays. Family hours are from 6:00 to 7:00 PM on weekdays and from 5:00 to 7:00 PM on weekends. Most swim meets are held on the weekend during the late afternoon from 5:00 to 9:30 PM. As many as 200 swimmers may be using the main pool during the swim meets. Lack of parking spaces during the swim meets was stated several times during our visits.

3.10 SUMMARY OF EXISTING CONDITIONS

- The pool staff is very knowledgeable with the operations of the pool facility and the pool appeared to be operating as designed.
- The major renovation in 1990 which included new pool walls and pool floor, stainless steel gutters and new filtration equipment.
- The main pool, wading pool and bathhouse are generally in fair to good shape and no significant water loss was noted by the pool staff.
- The pool was last painted in 2008. The pool was sandblasted at that time. Overall the paint in the pool appeared to be in fair shape.
- The pool filtration/recirculation equipment appears to be in fair to good condition and is functioning as designed.
- The main and wading pools do not meet the current ADA standards nor will they meet the new ADA standards expected to take place in January of 2013, which is typically for most Nebraska communities.
- The existing electrical is showing signs of corrosion from the pool chemicals and will eventually need to be replaced and updated.
- The existing pool heater was replaced in approximately 2010 is appears to be in good condition. However since it is housed in the same room as some of the pool chemical, it will deteriorate in the future and have a shorten life span because of this.
- The existing recirculation system turnover rate (8.75 hours) for the main pool is not meeting current turnover rates. The current required turnover rate is between 3 to 4 hours for better disease control.
- The existing recirculation pump does not appear to meet the NSF 50 standards that are required by the DHHS.
- The bathhouse is functional but it is not aesthetically pleasing and does not meet the current or future ADA standards but is covered under the safe harbor provisions until renovations are planned.
- The bathhouse paint is peeling in certain areas which requires more cleaning for the staff.
- The lifeguard admissions and rest area is cramped and not aesthetically pleasing.

SECTION 4.0 SUGGESTED IMPROVEMENTS

4.1 SUGGESTED IMPROVEMENTS

The pool committee has approved 6 different improvement options. They are listed below with a brief synopsis of the proposed improvements. A sketch and brief outline of each proposed improvement is also attached in the Appendix "A".

OPTION A

This option would consist of the renovating the existing Outdoor pool to include:

1. Adding two additional lap lanes on the north side of the main pool;
2. Adding additional length to the diving well to make the diving well be in compliance with the new diving standards;
3. Adding a larger pool slide;
4. Building a zero depth entry slope into the existing Outdoor pool which will leave approximately 1250 square feet of 3 to 5 foot deep water depth;
5. The existing wading pool would be demolished and not rebuilt;
6. A new bathhouse would include:
    a. Enough plumbing fixtures to allow 400 patrons;
    b. An administrative area;
    c. First aid room;
    d. Family changing room;
    e. Storage and mechanical rooms;

This option could be constructed during the off-season and the construction work completed for the following season without disrupting the normal open pool season.

OPTION B

This option would consist of the following:

1. Building a new 5-6,000 SF Outdoor pool and bathhouse on the property north of the existing Outdoor pool facility:
2. The new pool would include:
    a. 6 – 25 meter laps lanes for competitive swimming;
    b. Zero depth entry area;
    c. High and low diving boards with stands;
3. The new bathhouse would include:
    a. Enough plumbing fixtures to allow 400 patrons;
    b. An administrative area;
    c. First aid room;

d. Family changing room;
e. Storage and mechanical rooms;

4. The parking lot would be expanded also for this option;
5. The existing pools and bathhouse would be demolished when the City desires;

This option could be constructed during the on and off-season and the construction work completed for the following season without disrupting the normal open pool season.

OPTION C

This option would build a new Indoor 4,000 SF only at the existing Community Activity Center (CAC) and minimal renovations at the Outdoor pool consisting of:

1. The Indoor pool would include:
    a. 6 – 25 meter lap lanes;
    b. Movable floor on part of the pool and two diving boards;
2. The existing parking will likely need to be expanded at the CAC site.
3. The existing CAC building does provide enough showers, stools and sinks to allow this addition to the facility.
4. The Outdoor pool renovation would include:
    a. No changes to the existing Outdoor main pool;
    b. Would demolish the wading pool;
    c. Construct a splash pad area in its location;
    d. Bathhouse to remains 'as is';

This option could be constructed during the on and off-season and the construction work completed for the following season without disrupting the normal open pool season.

OPTION D

This option would build a new 4,000 SF Indoor and 5-6,000 SF Outdoor pool at the existing Community Activity Center, consisting of:

1. Indoor pool would include:
    a. 6 – 25 meter lap lanes;
    b. Movable floor on part of the pool and two diving boards;
2. The Outdoor pool would include:
    a. A zero depth entry;
    b. Slide and slide plunge area;
    c. Other shallow water play;
    d. Low and high diving boards;
    e. Waterplay feature in the shallow water;
3. The existing parking lot would be expanded also for this option;

The existing CAC building does provide enough showers, stools and sinks to allow this addition to the facility. There may be times when both the Indoor and Outdoor pool will not be operated at the same time because of overcrowding or shortage of life guards. The existing parking lot would be expanded also for this option. This option can be constructed at any time and not disrupt the current pool or CAC activities.

OPTION E

This option would include:

1. No major changes to the existing Outdoor main pool;
2. Would demolish the wading pool and construct a splashpad area in its location;
3. The new bathhouse would include:
    a. Enough plumbing fixtures to allow 400 patrons;
    b. An administrative area;
    c. First aid room;
    d. Family changing room;
    e. Storage and mechanical rooms;
4. No expansion of the existing parking at the Outdoor pool site

This option could be constructed during the off-season and the construction work completed for the following season without disrupting the normal open pool season.

OPTION F

This option would build a new 5-6,000 SF Outdoor pool on the property south of the existing Community Activity Center. The new pool would include:

1. 6 – 25 meter laps lanes for competitive swimming;
2. Zero depth entry area;
3. Slide and slide plunge pool area;
4. High and low diving boards with stands;
5. The existing parking lot would be expanded also for this option.
6. The existing Outdoor pools and bathhouse would be demolished when the City desires.

This option can be constructed at any time and not disrupt the current pool or CAC activities.

SECTION 5.0 COST OPINIONS FOR SUGGESTED IMPROVEMENTS

OPTION A – RENOVATE THE EXISTING POOL/BATHHOUSE

Budget $2.2 to $2.5 million

OPTION B – BUILD NEW OUTDOOR AQUATIC FACILITY AT A NEW SITE

Budget $2.8 to $3.5 million

OPTION C – ADD INDOOR POOL TO COMMUNITY ACTIVITY CENTER

Budget $4.5 to $5.0 million

OPTION D – ADD INDOOR AND OUTDOOR POOL TO COMMUNITY ACTIVITY CENTER

Budget $6.6 to $7.5 million

OPTION E – NEW BATHHOUSE & SPLASHPAD AT EXISTING POOL SITE

Budget $0.9 to $1.2 million

OPTION F – ADD OUTDOOR POOL TO COMMUNITY ACTIVITY CENTER

Budget $2.2 to $2.9 million

SECTION 6.0 EXISTING OPERATING REVENUE & EXPENSES

6.1 OPERATING REVENUES AND EXPENSES

The City has well documented the operating and income expenses for the past several years. A copy of this detailed report from 1985 to 2013 is included in the appendix. In summary the last 10 years average expenses were $76,000. The average revenue during this same time period is $34,000. The average loss of operations over the same time period is $42,000. The expenses do include improvements, general repair and new pumps, etc. costs. This appears to be a little high for a community of the size of Wayne.

In 2009 the pool heater and chemical feed system was replaced which was the only major renovations completed since 1990 renovation as stated before. In 1990 the major pool renovations was bonded and payments started in 1992 and the bond was paid off in 2006.

A typical Indoor pool operating and maintenance average costs between approximately $7 to $16 per square foot per year of building space. Using Wayne's proposed Indoor layout (Options "C" and "D") and using approximately 6,000 square feet of building space that equates to $42,000 to $96,000 per year. These O & M costs are contingent on how the facility is staffed, how many hours the facility is open and staff salaries/benefits, concessions provided and facility rentals. Expected revenues are estimated are $20,000 to $40,000 per year, depending on the programs provided by the facility and/or if other entities use the facility and pay for the Indoor pool facility use.

A typical Outdoor pool operating and maintenance costs average approximately $12 per square foot per year of pool square feet. Using Wayne's proposed Outdoor layout (Options "B", "D" and "F") that equates to approximately 5 to 6,000 square feet that equal approximately $60,000 to $72,000 per year in O & M costs. Expected revenues are estimated is $50,000 to $60,000 per year, depending on the programs provided, concessions provided, staff salaries/benefits and facility rentals.

Under Option "C" and "D", if full time lifeguards can be hired and are shared between the Indoor and Outdoor pools or limit the Indoor pool open times during the Outdoor season, some savings can be made from salaries and other operational expenses.

SECTION 7.0 AVAILABLE FUNDING OPTIONS

Funding is critically important for turning ideas into reality. Despite its importance, quality civic betterment projects are often delayed – or even cancelled – due to the lack of appropriate funding. An awareness of available funding options is a critical "first step" in addressing a project's funding needs.

Below is a list of potential resources that may be access by the city of Wayne to help offset the cost of the Wayne Pool Project.

Capital Improvements Planning

One of the most vital functions of a local government is to construct and maintain the public works infrastructure. Without a network of roadways, sanitary sewer, water mains and other essential public facilities, a wide range of negative impacts are likely to be felt by residents and commercial enterprises which rely on local governments for their physical well-being and economic prosperity.

The 1990s saw the advent of two important and parallel trends. The first involved an increasing awareness on the part of local officials of the continuing deterioration of our nation's network of public facilities. The second involved a perhaps belated understanding on the part of these same public officials that an expanding economy requires an adequate infrastructure to sustain growth, especially within the fringe of expanding metropolitan areas.

Unfortunately, many local governments have failed to evaluate their capital facility repair and expansion needs, or to allocate sufficient resources to correct deficiencies. Recent experience has clearly demonstrated that this casual, short-sighted approach to capital project decision-making is likely to result in a funding crisis and an accelerated rate of deterioration of capital assets.

Those local governments which have sought to address these problems have often turned to Capital Improvements Programming. The plan is a tool used to allocate scarce resources in an efficient manner. Rather than allow capital improvement decisions to be made on an ill-defined, haphazard basis, the Capital Improvements Program and annual capital budget identifies the needs, the prioritization of the various project, and provides for the funding and an implementation strategy on an annual basis.

Nebraska State Statutes recognize the intrinsic relationship between the comprehensive development plan and the capital improvement plan. The authorizing statutes (Section 19-929) read the planning commission shall (a) make and adopt plans for the physical development of the municipality; including any areas outside its boundaries which the commission's judgment bear a relation to the planning of such municipality and including comprehensive development plan as defined in 19-903, (b) prepare and adopt such implemental means as a *capital improvements program*, subdivision regulations, building codes and zoning ordinances in cooperation with other interested municipal departments, and (c) consult with and advise public officials and agencies, public utilities, civic organizations, educational institutions, and citizens with relation to promulgation and implementation of the comprehensive development plans and its implemental programs.

A Capital Improvements Program can assist the community in achieving sound financial management practices by planning ahead for the financing of construction, major rehabilitation and other capital projects (such as swimming pools) which are consistent with the goals and objectives of the

Comprehensive Development Plan. By applying a planned schedule of expenditures for capital improvements, the community can assure taxpayers that long-term expenditures can be averaged out so that major debt is not incurred all at once, and that maintenance, renewal and replacement requirements of public infrastructure are adequately addressed to protect the community's investment and maximize the useful life of facilities

For more information, go to:
http://law.justia.com/codes/nebraska/2009/Chapter19/19-929.html

Community Development Assistance Act
The Community Development Assistance Act (CDAA) was created in 1985 by the Nebraska Legislature to encourage financial support by businesses to community betterment organizations in their efforts to implement community service and development projects in chronic economically distressed areas. CDAA empowers the Department of Economic Development to distribute a 40 percent state tax credit to businesses, corporations, insurance firms or financial institutions or individuals that make eligible contributions of cash, services or materials to approved community betterment projects.

Five types of projects may qualify through the program. Eligible projects include, employment training, human and medical services, physical facility and neighborhood development services, recreational and educational activities and crime prevention.

Application due date: Open cycle until tax credits are fully obligated.
Maximum Assistance: Up to $25,000 per year, per project (generate $62,500 in private donations)
Matching requirement: Not applicable.

For more information, go to:
http://neded.org/community/community-info/financial-assistance/community-development-assistance-act-cdaa

General Obligation Bonds
General Obligation (GO) bonds are backed by property taxes, and are issued by the City for a wide array of community betterment projects. First Class Cities: See Section 16-6, 108 of the Nebraska Revised Statues.

For more information, go to:
http://law.justia.com/codes/nebraska/2009/Chapter16/16-6_108.html

Joint Public Agency Act
The Joint Public Agency Act allows local governmental units to make the most efficient use of their taxing authority and other powers by enabling them to cooperate with other governmental units on a basis of mutual advantage and thereby to provide services and facilities in a manner and pursuant to

forms of governmental organization that will accord best with geographic, economic, population, and other factors influencing the needs and development of local communities.

Any two or more public agencies may enter into agreements with one another for joint or cooperative action pursuant to the Joint Public Agency Act. Any combination of two or more public agencies may create one or more joint public agencies to exercise the powers and authority prescribed by the Joint Public Agency Act.

Notwithstanding any restrictions contained in a city charter, any power, privilege, or authority exercised or capable of exercise by a public agency of this state may be exercised and enjoyed jointly with any other public agency of this state and jointly with any public agency of any other state or of the United States.

A joint public agency shall have only those powers of taxation as one or more of the participating public agencies has and only as specifically provided in the agreement proposing creation of the joint public agency, except that a joint public agency shall not levy a local option sales tax. Participating public agencies may agree to allow the joint public agency to levy a property tax rate not to exceed a limit as provided in the agreement if the agreement also limits the levy authority of the overlapping participating public agencies collectively to the same amount. The levy authority of a joint public agency shall be allocated by the city or county as provided in section 77-3443, and the agreement may require allocation of levy authority by the city or county.

Any joint public agency may issue such types of bonds as its board may determine subject only to any agreement with the holders of outstanding bonds, including revenue or general obligation bonds. Except as provided in section 72-2304, bonds issued for purposes of the Public Facilities Construction and Finance Act may be issued with no requirement for a vote.

The Joint Public Agency Act is necessary for the welfare of the state and its inhabitants and shall be construed liberally to affect its purposes.

For more information go to:
http://law.justia.com/codes/nebraska/2009/Chapter13/Chapter13.html

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) Act of 1965 seeks to provide outdoor recreation opportunities for all Americans. Funding is made available through royalty revenues from offshore leasing contracts with mineral extracting companies. Nebraska appropriates 60% of the fund for local subdivision recreation projects and retains 40% of the fund for statewide projects within the State Park System. As required by Congress, proposed recreation projects must be in accordance with the State Comprehensive Outdoor Recreation Plan (SCORP). The reimbursable program provides grants for up to 50% of project costs. Local governments/political subdivisions must assure the Nebraska Game and Parks Commission that they have the financial resources to complete and maintain projects in desired operations and settings.

All improvements made with Land and Water Conservation Funds, whole or in part, must be kept in perpetuity by the owner.

Examples of eligible projects include playgrounds, ball fields, soccer fields, picnicking facilities, camping facilities, golf courses, tennis courts, shelters, acquisition and development, and related support facilities.

Application due date: October 1st
Maximum grant award: None specified
Matching requirement: 50%

For more information, go to:
http://outdoornebraska.ne.gov/parks/programs/lwcf/lwcf.asp

Lease Purchase Agreement
The mayor and council of any city of the first or second class and the chairman and board of trustees of any village, in addition to other powers granted by law, may enter into contracts for lease of real or personal property for any purpose for which the city or village is authorized by law to purchase property or construct improvements.

In order to utilize a Lease Purchase Agreement for most projects, the municipality must first create a "Facilities Corporation" which is a 501(c)(3) non-profit organization. The Facilities Corporation is a separate "agency" of the community, governed by a Board of Directors appointed by the chief elected. The Board is comprised of three, five or seven members, and cannot be the governing body itself.

A lease purchase agreement allows the municipality to purchase and use an item while making payments. These items include pieces of equipment, such as fire trucks, or real estate, such as land or buildings. The Facilities Corporation purchases the item and then leases it back to the community. The Facilities Corporation issues bonds for the cost of the item. The municipality then levies a tax (property or sales tax) which is used to repay the Lease Purchase Agreement, pursuant to the contract terms. The Lease payments match the corporation's bond payments.

Capital expenditures (land and buildings) are subject to the municipal levy lid (LB1114) but not the spending lid (LB989). In contract, equipment purchases are subject to both lids.

Such agreements shall not be restricted to a single year, and may provide for the purchase of the property in installment payments.

For more information, go to:
http://law.justia.com/codes/nebraska/2009/Chapter19/19-2421.html

Local Capital Fundraising Campaign
A capital campaign is an intensive fund raising effort designed to raise a specified sum of money within a defined time period to meet the varied asset-building needs of an organization. These needs can include the construction of new buildings, renovation or enlargement of existing buildings, purchase or

improvement of land, acquisition of furnishings or equipment, and additions to endowment. All of these are asset-building objectives. All can have a place in developing a goal for capital fund raising.

A fundraising program is ordinarily referred to as a campaign. A campaign is organized (it has a structure); it is intentional (it follows a plan); it is systematic (volunteer enlistment and prospect cultivation and solicitation are from the top down); and it is strategic (movement and progress are plotted). Its approach to fundraising is delineated publicly as a set of priorities to be met and dollars to be raised in a specific period of time. Not all aspects of fundraising are campaign-bound, however. Planned giving, research, donor relations and stewardship, gift and account administration, and corporation and foundation relations are examples of fundraising activities that are ongoing and guided more by donors' timing and decisions than by institutional agendas and timelines.

But the paradigm that has emerged over the past century is the campaign model. Although the general principles of fundraising tend to be universally applicable to any type of organization, there are different campaign models. Four rather distinctive forms are found today:

1. The traditional annual campaign
2. The traditional capital campaign
3. The comprehensive campaign
4. The single-purpose campaign

Local Option Sales Tax

Any Nebraska county or incorporated municipality may impose a local sales and use tax upon approval by a majority of their voters in an election. The local tax applies to the identical transactions subject to the state sales and use tax, with the exception of direct-to-home satellite programming. Local option taxes of 0.5¢, 1¢, and 1.5¢ may be approved by city or county voters. The tax is collected and remitted to the state and is then allocated back to the municipalities after deducting the amount of refunds made and a three percent administrative fee.

Effective July 19, 2012 and pursuant to LB357, municipalities may have, with voter approval, a sales and use tax equal increase from 1.5¢ to 2.0¢. The proceeds from the rate in excess of 1.5¢ shall be used for public infrastructure projects or voter-approved infrastructure related to an economic development program as defined in section 18-2705. Public infrastructure project means and includes, but is not limited to, any of the following projects, or any combination thereof: Public highways and bridges and municipal roads, streets, bridges, and sidewalks; solid waste management facilities; wastewater, storm water, and water treatment works and systems, water distribution facilities, and water resources projects, including, but not limited to, pumping stations, transmission lines, and mains and their appurtenances; hazardous waste disposal systems; resource recovery systems; airports; port facilities; buildings and capital equipment used in the operation of municipal government; convention and tourism facilities; redevelopment projects as defined in section 18-2103; mass transit and other transportation systems, including parking facilities; and equipment necessary for the provision of municipal services.

No municipal sales and use tax shall be imposed at a rate greater than one and one-half percent or increased to a rate greater than one and one-half percent unless the municipality is a party to an interlocal agreement pursuant to the Interlocal Cooperation Act or a joint public agency agreement

pursuant to the Joint Public Agency Act with a political subdivision within the municipality or the county in which the municipality is located creating a separate legal or administrative entity relating to a public infrastructure project.
For more information, go to:
http://law.justia.com/codes/nebraska/2009/Chapter77/77-27_142.html

Nebraska County and City Lottery Act

Pursuant to the Nebraska County and City Lottery Act, all proceeds received by the City of County from the keno-type lottery must be used only for community betterment purposes. The Wayne City Council can establish certain rules and regulations regarding the distribution of the community's keno-type lottery proceeds. See Section 9-1, 101 of the Nebraska Revised Statutes.

For more information, go to:

http://law.justia.com/codes/nebraska/2012/chapter-9/statute-9-1-101/

Non-Profit Foundation – Municipal Bond Financing

Non-profits are not authorized to issue tax exempt bond financing through a local government – at no risk to the local government. The non-profit must have a lead lender (bank) for the project who agrees to purchase the municipal bonds, once issued. The municipality issues the bonds and the bank buys them, using the new building/addition as collateral.

The maximum amount of bond that can be issued by a municipal government under this program is $10 million.

The authorizing statutes (§13.1101 - §13.1110) can be found at the following link:
http://law.justia.com/codes/nebraska/2009/

Private/Charitable Foundation

Private/charitable foundations are legal entities set up by an individual, a family or a group of individuals, for a purpose such as philanthropy. The Wayne Community Foundation Fund is an example of such a foundation.

ReTree Nebraska Programs

ReTree Nebraska is a 10-year cooperative initiative to raise public awareness of the value of trees, reverse the decline of Nebraska's tree and forest resources and improve the health and sustainability of trees and forests across our state for future generations.

The primary goal of ReTree Nebraska is to work in partnership with people across Nebraska to foster the proper planting and maintenance of 1 million new trees by 2017. The program will use the following programs to accomplish this objective.

Shade Our Streets
The Shade Our Streets (SOS) program enables the planting of large-maturing trees along streets and other public right-of-ways.

- Projects must be located on public property and directly impact adjacent streets or roadsides.
- A minimum 20% cash match is required (grant funds can cover up to 80% of eligible expenses).
- SOS is funded by the Nebraska Department of Roads with federal transportation funds.
- Application deadline: mid-March

Application due date: None established for 2012.
Maximum grant award: None established
Matching requirement: 20%

Trees for Nebraska Towns (TNT)
The Trees for Nebraska Towns (TNT) makes funding and technical assistance available to improve species diversity and to foster better planting and maintenance practices for trees and associated landscapes.

- Projects should emphasize the planting of large-maturing trees (those exceeding 40' in height or spread). Other landscape plantings that benefit trees can be included in the project.
- Projects can be on public or private property, but all projects must provide clear public benefit.
- A 50% funding match is required. Donated and in-kind goods and services are allowed toward the required match.

Application due date: October 1st.
Maximum grant award: 10,000
Matching requirement: 50%

For more information, go to:
http://nfs.unl.edu/ReTree/retreenebraskafunding.asp

Revenue Bonds
All municipal bonds fall into one of two categories—general obligation or revenue bonds—based on how the interest and principal repayment will be funded. Within each category, municipal bonds can be structured a number of different ways, each with different benefits and tax treatment.
Principal and interest payments for revenue bonds are secured by revenues generated by the particular project being financed. In some cases revenue bonds can be backed by sales taxes, fuel taxes, or hotel occupancy taxes. Some financiers refer to revenue bonds as "self liquidated debt". Revenue bonds do not count against the general obligation of the community.

For more information, go to:
http://law.justia.com/codes/nebraska/2009/Chapter19/19-1305.html

Tax Increment Financing

Tax Increment Financing (TIF) is a tool that encourages private development in areas experiencing blight and disinvestments, typically areas in or near downtown. A TIF program provides a method for financing public costs associated with a private development project by using the projected increase in property tax revenue resulting from the private development. TIF bonds allow the developer to retire the "public costs" over a period of 15 years. During the time the bonds are outstanding, each taxing jurisdiction receives its original share of tax revenue or "pre-TIF project tax revenues." The advantage of TIF is that it enables a local government to borrow against future tax revenues generated by a redevelopment project. See Section 18-2101 through 18-2154 of the Nebraska Revised Statutes.

For more information, go to:

http://law.justia.com/codes/nebraska/2009/Chapter18/Chapter18.html

United States Department of Agriculture – Rural Development

- *Guaranteed Community Facility Loan Program*
  The purpose of the Guaranteed Community Facilities Loan Program is to work with local lenders - including banks, savings and loan associations, mortgage companies, and Farm Credit System banks to offer loan guarantees to help build essential community facilities and purchase equipment in rural areas. Community service facilities include: fire and rescue buildings and/or equipment, swimming pools, streets, utilities, community buildings, libraries, senior citizen centers, day care centers, airports, industrial parks, hospitals, clinics, nursing homes, assisted living facilities, etc.

For more information, go to:
http://www.rurdev.usda.gov/HAD-CF_Loans.html

Simply click on the link, scroll down to Chapter 13, click on that link. Scroll down to 13-1101 and go from there.

The attorney who can speak best about this program is William G. Blake at Baylor Evnen, Curtiss, Grimit & Witt, L.L.P. here in Lincoln. They're located in the Wells Fargo Center at 1248 "O" Street, Suite 600. His contact information is:
Email: wblake@baylorevnen.com
Phone: 402.458.2115

SECTION 8.0 COMMUNITY SUPPORT

Community support is critical for a successful municipal swimming pool/aquatic facility renovation or construction project. It is important to organize the community, gather public support, review design and funding options, and make recommendations to the City Council. The pool committee should conduct public meetings at several times through the design and funding phases of the project so that the members of the community can make an informed decision. The committee should have the full support of the Wayne City Council and the community.

At informational meetings, people from the community and surrounding areas that use the facility should be invited to have a voice in representing the community. A good cross-section of the community should be included in the process to develop wide ranging support for the project. Consider including individuals that represent young families, older and/or disabled patrons, local businesses, and local government; and don't forget the younger people who will be the majority of the patronage.

POOL GLOSSARY AND ABBREVIATIONS

ADA- Americans with Disabilities Act: Rules, regulations and standards for handicap accessibility.

Aquatic Facility: Typically a more modern recreation facility than a swimming pool. It can include waterslides, wading pools, zero depth entry area and typically offer many food and beverages options.

Balanced Water: Balance water is a result when all of your chemical parameters are where they should be and thus balance each other. The key components of water balance are pH, total alkalinity, calcium hardness, and temperature.

Backwash: Reversing the flow of water through the filter to clean the elements and filter medium. Typical part of maintenance for sand filters and some DE filters.

Pool Decks: The area adjacent to the pool wall/surface and the exterior fence and usually made of concrete.

Patron: A person of either sex male or female entering the pool area, but not necessarily entering the pool.

Patron Load: The number of people in a pool area at a particular time or during a specific period of time.

Filter: A device that removes undissolved particles from water through a porous filter medium (sand, cartridge, DE).

Flow Rate: The volume of liquid (water) flowing past a given point in a specific time period expressed in gallons per minute.

Nebraska Department of Health and Human Services: The organization tasked with developing and enforcing the rules and regulations for public pool design and construction methods and also for the operation and maintenance of public pools.

Pump: A motor powered device that creates pressure and water flow by spinning an impeller to provide circulation through the filter and heater.

PVC Membrane Liner: One type of interior pool finish. The liner is draped over a sand or cementitous floor and locked into the top of the pool walls. The liner is typically manufactured of a 60-mil reinforced, flexible, nonslip surface.

Skimmer: A device in the swimming pool or spa wall that continuously removes the surface water and floating debris to be taken away by the filter. A hand skimmer net can be used manually to "dip" large floating debris from the water.

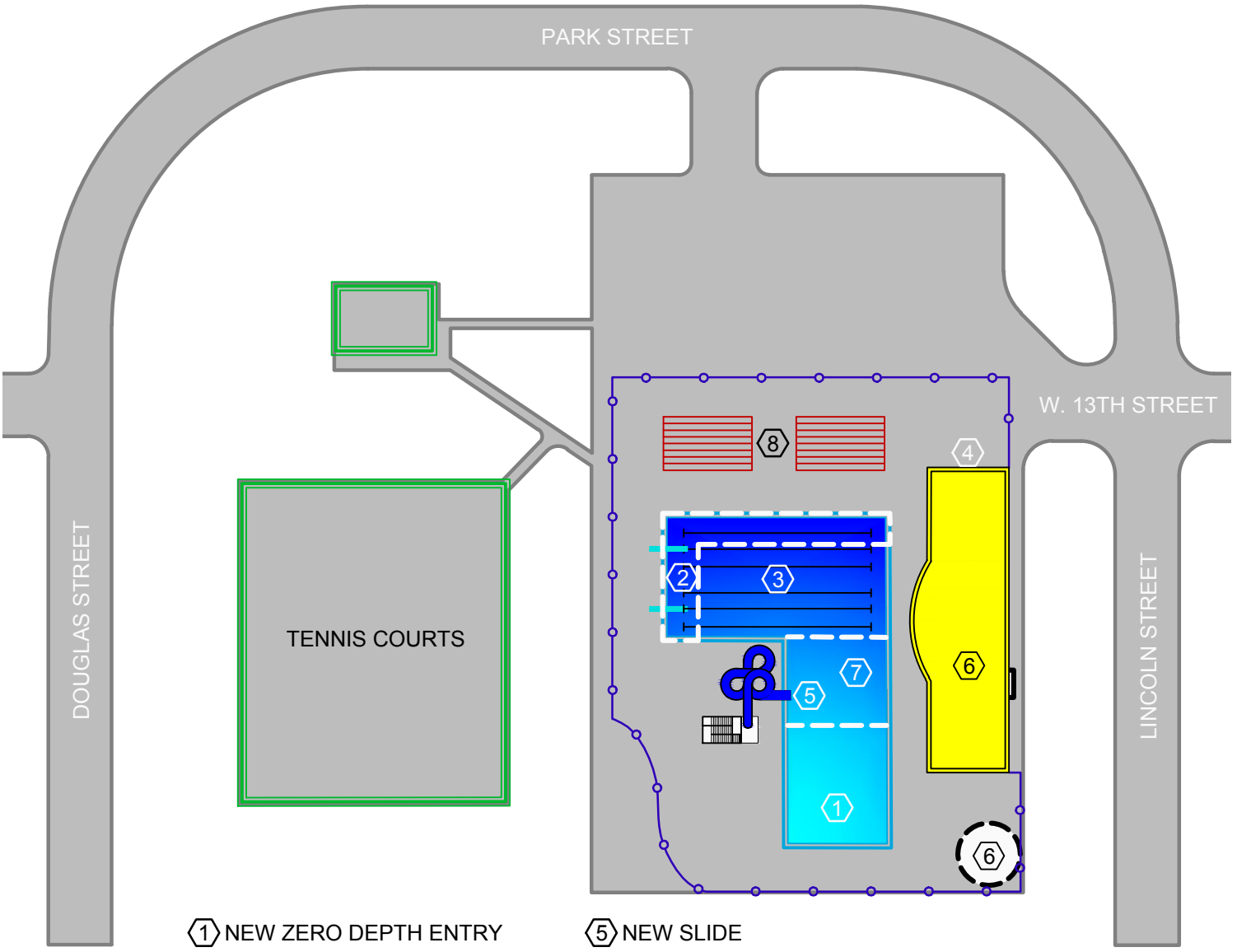
Stainless Steel Gutter System: This gutter system houses both the perimeter overflow of the pool and inlet piping in one small compact area at the edge of the water surface.

Swimming Pool: A manmade structure capable of being filled with water and intended for swimming, diving, wading and paddling.

Turnover Rate: The period of time (in hours) required to circulate through the pump and filter a volume of water equal to the spa or swimming pool capacity.

Wading Pool: Typically a shallow water pool made for small children and toddlers. The maximum depth is usually only 18 inches at the deepest part and 12 inches on the sides.

APPENDIX “A”



1 NEW ZERO DEPTH ENTRY
2 RENOVATED DIVING WELL
3 6 - 25 METER LAP LANES
4 NEW 400 PATRON BATHHOUSE
5 NEW SLIDE
6 DEMO EXISTING BATHHOUSE, WADING POOL
7 1,250 SQ. FT. 3'-5' DEPTH
8 PORTABLE BLEACHERS

SITE DIAGRAM OPTION A

Scale: Not To Scale

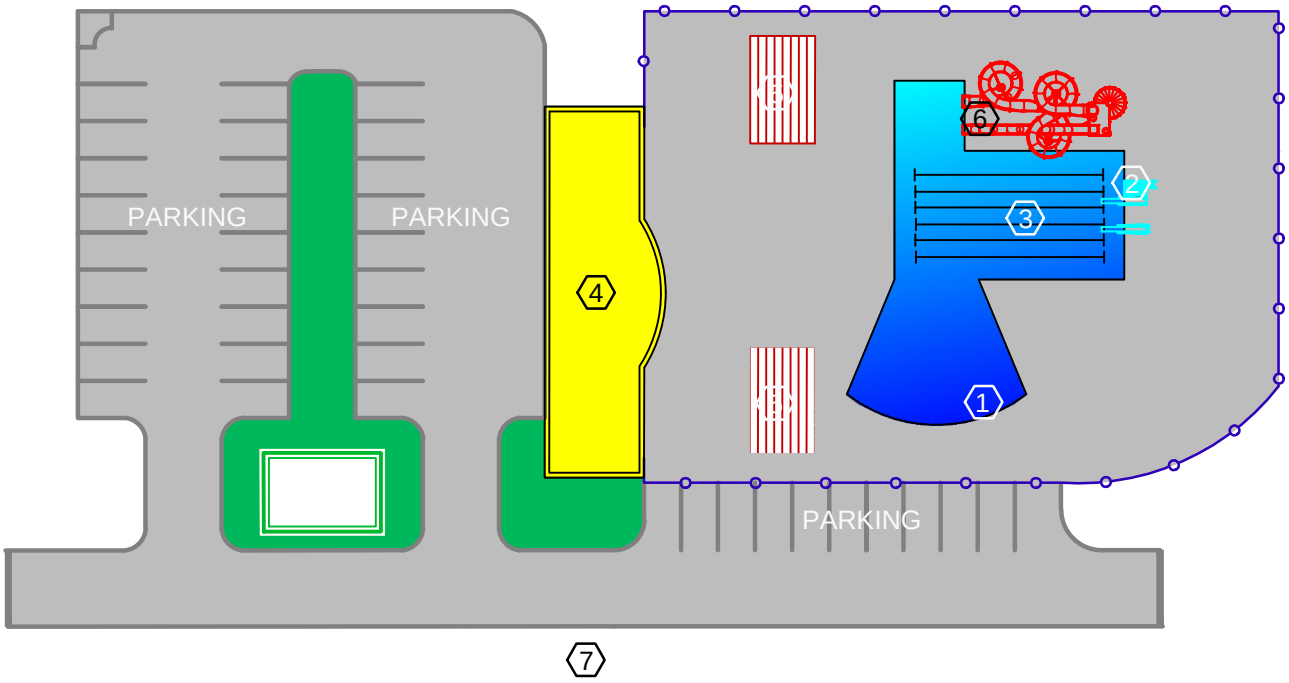
WAYNE, NEBRASKA AQUATIC CENTER

Date: 10/31/12

Engineering ■ Architecture ■ Planning ■ Surveying

JEO CONSULTING GROUP INC
800.723.8567

Project No.
P110845.00



1. NEW ZERO DEPTH ENTRY W/ PLAY FEATURES
2. NEW DIVING WELL
3. 6 - 25 METER LAP LANES
4. NEW 200 PATRON BATHHOUSE
5. PORTABLE BLEACHERS
6. SLIDE PLUNGE POOL
7. SITE TO BE DETERMINED

SITE DIAGRAM OPTION B

Scale: Not To Scale

WAYNE, NEBRASKA AQUATIC CENTER

Date: 10/03/13

Engineering ■ Architecture ■ Planning ■ Surveying

JEO CONSULTING GROUP INC
800.723.8567

Project No.
P110845.00

Engineering ■ Architecture ■ Planning ■ Surveying

1. NEW 25 METER, 6 LANE INDOOR COMPETITION POOL WITH DIVING WELL & MOVEABLE FLOOR
2. MECHANICAL ROOM
3. NEW BLEACHERS
4. NEW MULTI-USE COURTS
5. NEW 400 PATRON BATHHOUSE & ZERO DEPTH AT EXISTING OUTDOOR POOL
6. ADDITIONAL PARKING MAY BE NECESSARY
7. ADMINISTRATIVE ROOM

SITE DIAGRAM OPTION C

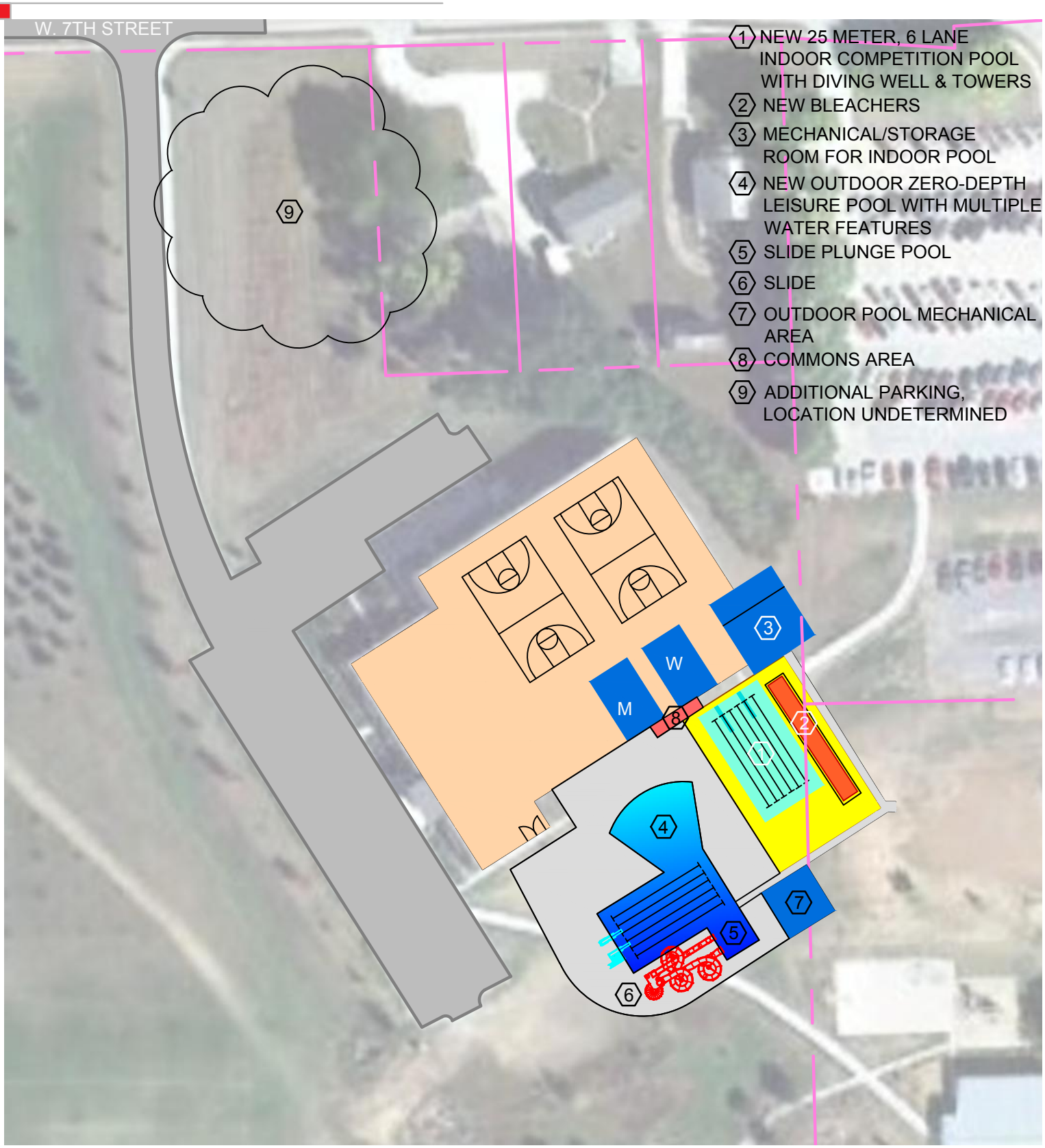
Scale: Not To Scale

WAYNE, NEBRASKA AQUATIC CENTER

Date: 10/31/12

JEO CONSULTING GROUP INC
800.723.8567

Project No.
P110845.00



Engineering ■ Architecture ■ Planning ■ Surveying

SITE DIAGRAM OPTION D

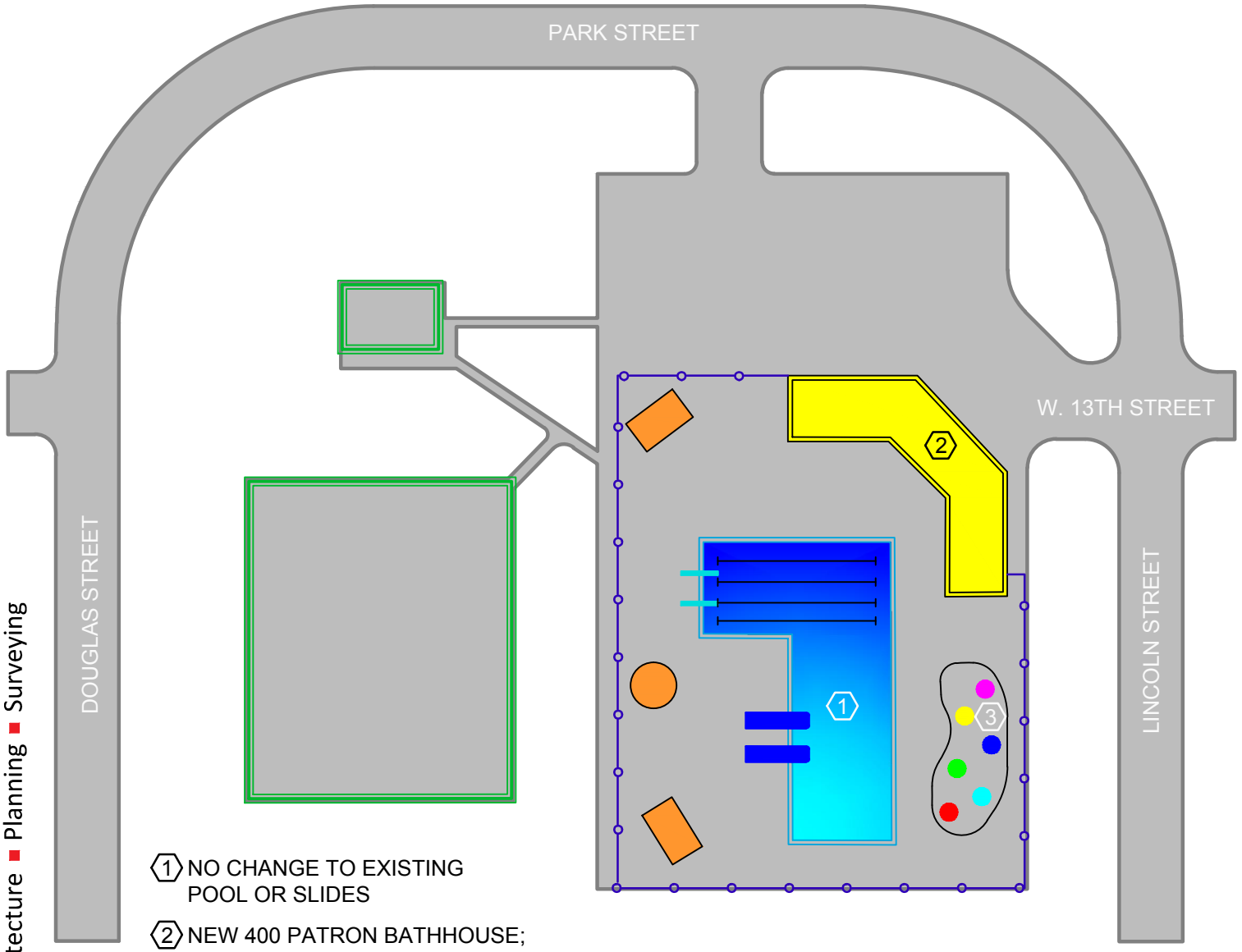
Scale: Not To Scale

WAYNE, NEBRASKA AQUATIC CENTER

Date: 5/06/13

JEO CONSULTING GROUP INC
800.723.8567

Project No.
P110845.00



1. NO CHANGE TO EXISTING POOL OR SLIDES
2. NEW 400 PATRON BATHHOUSE; EXISTING BATHHOUSE TO BE DEMOLISHED
3. NEW SPLASH PAD

SITE DIAGRAM OPTION E

Scale: Not To Scale

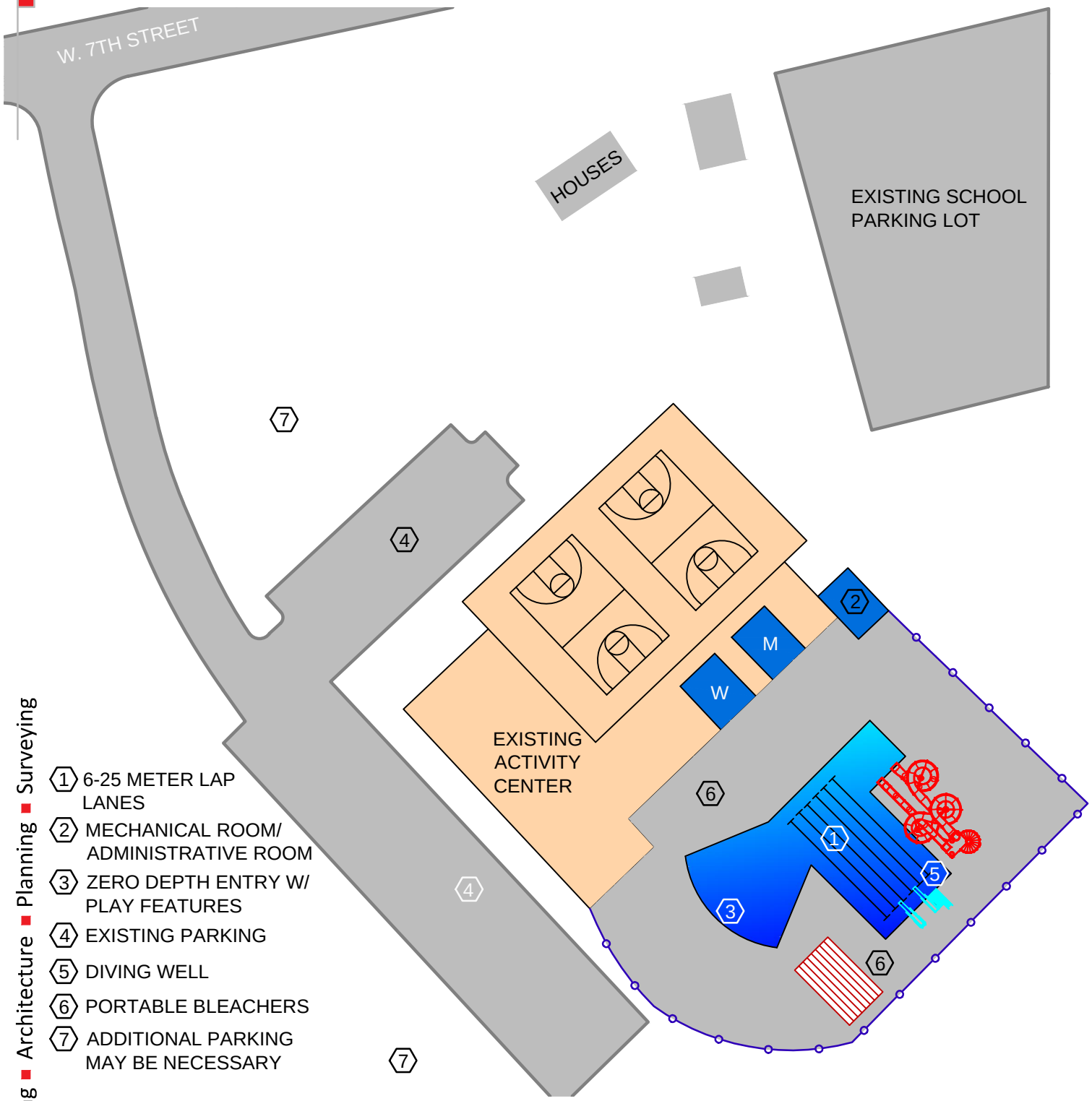
WAYNE, NEBRASKA AQUATIC CENTER

Date: 7/12/12

Engineering ■ Architecture ■ Planning ■ Surveying

JEO CONSULTING GROUP INC
800.723.8567

Project No.
P110845.00



Engineering ■ Architecture ■ Planning ■ Surveying

SITE DIAGRAM OPTION F

Scale: Not To Scale

WAYNE, NEBRASKA AQUATIC CENTER

Date: 10/03/13

JEO CONSULTING GROUP INC
800.723.8567

Project No.
P110845.00

APPENDIX “B”

CITY OF WAYNE
SWIMMING POOL

ACCOUNT	1985	1986	1987	1988	1989	1990	1991	1992
Managers/Mgt. Wages	$5,947	$5,010	$4,077	$3,058	$5,914	$3,926	$9,302	$6,175
Guard Wages	$7,409	$6,488	$8,774	$11,744	$8,719	$10,933	$11,410	$15,169
Retirement								
Payroll Taxes	$937	$822	$921	$1,102	$1,080	$1,137	$1,420	$1,659
Health & Accident Ins.								
Workers Compensation	$214	$343	$355	$366	$413	$582	$699	$733
Utilities	$2,591	$2,558	$5,446	$5,937	$6,478	$6,006	$5,120	$6,412
Telephone	$161	$185	$295	$204	$210	$258	$107	$206
Contractual Services								
Printing	$90	$30	$62	$33	$114	$45	$43	$17
Promotional	$118	$312	$85	$212	$249	$283	$229	$400
Insurance	$965	$718	$1,093	$1,760	$2,290	$2,527	$1,711	$1,728
Miscellaneous	$6						$26	$68
Use Tax	$76	$22	$29	$885	$777	$793	$0	
Travel								$90
Entry fees								
Clothing & Personnel Exp								
Maintenance/Op. Exe.	$2,275	$1,862	$1,827	$2,471	$3,346	$1,893	$2,408	$1,824
Maint. Bldg & Grounds	$613	$1,129	$276	$37	$1,448	$163	$1,641	$989
Principal & Interest								$17,500
Pool Equipment								
Pool Access Equipment								
TOTAL EXPENSES	$21,403	$19,479	$23,242	$27,810	$31,038	$28,546	$34,116	$52,970
Receipts	$42,806	$38,958	$46,484	$55,620	$62,076	$57,091	$68,233	$105,940
Season Passes	$15,542	$16,082	$17,818	$22,561	$21,441	$15,446	$4,933	$3,852
Daily Admissions						$3,927	$4,156	$2,357
Lessons						$2,108	$1,231	$3,862
Preseason Sales							$13,954	$13,354
Family passes								
Individual passes								
Other Programs								
Special Passes								
Swim Team								
Aquasize								
Parties								
Preschool aquatics								
Lap swim								
I.P.A.P. lessons								
Less Sales Tax							-$1,141	-$46
TOTAL RECEIPTS	$15,542	$16,082	$17,818	$22,561	$21,441	$21,480	$23,132	$23,379
LOSS ON OPERATIONS	-$5,861	-$3,397	-$5,424	-$5,249	-$9,598	-$7,066	-$10,984	-$29,591

CITY OF WAYNE
SWIMMING POOL

ACCOUNT	1993	1994	1995	1996	1997	1998	1999	2000
Managers/Mgt. Wages	$10,217	$9,399	$9,396	$9,379	$9,502	$11,651	$11,118	$11,795
Guard Wages	$14,889	$11,471	$12,486	$19,833	$16,309	$13,289	$13,439	$14,924
Retirement	$146	$168	$182	$191	$209	$156	$64	$77
Payroll Taxes	$1,890	$1,552	$1,626	$2,169	$1,956	$1,717	$1,595	$1,760
Health & Accident Ins.	$602	$469	$491	$421	$936	$982	$1,006	$1,281
Workers Compensation	$611	$875	$920	$845	$738	$786	$307	$726
Utilities	$6,937	$5,128	$4,090	$4,744	$3,454	$4,208	$2,496	$6,255
Telephone	$259	$202	$120	$424	$193	$246	-$59	$93
Contractual Services					$234		$600	$900
Printing	$43	$48	$52	$135	$107	$165	$210	$186
Promotional	$148	$367	$884	$90	$172	$76	$284	$60
Insurance	$1,814	$1,563	$1,674	$1,849	$2,006	$2,054	$1,093	$1,457
Miscellaneous	$21	$52	$79	$80	$0	$186	$12	$8
Use Tax				$0	$0			
Travel	$60	$90	$171	$0	$204	$9	$388	$88
Entry fees						$100	$100	$100
Clothing & Personnel Exp								$429
Maintenance/Op. Exe.	$3,267	$3,279	$3,416	$1,861	$2,049	$1,126	$2,217	$935
Maint. Bldg & Grounds	$1,602	$851	$1,383	$1,112	$816	$365	$88	$1,123
Principal & Interest	$17,000	$16,500	$16,000	$15,500	$15,000	$14,500	$14,000	$13,500
Pool Equipment			$53	$180	$156	$4,588	$890	$7,062
Pool Access Equipment			$2,170	$0	$0	$290		
TOTAL EXPENSES	$59,506	$52,014	$55,193	$58,812	$54,041	$56,493	$49,849	$62,759
Receipts	$119,013	$104,028	$110,387	$117,625	$108,083	$112,986	$99,697	$125,518
Season Passes	$2,868	$2,851	$3,677	$4,068	$4,523	$3,407	$4,383	$4,988
Daily Admissions	$4,162	$3,712	$3,618	$4,263	$3,628	$3,806	$3,876	$4,236
Lessons	$2,883	$3,779	$4,980	$4,772	$5,109	$5,029	$5,745	$5,100
Preseason Sales	$11,925 --							
Family passes		$13,386	$11,247	$11,180	$11,180	$11,770	$10,945	$9,790
Individual passes		$1,248	$988	$832	$884	$1,260	$1,146	$784
Other Programs								
Special Passes	$115	$83	$55	$8	$11			
Swim Team	$270	$0	$0		$215	$300	$710	$580
Aquasize	$415	$593	$366	$253	$608	$303	$677	$536
Parties	$210	$221	$221	$403	$278	$103	$103	$270
Preschool aquatics	$10							
Lap swim		$10					$26	
I.P.A.P. lessons		$150						
Less Sales Tax	-$179	-$1,011	-$1,144	-$979	-$996	-$778	-$754	-$884
TOTAL RECEIPTS	$22,678	$25,021	$24,008	$24,798	$25,440	$25,200	$26,857	$25,400
LOSS ON OPERATIONS	-$36,829	-$26,993	-$31,185	-$34,014	-$28,602	-$31,293	-$22,991	-$37,359

CITY OF WAYNE
SWIMMING POOL

ACCOUNT	2001	2.002.00	2003	2004	2005	2006	2007	2008	2009
Managers/Mgt. Wages	$8,124	$12,983	$12,464	$9,944	$11,367	$10,437	$12,110	$10,777	$7,596
Guard Wages	$14,029	$24,166	$18,559	$17,122	$25,191	$27,444	$26,305	$29,239	$32,858
Retirement	$61	$70	$101	$88	$349	$390	$454	$457	$432
Payroll Taxes	$1,486	$2,460	$2,029	$1,691	$2,696	$2,874	$2,922	$3,051	$3,087
Health & Accident Ins.	$1,172	$1,933	$1,523	$1,386	$1,488	$1,784	$1,345	$1,373	$1,752
Workers Compensation	$872	$1,270	$1,393	$1,885	$1,006	$2,191	$1,753	$2,570	$2,222
Utilities	$2,149	$5,014	$5,470	$6,159	$6,207	$6,264	$11,635	$14,936	$4,962
Telephone	$124	$348	$169	$158	-$11	$19	$226	$170	$150
Contractual Services	$950	$171	$162						
Printing	$264	$175	$64	$66	$65	$80	$81		
Promotional	$0	$50	$25		$15		$351		$108
Insurance	$1,333	$1,486	$2,370	$2,603	$2,631	$2,720	$2,487	$2,387	$2,239
Miscellaneous	$108	$42	$1,011	$46	$1,448	$177	$1,151	$1,228	$210
Use Tax		$150	$207		$19	$247	$112	$179	$170
Travel		$0							$0
Entry fees		$1,134	$888	$142	$548	$661	$409	$601	$607
Clothing & Personnel Exp	$672	$0						$712	$0
Maintenance/Op. Exe.	$741	$3,567	$2,734	$1,357	$885	$2,258	$2,869	$8,831	$6,388
Maint. Bldg & Grounds	$397	$1,311	$439	$452	$3,510	$138	$675	$1,474	$31,838
Principal & Interest	$13,000	$12,500	$12,000	$11,500	$11,000	$10,500			$0
Pool Equipment		$1,768	$126	$1,400	$141				$0
Pool Access Equipment		$0					$3,600		$7,350
TOTAL EXPENSES	$45,482	$70,598	$61,733	$55,998	$68,552	$68,182	$68,487	$77,985	$101,970
Receipts	$90,964	$70,598	$61,733	$55,998	$68,552	$68,182	$68,487	$77,985	$101,970
Season Passes	$5,239	$0							$0
Daily Admissions	$3,022	$6,716	$7,806	$6,631	$9,412	$7,681	$6,465	$7,930	$9,010
Lessons	$5,445	$4,538	$3,815	$4,195	$5,928	$7,423	$6,923	$6,690	$6,061
Preseason Sales		$5,623	$7,448	$7,175	$6,350	$6,575	$6,400	$6,420	$5,400
Family passes	$9,680	$0							$0
Individual passes	$1,008	$9,020	$10,644	$10,425	$7,650	$9,750	$12,945	$11,560	$11,305
Other Programs		$840	$800	$840	$880	$1,360	$1,300	$1,700	$1,550
Special Passes		$0					$1,797	$2	$11
Swim Team	$540	$0							
Aquasize	$484	$475	$1,125			$1,675	$1,675	$1,800	$1,650
Parties	$100	$491	$168						
Preschool aquatics		$225	$300	$225	$50	$100	$110	$225	
Lap swim	$15								
I.P.A.P. lessons		$33	$18	$14		$11	$12		
Less Sales Tax			$93		$13				
TOTAL RECEIPTS	$25,533	-$1,185	-$1,408	-$1,288	-$1,417	-$1,593	-$1,686	-$1,702	-$1,695
LOSS ON OPERATIONS	-$19,950	$26,775	$30,809	$28,217	$28,866	$32,982	$35,940	$34,625	$33,291

CITY OF WAYNE
SWIMMING POOL

ACCOUNT	2010	2011	2012	2013	AVERAGE	LAST 10 YEAR	LAST 5 YEAR
Managers/Mgt. Wages	$8,963	$13,440	$16,456	$15,826	$9,529	$11,691	$12,456
Guard Wages	$39,149	$38,733	$31,384	$31,352	$19,063	$29,878	$34,695
Retirement	$503	$518	$5	$0	$220	$320	$291
Payroll Taxes	$3,663	$3,974	$491	$495	$1,871	$2,494	$2,342
Health & Accident Ins.	$1,789	$1,767	$3,644	$3,634	$1,466	$1,996	$2,517
Workers Compensation	$2,326	$1,389	$1,907	$2,253	$1,122	$1,950	$2,019
Utilities	$6,465	$7,698	$2,287	$1,992	$5,486	$6,860	$4,681
Telephone	$132	$219	$6,946	$2,596	$495	$1,060	$2,009
Contractual Services		$0			$431	$0	$0
Printing			$0		$91	$58	$0
Promotional		$24	$0	$0	$182	$83	$33
Insurance	$2,047	$2,814	$122	$652	$1,800	$2,070	$1,575
Miscellaneous	$763	$1,473	$2,143	$2,288	$526	$1,093	$1,375
Use Tax	$233	$40	$539	$1,284	$288	$314	$453
Travel					$100	$0	$0
Entry fees	$419	$667	$409	$604	$493	$507	$541
Clothing & Personnel Exp		$6	$0	$0	$227	$144	$1
Maintenance/Op. Exe.	$7,531	$10,017	$10,826	$6,541	$3,469	$5,750	$8,261
Maint. Bldg & Grounds	$395	$6,384	$6,062	$507	$2,318	$5,143	$9,037
Principal & Interest					$13,125	$8,250	$0
Pool Equipment					$1,488	$514	$0
Pool Access Equipment		$782	$0	$0	$1,419	$2,346	$2,033
TOTAL EXPENSES	$74,378	$89,944	$83,221	$70,023	$55,994	$75,874	$83,907
Receipts	$74,378	$89,944	$83,984	$72,753	$81,382	$76,223	$84,606
Season Passes				$0	$7,684	$0	$0
Daily Admissions	$8,848	$7,998	$8,057	$7,164	$5,770	$7,920	$8,215
Lessons	$7,221	$8,084	$7,313	$5,276	$5,146	$6,511	$6,791
Preseason Sales	$5,880	$6,030	$6,870	$7,045	$7,763	$6,415	$6,245
Family passes				$0	$8,107	$0	$0
Individual passes	$11,560	$10,903	$11,422	$11,655	$6,849	$10,917	$11,369
Other Programs	$1,635	$1,353	$1,256	$1,130	$1,220	$1,300	$1,385
Special Passes		$480	$356	$0	$243	$441	$211
Swim Team				$1,692	$431	$1,692	$1,692
Aquasize	$1,575	$1,200	$1,400	$0	$885	$1,372	$1,165
Parties	$0				$214	$0	$0
Preschool aquatics	$225				$163	$156	$225
Lap swim	$0				$13	$0	$0
I.P.A.P. lessons	$11				$36	$12	$11
Less Sales Tax				$0	-$600	$6	$0
TOTAL RECEIPTS	-$1,800	-$24	$0	$0			
LOSS ON OPERATIONS	$35,153	$36,022	$37,715	$37,387			

APPENDIX “C”

TITLE 178 NAC 4 PUBLIC SWIMMING POOL DESIGN AND CONSTRUCTION STANDARDS

TABLE OF CONTENTS

TITLE 178 ENVIRONMENTAL HEALTH

CHAPTER 4 PUBLIC SWIMMING POOL DESIGN AND CONSTRUCTION STANDARDS

4-001 SCOPE AND AUTHORITY: These regulations establish standards for swimming pool design, review, construction, approval, and related requirements. The authority for these regulations is found in Neb. Rev. Stat. §§71-4301 through 71-4307.

4-001.01 Related Regulations: Persons designing and/or constructing swimming pools may want to consult other regulations and/or codes which may apply, such as standards for special types of swimming pools, electrical codes, plumbing codes, water and wastewater regulations. It is the responsibility of the design professional to insure that the requirements of all other applicable codes (i.e., boilers, electrical, building, plumbing, fire, ventilation, etc.) are met. The construction approval by the Department does not supersede any other approvals which may also be required. If conflicts with other applicable local, state, or federal regulations occur, the most restrictive regulation governs.

4-002 DEFINITIONS

Additional inspections means inspections required to determine if violations discovered in previous inspections have been corrected.

Bathhouse means any building adjacent to the swimming pool used by the swimmers and bathers for changing clothes. The term "bathhouse" includes accompanying bather preparation facilities.

Beginning Construction or similar terms in these regulations means the start of work on items that are specifically mentioned in these regulations.

Boundary line means a line between the shallow and deep areas marked in contrasting color and at least 4 inches wide on the floor and walls of the pool, and by a safety rope and floats equipped with float keepers.

Certificate of competency means a certificate obtained as a result of attendance and successful completion, as shown by passing a test, of a Nebraska swimming pool operator's training clinic approved by the Department.

Class A Pool means a pool operated by a municipality, political subdivision, or governmental agency; or a pool intended for use for accredited competitive aquatic events such as Federation Internationale deNatation, U.S. Swimming, U.S. Diving, National Collegiate Athletic Association, National Federation of State High School Associations, etc.

Class B pool means a swimming pool operated at a facility including, but not limited to, an apartment, a condominium, a property owner association, a child care facility, and lodgings such as hotels and motels.

Class C pool means a spa.

Class D pool means a wading pool.

Class E pool means a spray park.

Class F pool means a swimming pool at a health club, fitness center, or community fitness center.

Deck means the area surrounding a pool, which is specifically constructed or installed for use by bathers.

Deep area means those areas of a swimming pool where the water is more than 5 feet deep.

Department means the Department of Health and Human Services.

Design Professional means a professional engineer or professional architect registered by the Nebraska Board of Engineers and Architects to practice in the State of Nebraska.

Drop slide means a slide that discharges to a pool with a drop more than 2 inches to the water surface.

Lazy River Ride means a water recreation attraction designed to convey patrons around a relatively flat course using an artificially created current.

Main drain means a submerged suction outlet typically located at the bottom of a pool or spa to conduct water to a recirculating pump.

Nebraska swimming pool operator means an individual (1) who has a current certificate of competency or (2) who has successfully completed the pool operator training course by the National Swimming Pool Foundation, the Aquatic Facility Operator course approved by the National Recreation and Park Association, or an equivalent course approved by the Department, and who maintains certification as required by the certifying organization.

Owner means the owner or the owner's representative.

Patron means a person using a public swimming pool. Patron also means a bather or swimmer.

Person, in 178 NAC 4-003.12 and 4-005 means any individual, firm, partnership, association, corporation, company, municipality, political subdivision, community government agency, club, organization, or other entity owning or operating a swimming pool as defined in Neb. Rev. Stat. § 71-4301. In all other instances, person means individual.

Spa means a specific type of swimming pool, such as a hot tub or whirlpool designed for recreational use which is not intended to be drained, cleaned, and refilled after each individual use. It may include, but is not limited to, hydrojet circulation, hot water, cold water, mineral baths, air induction systems, or any combination thereof.

Special Purpose Pool means a swimming pool that is operated for special purposes and incorporates features distinguishing it from a traditional swimming pool. Special purpose pools include, but are not limited to wave pools, zero depth pools, water slide splash pools, lazy river rides, and pools with fountains and/or other interactive water features.

Spray Park means a pool providing recirculated water to spray features with no permanent standing water accessible to pool patrons.

Substantial Modification or Improvement means construction that changes the depth, shape, piping, pumping, or other basic design features of a public swimming pool in a manner that affects pool patron safety or recirculation system design; changes a pool's deck; changes the basic design of a diving board; or adds a special feature. Work not considered a substantial modification or improvement includes maintenance and repairs. Maintenance does not include total shell replacement.

Suction Outlet means a fitting, fitting assembly, cover/grate, and related components that provide a localized low pressure area for the transfer of water from a swimming pool. This may also include the transfer of water for slides, spray features, skimmer equalizer lines, etc.

Swimming Pool (pool) means any artificial basin of water modified, improved, constructed, or installed solely for the purpose of public swimming, wading, diving, recreation, or instruction. Swimming pool includes, but is not limited to, a pool serving a community, a subdivision, an apartment complex, a condominium, a club, a camp, a school, an institution, a park, a manufactured home park, a hotel, a motel, a recreational area, or a water park. Swimming pool includes a spa, hot tub, or whirlpool or similar device which (1) is designed for recreational use and not to be drained, cleaned, and refilled after each individual use and (2) may consist of elements, including, but not limited to, hydrojet circulation, hot water, cold water, mineral baths, air induction systems, or any combination thereof. Swimming pool does not include an artificial lake, a pool at a private residence intended only for the use of the owner and guests, or a pool operated exclusively for medical treatment, physical therapy, water rescue training, or training of divers.

Unblockable Drain means a drain that has minimum dimensions of 18 inches by 23 inches or 29 inches diagonally.

Variance means written approval from the Department to allow a design, or substantial modification or improvement that does not conform to the requirements in 178 NAC 4. A variance will not be given for any design, modification or improvement that endangers the health or safety of the patrons.

Virginia Graeme Baker Act (VGB) means 15 USC Sec. 8001 et seq.

Wading Pool means a pool that is no more than 24 inches deep that is intended for use by young children.

Wave pool means a special purpose pool with wave generating equipment and a design which provides for control of the waves within the side walls and dissipation of the waves at a zero depth shallow end.

Zero Depth Pool means a swimming pool where the pool floor intersects the water surface along a portion of its perimeter.

4-003 PLANS AND SPECIFICATIONS: Plans, specifications, and a swimming pool data sheet (Attachment 2 which is incorporated herein by reference) for new swimming pools or substantial modifications or improvements to existing pools must be prepared by a design professional. All plans and specifications must be submitted to the Department in triplicate for review and written approval prior to beginning construction, with plans laid out on sheets having a minimum size of 11 by 17 inches. Additional sets may be submitted for formal designation as approved copies if desired. Plans and specifications for substantial modifications or improvements must include all applicable portions of the swimming pool. The owner of a pool may submit plans and specifications for changes to existing pools for erosion type feeders and solution type feeders instead of a design professional.

4-003.01 Content: Plans, specifications, and attachments submitted for formal approval must be an accurate record of the proposed construction and contain sufficient information to demonstrate to the Department that the proposed swimming pool or substantial modifications or improvements will meet the standards contained herein and must include, at a minimum, the following documentation and information: (If the information submitted is not sufficient for the Department to determine if the project meets the standards, the Department may require additional information.)

1. Location and Owner: Name and address of the proposed, modified or improved public swimming pool facility; and the name, address, and phone number of the owner.

2. Scale and Northpoint.

3. Designer Information: Name, date, address, phone number, professional seal and signature of the design professional.

4. Plot Plan: A plot plan of the property to be used, indicating the location of proposed and existing structures; as well as the location of the proposed swimming pool, pool enclosure, and deck.

5. Detailed Plans: All detailed plans for a swimming pool must be legible and must be drawn to a suitable scale. The detailed plans for facilities must show:

   a. Construction Details: Complete construction details for the swimming pool, deck and pool enclosure, including dimensions, elevations, and appropriate cross sections for the swimming pool.

   b. Recirculation System: Schematic diagrams and plan view of the pool water treatment and recirculation systems, pool equipment room or enclosure.

   c. Piping: Size and location of all piping.

   d. Specifications: Complete, detailed specifications for the construction of the swimming pool, bathhouse, recirculation system, filtration system, disinfection equipment and all other appurtenances.

6. Fees

   a. Initial Fee: When the design professional's plans and specifications are submitted, an initial review fee of $100 plus 0.5% of his/her estimate of the cost of the project described in the documents to be reviewed up to a maximum of $7,600 must be included.

   b. Final Fee: Upon completion of the project, the owner must submit documentation of the contract or actual cost of the project in the form of the actual contract or invoice(s) to the Department for the purpose of determining the final fee amount. Payment of the final fee amount must be made prior to final inspection, except that amounts of $25 or less are not required to be paid or refunded;

   c. Variance Fee: A $300 fee must accompany each variance request.

   d. Engineering Inspection Fee: The final inspection conducted by the Department review engineers is included in the review fee. A fee of $400 for each additional inspection conducted by the Department must be paid prior to the date of the additional inspection. The engineering inspection fee is separate from and in addition to the operational inspection fees required in 178 NAC 2. Pools owned by a municipal corporation are exempt from inspection fees.

e. There is a fee of $1000 in addition to the plan review fee if construction is begun or completed on items specifically outlined in these regulations prior to obtaining approval from the Department.

7. Operation and Maintenance Manual: The design professional must provide 2 copies of a manual for operation of the pool to the owner or owner's representative.

4-003.02 Data Sheet: The design professional or owner (See 178 NAC 4-003) must submit a swimming pool data sheet (Attachment 2) for each swimming pool with the plans and specifications.

4-003.03 Preliminary Plans: The design professional may submit preliminary plans, specifications, or concepts to the Department for review prior to preparation of construction documents, allowing 30 working days for comment by the Department. An initial fee for review of preliminary plans must be submitted with the plans as required in 178 NAC 4-003.01 item 6.a. This fee will be credited toward the review fee required when final plans and specifications are submitted for review. Any comments or agreements made regarding preliminary plans do not constitute approval to construct the project. If preliminary plans are submitted for a project, reference to any correspondence must be included in the final plan submittal.

4-003.04 Final Plans: All swimming pool data sheets, the initial fee, and construction documents for formal approval of a public swimming pool must be submitted for review and comment or approval at least 30 working days prior to planned construction or installation. Time must be allowed for the incorporation of changes if required.

4-003.05 Construction Approval: The Department must approve final plans, specifications, a swimming pool data sheet, and other relevant data before construction or installation of any new swimming pool or substantial modification or improvement to any swimming pool may begin. Upon approval of the plans and specifications, the Department will issue a construction permit. A construction permit is valid for a period of 2 years from the date of issuance. If construction is not started within 2 years from the issuance of the permit, the owner or the design professional must request a time extension in writing prior to the expiration of the construction permit and the Department must approve it with an expiration date in order for it to continue to be valid.

4-003.06 Review of Plans and Specifications: The Department will issue a comment letter to the design professional when review of the plans and specifications does not indicate compliance with Title 178 NAC 4 or inadequate information is provided for a complete review. The design professional must address issues identified in the Department's comment letter within 60 calendar days from the date of issuance of the comment letter unless the owner and/or design professional request in writing and the Department approves an extension of time. If the design professional does not respond in writing to the Department's comment letter within 60 days from issuance of the comment letter, the Department will deny the construction permit for the project. When a project is

denied for construction, new sets of plans and specifications, along with a new review fee as specified in 178 NAC 4-003.01 item 6.a., must be submitted to the Department for review and written approval prior to construction.

4-003.07 Construction: All new swimming pools and substantial modifications or improvements must be completed in accordance with approved plans and specifications or approved change orders.

4-003.08 Certification: The design professional or the owner (see 178 NAC 4-003), as appropriate, must certify in writing to the Department on Attachment 3 which is incorporated herein by reference that the pool and all appurtenances have been constructed in accordance with approved plans and specifications, prior to a final inspection.

4-003.09 Final Inspection: The Department will conduct a final inspection and note any deficiencies, which must be resolved, before the Department will issue a permit to operate the pool. The Department has the right of entry at any reasonable time to the swimming pool and accompanying facilities for this purpose.

4-003.10 Final Approval: If no deficiencies are found when the Department conducts the final inspection or when any deficiencies that were found in the Department's final inspection have been corrected, the Department may issue a permit to operate the pool.

4-003.11 Denial: The Department may refuse to issue a construction permit for failure to comply with any of the provisions of Neb. Rev. Stat. §§ 71-4301 to 71-4307 or 178 NAC 4. The Department will inform the engineer and the swimming pool owner, in writing, of the factual basis of the denial and the statutory or regulatory provisions supporting the decision. The denial will become final 30 days after the mailing of the notice, unless the swimming pool owner, within the 30-day period, requests a hearing in writing. The hearing shall be conducted in accordance with the Nebraska Administrative Procedure Act and 184 NAC 1, the Department's Rules of Practice and Procedure for Administrative hearings.

4-003.12 Record Drawings: Pools that are already constructed or on which construction has begun without prior plan review and approval will not be issued a permit to operate until after the record drawing plans and specifications have been reviewed and approved by the Department. If the pool is being operated without appropriate approval, the permit may be suspended or revoked after the applicant or the person to whom the permit has been issued is given notice in writing of the failure to comply with Neb. Rev. Stat. §§71-4301 through 71-4307 or the rules and regulations developed under those statutes. If the permit is suspended or revoked, the person to whom the permit has been issued may request a hearing before the Department within 30 days of mailing of notice of the suspension or denial. On the basis of evidence presented at the hearing, the Department will affirm or revoke its previous action. In addition, whenever any work for which a construction permit is required has been started before an operating permit has been issued the following will apply:

1. All construction work must cease until the record drawings have been reviewed and approved by the Department;
2. 45 working days must be allowed for review after receipt of the swimming pool data sheets, the initial fee, and record documents;
3. The Department may require that construction not done in accordance with the regulations be corrected before a facility is used.

4-004 VARIANCES

4-004.01 General: A variance request must be prepared by a design professional (or owner if 178 NAC 4-003 applies) in writing a minimum of 30 working days before construction begins. A variance must be requested on Attachment 1 to 178 NAC 4, which is incorporated herein by reference. A variance may not pose an increased public health or safety risk.

4-004.02 New Projects: A request for a variance may be made for a new project where the design professional believes that a variation in the standards does not endanger the health or safety of the patrons.

4-004.03 Existing Projects: A variance request for a modification to existing swimming pools may be made where space and/or other circumstances prevent the project from meeting the current requirements and where the Department determines that a variation in the standards does not endanger the health or safety of the patrons**.**

4-004.04 The Department will review and approve or disapprove requests for a variance on a case-by-case basis.

4-005 DENIAL, SUSPENSION, OR REVOCATION OF PERMIT; POOL CLOSING

4-005.01 The Department may deny, suspend, or revoke any permit for construction of a swimming pool for failure to comply with any provisions of Neb. Rev. Stat. §§ 71-4301 to 71-4307 or 178 NAC 2 or 4.

4-005.02 Before a permit is denied, suspended, or revoked, the Department will send a written notice to the owner or the Nebraska swimming pool operator enumerating instances of failure to comply with Neb. Rev. Stat. §§ 71-4301 to 71-4307 or 178 NAC 2 or 4. If the permit is denied, suspended, or revoked, the owner may request a hearing before the Department within 30 days of mailing of notice of denial, suspension, or revocation. On the basis of the evidence presented at the hearing, the Department will affirm or revoke its previous action.

4-005.03 The denial, suspension, or revocation of the permit will terminate and the permit will be issued or reissued, as the case may be, upon proper application and upon the presentation of evidence sufficient to show that the deficiencies causing the denial, suspension, or revocation have been corrected.

4-005.04 Whenever the Department finds that a swimming pool is being constructed, improved, altered, or equipped, in violation of any of the provisions of Neb. Rev. Stat. §§ 71-4301 to 71-4307 or 178 NAC 2 or 4, the Department may grant a reasonable amount of time, in its opinion, to change or modify the construction or provide for the proper equipment needed to bring the pool into compliance with Neb. Rev. Stat. §§ 71-4301 to 71-4307 or 178 NAC 2 or 4.

If the Department, upon inspection and investigation of a swimming pool, finds conditions that warrant prompt closing of the pool, the Department must notify the owner or the Nebraska swimming pool operator that the pool must be closed. The Department may also provide written notice to the sheriff and the county attorney of the county in which the pool is located. It is the duty of the sheriff and county attorney to enforce the notice from the Department. If and when the owner or Nebraska swimming pool operator of the pool has, in the opinion of the Department, complied with the provisions of Neb. Rev. Stat. §§ 71-4301 to 71-4307 or Title 178 NAC 2 or 4, the Department may authorize in writing the re-opening of the pool.

4-006 DESIGN STANDARDS: The following standards are adapted from the *Recommended Standards for Swimming Pool Design and Operation,* 1996 , by the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers. Copies are available from Health Education Services, A Division of Health Research Inc., P.O. Box 7126, Albany, New York 12224, Phone: 518-439-7286. 178 NAC 4-006.09 and 4-006.12A are used with permission from ANSI/NSPI-1, 2003, American National Standards for Public Swimming Pools, ANSI/NSPI, 2111 Eisenhower Ave., Alexandria VA 22314. Phone: 703-838-0083.

4-006.01 Existing licensed swimming pools constructed or under construction prior to September 14, 2010 which do not fully comply with the design and construction requirements of these regulations may be continued in use as long as the swimming pool meets the current operating requirements in 178 NAC 2, poses no significant health or safety risks in the opinion of the Department, and is operated and maintained as designed.

4-006.02 Safety Requirements: The following safety requirements must be met at all pools unless otherwise specified in these regulations.

1. Water Depth must be plainly marked at or above the water surface on the vertical pool wall and on the edge of the deck at maximum and minimum points of break between the deep and shallow portions and at intermediate increments of depth, spaced at no more than 25-foot intervals. Depth markings must be in numerals at least 4 inches high and in a color contrasting with the background. Where depth markings cannot be placed on the vertical walls above the water level, or space does not allow 4-inch letters, other means must be used so that markings are plainly visible to persons in the pool.

2. Each lifeguard on duty must have within arm's reach a rescue tube equipped with a 6-feet long strap or tow rope. Class B and Class F pools must provide either a rescue tube or a ring buoy, United States Coast Guard approved, or its equivalent, with an attached rope at least as long as the width of the pool;
3. Class B and Class F pools must provide a shepherd's crook type of pole having blunted ends with a minimum length of 12 feet;
4. Class A pools must have a backboard equipped with at least 3 straps.
5. First aid kit
   a. Each Class A pool must have a first aid kit which contains the following materials –
      (1) 3 units triangular bandage,
      (2) 2 units 1" tape,
      (3) 6 units 3" x 3" plain gauze pad,
      (4) 2 units 2" x 6 yds. gauze roller bandage,
      (5) 1 unit tweezer, bandage scissor,
      (6) 1 unit Red Cross First Aid Book or an equivalent substitute,
      (7) 1 unit assorted bandages, such as Band-aids,
      (8) 1 unit latex-free gloves (or equivalent),
      (9) 1 unit rescue breathing face shield or mask, and
      (10) 1 unit emergency response pack for cleaning up blood.
   b. All other pools must have a first aid kit.
6. Swimming pools must have an accessible working telephone with emergency telephone numbers prominently posted.
7. A properly operating carbon monoxide detector is required in the pool enclosure for indoor pools where gas or propane is used for heating and in enclosed mechanical rooms where there is a gas or propane fueled water heater.
8. Chemical safety
   a. Chemical storage containers must be clearly labeled and treatment chemicals must be stored and handled in accordance with the manufacturer's recommendations.
   b. A warning sign stating "AUTHORIZED PERSONNEL ONLY" must be placed on the door of rooms where chemicals are used or stored, or where bulk containers are located.

4-006.03 Signs: All pool regulations must be stated on signs with clear, legible print.

4-006.03A At swimming pools where lifeguard service is not continuously provided, a warning sign must be placed in plain view of the user and must state: "WARNING – NO LIFEGUARD ON DUTY", in letters at least 4 inches high, and "CHILDREN UNDER THE AGE OF 16 MUST NOT USE POOL WITHOUT AN ADULT IN ATTENDANCE" in letters at least 2 inches high.

4-006.03B Pool regulations must be conspicuously posted in the swimming pool area, or in the dressing rooms at all swimming pools, including wading pools. Signs

must have the title "Pool Regulations" in letters at least 4 inches high and must list the following regulations:

- No person is permitted to use the pool without first having taken a warm water shower, using soap.
- No person having an obvious communicable disease, skin eruption, cut, sore or lesion, eye, ear, nose, or throat infection, is permitted to use any public swimming pool.
- Spitting or spouting of water, blowing the nose, or any other similar activity in the swimming pool is strictly prohibited.
- No running, boisterous or rough play, except supervised water sports, is permitted in the pool, or on the runways, diving boards, floats, platforms, or in the dressing rooms.
- Maximum patron load is ___ individuals.

4-006.03C Spa regulations must be conspicuously posted in the spa area. Signs must have the title "Spa Regulations" in letters at least 4 inches high and must list the following regulations –

- No individual is permitted to use the spa without first having taken a warm water shower, using soap.
- Pregnant women, elderly individuals, and individuals suffering from heart disease, diabetes, or high or low blood pressure should not enter the spa/hot tub without prior medical consultation and permission from their doctor.
- Do not use the spa/hot tub while under the influence of alcohol, tranquilizers, or other drugs that cause drowsiness or that raise or lower blood pressure.
- Do not use at water temperatures greater than 104 degrees Fahrenheit (40ºC).
- Do not use alone.
- Unsupervised use by children under the age of 16 is prohibited.
- Enter and exit slowly.
- Observe reasonable time limits (that is, 10-15 minutes), then leave the water and cool down before returning for another brief stay.
- Long exposure may result in nausea, dizziness, or fainting.
- Keep all breakable objects out of the area.
- Maximum patron load is ___ individuals.

On the same or on a separate sign there must also be a sign stating “No one under the age of 5 years is permitted in spa.”

4-006.04 Maximum Swimming Pool Patron Loading

4-006.04A Designation of Areas: For purposes of computing patron load, those portions of the swimming pool 5 feet or less in depth are designated the “shallow

area." Those portions of the swimming pool over 5 feet in depth are designated the "deep area."

4-006.04B Area Loading

4-006.04B1 Shallow Area: 15 square feet of pool water surface area must be provided for each patron. This also applies to spray parks without standing water.

4-006.04B2 Deep Area: 25 square feet of pool surface area must be provided for each patron.

4-006.04C Diving or Slide Area: Where a separate designated diving or slide area is provided, and other swimmers are not allowed in this area, it may be excluded from the surface area used for computing patron load; however, 10 patrons must be included for each board, platform or slide.

4-006.04D Additional Area Allowance: Additional allowance will be made on the basis of 1 additional patron per each 50 square feet of pool deck in excess of the minimum area of deck required, and 1 additional patron per each 100 square feet of picnic and play area within the enclosure.

4-006.05 Lifeguard Chairs

4-006.05A All Class A swimming pools, and those swimming pools which elect to have a lifeguard on duty, must provide a lifeguard chair for each 2,000 square feet of water surface area.

Water Surface Area in Sq. Ft. (meters)	Minimum Number of Chairs
Less than 2,000 (<186)	0
2,000 to 3,999 (187-372)	1
4,000 to 5,999 (373-557)	2
6,000 to 7,999 (558-743)	3

4-006.05B At least 1 chair must be located so the lifeguard is able to maintain surveillance of all pool floor areas having a depth of 5 feet or greater,

4-006.05C All lifeguard chairs must be –

1. Located so the guard is not required to protect a segment greater than 180 degrees;
2. Placed at waterside locations to minimize the effect of glare on the water; and
3. Placed to give complete coverage of the pool(s).

4-006.06 Construction Material

4-006.06A Materials: Swimming pools must be constructed of materials which are inert, stable, non-toxic, watertight and enduring. Sand or earth bottoms are not permitted.

4-006.06B Finish: Bottom and sides must be white or a light color, with a smooth and easily cleanable surface. The finish surface of the bottom in shallow areas [5 feet or less in depth] must be slip-resistant.

4-006.07 Design, Detail and Structural Stability: All swimming pools and appurtenances must be designed and constructed to withstand all anticipated loading. A hydrostatic relief valve and/or a suitable underdrain system must be provided for in-ground pools. The design professional is responsible for ensuring the stability of the pool design for both full and empty conditions.

4-006.07A Shape: The shape of any swimming pool must be such that the circulation of pool water and control of swimmers' safety are not impaired. There may not be any underwater projections or obstructions which would endanger patron safety or interfere with proper pool operation.

4-006.07B Bottom Slope: The bottom of the pool must slope toward the main drain. Where the water depth is less than 5 feet, the bottom slope must not exceed 1 foot vertical in 12 feet horizontal (1:12). Where the water depth exceeds 5 feet, the bottom slope must not exceed 1 foot vertical in 3 feet horizontal (1:3).

4-006.07C Area Marked: The boundary line between the shallow and deep areas must be marked by a line of contrasting color at least 4 inches wide on the floor and walls of the pool, and by a safety rope and floats equipped with float keepers. Safety rope anchors must be recessed.

4-006.07D Pool Walls: Walls of a swimming pool must be either:

1. Vertical for water depths of at least 6 feet, or
2. Vertical for a distance of at least 3 feet below the water level, below which the wall may be curved to the bottom with a radius not greater than the difference between the depth at that point and 3 feet, provided that the vertical is interpreted to permit slopes not greater than 1 foot horizontally for each 5 feet of depth of sidewall (11 degrees from vertical), or
3. At water depths of 3 feet or less a transitional radius must not exceed 8 inches and must be tangent to the wall and floor.

4-006.07E Ledges: Ledges must not extend into the pool unless they are essential for support of the upper wall construction.

4-006.07F Pools Without Gutters: Coping or cantilevered deck may project from a swimming pool or spa wall to provide a handhold for users. The coping or deck must be rounded, have a slip-resistant surface finish, and must not exceed 3-1/2 inches in thickness. The overhang of the coping or deck must not exceed 2 inches or be less than 1 inch. All corners created by coping or cantilevered deck must be rounded in both the vertical and horizontal dimensions to eliminate sharp corners. The handgrip must not be more than 9 inches above the minimum skimmer operating level.

4-006.07G Diving Areas: The minimum dimensions of the swimming pool and appurtenances in the diving area must conform to 178 NAC 4 Table 1. (Note: These diving area dimensions may not meet the requirements of NCAA, US Diving, FINA, NF of SHSA, or AAU. Where competitive diving or competitive-type diving boards are used, compliance with NCAA, U.S. Diving, FINA, NF of SHSA, or AAU requirements is recommended.)

4-006.07G1 Head Room: There must be a completely unobstructed clear distance of 16 feet above the diving board measured from the center of the front end of the board. This area must extend at least 8 feet behind, 8 feet to each side, and 16 feet ahead of the measuring point.

4-006.07G2 Diving Boards and Platforms: Diving boards and platforms in excess of 3 meters in height are prohibited except where special design considerations and control of use are provided.

4-006.07G3 Steps and Guard Rails for Diving Boards: Supports, platforms and steps for diving boards must be designed and constructed to safely carry the maximum anticipated loads. Steps must be of corrosion-resistant material, easily cleanable and of non-slip design. Handrails must be provided at all steps and ladders leading to diving boards more than 1 meter above the water. Platforms and diving boards which are more than 1 meter high must be protected with guard rails at least 36 inches high, extending at least to the edge of the water. Boards or platforms 3 meters (9.8 ft.) or higher, when permitted, must have an effective side barrier.

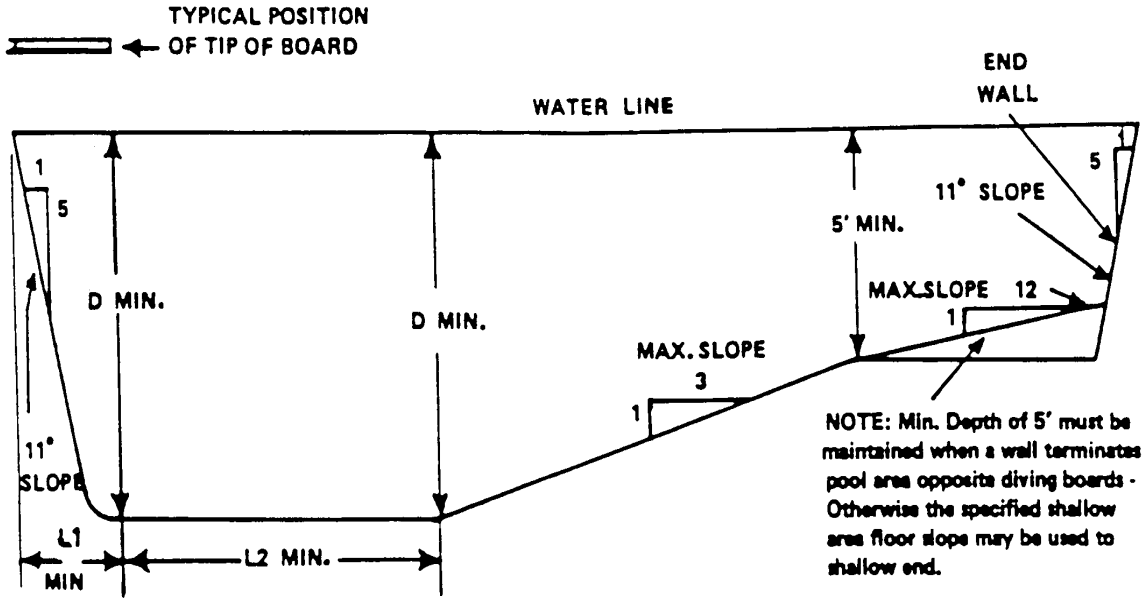


TABLE 1
MINIMUM DIMENSIONS FOR
POOLS WITH DIVING EQUIPMENT

		MINIMUM DIMENSIONS			
Maximum Board Height Over Water	**Maximum Diving Board Length**	**D**	**L_1**	**L_2**	**POOL WIDTH**
26" (2/3 meter)	10'	8' - 6"	2' - 6"	10' - 0"	20' - 0"
30" (3/4 meter)	12'	9' - 0"	3' - 0"	10' - 0"	20' - 0"
1 meter	16'	10' - 0"	4' - 0"	12' - 0"	20' - 0"
3 meter	16'	12' - 0"	6' - 0"	12' - 0"	24' - 0"

4-006.07G4 Placement of boards must observe the following minimum dimensions. With multiple board installations minimum pool widths must be increased accordingly. For diving boards or platforms greater than 20 inches in width, add ½ of the width over 20 inches to the following dimensions.

Center line of 1 meter or less board to pool side 10' – 0"
Center line of 3 meter board to pool side 12' – 0"
Center line distance between adjacent boards 10' – 0"

4-006.08 Ladders, Recessed Steps, Stairs

4-006.08A Location: Recessed steps, ladders, or stairs must be provided at the shallow end. Ladders or recessed steps must be provided at the deep end. If the pool is over 30 feet wide, the steps, ladders, or stairs must be installed on each side.

4-006.08B Ladders: Pool ladders must be corrosion-resistant and must be equipped with slip-resistant treads. All ladders must be designed to provide a handhold. There must be a clearance of not more than 6 inches or less than 3 inches between any ladder and pool wall. Treads must be no more than 12 inches apart.

4-006.08C Recessed Steps: Recessed steps must be readily cleanable, slip-resistant, and must be arranged to drain into the pool. Recessed steps must have a minimum tread of 5 inches and a minimum width of 14 inches. Steps must be no more than 12 inches apart.

4-006.08D Handrails: Where recessed steps or ladders are provided, there must be a handrail at the top of each side thereof, extending over the coping or edge of the deck.

4-006.08E Stairs and Stair Handrails: Where stairs are provided, they must be located in a corner of the pool or be recessed. All stair areas must have a handrail within reach. Stairs must have slip-resistant finish, a minimum tread of 12 inches, and a maximum rise of 12 inches.

4-006.09 Underwater Seats, Benches, and Swimouts:

4-006.09A Swimouts

1. Must be designed to be located completely outside of the perimeter shape of the pool.

2. The horizontal surface must be 20 inches maximum below water line.

3. A minimum unobstructed surface of 240 square inches must be provided.

4. When used as an entry/exit access, swimouts must be provided with a step to meet the pool stair requirements.

5. The leading edge must be visibly set apart.

6. Swimouts are allowed in the deep or shallow area of the pool.

4-006.09B Underwater seats and benches must conform to the following:

1. Must be located completely inside of the perimeter shape of the pool.

2. The horizontal surface must be 20 inches maximum below water line.

3. An unobstructed surface must be provided that is a minimum of 10 inches deep and a minimum of 24 inches wide.

4. Must not be used as the required entry/exit access.

5. Underwater seats may be located in deep areas of the pool where diving equipment (manufactured or constructed) is installed, provided they are located outside of the minimum water envelope for diving equipment.

6. Are allowed in conjunction with pool stairs.

7. Leading edge must be visually set apart.

4-006.10 Decks: An unobstructed deck at least 5 feet wide must entirely surround the pool. Infringements or variations are allowed only when specifically permitted by the Department. The deck must be of a uniform, easily cleaned, impervious material with a slip-resistant finish. Wood decks are expressly prohibited within 5 feet of the pool. The deck must be protected from surface runoff.

4-006.10A Slope: The deck must be sloped away from the pool unless drains are provided to intercept water on the way back to the pool, and must be sloped to provide positive drainage of all deck areas.

4-006.10B Drainage: Deck drains, when used, must be no more than 25 feet apart, and no single drain can serve more than 400 square feet of area. Continuous trench-style drains may be designed to handle areas greater than 400 square feet. There must be no direct connection between the pool deck drains and the storm or sanitary sewer or plumbing drainage systems unless there is a means that is acceptable to the Department. They must not drain to the pool gutter or recirculation systems.

4-006.10C Roll-Out Gutters: If the pool is equipped with roll-out, deck-level gutters, not more than 5 feet of deck may be sloped toward the gutters.

4-006.10D Carpeting: Carpeting is not permitted on pool decks.

4-006.10E Hose Bibs: At least 1 hose bib with an appropriate backflow preventer must be provided to facilitate cleaning the deck areas.

4-006.10F Pool Concessions: Where concessions are provided, an area or areas separate from the pool deck must be designated for serving and consuming food or drink.

4-006.10G Drinking Fountain: A minimum of 1 drinking fountain must be located in the swimming pool area for Class A swimming pools. Each drinking fountain must be connected to a water system that meets the requirements of 178 NAC 4-006.13A.

4-006.11 Barriers: The pool area must be completely surrounded by an effective barrier not less than 6 feet high. Any special purpose areas inside the barrier must be fenced or constructed to control traffic. These areas must be designed so they will not drain onto the deck. Any entrance to the pool area must be provided with a self-closing and latching gate/door capable of being locked unless another means of controlling access is provided. The operating controls for the self-latching device must be located at least 48" above the exterior ground surface or pool deck. Barrier openings must be small enough that a 4-inch sphere is not able to pass through.

4-006.12 Lighting, Electrical and Ventilation Requirements

4-006.12A Lighting: During periods of operation sufficient illumination must be provided to allow visibility of all portions of the pools, including the bottom. Illumination must be provided by natural and/or artificial means.

4-006.12A1 Overhead lighting must provide a minimum of 3 foot candles of illumination at the pool water surface and the adjacent deck area.

4-006.12A2 Underwater lighting must provide a minimum of 1/2 watt per square foot of pool water surface.

4-006.12A3 Underwater lighting requirements may be waived when the overhead lighting provides a minimum of 15 foot candles of illumination at the pool water surface.

4-006.12B Electrical: All electrical installations must conform to the requirements of the State Electrical Act, Neb. Rev. Stat. §§ 81-2101 through 81-2143.

4-006.12C Heating and Ventilation

4-006.12C1 Room Ventilation: Bathhouses, mechanical equipment rooms, storage areas and indoor swimming pool enclosures must be heated and ventilated. Room ventilation must prevent direct drafts on swimmers and must minimize condensation damage. Dehumidifier, air conditioner, and heat exchanger installations must comply with 178 NAC 4-006.13E and 4-006.13F.

A fuel-burning heating unit must be provided with air for combustion and vented to the outdoors.

4-006.13 Water Supply and Waste Water Disposal

4-006.13A Water Supply: Water supplied to a public swimming pool and all related plumbing fixtures, including drinking fountains, sinks and showers, must use water from a public water system (PWS). If a PWS is not available, ground water quality must meet the requirements for coliform bacteria and nitrates that apply to a transient public water system (See 179 NAC 2-002 and 179 NAC 3).

4-006.13B Cross-Connection Control: All portions of the water distribution system serving a public swimming pool and related facilities must be protected against backflow and back siphonage. Water introduced into the pool, either directly or to the recirculation system, must be through an air gap or an appropriate approved backflow preventer as required by the Department.

4-006.13C Sanitary Wastes: An approved method for disposing of sanitary sewage must be provided at a public swimming pool. Where available, a municipal sanitary sewage system must be used. If an individual treatment system must be used, approval of the system must be obtained from the Nebraska Department of Environmental Quality.

4-006.13D Backflow Prevention: In a public swimming pool, the recirculation system and pool deck drains must be protected against the backflow of waste water in a manner approved by the Department.

4-006.13E Condensate: Condensate must not be introduced to the pool water or any part of the recirculation system.

4-006.13F Heat Exchangers: Any heating, dehumidification or cooling system which is connected in any way with the pool recirculation system must contain only nontoxic heat transfer media.

4-006.14 Recirculation System: Each swimming pool must be provided with a separate recirculation system, which will convey, clarify, chemically balance and disinfect the swimming pool water. The recirculation system must include pumps, piping, filters, chemical feed equipment, and associated controls and monitoring devices.

4-006.14A Components: Recirculation system components must be certified to ANSI/NSF Standard 50 by an organization accredited by the American National Standards Institute.

4-006.14B Recirculation Rate: A swimming pool recirculation system must be capable of processing 1 pool volume of water within a given period of time based on

depth of water. The following table must be used as minimum design standards for recirculation rate.

Pool Turnover Rate Table

Type or Depth of Pool	**Required Turnover Rate**
Spray parks with no standing water	1 system volume of water every 30 minutes or less for a water treatment tank
Pool areas less than or equal to 2 feet in water depth	1 pool volume of water every 1 hour or less
Pool areas greater than 2 feet but less than or equal to 3 feet in water depth	1 pool volume of water every 2 hours or less
Pool areas greater than 3 feet but less than or equal to 5 feet in water depth	1 pool volume of water every 4 hours or less
Pool areas greater than 5 feet in water depth	1 pool volume of water every 6 hours or less
Plunge Pool for Flume Slide	1 pool volume of water every 1 hour or less

For a single pool with varying water depths, the total pool recirculation rate may be obtained by summing the recirculation rates required for each depth portion in accordance with the above table.

4-006.14C Materials: Recirculation system components in contact with the swimming pool water must be of non-toxic material, resistant to corrosion, and able to withstand operating pressures. Acceptable materials are copper, stainless steel, cast iron, ductile iron, plastics approved for potable water contact or other materials suitable for potable water contact.

4-006.14D Pipe Sizing: Swimming pool recirculation system piping must be designed so that the water velocity does not exceed 10 feet per second on the discharge side of the recirculation pump, and 6 feet per second in suction piping. Gravity piping must be sized in accordance with accepted engineering practice with consideration of available head.

4-006.14E Drainage and Installation: All equipment and piping must be designed and fabricated to drain completely by use of drain plugs, drain valves or other means. All piping must be supported continuously or at sufficiently close intervals to prevent sagging. All suction piping must be sloped in 1 direction, preferably toward the pump. All supply and return pipelines to the pool must be provided with insertable plugs or valves to allow the piping to be drained to a point below the frost line. Provision must be made for expansion and contraction of pipes.

4-006.14F Pipe and Valve Identification: All exposed piping must be clearly marked to indicate function. All valves must be marked to indicate use.

4-006.14G Overflow Systems: All pools must be designed to provide continuous skimming (removal of surface water). Makeup water supply equipment must be provided to maintain continuous skimming.

4-006.14G1 Gutters (Perimeter Overflow Systems): The gutter must extend around the full perimeter of the swimming pool except at stairways and ramps (6 feet or less in width) entering the swimming pool. It must be level within a tolerance of plus or minus 1/8 inch. Piping connections must be provided to permit water to flow from overflows to the recirculation system.

4-006.14G1a Size and Shape: The gutter system must be designed to allow continuous removal of water from the pool's upper surface at a rate of at least 125 percent of the recirculation rate. The gutter must be designed to serve as a handgrip and to prevent entrapment of arms or legs. It must permit ready inspection, cleaning and repair.

4-006.14G1b Outlets: Drop boxes, converters, return piping or flumes used to convey water from the gutter must be designed to handle at least 125 percent of the recirculation rate. Drainage must be sufficient to minimize flooding and prevent backflow of skimmed water into the pool.

4-006.14G1c Surge Capacity: All overflow systems must be designed with an effective surge capacity of not less than 1 gallon for each square foot of pool surface area. Surge must be provided within a surge tank, in the gutter or filter above the normal flow line, or elsewhere in the system. Surge tanks, gutters, and filter tanks must have overflow pipes to convey excess water to waste. Surge tanks must be provided with means for complete draining. In-pool surge is allowed only with an engineered perimeter gutter system which includes an integral surge weir for each 500 square feet of water surface, and a tank to allow balancing of main drain and gutter flows.

4-006.14G2 Skimmers: The use of skimmers is limited to pools with widths of 30 feet or less.

4-006.14G2a Construction: Skimmers must be installed in the pool walls, be sturdy, and be constructed of corrosion-resistant materials. Surface skimmers must bear the ANSI/NSF 50 certification mark or be certified to ANSI/NSF Standard 50 by an organization accredited by the American National Standards Institute.

4-006.14G2b Number: At least 1 surface skimmer must be provided for each 500 square feet of surface or fraction thereof. Additional skimmers may be required to achieve effective skimming. At least 2 skimmers must be provided.

4-006.14G2c Location: Skimmers must be so located as to provide effective skimming of the entire water surface with minimum interference and short-circuiting.

4-006.14G2d Flow Rate: Skimmers must provide for a flow-through rate of 30 gallons per minute or 3.75 gallons per minute per lineal inch of weir, whichever is greater**.** Skimmer piping must be designed to handle a minimum of 100% of the pool turnover rate.

4-006.14G2e Control: Skimmers must have weirs that adjust automatically and operate freely and continuously with variations of at least 4 inches in water level. All skimmed water must pass through an easily removable and cleanable basket or screen before encountering control valves or entering the pump suction line. Each skimmer must be equipped with a device to control flow. If a skimmer is connected directly to the recirculation pump suction pipe, it must include a device to prevent an airlock in the suction line. If equalizer pipes are used, they must pass an adequate amount of water to meet pump suction requirements should the water in the pool drop below the weir level. The equalizer pipes must be located at least 1 foot below the lowest overflow level of the skimmer. A valve or equivalent device that will remain tightly closed under normal operating conditions, but automatically opens when the water level drops below the minimum operating level of the skimmer, must be provided on each equalizer pipe. Equalizer lines must have covers that comply with the ASME/ANSI A112.19.8-2007 or -2008 or other standard approved under the federal Virginia Graeme Baker (VGB) Act.

4-006.14G3 Balancing: The recirculation system must be balanced to provide for optimum and uniform skimming.

4-006.14H Main Drain System and Suction Outlets: Main drains of the pool must be installed in the pool floor at the deepest point, and must comply with ASME/ANSI A112.19.8-2007 or -2008 or other standard approved under the federal VGB Act.

4-006.14H1 Number: 2 or more main drains or suction outlets, or a single unblockable main drain or suction outlet must be installed. Dual main drains or suction outlets must be connected in parallel, and must not permit any drain to be individually valved off.

4-006.14H2 Spacing: Dual main drains or suction outlets must be at least 3 feet apart but not greater than 20 feet on centers, and main drains must be provided not more than 15 feet from each side wall.

4-006.14H3 Field Fabricated Main Drains or Suction Outlets: Must be certified by a design professional per ASME/ANSI A112.19.8-2007 or -2008 or other standard approved under the federal VGB Act. The open area of the grate must be large enough so the flow velocity does not exceed 1.5 feet per second through the openings. Openings in grates must not be over 1/2-inch wide. Gratings or drain covers must not be removable without the use of tools.

4-006.14H4 Piping: The main drains and associated piping must be designed to carry 100 percent of the recirculation rate, and must be equipped with a valve.

4-006.14I Anti-entrapment for Existing Pools

4-006.14I(1) All pools must be equipped with anti-entrapment devices or systems that comply with the ASME/ANSI A112.19.8-2007 or -2008 performance standard, or any other standard approved under the federal VGB Act; and

4-006.14I(2) All pools with a single main drain other than an unblockable drain must be equipped, at a minimum, with 1 or more of the following devices or systems designed to prevent entrapment by pool or spa drains that meets the safety requirements of any ASME/ANSI or ASTM performance standard if there is such a standard for such device or system, or any applicable consumer product safety standard:

1. Safety Vacuum Release System: A safety vacuum release system which ceases operation of the pump, reverses the circulation flow, or otherwise provides a vacuum release at a suction outlet when a blockage is detected, that has been tested by an independent third party and found to conform to ASME/ANSI standard A112.19.17-2007 or ASTM standard F2387.
2. Suction-Limiting Vent System: A suction-limiting vent system with a tamper-resistant atmospheric opening.
3. Gravity Drainage System: A gravity drainage system that utilizes a collector tank.
4. Automatic Pump Shut-Off System: An automatic pump shut-off system.
5. Drain Disablement: A device or system that disables the drain may be allowed per a design professional's certification and Department review and approval.
6. Other Systems: Any other system determined by the Department to be at least as effective as the systems described in items 1 through 5 above at preventing or eliminating the risk of injury or death associated with pool drainage systems.

4-006.14J Pumps and Strainers

4-006.14J1 Strainers: A cleanable strainer or screen must be provided to remove solids, debris, hair, and lint on all pressure filter systems before entering the pump. The strainer must have a quick-opening cover. At least 1 spare strainer basket must be provided. In systems where the filter is located on the suction side of the pump, strainers are not required.

4-006.14J2 Pumping Equipment: A pump and motor must be provided for the recirculation of the swimming pool water. The pump must provide the recirculation flow rate, and the filter backwash rate unless a separate backwash pump is provided against the total dynamic head generated in the recirculation system. The pump must be self-priming or must be installed so that there is a net positive suction head on the pump inlet whenever the pump is operating. The Department may permit multiple pumps. A gauge which indicates pressure and/or vacuum, as appropriate, must be installed on the pump suction header, and a pressure gauge must be installed on the discharge side of the pump.

4-006.14J3 Pumps and motors must be readily accessible for inspection and service.

4-006.14K Flow Measurement and Control

4-006.14K1 Flow Measurement: A flow meter or other device which gives a continuous indication of the flow rate in gallons per minute in the recirculation system must be provided. Flow meters must have a measurement capacity of at least 1.5 times the design recirculation flow rate, and must be accurate within 10% of the actual flow rate. The indicator must have a range of readings appropriate for the anticipated flow rates, and be installed where it is readily accessible for reading and maintenance, and with straight pipe upstream and downstream of any fitting or restriction in accordance with the manufacturer's recommendation.

4-006.14K2 Flow Regulation: A device for regulating the rate of flow must be provided in the recirculation pump discharge piping.

4-006.14L Inlets: The recirculation system must have inlets adequate in design, number and location to insure effective distribution of treated water and maintenance of uniform disinfectant residual throughout the swimming pool.

4-006.14L1 Number: The number of return inlets must be based on a minimum of 1 return inlet per 300 square feet of pool surface area or fraction thereof. Wall inlets must be spaced not over 20 feet apart, with 1 inlet within 5 feet of each corner of the pool and 1 in each recessed step area.

4-006.14L2 Location: Wall inlets must be located at least 12 inches below the design water surface, or not less than 6 inches if designed to provide downward flow. Bottom inlets must be uniformly spaced, with a separating distance of no greater than 20 feet.

4-006.14L3 Type: Inlet fittings must be of the adjustable rate-of-flow type. Directional flow inlets must be used with skimmer-type pools. Floor inlets must not project from the pool floor. Wall inlets must not extend from the wall more than 2 inches.

4-006.15 Filtration (General): A swimming pool water treatment system must have 1 or more filters. Filters must bear the NSF/ANSI Standard 50 certification mark or be certified to ANSI/NSF Standard 50 by an organization accredited by the American National Standards Institute. They must be installed with adequate clearance and facilities for ready and safe inspection, maintenance, disassembly and repair.

4-006.15A Sand Filters

4-006.15A1 Filter Rate: The design filtration rate of rapid sand filters must not exceed 3 gallons per minute per square foot of filter area. High-rate sand filters must not exceed a filtration rate of 15 gallons per minute per square foot. Higher rates may be used if the filter has been successfully tested against NSF/ANSI Standard 50 at the higher rate. The sand filter system must be equipped to backwash each filter at a rate of 15 gallons per minute per square foot of filter bed area, or as recommended by the manufacturer. A flow meter or other device which gives a continuous indication of the flow rate in gallons per minute to indicate the backwash rate for rapid sand filters must be provided. The backwash water must be discharged to waste through a suitable air gap.

4-006.15A2 Filter Media: Sand or other media must be carefully graded and meet the manufacturer's recommendation for pool use.

4-006.15A3 Accessories: Accessories must include both an influent pressure gauge and an effluent pressure gauge or a differential pressure gauge, a backwash sight glass, and an air relief valve. The filter system must have valving and piping to allow isolation, drainage, and backwashing of individual filters, if needed for proper operation.

4-006.15B Diatomaceous Earth- (DE) Type Filters

4-006.15B1 Filter Rate: The design filtration rate for pressure or vacuum filters must be not greater than 1.5 gallons per minute per square foot of effective filter area, except that a maximum filtration rate of 2 gallons per minute per square foot may be allowed for vacuum DE filters only where continuous "body feed" is provided.

4-006.15B2 Precoating: The filter piping must be designed to refilter or waste the effluent until a uniform body coat is applied.

4-006.15B3 Regenerative-Type Filters: Regenerative-type filters must meet the same standards as other pressure filters. Bumping (or agitating) by air or manual means must be provided for, and provision for inspection of elements must be provided.

4-006.15B4 Accessories: Accessories for vacuum filters must include a vacuum gauge and a vacuum limit switch interconnected with the pump. Pressure filters require a backwash sight glass, effluent pressure gauge, influent pressure gauge and air relief valve. Valving and piping must be provided to allow isolation, drainage, and backwashing of individual filters, if needed for proper operation.

4-006.15C Cartridge-Type Filters

4-006.15C1 Filter Rate: The design filtration rate for surface-type cartridge filters must not exceed 0.375 gallons per minute per square foot.

4-006.15C2 Cleaning and Disinfection: Equipment and facilities must be provided for cleaning and disinfection of filter elements.

4-006.15C3 Accessories: Accessories must include both an influent and an effluent pressure gauge or a differential pressure gauge and an air relief valve.

4-006,15C4 Spare Cartridges: An extra set of cartridges, with at least 100% filter area, must be provided.

4-006.16 Disinfection and Chemical Application Equipment

4-006.16A Chemical Feed Equipment: Feeders must be of sturdy construction and materials which will withstand wear, corrosion or attack by the chemical to be used therein, and which are not adversely affected by repeated, regular adjustments or other normal use conditions. The design must minimize potential for blockage.

4-006.16A1 Maintenance: Feeders must be capable of being easily disassembled for cleaning and maintenance.

4-006.16A2 Intended Use: The chemical feeder must be used only for chemicals recommended for use by the feeder manufacturer.

4-006.16A3 Safeguards: The feeders must incorporate antisiphon safeguards so that the chemical cannot continue to feed into the swimming pool, the pool piping system, or the swimming pool enclosure if any type of

failure of the pool equipment occurs. Chemical feed systems must be designed to prevent chemical feed when water is not flowing from the recirculation system to the pool.

4-006.16A4 Cyanuric Acid and Indoor Pools

1. Cyanuric acid will not be allowed in new indoor pools.
2. When replaced, a chemical feed system must not use cyanuric acid or stabilized chlorine.

4-006.16B Disinfection: Swimming pools must be designed to provide for continuous disinfection of the pool water with a chemical which is an effective disinfectant, and which imparts an easily measured, active residual.

4-006.16B1 Disinfectant Feeders: An automatic feeder which is easily adjustable must be provided for the continuous application of disinfectant.

4-006.16B2 Capacity: Feeders must be capable of supplying disinfectant at a rate of 0.1 pound per day chlorine (or equivalent) per gallon per minute recirculation flow. This equates to a minimum of 8 parts per million in the recirculation flow. The chemical feed system must be designed to provide a 24-hour supply of disinfectant.

4-006.16B3 Hypochlorinators: Where hypochlorinators are used, feed must be capable of being continuous under all conditions of pressure in the recirculation system.

4-006.16B4 Other Disinfectants: The Department will accept other disinfecting materials or methods when it has been adequately demonstrated that they provide a satisfactory residual which is easily measured and that they are otherwise equally effective under conditions of use as is the chlorine concentration required in 178 NAC 2-005.02D, create no objectionable physiological effects, are not dangerous to public health, and do not impart toxic properties to the water. Feed equipment must bear the ANSI/NSF-50 certification mark or be certified to ANSI/NSF Standard 50 by an organization accredited by the American National Standards Institute and must be installed in accordance with the manufacturer's instructions.

4-006.16C Test Equipment: The owner of each swimming pool must have at least the following testing equipment at the pool:

1. Chlorine/Bromine Test Kit or FAS-DPD (Ferrous Ammonium Sulfate-Diethyl-P-Phenylene Diamine) Test Kit: If other halogens are used, an appropriate scale must be provided. Electronic residual monitoring devices may be used in addition to the test kit.

2. pH Test Kit: A pH test kit with a range from 7.0 to 8.0, accurate to the nearest 0.2 pH unit.

3. Alkalinity Test Kit: The alkalinity test range must be at least 60 to 400 parts per million (mg/L) as $CaCO_3$.

4. Cyanuric Acid Test Kit: Where cyanurates are used, a test kit to measure the cyanuric acid concentration must be provided. It must permit readings to at least 100 parts per million (mg/L) with maximum increments of 25 parts per million (mg/L).

4-006.17 Bathhouse

4-006.17A General: All Class A pools must have a bathhouse. The term bathhouse refers to the dressing, shower, and sanitary facilities which must be provided adjacent to the swimming pools. All class B, C, D, E, and F swimming pools are required to have minimum sanitary facilities (toilets and sinks). Omission of part or all of the pool-side shower and toilet facilities may be approved by the Department when adequate facilities are conveniently available as determined by the Department.

4-006.17B Design Criteria

4-006.17B1 Bathhouse Routing: Location of the bathhouse must be designed so that the patrons must pass through the bathhouse to enter the pool. The layout of the bathhouse must be designed so that the patrons, on leaving the dressing room, pass the toilets, then the showers on route to the swimming pool.

4-006.17B2 Bathhouse Design: Floors of the bathhouse must be of smooth-finish material with slip-resistant surface, impervious to moisture, easily cleanable and sloped at least 1/4 inch per foot to drains. Carpeting is not permitted in shower and toilet areas.

4-006.17B3 Fixture Requirements: Unless exempted by 178 NAC 4-006.17A, bathhouse facilities must be provided based on maximum patron load designed for the swimming pool according to the following fixture schedule. Fixtures provided in family changing rooms or other unisex restroom facilities which are available to swimming pool patrons may be included in the required male or female fixture count, but not both.

	Fixtures Required Male				Fixtures Required Female		
Total Patron Load	**Toilets**	**Urinals**	**Sinks**	**Showers**	**Toilets**	**Sinks**	**Showers**
0-50	1	1	1	1	2	1	1
51-100	1	1	1	1	2	1	1
101-150	1	2	1	2	3	1	2
151-200	1	2	1	2	3	1	2
201-250	2	2	1	3	4	2	3
251-300	2	3	2	4	5	2	4
301-400	2	3	2	5	5	2	5
401-500	3	3	2	6	6	2	6
501-1000	3	4	2	7	7	2	7
1001-1500	4	5	2	10	9	2	10
1501-2000	5	6	2	15	11	2	15
2001 or more	6	7	3	20	13	3	20

4-006.17B3a Showers and Sinks: Showers must supply water at a temperature of at least 90 degrees Fahrenheit (32°C) and no more than 115 degrees Fahrenheit (46°C) and at a rate of at least 1.5 gallons per minute per shower head. Sinks must supply water at a temperature of at least 90 degrees Fahrenheit (32°C) and no more than 115 degrees Fahrenheit (46°C). Single temperature fixtures must supply water at a temperature of at least 90 degrees Fahrenheit (32ºC) and no more than 105 degrees Fahrenheit (41ºC).

4-006.17B4 Suits and Towels: Where towels and/or swimming suits are furnished, facilities must be provided for storage of clean and collection of used items.

4-006.17B5 Foot Baths: The use of foot baths is prohibited.

4-006.17B6 Hose Bibs: Hose bibs must be provided and located to enable the entire bathhouse area to be flushed. All hose bibs must be provided with approved back-siphonage devices to protect the water distribution system for the pool and appurtenant facilities at all times against cross-connection.

4-006.18 Miscellaneous

4-006.18 A Pool Cleaning System: A system must be provided to remove dirt and other foreign material from the bottom of the pool. Built-in vacuum lines must not be used.

4-006.18B Starting Blocks: Starting blocks, when provided, must be located where the water depth is at least 5 feet. They must be removable.

4-006.18C Sand Area Rinse Showers: Sand areas are not allowed inside the pool enclosure unless separated by an effective barrier to control access to the swimming pool deck. Persons entering the swimming pool from the sand area must pass a water spray or shower which effectively removes sand from the bathers. Drainage must not be directed to the pool.

4-006.18D Boilers: Where boilers are provided, the design professional must attest that they meet the Boilers Inspection Act, Neb. Rev. Stat. §§ 48-719 through 48-743.

4-006.19 Spray Parks: Except as modified by 178 NAC 4-006.19, compliance is required with all other applicable portions of 178 NAC 4-006. A spray park is a constructed water play area with sprays, jets and other water features designed so that users have full body contact with the water. A spray park includes no standing water. A spray park uses water that is potable, recirculated independently or from a swimming pool. Spray parks are also called "wet decks," "splash pads," "interactive play attractions," "spray pads," or "water recreation attractions." A play area with sprays or other features that uses only potable water that is not circulated (the water drains to waste) is not included in this definition.

4-006.19A General

4-006.19A1 Surface Material: The surface of a spray park must be impervious and durable. Padding specifically designed for the application may be used with play features. The padding must be water resistant or must permit full drainage without retaining water in its structure. Walking surfaces must be slip-resistant.

4-006.19A2 Surface Slopes: The splash zone must be properly sloped so that only water from the sprays flows back to the water treatment tank. Areas adjacent to the splash zone must be sloped away from the collection drains. Plants or vegetation within the immediate area of the splash zone are prohibited.

4-006.19A3 Spray Park Drains must not be directly connected to a pump. At least 2 drains must be provided. The openings in the drain covers (grates) must be no wider than ½ inch. Drain covers must be securely fastened to the drain structure so that they cannot be removed without tools. Drains and the associated piping must be designed for 125% of the flow into the spray park (play feature and recirculation, as applicable).

4-006.19A4 Play Features: Play features and sprays must be designed and installed so that they do not create a safety hazard.

4-006.19A4a Surface Sprays must be flush with the spray park surface. Spray openings must be ½ inch or less.

4-006.19A4b Above ground features must not present a tripping hazard. Features must not have sharp edges or points, or rough surfaces. Above ground features must be of corrosion-resistant materials or provided with a corrosion-resistant coating.

4-006.19A4c Atomized Mists: All foggers and jet nozzle sprays that produce finely atomized mists must be connected to a separate potable water source.

4-006.19B Water Treatment Tank: The recirculation system must be independent from any adjacent swimming pool. The recirculation system components and design must comply with all other applicable parts of 178 NAC 4-006 except as modified by 178 NAC 4-006.19.

4-006.19B1 Water Volume: The minimum water volume for a spray park must be 5 minutes of the flow in gallons per minute of the spray features and the recirculation system combined or 4,000 gallons, whichever is the larger volume.

4-006.19B2 Rate: The recirculation flow rate through the treatment system must provide a turnover of 30 minutes or less.

4-006.19B3 Tank Volume: The water treatment tank must have a volume of at least 125% of the volume specified in 178 NAC 4-006.19B1. The tank must be accessible for cleaning and inspection.

4-006.19B3a Drain: The water treatment tank must be provided with a drain to waste so that all of the water in the tank can be easily removed. (The drain must not be directly connected to a sanitary drainage system.)

4-006.19B3b Skimming: The water treatment tank must be provided with at least 2 skimmers or a fixed weir overflow system must be provided. The skimmers must be accessible for cleaning and service.

4-006.19B3c Automatic level control: The water level in the water treatment tank must be automatically maintained at the overflow (skimming) level.

4-006.19B4 Separate Systems: The recirculation (treatment) system and the play feature pump(s) and piping must be separate. The play feature pump system must be designed so that it will not operate if the recirculation system pump is not operating.

4-006.19B5 Play Feature Piping: The play feature pump suction within and return to the water storage tank must be designed to prevent short-circuiting of the water to

the extent possible. The suction intake from the recirculation pump must be located in the lowest portion of the water treatment tank. Play features and piping must automatically drain into the water treatment tank when the play features are not operating. An easily readable flow meter that complies with the requirements of 178 NAC 4-006.14K1 must be installed in the play feature circulation system.

4-006.19B6 Treated Water Distribution: The treated water distribution system in water storage tank must be designed to maintain water quality as outlined in 178 NAC 2.

4-006.19B7 Sample Tap: A readily accessible sample tap must be available in the equipment area that allows sampling of the water in the play feature piping.

4-006.20 Fountains, sprays, or similar features in a swimming pool are permitted only in water depths not exceeding 2 feet. These features must be of a nonclimbable design, unless specifically manufactured and marketed as a climbing structure. Water supplied to these fountains must come from the recirculation system after filtration. Water supplied to these fountains may also come from the main swimming pool excluding the surge tank main drain, gutters, skimmers, and depths of less than 2 feet. Dedicated wading or zero depth pools not exceeding 2 feet in depth must use filtered water.

4-006.21 Bridges and Overhead Obstructions: Bridges and overhead obstructions over the pool must be designed so they will not introduce any contamination to the pool water. The minimum height of the bridge or obstruction must be at least 8 feet from the bottom of the pool and at least 4 feet above the surface of the pool. Minimum 42-inch high handrails must be provided along each side of the bridge. The walking surfaces must be constructed of concrete or other nonabsorbent material having a smooth slip-resistant finish.

4-006.22 Spas: A spa is a specific type of swimming pool, such as a hot tub or whirlpool designed for recreational use which is not intended to be drained, cleaned, and refilled after each individual use. It may include, but not be limited to, hydrojet circulation, hot water, cold water, mineral baths, air induction systems, or any combination thereof. A pool used under direct supervision of qualified medical personnel is excluded.

4-006.22A General: Requirements for conventional swimming pools may be modified or waived for spas at the discretion of the Department. Except as modified by 178 NAC 4-006.22, compliance is required with all other applicable sections of 178 NAC 4-006.

4-006.22B Physical Separation: A spa pool must be physically separate from any other pool, and there must be no commingling of water between a spa pool and another pool or spa pool.

4-006.22C Patron Load: The patron load must not exceed 1 person per 3 lineal feet of seat or bench measured at the front edge.

4-006.22D Maximum Depths: The maximum water depth must be 4 feet measured from the water line. The maximum depth of any seat or sitting bench must be 2 feet measured from the water line.

4-006.22E Stairs, Ladders, and Recessed Treads: Stairs, ladders, or recessed treads must be provided when spa depths are greater than 2 feet. A spa must be equipped with at least 1 means of egress with handrails for each 50 feet of perimeter or portion thereof.

4-006.22F Deck Widths: A 5-foot minimum width, continuous, unobstructed deck, which may include the coping, must be provided on 2 sides or 50% or more of the spa. When the spa is adjacent to another pool, the spa must be located at the shallow end, with a minimum distance of 5 feet between the 2 bodies of water.

4-006.22G Water Temperature Controls: Controls must be provided to prevent water temperatures in excess of 104 degrees Fahrenheit (40°C). The controls must be accessible only to the Nebraska swimming pool operator.

4-006.22H Spa Drainage: Means to completely drain the spa must be provided to allow frequent draining and cleaning. Water suction outlets must conform to 178 NAC 4-006.14H (new) or 178 NAC 4-006.14I (existing).

4-006.22I Surface Skimmers: 1 surface skimmer must be provided for each 100 square feet or major fraction thereof of surface area.

4-006.22J Recirculation System Inlets: A minimum of 2 inlets must be provided.

4-006.22K Air Induction Systems: An air induction system, when provided, must prevent water back-up that could cause electrical shock hazards. Air intake sources must not permit the introduction of toxic fumes or other contaminants.

4-006.22L Disinfectant Feeders: Gas chlorinators must not be used.

4-006.22M Recirculation Rate: The recirculation rate must provide 30 gallons per minute per skimmer, or provide a 30-minute turnover, whichever provides a greater flow rate.

4-006.22N Agitation Systems: The agitation system must be separate from the water treatment recirculation system. The agitation system must be connected to a timer located out of reach of a person in the spa. The timer must not exceed 15 minutes.

4-006.22O An emergency shutoff switch must be located within sight of the spa, at least 5 feet horizontally from the inside walls of the spa, and must be clearly labeled. This control must disable all spa circulation, agitation, air induction systems, as well as other associated mechanical, chemical feed and electrical devices.

4-006.22P Roofs or canopies over spa pools, when provided, must be constructed so that moisture or condensation from the roof or canopy will not drain into the spa pool. Where a roof or canopy covers the spa pool, the height from the rim of the spa pool to the lowest point of the canopy must be at least 7-1/2 feet.

4-006.22Q All room heating units must be isolated or protected from contact with spa or tub users to prevent injury. The pool or tub room-heating unit must be capable of maintaining a temperature of 75°F to 82°F.

4-006.22R An in-line thermometer on the spa/hot tub water return line is required.

4-006.23 Wading Pools: A wading pool is a pool that is no more than 24 inches deep that is intended for use by young children.

4-006.23A General: Wading pools require special consideration in design because of the type of user, the relatively small volume of water, and the shallowness of the water. Except as modified by 178 NAC 4-006.23, compliance is required with all other applicable parts of 178 NAC 4-006.

4-006.23B Recirculation

4-006.23B1 Rate: The recirculation rate must provide a turnover of 1 hour or less.

4-006.23B2 Separate System: A wading pool must have a separate recirculation system from other swimming or wading pools.

4-006.23B3 Surface Skimming: Intermittent fixed weir overflow structures, including gutters, scuppers, and drains at zero depth may be used. The overflow system must have a hydraulic capacity of at least 125 percent of the recirculation flow rate.

4-006.23B4 Skimmer Equalizer Line: A skimmer equalizer line may be connected to the main drain.

4-006.23B5 Inlets: Inlets must be designed and located to distribute treated water to all parts of the wading pool and to move debris to the overflow and drain systems.

4-006.23C Safety

4-006.23C1 Barrier and Location: When a wading pool is in the same enclosure as a supervised swimming pool, there must be a barrier at least 3 feet high between the wading pool and the swimming pool. When a wading pool is adjacent to a swimming pool, it must be near the shallow end of the

pool. A self-closing, self-latching gate must be between the wading pool and the swimming pool.

4-006.23C2 Barrier: Stand-alone wading pools or wading pools associated with unsupervised swimming pools must have a barrier, as required by 178 NAC 4-006.11.

4-006.23C3 Depth Marking: Signs must be provided at the pool indicating the maximum depth in addition to other required depth markings.

4-006.23C4 Steps or Ladders: Steps or ladders are not required at wading pools.

4-006.24 Wave Pools: A wave pool is a special-use pool with wave generating equipment and a design which provides for control of the waves within the side walls and dissipation of the waves at a zero depth shallow end.

4-006.24A General: Wave pools require special consultation with the Department for consideration of design variations and areas where potential problems may exist. Requirements for conventional swimming pools may be modified or waived for wave pools at the discretion of the Department. Except as modified by 178 NAC 4-006.24, compliance is required with all other applicable sections of 178 NAC 4-006.

4-006.24B Depths: The water depth may be reduced to zero at the shallow end to allow for safe access and for dissipation of the waves.

4-006.24C Gutters: Overflow gutters must be provided, but may be omitted along the side of the pool with the wave generating equipment if effective skimming devices are provided instead. Continuous skimming must be provided during the quiescent period over the entire length of the gutter. The zero depth end must have a continuous trench with a grate.

4-006.24D Decks and Ladders

4-006.24D1 Barriers: A safety railing or other effective barrier at least 42 inches in height must be provided to prevent swimmers from entering the pool at any location other than the zero water depth end. It must have at least 1 intermediate-height rail or rope.

4-006.24D2 Runout: Runout areas sloping down toward the zero depth trench must not exceed 4 feet.

4-006.24D3 Access: Deck areas accessible to swimmers may be omitted along the side of the pool with the wave generating equipment.

4-006.24D4 Ladders: Ladders must be of a recessed design.

4-006.24E Waves

4-006.24E1 Magnitude: The wave generating equipment must not be capable of producing waves of a magnitude which could cause swimmers to have contact with the pool bottom in the deep end.

4-006.24E2 Emergency Shutoff: An emergency shutoff for the wave generating equipment must be provided at every lifeguard chair at a minimum. At least 4 emergency shutoffs must be provided.

4-006.24F Openings

4-006.24F1 Inlet: The zero depth area must have bottom inlets.

4-006.24F2 Openings to Wave Generating Equipment: Openings to wave generating equipment must be designed to prevent entrapment of swimmers.

4-006.25 Zero Depth Pools

4-006.25A General: Except as modified by 178 NAC 4-006.25, zero depth pool facilities must comply with all other applicable provisions of 178 NAC 4-006.

4-006.25B Zero Depth End: A gutter or trench with a grate cover is required along all zero depth areas. It must be at an elevation that allows effective skimming at the trench at all times.

4-006.25C Runout: Runout areas sloping toward the zero depth trench must not exceed 6 feet.

4-006.25D Bottom Inlets: A system of bottom inlets must be provided in the shallow end, designed to provide the minimum of a 2-hour turnover for that area.

4-006.26 Pool Slides: All slides used at pools must be specifically designed and intended for use with a pool, and for the specific application. An emergency shutdown control must be provided for all water slides. This control must stop all water flow on the slide and must be mounted in the pool area, no more than 50 feet from the slide for lifeguards or for slide users, if no lifeguards are present. Water slides require special consultation with the Department for consideration of design variations and areas where potential problems may exist. Requirements for swimming pools may be modified or waived for water slides at the discretion of the Department. Except as modified by 178 NAC 4-006.26, compliance is required with all other applicable sections of 178 NAC 4.

4-006.26A Entry: Slide entry areas must be designed so the rider is able to properly enter and position him/herself before sliding down the chute. This area

must be a small platform or a less-sloped portion of chute, with well-placed assist bars.

4-006.26B Handrails: Slides must have handrails on both sides of the ladder or steps. Platforms and landings must have guardrails not less than 42 inches high, with an effective barrier such that a 4-inch diameter sphere cannot pass through. Handrail height must not be less than 34 inches and not more than 38 inches high, with balusters or ornamental patterns such that a 4-inch diameter sphere cannot pass through.

4-006.26C Pump Intake: Water from the surge tank and water leaving the pool for recirculation (for example, main drain, gutter, skimmers, main drain line) must not be used for pump intakes. (See 178 NAC 4-006.14H.)

4-006.26D Children's Activity Slides: Children's activity slides are small slides with a low exit velocity designed by the manufacturer for use by small children at pools. They must be designated by the manufacturer for use in 24 inches or less of water, and installed accordingly.

4-006.26E Drop Slides: A drop slide is a slide which discharges to a pool with a drop of more than 2 inches to the water surface.

4-006.26E1 Landing Area: There must be a drop slide landing area extending 5 feet on either side of the center line of the slide and from the back wall to 20 feet in front of the slide terminus. This area must not infringe on the required landing areas for other drop slides, water slides, or diving equipment.

4-006.26E2 Landing Area Designation: The drop slide landing area must be clearly designated by float ropes. A slide mounted in a separate diving area may be allowed to use the diving area separation as long as access to the diving well is restricted to patrons using the slide and diving equipment.

4-006.26E3 Slide Terminus: The terminus of the chute must extend beyond the pool wall, and be so oriented that the safety area in front of the slide does not interfere with the safety area of another slide or other pool equipment.

4-006.26E4 Exit Angle: The maximum angle of the slide runway at the exit must be between zero degrees and 11 degrees, measured downward from horizontal.

4-006.26E5 Water Depth: The area from the slide terminus outward 6 feet in front of the slide terminus must have a depth as established from the table below. The slide must be constructed so the rider enters the water in this 6-foot area. If the depth is 5 feet or less, the bottom in this area must have a maximum slope of 1 inch in 12 inches (1:12), and the slide must be located at least 5 feet from any change to steeper slope of the pool bottom.

Water Depth from the Slide Terminus to 6 Feet in Front of the Terminus (see above)	Corresponding Maximum Exit Height Above the Water
4 feet minimum	2 to 12 inches
>4 to 8 feet minimum	greater than 12 to 42 inches (Subject to interpolation)

4-006.26E6 Maximum Drop: The maximum drop height at the terminus of the slide must not exceed 42 inches.

4-006.26F Flume Water Slides: A flume water slide consists of 1 or more flumes entering a plunge pool or dedicated plunge area of a multiple use pool at or near the water level.

4-006.26F1 Flumes

4-006.26F1a Position: A flume must be perpendicular to the plunge pool wall for a distance of at least 10 feet from the exit end of the flume.

4-006.26F1b Clearances: The distance between the side of a flume terminus and a plunge pool side wall must be at least 4 feet. The distance between sides of adjacent flume terminuses must be at least 6 feet. The distance between a flume exit end and the opposite side of the plunge pool, excluding steps, must be at least 20 feet.

4-006.26F1c Elevation: A flume must terminate at a depth between 6 inches below the plunge pool operating water surface level and 2 inches above the water surface level. The flume must not exceed a 1-in-ten slope for a distance of at least 10 feet from its exit end.

4-006.26F1d Design: The design of the flume must minimize abrupt contact with the slide and prevent people from being airborne.

4-006.26F2 Plunge Pools

4-006.26F2a Depths: The plunge pool operating water depth at the end of a flume must be 3 to 4 feet. A depth of at least 3 feet must be maintained in front of the flume for a distance of at least 10 feet, from which the pool floor may have a constant slope upward.

4-006.26F2b Plunge Area: The plunge area in multi-use pools must be designated by float ropes, and each area must have ladders, steps, or stairs for egress.

4-006.26F3 Flume Pumps

4-006.26F3a Check Valves: Each flume pump discharge pipe must have a check valve.

4-006.26F3b Walkways: A 4-foot minimum width, surfaced walkway or steps must be provided between the plunge pool deck and the steps leading to the top of the flume(s).

4-006.26F3c Pump Reservoir: If a separate pump reservoir is provided, it must have a main drain and surface skimmer, both connected to the recirculation system.

4-006.27 Lazy River Rides: Except as modified by 178 NAC 4-006.27, compliance is required with all other applicable parts of 178 NAC 4.

4-006.27A Construction Material: Lazy River Rides must be constructed of concrete or other impervious materials with a nontoxic, smooth and slip-resistant finish. These rides must be of such shape and design as to be operated in a safe and sanitary manner.

4-006.27B Water Depth: The maximum water depth of the Lazy River Ride must not exceed 4 feet.

4-006.27C Decks: Decking must be provided at the entrance and exit points as necessary to provide safe patron access but must not be smaller than 10 feet in width and length. Additional decking along the ride course is not required except that decking is required at lifeguard locations and emergency exit points.

4-006.27D Emergency Exit Locations: Access and exit must be provided at the start and end of the ride only, except that emergency exit locations may be located along the ride course as necessary to provide for the safety of the patrons.

4-006.27E Patron Loading: 25 square feet of Lazy River water surface area must be provided for each patron.

THESE AMENDED RULES AND REGULATIONS replace Title 178 NAC 4, Public Swimming Pool Design and Construction Standards, effective June 8, 2004.

178 NAC 4 Attachment 1

Application for a Variance
One variance request per form
$300 fee per variance

Project Number P- _____

PART I (To be completed by the applicant):

1. Name of Owner _____

   Street Address _____ City _____

   State _____ Zip _____ Telephone (___) _____

2. Name of Plan, Project, or Product _____

   Street Address _____ City _____

   State _____ Zip _____ Telephone (___) _____

3. Name of Contractor _____

   Street Address _____ City _____

   State _____ Zip _____ Telephone (___) _____

4. Engineer's/Architect's Name and Nebraska License # _____

5. State reason(s) for variance request. Attach 3 copies of applications, drawings, specifications, photos, etc., that clearly illustrate this variance request. (Attach separate sheet if necessary.)

_____

_____

_____

6. Specific section(s) of 178 NAC 4 for which variance is requested.

_____

_____

_____

7. State hardship and justification as to why the variance would relieve the hardship. (Attach separate sheet if necessary.)

_____

_____

_____

_____

7. State any additional reason or provide any technical documentation to support your supposition that a variance would not likely result in an impairment to public health. (Attach a separate sheet if necessary.)

_____

_____

_____

- ❑ Approved
- ❑ Disapproved

_____

Engineering Services Program Manager Date

Comments:

_____

_____

_____

178 NAC 4 Attachment 2

Swimming Pool Data and Check Sheet

Please fill out a separate Attachment 2 for each pool and/or spa.

Name of Pool:			
Address of Pool:	Street:		
	City:	State:	Zip:
Telephone:		Fax:	

Owner of Pool:			
Address of Owner:	Street:		
	City:	State:	Zip:
Telephone:		Fax:	

Name of Engineering/Architectural Firm:			
Address:	Street:		
	City:	State:	Zip:
Telephone:		Fax:	
Engineer's/Architect's Seal and Signature:			

Estimated Pool Cost:	$
Initial Review Fee [$100.00 + 0.5% of Estimated Pool Cost (Maximum $7600.00)]:	$
Estimated Start Date of Construction:	

Pool Type			
☐ Indoor		☐ Outdoor	
Purpose/Type of Pool (Check One):			
☐ Standard Swimming Pool	☐ Zero Depth Pool	☐ Wave Pool	☐ Slide Plunge Pool
☐ Wading Pool	☐ Diving Pool	☐ Spray Park	☐ Other

Variance: If a variance is being requested, please fill out Attachment 1.

Construction Approval (4-001)			
Yes	**No**	**N/A**	
☐	☐	☐	Are all the requirements of other applicable codes, i.e., electrical, ventilation, building, plumbing, fire, etc., met?

Design Standards (4-006)			
Safety Requirements (4-006.02)			
Yes	**No**	**N/A**	
☐	☐	☐	Will the depth markings be 4 inches high on the deck and vertical wall, and be no more than 25 feet intervals with a contrasting color to the background?
☐	☐	☐	Will a rescue tube/tow rope, and backboard be provided? (Class A)
☐	☐	☐	Will a shepherd's crook, rescue tube/ring buoy be provided? (Class B and F)
☐	☐	☐	Will a state approved first aid kit be provided?

☐	☐	☐	Will a telephone with emergency numbers be provided?
☐	☐	☐	Will chemical storage be labeled?
☐	☐	☐	Carbon monoxide detector provided?
☐	☐	☐	Will a "No Lifeguard" sign be provided? (Class B and F)
☐	☐	☐	Will the pool sign have the exact language required in 178 NAC 4-006.03?
☐	☐	☐	Will the spa sign have the exact language required in 178 NAC 4-006.03?

Patron Loading (4-006.04)			
			Shallow Area (5 ft or less): ft^2 15 ft^2/patron = patrons
			Deep Area (5 ft or greater): ft^2 25 ft^2/patron = patrons
			Total Patron Load Based on Swimming Pool: patrons

Lifeguard Chairs (4-006.05)			
			Water Surface Area: ft^2 Minimum number of chairs:

Construction Material (4-006.06)			
Yes	**No**	**N/A**	
☐	☐	☐	Material inert, stable, non-toxic, watertight, slip resistant and enduring? Material:
☐	☐	☐	Finish: white or light color? What is the color of the pool?

Structural Stability (4-006.07)			
Yes	**No**	**N/A**	
☐	☐	☐	Are swimming pools, spas and appurtenances (slides, platforms, main drains, etc.) constructed to withstand anticipated loading?
☐	☐	☐	Is there a boundary between the shallow and deep area of contrasting color at least 4 inches wide?

Decks (4-006.10)			
Yes	**No**	**N/A**	
☐	☐	☐	Is the deck unobstructed 5 feet around the pool? What is the slope? in/ft Deck Drainage to: Grade Indirect Drains
☐	☐	☐	Will at least 1 hose bib with a backflow preventer be provided?
☐	☐	☐	Will 1 drinking fountain be provided? (Class A ONLY)

Barriers (4-006.11)			
Yes	**No**	**N/A**	
☐	☐	☐	Is the pool completely surrounded by a barrier not less than 6 feet high?
☐	☐	☐	Is there a self closing/latching gate with a latching mechanism at 48 inches or is there another means of controlling access?
☐	☐	☐	Is the barrier such that a 4-inch sphere cannot pass through?

Lighting, Electrical and Ventilation Requirements (4-006.12)			
Yes	**No**	**N/A**	
☐	☐	☐	Is the pool intended for nighttime use?
☐	☐	☐	Are 3 foot candles of lighting provided for overhead lighting?
☐	☐	☐	Is ½ watt per square foot of lighting provided for underwater lighting?
☐	☐	☐	Are underwater requirements waived due to 15 foot candles of illumination provided at the water surface?
☐	☐	☐	Does electrical conform to the State Electrical Act?
☐	☐	☐	Is ventilation provided per the appropriate regulating agency?

Water Supply and Waste Water Disposal (4-006.13)			
Yes	**No**	**N/A**	
			What is the water source for the pool? ☐ Individual Well ☐ Municipal Supply ☐ Other
☐	☐	☐	Is the water source protected against backsiphonage? How is it protected? ☐ Air Gap ☐ RPZ ☐ Other
			Where does the filter backwash go?
☐	☐		Is an air gap provided?
			What is the size of the air gap? inches
			Where does the pool drain to? Location:
			Where does the bathhouse waste discharge to? ☐ Municipal Sewer System ☐ Septic Tank System
☐	☐	☐	Are the recirculation system and deck drains protected against backflow?
☐	☐	☐	Does the heating, dehumidification or cooling system connected to the pool recirculation system only contain non-toxic heat transfer media?

Recirculation System (4-006.14)			
Yes	**No**	**N/A**	
☐	☐	☐	Does each pool have a separate recirculation system?
☐	☐	☐	Are all components certified to ANSI/NSF Standard 50 including the pump?
☐	☐	☐	Will all exposed piping and valves be clearly marked to indicate function and use, respectively?

Overflow System (4-006.14G)			
Yes	**No**	**N/A**	
☐	☐	☐	Will an overflow gutter system be used?
☐	☐	☐	Will drop boxes, converters, return piping or flumes used to convey water from the gutter be designed to handle at least 125% of the recirculation rate?
☐	☐	☐	Will the gutters be level within a tolerance of plus or minus 1/8 inch?

Skimmers (4-006.14G2)			
Number:			Make:
Model:			Skimmer Pipe Size:
Yes	**No**	**N/A**	
☐	☐	☐	Are skimmers ANSI/NSF 50 certified?
☐	☐	☐	Do skimmers have weirs that adjust automatically and operate freely and continuously with variations of at least 4 inches in water level?
☐	☐	☐	Are skimmers designed to handle 100% of the pool turnover?
☐	☐	☐	Is each skimmer equipped with a device to control flow?

Main Drain System Outlet (4-006.14H)			
Number (2 minimum or a single unblockable):		Make:	Model Number:
Size:		Pipe Size:	
Effective open area of each main drain: sq. in.			
Yes	**No**	**N/A**	
☐	☐	☐	Are openings of field fabricated grates not over ½ inch (13 mm) wide?
☐	☐	☐	Are the gratings or drain covers not removable without the use of tools?
☐	☐	☐	Is main drain equipped with a valve?
☐	☐	☐	Will the drain cover and installation meet the requirements of ASME/ANSI A112.19.8-2007 or -2008 or any other standard approved under the VGB Act?

Pump Data (4-006.14J)							
			Number Installed	**Spare Basket(s)**	**Make**	**Model**	**Capacity (gpm)**	**Hp**
Swimming Pool								
Wading Pool								
Slide								
Other								
Yes	**No**	**N/A**						
☐	☐	☐	Will pumps and motors be readily accessible for inspection and service?					
☐	☐	☐	Are pumps self-priming or have a net positive suction head?					

	Swimming Pool	**Wading Pool**	**Zero Depth Pool**	**Other**
Volume	gal.	gal.	gal.	gal.
Surface Area	sq. ft.	sq. ft.	sq. ft.	sq. ft.
Perimeter (feet)	ft.	ft.	ft.	ft.
Filtered Return Water Flow Rate	gpm	gpm	gpm	gpm
Turnover Times	hrs.	hrs.	hrs.	hrs.

Flow Measurement and Control (4-006.14K)			
Yes	**No**	**N/A**	
☐	☐	☐	Is the flow meter measured in gpm, capable of measurement of at least 1.5 times the recirculation rate, and accurate to 10% of the actual flow rate?
☐	☐	☐	Is the flow meter installed in a straight pipe upstream and downstream of any fitting, and such that it is accessible for reading and maintenance?

Inlets (4-006.14L) (Check all that apply)			
☐ Wall Inlets–Number of Wall Inlets:			☐ Floor Inlets–Number of Floor Inlets:
Yes	**No**	**N/A**	
☐	☐	☐	Are inlets located at least 12 inches below water level or not less than 6 inches if designed for downward flow?
☐	☐	☐	Are inlet fittings of the adjustable rate-of-flow type, are directional flow with skimmer type pools, not projecting from the floor (floor inlets), and do not extend from the wall more than 2 inches (wall inlets)?

Filtration (4-006.15)						
			Sand	**D.E.**	**Cartridge**	**Other**
Pressure						
Vacuum						
Gravity						
Maximum Capacity gpm/ft^2						
Effective Surface Area ft^2						
Manufacturer						
Model						
Other						
Yes	**No**	**N/A**				
☐	☐	☐	Will filters be installed with adequate clearance and facilities for easy and safe inspection, maintenance, disassembly, and repair?			

Sand Filters (4-006.15A) (Check One)			
☐ Rapid Sand Filter	☐ High-Rate Sand Filter	☐ Backwash rate	gpm/ft^2
Yes	**No**	**N/A**	
☐	☐	☐	Is the filter NSF approved?
☐	☐	☐	Are the following included? ☐ Influent Pressure Gauge ☐ Effluent Pressure Gauge or Differential Pressure Gauge ☐ Backwash Site Glass (rapid sand filter ONLY) ☐ Air Relief Valve
☐	☐	☐	Is valving, piping setup for isolation, drainage, and backwashing for individual filters?

Disinfection and Chemical Application Equipment (4-006.16)			
Yes	**No**	**N/A**	
☐	☐	☐	Is the disinfection system NSF approved?
Manufacturer:			Model #:
Chemical Used:			Type of Disinfection Equipment:
☐ Chlorine gals/day			☐ Gas
☐ Bromine gals/day			☐ Liquid NaOCl
☐ Other (specify)			☐ Erosion Feeder
			☐ % Chlorine//Bromine
Yes	**No**	**N/A**	
☐	☐	☐	Does feeder have anti-siphon safeguards?
☐	☐	☐	Can the feeder supply disinfectant at a rate of 0.1 pound per day chlorine (or equivalent) per gallon per minute of recirculation flow? This equates to 8 parts per million.
			Maximum concentration of disinfectant in the recirculation stream = ppm.
☐	☐	☐	If hypochlorinators are used, will the feed be capable of being continuous under all conditions of pressure in the recirculation system?
☐	☐	☐	Will a test kit be provided that will be able to test applicable parameters indicated in 178 NAC 4-006.16C?

Bathhouse (4-006.17) (Class A Pools ONLY, if applicable)			
Yes	**No**	**N/A**	
☐	☐	☐	Does the bathhouse have a smooth finish, slip resistant, impervious to moisture, easily cleanable and sloped ¼ inch to the drains and no carpet?
☐	☐	☐	Will showers supply water at 1.5 gals/min?
☐	☐	☐	Will showers and sinks supply water at least 90° Fahrenheit (32° C) and no more than 115° Fahrenheit (45° C)?
☐	☐	☐	Is a hose bib with a backflow device located for use in the entire bathhouse?
☐	☐	☐	Minimum facilities (toilets and sinks) in Class B, C, D, E, F pools?

Miscellaneous (4-005.18)			
Yes	**No**	**N/A**	
☐	☐	☐	Will a system be provided to remove dirt and other foreign material from the bottom of the pool?
☐	☐	☐	Will boilers meet the Boilers Inspection Act?

Diving Boards (Indicate Number)			
Deck Level:	1 Meter:	3 Meter:	Other:
2/3 Meter:	3/4 Meter:		

Slides (4-006.26)		
Height of slide exit above water: feet		
Slide pump capacity: gpm		
Number of Suction Outlets	Make:	Model:
Effective open area of each suction outlet:		

178 NAC 4 Attachment 3

Certification of Construction

Pursuant to Title 178 NAC 4, construction of the_____

_____

_____

located at _____

_____

_____

was completed on _____, 20_____

I certify that to the best of my knowledge and belief, said construction has been performed in substantial compliance with Title 178 NAC 4, and in accordance with the approved plans and specifications or approved change orders.

_____ _____
Signature Date

PE/AIA License # _____

Final Fee

In accordance with 178 NAC 4-003.01 item 6.b., documentation of the contract or actual cost of the project must be provided to the Department for the purpose of determining the final fee amount. Payment of the final fee amount must be made to the Department before the project is placed into service.

Final contract or actual project cost $ _____