



**Oak Park and River Forest
High School**

Oak Park and River Forest High School
Competition Pool Upgrade/Relocation Study

March 2013



Stantec



Stantec

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March 29, 2013

Mr. Robert Zummallen, Director of Building and Grounds
Oak Park and River Forest High School
201 N Scoville Ave
Oak Park, IL 60302

Re: Oak Park and River Forest High School District 200
Report for Competition Pool Upgrade/Relocation Study
Stantec File No. 193801533

Dear Mr. Zummallen:

Enclosed for your review and consideration is the Competition Pool Upgrade/Relocation Study. The study outlines the process and findings which incorporates findings from a separate long term facility planning effort that has paralleled the study.

It became apparent to the Pool Committee while working through the site selection process and considering a wide range of impacts that a clear decision on a site will require a more detailed evaluation to account for the complexities of the compact and well developed school campus. Cost impacts to the existing facility, both operational and capital development oriented, are difficult to accurately assess without performing a more detailed schematic design and considering the architectural, structural, mechanical, electrical and programmatic nuances. There is simply no available campus site that doesn't impact another activity.

This report has served to explore the complexity of issues related to and upgrade and relocation of the existing competition pools at Oak Park and River Forest High School. Please review the findings and recommendations and contact me with any questions or concerns at (651) 604-4759.

Sincerely,

James R. Maland, P.E.

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Illinois.

James R. Maland, P.E.
License No. 062-047443

Date: 3/29/13
Expires: 11/30/13

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1.0 EXECUTIVE SUMMARY

General

In February 2012, Oak Park and River Forest High School (OPRFHS) requested a proposal to prepare an evaluation report to replace the two existing pools at OPRFHS District 200. Stantec was retained to identify acceptable solutions for the future campus aquatics program.

This report is a compilation of information obtained from:

- Review of School District-supplied pool documents
- Discussions with the Pool Committee members
- Pool user groups
- Potential partnerships
- On-site observations of the pools and School Campus
- Consideration from a separate campus long term facility planning effort
- Our experience with similar projects

Existing Conditions

Two concrete lap/competition swimming pools have been serving OPRFHS for approximately 75 years. The OPRFHS pools have served their useful life. Several non-code compliant issues make it difficult to move forward with the pools in their current state.

Both pools have a tile finish and have had recent work done to achieve compliance with outlet requirements associated with the Virginia Graeme Baker (VGB) Act and revisions to the State of Illinois Department of Health (IDPH) code. When the OPRFHS District 200 recently attempted to replace the one meter diving boards in the East Pool (Competition Pool), they could not purchase new diving boards from the manufacturer due to the non-code compliant diving well.

A normal expected life for an indoor competition pool is approximately 40-50 years, based on typical deterioration of the pool shell and infrastructure, and changing pool codes designed to provide improved water quality and user safety. Older swimming pools, like those at OPRFHS, commonly violate numerous modern pool code requirements, competitive swimming organization recommendations, and general building code requirements. Due to the grandfathering in of older pools, these facilities can continue to operate as long as no significant improvements are made to the pool. Certain user safety issues sometimes become mandates that impact the type of pool use permitted, or may require correction for continued use of the pool. Examples of

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these would be the recently completed VGBA modifications and the inability to acquire and use the diving boards in the East Pool.

In addition to the diving well depth and profile shortfalls in the East Pool, other significant issues related to the pool safety and functional use of both pools include narrow pool decks, poor spectator site lines, deteriorating structural support of pool decks, headroom clearance shortfalls, substandard competitive pools widths (5-6 lanes versus the currently accepted standard of 8 lanes) to mention a few. While 11 lanes of swimming can be programmed from the two existing pools, a luxury in quantity by most high school standards, both pools present many shortfalls in function, operation, safety and longevity that should be addressed in the near future if a viable swimming program is desired at the high school.

Both pools are heavily programmed with school programs including a 7-hour per day, 5-day per week physical education program that runs throughout the school year, and an array of competitive programs that consume morning, evening, and some weekend time. Non-school partnerships conduct limited programs that consume some of the available non-conflicting OPRFHS pool hours. Existing partnerships include West Cook YMCA, West Suburban Special Park Association, and the Park District of Oak Park.

Partnerships

Partnerships were explored and evaluated for an off-campus joint use competition pool and for expanding programmed non-school use of OPRFHS campus pools. An off-site campus partnership is not likely for at least five years, and it is not the preferred solution for the campus aquatic programs. The physical education swim programs cannot work with an off-site pool due to time constraints imposed by class time hours. An off-campus pool can only serve the school competitive needs.

The minimum sized pool facility required for the physical education program will provide for an acceptable competitive swim program with some enhancements to the pool deck and inclusion of a spectator seating area. During the school year, essentially both pools are occupied from 6:00 am to 6:00 pm during the weekday and most of Saturday morning with OPRFHS aquatic programs. School program hours of usage could expand in the future with potentially only one pool available. Partnerships should continue to be nourished and developed to help fill the community non-school needs that don't conflict with or compromise OPRFHS aquatic programs.

Pool Modification / Replacement Options

The two pools have exceeded their operational and functional life and are not recommended to be a part of future aquatics program at OPRFHS. A new 8-lane, 25-yard or stretch competition pool would require about the same footprint as the two existing pools combined. While the two pools currently have a total of eleven 25-yard lanes, their physical layouts are substandard for a modern competition pool, particularly in amount of pool deck area and the spectator seating sight lines. These two elements

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will consume significant additional footprint, bringing the requirements of a new campus competition pool close to the existing aquatic footprint.

We recommend OPRFHS move forward with one of the following replacement options:

- *Option One:* One new 8-lane competition stretch pool with seven-foot-wide lap lanes and an integrated one meter diving well and movable bulkhead. Spectator seating capacity should be 300 – 500 seats.
- *Option Two:* One new 8-lane, 25-yard competition pool with seven-foot-wide lap lanes and an integrated one meter diving well. Spectator seating capacity should be 300 – 400 seats.

Support space for staff, mechanicals, locker rooms, decks, storage, etc. will need to be evaluated based on the specific site constraints and the proximity of the pool to the physical education locker rooms.

The pool committee prefers the stretch pool option because it provides a 70% larger body of water—127 feet - 8¾ inches long by 60 feet wide (7,664 square feet) vs. the smaller 25-yard pool, 75 feet long by 60 feet (4,500 square feet). While the larger pool size doesn't replace the more casual programming advantages of the two existing 25-yard pools, it does provide a state-of-the-art competition pool that has more programmable water for the physical education swim program. A stretch pool with a movable bulkhead can be set up for either 25-yard or 25-meter swim lanes, and will accommodate diving and lap swimming concurrently. Having only one pool will reduce the operation and maintenance burden, resulting in a more cost-effective operational budget. Typical modern high school aquatics programs are supported by one 8-lane, 25-yard pool. More exceptional swim programs have an 8-lane stretch pool.

Site Selection Evaluation

After reviewing seven on-campus sites, the Pool Committee found no clear solution, as there is no excess space for a new pool on the compact and developed school campus. A numerical-based matrix evaluation resulted in significant discussion of a wide array of issues. We created preliminary site plan drawings for each site to further assist in understanding the space needs and impacts. Each option had significant and unique impacts on the fully developed indoor and outdoor campus spaces and adjacencies.

The matrix evaluation process was used to narrow down the potential sites based on thoughtfully developed and prioritized categories and criteria. Knowledge developed from the site discussions helped select three sites for further study. The study served as a forum to explore the complexity of issues related to the future of the OPRFHS aquatics program.

To make a good decision for the future, it will be necessary to gain more detailed and accurate information through a schematic level design process that will further study the architectural, structural, mechanical, electrical and programmatic nuances of the following top three sites:

- Site G – Parking Garage
- Site B – East Pool / South Gym

Site D & E – Combination of Fieldhouse & West Pool Site

Summary of Findings

While site selection was not made, 16 items were identified in the Recommendations section of the study for consideration as OPRFHS moves forward with their aquatic planning efforts. Key findings are summarized below:

1. The existing pools are over 75 years old and have served their useful lives.
2. A new modern 8-lane competition pool constructed on the OPRFHS site is likely to take up as much footprint as the two existing pools. The existing pools are substandard in the number of lanes, amount of deck space required for a modern competition pool, and have unacceptable spectator capacity / site lines—all of which will increase footprint requirements.
3. A partnership for an off-site competition pool is not likely in the next five years.
4. An on-campus competition pool is the Pool Committee's priority.
5. The preferred 8-lane on-campus aquatic solution is Option One (8-lane competition stretch pool) which provides 70% more water surface than Option Two (8-lane, 25-yard competition pool).
6. We recommend conducting a more detailed schematic design level evaluation of the top three sites that considers architectural, structural, mechanical, electrical and programmatic nuances. Accurate cost impacts to the existing facility, both operational and capital development oriented, are difficult to accurately assess without a higher level of detail.

The top three sites are:

- Site G – Parking Garage
- Site B – East Pool / South Gym
- Site D & E – Combination of Fieldhouse & West Pool Site

2.0 EXISTING CONDITIONS

General

In February 2012, Oak Park and River Forest High School (OPRFHS) requested a proposal to prepare an evaluation report for replacement of the two existing pools at OPRFHS District 200. Stantec was retained to identify acceptable solutions for the future of competitive swimming at the school.

Stantec's scope of services specifically entailed:

Meetings:

1. April 4, 2012 - Meeting with OPRFHS, PDOP and YMCA Staff to review their facilities and discuss partnership potentials
2. May 30, 2012 Kick-off Meeting with Pool Committee
3. July 11, 2012 Pool Committee Meeting to discuss sites, options and site matrix analysis form.
4. September 18, 2012 – Pool Committee Meeting to discuss site matrix analysis results from independent evaluation.
5. January 9, 2013 - Pool Committee Meeting – site matrix analysis group effort
6. February 19, 2013 - Pool Committee Meeting – Presentation of Draft Report and preliminary recommendations.

Specific tasks included:

1. Data gathering
2. Preliminary discussions of potential sites
3. Kick-off meeting with Staff (PE Director, Swim Coach, Dir. Buildings & Grounds)
 - a. Walk-thru of the existing pools and potential sites
4. Preliminary analysis of existing pools facilities
5. Prepare and submit a summary of findings
 - a. Develop partnership potentials for new pool

- b. Description of potential sites
 - c. Development of understanding of existing pool use schedule
 - d. Preliminary space needs for pool options
 - e. Develop preliminary facility layout
- 6. Kick-off Meeting with Pool Committee
 - a. Review of pool use schedule
 - b. Review of partnership potentials
 - c. Review space needs
 - d. Review of preliminary sites
 - e. Review preliminary pool options layouts
- 7. Develop preliminary conceptual options and site matrix analysis form.
 - a. Prepare preliminary program statement for each option
 - b. Develop the ratings for site matrix analysis of best sites
 - c. Develop preliminary layout of options for three best sites
 - d. Preliminary opinion of probable cost
- 8. Meet with Pool Committee for review and comments
- 9. Prepare report of findings

This report is the compilation of information obtained from the review of School District supplied pool documents, discussions with the Pool Committee members, pool user groups, potential partnerships, our on-site observations of the pools and School Campus, and our experience with similar projects.

Existing Conditions

OPRFHS has two swimming pools that have been servicing the school for approximately 75 years. The East Pool is the larger of the two and has 6-lanes is 25 yards long and has a diving well in one end of the pool. The West Pool has 5-lanes is 25 yards long with no diving well. Both pools are used for OPRFHS physical education classes and competitive swimming programs

with limited use by the Park District of Oak Park, West Cook YMCA and the West Suburban Special Recreation Association.

Both pools have a tile finish and have had recent work done to them to bring them in compliance with outlet requirements associated with the Virginia Graeme Baker (VGB) Act and revisions to the State of Illinois Department of Health (IDPH) code. Work included replacing existing main drain piping and sumps with new code compliant sumps and then connecting back to existing piping. There was some leakage issues brought on by this work and that additional repairs would be required to alleviate this problem. Recently the OPRFHS District 200 attempted to replace the one meter diving boards in the East Pool (Competition Pool) and found that they could not purchase new diving boards from the manufacturer due to the non-code compliant diving well and overhead clearance issues.

Due to their age, 75 plus years, and non-compliant code issues it is prudent for OPRFHS to be looking towards a plan for replacing the aging pools if the desire is to continue to provide aquatics programs and competition at the school. A normal life expectancy for an indoor competition pool is approximately 40-50 years based on normal deterioration of the pool shell/infrastructure and impacts from changing pool codes that that are designed to provide improved water quality and user safety. The existing pools have clearly exceeded their normal life expectancy.

Old competition pools, like those present at the OPRFHS, are typically in violation of numerous modern pool code requirements, competitive swimming organization requirements/recommendations, and general building code requirements but due to the grandfathering in allowances for older pools, can continue to operate as long as no significant improvements are made to the pool. Certain user safety issues sometimes become mandates that impact the type of pool use permitted or may precipitate required corrections to the pool for continued use. Examples of these would be the VGBA modifications that were recently completed and the inability to acquire and use the diving boards in the East Pool due to the non-compliant diving well depth and headroom clearance profiles.

In addition to the diving well shortfalls, OPRFHS staff has identified other issues related to the pool safety and functional use including: 1) narrow pool decks; 2) poor spectator seating site lines; 3) deteriorating structural support of pool decks; 4) headroom clearance shortfalls; and 5) substandard competitive pools widths (5-6 lanes versus the currently accepted standard of 8 lanes) to mention a few. While 11 lanes of swimming can be programmed from the two existing pools, a luxury in quantity by most high school standards, both pools present many shortfalls in function, operation, safety and longevity that should be addressed in the near future if a viable swimming program is desired at the high school.

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The physical program for the two existing pools and their support space is summarized as follows:

East Pool

1. Pool Program: 6-lane 25 yard combination diving/swimming pool
2. Length: 25 yards (75 feet)
3. Width: 40 feet
4. Depth: 4'-0" to 12'-0"
5. Water Surface Area: 3,000 Sq. Ft.
6. No. of Swim Lanes: 6 (6'-8" lanes)
7. Features: (1) 1-meter diving board (not currently in use)
8. Deck Area: 1,600 Sq. Ft. (includes deck area immediately around the pool)
9. Minimum Deck Width 4'-0"
10. *Bather Load (Estimated): 150 patrons
11. Seating Capacity: 175 seats (seats on east side)

West Pool

1. Pool Program: 5-lane 25 yard swimming pool
2. Length: 25 yards (75 feet)
3. Width: 35 feet
4. Depth: 4'-0" to 8'-0"
5. Water Surface Area: 2,625 Sq. Ft.
6. No. of Swim Lanes: 5 (7'-0" lanes)
7. Deck Area: 2,200 Sq. Ft. (includes deck area immediately around the pool)
8. Minimum Deck Width: 3'-6"
9. *Bather Load (Estimated): 160 patrons
10. Seating Capacity: 512 seats (seats on east and north sides)

*Bather Load is an IDPH pool capacity calculation based on water and deck areas.

The following were general comments about the existing pools from the Pool Committee during the kick-off meeting:

East Pool

1. Lanes are below 7 foot standard width in this pool.

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2. Diving does not conform to current code and is not being used.
3. Deck space around pool is very limited for conducting classes and especially competitive events.
4. Low headroom issues adjacent pool.
5. Spectator seating capacity is limiting at 175 people and site lines are poor due to physical geometry of the seating mezzanine.

West Pool

1. There is no diving in this pool.
2. This pool is the smallest with five lanes.
3. Spectator seating capacity is adequate but the site lines are poor due to physical geometry of the seating mezzanine and column obstructions located within the seating area.
4. Deck space is very limited and creates problems during events and physical education classes. Deck width along the west side of the pool is only 3'-6".

Existing Pools Activity Programming

Both East and West Pools are very busy during the school year as well as in the summer months. The following is a list of current activity programming at the East and West pools:

East Pool

- Physical Education
- Boys Competitive Swimming
- Girls Competitive Swimming
- Boys Competitive Water Polo
- Girls Competitive Water Polo
- YMCA (Tops)
- West Suburban Special Recreation Association
- Youth Swim Camps

West Pool

- Physical Education
- Boys Competitive Swimming
- Girls Competitive Swimming

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- Boys Competitive Water Polo
- Girls Competitive Water Polo
- YMCA (Tops)
- Synchronized Swimming Team

See Appendix for current East and West Pool Schedules.

Generally the pools are quite heavily used throughout most of the year. Physical education swimming classes occupy a large block of time during the school year with both pools being used from 8 am to 3 pm. This program is successful because both pools are located on school property with convenient locker room access. There is not enough time in a period to bus the students to an off-site location for this program. Any significant reduction in the number of lanes or overall size of water provided by the two existing pools will require a reduction in the level of service of the physical education program for swimming.

It appears that consistently the most available opportunity for use of the pools by others would be all day Sunday. In discussion it is understood that the pools were used in the past by the community on Sundays but usage was light. Another opportunity for community use could be in the evenings from 8:30 pm to 10 pm. Competitive athletic programs and physical education programs generally use both pools from 6:00 am to 6:00 pm and the YMCA Tops program from 6:00 pm to about 8:30 pm during the weekdays. The West Suburban Special Recreation Association (WSSRA) is the only user during the post 8:30 hours and they use only one pool on Monday night. WSSRA provides recreation programs for adults and children who have a physical impairment, a mental disability, or any other type of disability. There apparently used to be an evening lap swim for the community on Monday nights many years ago.

3.0 EVALUATION

Partnerships

Partnerships can be great opportunities to expand services to the public in an economically responsible way by spreading the cost of the capital and operational budget over several organizations with a common goal. All forms of partnerships can be successful, whether it is a public/public, public/private or private/private partnership, but some fundamental partnering criteria should be met to give the partnership the best chances for success.

Criteria for Partnering

- Partners have a complimentary program needs
- Partners have resources that benefit each other
- Partners serve a complementary customer base
- Partners want to accelerate facility development
- Partners have a common tax base
- Customers use the facility at complimentary times

A partnership for the OPRFHS would most commonly be a public/public but certainly public/private partnerships could be considered. Two partnerships that could be further developed include the Park District of Oak Park (PDOP) and the West Cook YMCA (YMCA). Currently the YMCA conducts their Tops program at the high school pools throughout most of the year and the PDOP has plans for summer swim lesson programs and is in discussion regarding potential use during the winter months. The West Suburban Special Recreation Association (WSSA) also currently uses the East Pool for its special needs swimming program on Monday nights for most of the year.

Partnership opportunities for constructing a joint use pool were discussed during the kick-off meeting with the Pool Committee. The two fundamental options include: 1) construct a new pool on the school campus to provide for OPFRHS programming as well as for other community partners in the area; 2) construct a partnership competition pool off-site where the school and its partners could bring their programs to.

A significant issue related to partnering includes the current level of programming provided to the physical education swimming program, essentially all 11-lanes of both East and West Pools are used from 8 am to 3 pm five days a week throughout the school year. This represents a significant baseline of on-campus only use if the program is to be continued since physical education swimming programs will only work with an on-site swimming pool. It seems essential that at least one on-site pool will be required. While the current physical education program uses all 11-lanes of both East and West Pools it may be possible to provide an adequate

physical education swimming program with one 8-lane pool with cutbacks in the current program.

An off-site competition pool may have some merit. While on-site competitive swimming would be most desirable for the school, an off-site competition pool located a reasonable distance from the OPRFHS would work for the after and before school hour competitive programs for swimming, diving and water polo as well as for other community competitive and fitness needs. In this scenario, however, it would still be necessary to build and maintain at least one 8-lane pool on campus to accommodate a physical education swimming program.

It will be challenging to develop a partnership for an off-site competition pool with the PDOP or the YMCA at this time. The PDOP is currently committed to completing their Ridgeland Common improvement project in 2013 which includes a minor renovation of their existing 8-lane 50 meter outdoor lap pool and diving well along with a new shallow water tot pool. The YMCA recently attempted to construct a new facility in nearby River Forest, however, the cost became too great and this venture was abandoned.

The PDOP improvements at Ridgeland Common include only outdoor pool facilities and will not provide serviceable activity programming for the indoor high school programs. The PDOP has expressed interest in further developing partnership opportunities with OPRFHS, including usage of available high school indoor pool time for non-weather dependent Park District aquatics programming such as lessons and lap swim as discussed above. The next most realistic opportunity for partnering with PDOP for a capital improvement may be in approximately 5 - 10 years, when the existing 50 meter outdoor pool at Ridgeland Common may need replacement and further consideration could be given to construct an indoor pool.

The YMCA is currently not in a financial position to develop a new pool without a significant donor stepping forward. The existing pool at the YMCA is a small 4-lane 25 yard lap pool with no diving well and has no capacity to service programs from OPRFHS. If plans for a new YMCA facility should develop, it would be in the best interest of OPRFHS to consider a potential partnership. This YMCA/Public School Partnership model has worked in many communities. The YMCA will certainly continue its current use of the OPRFHS pools and may possibly be able to expand this use if available complementary hours can be identified.

Available land for an off-campus competition pool site reasonably close to the OPRFHS is limited. Discussion included potential off-site options at the Heinz Site, Oak Park and Madison, and the River Forest YMCA site. It was noted that any off-site pool operated by the YMCA or PDOP would need to consider adequate space for the additional of other revenue generating amenities to help offset the high costs of operating a pool. A stand-alone indoor aquatic facility would operate at a deficit for the YMCA and/or Park District and they would insist on having a larger more comprehensive facility further complicating site availability.

In spite of the current heavy use of the two pools (11 lanes) at the OPRFHS, it is not realistic to assume two new pools will be built on campus due to a shortage of available space and the high cost of constructing and operating two pools. The reality is that one new 8-lane 25 yard or

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8-lane stretch pool will most likely be constructed. Over a short term transition period possibly one of the existing pools could be kept in service providing a transition period where two pools may be available.

Developing one modern 8-lane competition pool on site will require almost the equivalent footprint of the two existing pools due to the expanded space needs for a modern competition pool that includes appropriated deck, locker room and spectator seating space. This space requirement alone makes it difficult to find one site to develop a new pool on campus. It is reasonably certain that a convenient partnership for building an off-site competition pool will not be available within the next 5 - 10 years. Without a valid partnership in hand it is apparent that an ongoing competitive aquatics program at OPRFHS will require the school to move forward with the planning for an on-campus competition pool. Both existing pools are well beyond their useful life and do not currently service the competitive needs of the school very well. Having an on-campus competitive swimming facility is the preference of the Pool Committee.

While planning a new competition pool on campus would negate the need for a partnership for an off-campus pool, it wouldn't negate the need to maintain partnerships that would consume the complementary pool hours that were not consumed by OPRFHS aquatics programs. OPRFHS should continue to facilitate partnerships with local organizations that need indoor pool water to teach residents to swim and promote a healthy lifestyle. Clearly the PDOP, YMCA and WSSA are good partners for this end.

While OPRFHS has a history of partnering with available programming hours for the existing swimming pools it is always important to carefully weigh all partnerships to make sure they are equitable. As the school moves forward in planning there are a few pitfalls in partnering that should be kept in mind to keep the partnership healthy.

Pitfalls of Partnering

- Partnership requires a high level of coordination
- Partners can reduce ability to react to changing market conditions
- Partners sometimes cannot live up to a financial commitment
- Partners may not have the ability to deliver quality services
- Partnerships can be an unnecessary financial burden on your operating budget
- Partnerships can result in lengthy and costly legal issues
- No partner exit strategy can be problematic

Preliminary Pool Relocation Sites

Four pool relocation options were initially identified at a meeting with High School Staff as potential locations for the replacement of the School's competition pools. The meeting included representatives from school facilities, athletics and physical education. The four initial locations included:

1. East Pool including the adjacent South Gym (Weight Room)
2. Tennis Courts on the northwest corner of campus
3. Lower parking ramp level of the Community Parking Garage
4. Artificial turf Athletic Fields south of Lake Street between North East and Scoville Avenues

Further discussion with the pools committee during the kick-off meeting expanded the list to include:

5. Fieldhouse
6. West Pool
7. North Cafeteria

A site location drawing of the following seven (7) sites evaluated in the study entitled Pool Relocation Options can be found in the Appendix.

Site A – Tennis Courts

Site B – East Pool / South Gym

Site C – Athletic Fields

Site D – Fieldhouse

Site E – West Pool

Site F – North Cafeteria

Site G – Parking Garage

Pool Design Standards

Design standards were reviewed for competition swimming, diving wells, and water polo as outlined by Illinois Department of Public Health (IDPH) Pool Code, FINA (standards for long course and Olympic swimming and diving), and National Federation of State High School Associations (NFSHSA). Although the IDPH is the only requirement to meet for attaining a permit to construct a pool in Illinois, the others are requirements and recommendations for competitive swimming and are typical standards for high school competitive swimming pools. FINA does not govern the high school standards but becomes important in diving well design for

the use of high quality diving boards, as the manufacturer of those boards will not provide their product without confirming the FINA standards are met.

Stantec recommends that any new pool structure be designed to the most stringent current and appropriate standards/requirements of the three organizations. For instance, it is recommended that for safety reasons the pool depth and overhead clearances be based on the most stringent of the three, but the lane width and pool size could conform to the NFSHSA which allows a slightly smaller dimension to fit more effectively into a limited footprint yet meets high school competition requirements.

It was not in the scope of this report to evaluate the existing pools to determine a detailed list of deficiencies to these standards. However, we know that there are many that will need to be addressed including the deep well, which has numerous issues with the pool profile as well as the overhead clearance requirements. See the Appendix for tables comparing the horizontal and depth dimensions with the various standards discussed.

ADA Regulations

ADA compliance is another important aspect in planning and design that needs to be addressed. National ADA regulations first came into effect in 1991. In 2004, ADA recommendations for swimming facilities were first published. These were encouraged to be followed but were not required. In 2010, revised ADA regulations were published which included mandatory ADA requirements for swimming pools. These were set to become effective on March 15, 2011 for new construction and on March 15, 2012 for existing facilities. Due to confusion with differing interpretations of the new regulations, the compliance dates were later pushed back to March 15, 2012 for new facilities and January 31, 2013 for existing facilities. The ADA program is administered by the Department of Justice (DOJ).

For pools with less than 300 feet of linear pool wall, the ADA regulations require at least one method of entry be provided. This access method must be either a lift or a sloped entry.

For pools with greater than 300 feet of linear pool wall, at least two accessible means of entry are required, one of which must either a lift or a sloped entry. The second means can be:

- Pool lift
- Sloped entry (ramp)
- Transfer wall
- Stairs
- Transfer system

ADA regulations spell out further the requirements of each of these methods of access.

New pools are required to comply with the standard completely. For existing pools, an evaluation must be undertaken and compliance is required unless it is deemed not readily achievable. The ADA has defined readily achievable as being made without much expense or difficulty such as harming the business.

Evaluation of ADA compliance for the existing pools and support spaces was not in the scope of this report, however, it appears that the existing pools will each require a pool lift to be in compliance with the entry portion of the standard (if not already provided). To ensure full compliance OPRFHS should review the accessibility of the pools, locker rooms, and pathways to the edge of the pool.

Pool Configuration Options

Upon evaluation of the potential pools sites, three pool configurations were used as options to replace the existing pools. The pool configurations were developed based on the limited space available at most of the selected potential pool sites. The configurations included:

1. 6-Lane 25 Yard Competition Pool
 - a. Length: 25 yards (75 feet)
 - b. Width: 45 feet
 - c. Depth: 4'-0" to 12'-0"
 - d. Surface Area: 3,375 Sq. Ft.
 - e. No. of Swim Lanes: 6 (7'-0" lanes with additional 1'-6" on outside lanes)
 - f. Bather Load (Pool Only): 152 patrons
 - g. Features: Diving well for two (2) 1-meter diving boards integrated into the swimming lanes on one end of the pool
2. 8-Lane 25 Yard Competition Pool
 - a. Length: 25 yards (75 feet)
 - b. Width: 60 feet
 - c. Depth: 4'-0" to 12'-0"
 - d. Surface Area: 4,500 Sq. Ft.
 - e. No. of Swim Lanes: 8 (7'-0" lanes with additional 2'-0" on outside lanes)
 - f. Bather Load (Pool Only): 200 patrons
 - g. Features: Diving well for two (2) 1-meter diving boards integrated into the swimming lanes on one end of the pool
3. 8-Lane Stretch Competition Pool
 - a. Length: 127 feet 8 ¾ Inches
 - b. Width: 60 feet
 - c. Depth: 4'-0" to 12'-0"
 - d. Surface Area: 7,664 Sq. Ft. (includes 372 Sq. Ft. 6'-0" wide moveable bulk head)
 - e. No. of Swim Lanes: 8 (7'-0" lanes with additional 2'-0" on outside lanes)

- f. Bather Load (Pool Only): 367 patrons
- g. Features: Diving well for (4) 1-meter diving boards with six foot wide moveable bulkhead separating 25 yard and 25 meter swimming lane configurations

A six lane 25 yard competitive pool configuration doesn't provide adequate water to accommodate a modern competitive swimming program nor the current heavy use of the pool by the physical education class. This option was developed and presented to primarily test the limited space available at some of the preliminary site options.

Preliminary Concepts

Preliminary concept plans were developed for each of the sites with the pool configuration options to verify the feasibility and determine site impacts. Only those pool configuration options that best fit each of the sites were considered. The concept plan drawings were developed to delineate general relationships and space requirements for each pool and are not to be used as detailed floor plans. Drawings were used to flush out the preliminary feasibility of the site and help the Pool Committee visualize the relative space needs for each site.

The following concept plans were developed to evaluate the space needs of the pool and site limitations:

- Figure 1: 8-lane 25 yard competition pool at Tennis Courts
- Figure 2: 8-lane stretch competition pool at Tennis Courts
- Figure 3: 6-lane 25 yard competition pool at East Pool/South Gym (Weight Room)
- Figure 4: 8-lane 25 yard competition pool at East Pool/South Gym (Weight Room)
- Figure 5: 6-lane 25 yard competition pool at Athletic Fields
- Figure 6: 8-lane stretch competition pool at Field House
- Figure 7: 6-lane 25 yard competition pool at West Pool
- Figure 8: 8-lane 25 yard competition pool at West Pool
- Figure 9: 6-lane 25 yard competition pool at North Cafeteria
- Figure 10: 6-lane 25 yard competition pool at Lower Level Parking Garage

Each of these concepts can be found in the Appendix.

Opinion of Probable Cost

It was generally determined that the cost for a new pool could range in the \$7.0 to \$10.0 million, and if demolition, replacements and other campus or space improvements were considered, the total project cost could easily reach \$12.0 to \$15.0 million. It was not within the scope of this study to evaluate detailed cost for each potential pool relocation option. Any pool relocation option on the OPRF High School site will have complex interactions and cost impacts with the existing school and require a detailed evaluation to properly establish the budget for any given

site. The goal of this study is to develop a shortlist of sites for a more focused plan for up to a maximum of three site development options for further study.

The total cost for any new pool redevelopment option will include a wide variety of cost including:

- Demolition
- Relocations of displaced functions and space
- Structural improvements
- Support space improvements including locker rooms, storage, mechanical rooms, etc.
- New pool, filtration, sanitation and recirculation systems
- Pool natatorium structure including building enclosure and decks
- Mechanical support systems and relocations including ventilation, heating, air conditioning and dehumidification
- Lighting, power, showers, toilets, lavatories, etc.
- Soft costs for soils exploration, materials testing, survey, design, bidding and construction administration services.

Construction costs for just the new competition pool shell and related pool mechanical systems, diving boards, starting blocks, timing system, and scoreboard will be a small fraction of the total cost of a new pool at the high school. Costs for the pool shell and related pool systems as outlined above are summarized as follows:

New 6-lane 25 yard competition pool	Construction cost range \$1.0 to \$1.2 million
New 8-lane 25 yard competition pool	Construction cost range \$1.2 to \$1.5 million
New 8-lane competition stretch pool	Construction cost range \$1.7 to \$2.0 million

Above cost do not include demolition, new support structures, pool decks, renovation of existing structures, replacement and relocation of essential space, mechanical and electrical support needs, systems displaced by the new pool construction and related soft costs and fixtures, furnishings and equipment (FFE). Soft costs are outlined as design and construction administration fees, geotechnical services and construction testing. As mentioned above, this is a small fraction of the overall project costs that could range from \$7.0 to \$15.0 million.

Site Evaluation

The preliminary sites all offer certain benefits as the location for a new competition pool; however, there are specific issues at each of these sites that must be addressed during design.

Significant Design IssuesEast Pool/South gym (Weight Room)

1. Displacement of south gym weight room.
2. Significant impacts to building mechanical systems.

Tennis Courts

1. Displacement of limited and valuable outdoor space.
2. Displacement of two to four program critical tennis courts.
3. Potential connection to school preferred.
4. Location on opposite end of campus from physical education locker rooms.
5. Realignment of access drive to east.

Lower Level Parking Garage

1. Headroom requirements not feasible.
2. Footprint does not accommodate pool larger than 6-lane 25 yard pool.
3. Minimal pool deck space.
4. Major foundation and structural modifications required.
5. No Spectator Seating.

Athletic Fields

1. Displacement of limited and valuable outdoor space.
2. Partial displacement of newly reconstructed artificial turf fields.
3. Location across busy street from rest of campus.

Fieldhouse

1. Partial displacement of large Fieldhouse space.

West Pool

1. Footprint does not accommodate pool larger than 6-lane 25 yard pool without expansion into access drive.
2. Expensive utility relocation required with larger 8-lane pool.

North Cafeteria

1. Displacement of cafeteria and serving space.

COMPETITION POOL UPGRADE/RELOCATION STUDY

EVALUATION

March 29, 2013

2. Footprint does not accommodate pool larger than 6-lane 25 yard pool without expansion into access drive.
3. Footprint does not accommodate spectator seating without expansion into access drive or addition of second level.
4. Expensive utility relocation required with larger 8-lane pool.

A site evaluation matrix was developed to determine how well the potential pool sites would suit a new indoor pool facility while taking into account a wide variety of external and internal impacts. The matrix was developed around the seven (7) on-campus sites outlined earlier in the study:

Site A – Tennis Courts

Site B – East Pool / South Gym

Site C – Athletic Fields

Site D – Fieldhouse

Site E – West Pool

Site F – North Cafeteria

Site G – Parking Garage

Evaluation Categories

1. Pool Programming Impacts – what impacts will a given pool site location have on the current pool programs and user groups.
2. Impacts to Other Programs/Events – what impacts will a given pool site location have on other non-aquatic programs and events.
3. Displacement Impacts – Displaced and put somewhere else if possible, except for outdoor spaces which would be lost.
4. Construction Impacts - Are the areas still operable during construction.
5. Location Impacts – Miscellaneous site specific impacts related to proposed location.
6. Construction Cost Impact – Total construction cost impact related to site specific location.
7. Operational Cost Impact – Operations cost impacts related to site specific location.

COMPETITION POOL UPGRADE/RELOCATION STUDY

EVALUATION

March 29, 2013

Each category above includes numerous criteria items in the site evaluation matrix form on which the Pool Committee established a numerical raw rating. The Committee also developed a unique numerical Importance Factor rating for each criteria item which was multiplied by the raw rating to provide a weighted numerical response to each criterion. An Average Category Score was calculated from the sum of the weighted criteria for each category divided by the number of criteria for each particular category. Using an Average Category Score for each category provides for an equal weighting of each category. Finally, the Pool Committee developed a numerical Category Importance Factor for each of the seven categories which were multiplied by the Average Category Scores to provide a weighted score that accounts for the relative significance of each of the seven categories. The grand total of the average weighted category scores for each site is the ultimate value on which the sites were prioritized.

Sites were prioritized with a rating of 1 to 7 with 1 being the best site and 7 being the worst. See Site Evaluation Matrix in Appendix A for the detailed ratings as well as a descriptive summary of the rating criteria. A summary of the initial site priorities based on the Grand Total of the Average Weighted Category Scores is shown as follows:

Initial Site Priority Summary

<i>Site Priority</i>	<i>Site Location</i>
1	Site B – East Pool / South Gym
2	Site A – Tennis Courts
3	Site C – Athletic Fields
4	Site F – North Cafeteria
5	Site D – Fieldhouse
6	Site E – West Pool
7	Site G – Parking Garage

Initial site ratings were somewhat of a surprise to the Pool Committee and further discussion resulted in a modification to the initial site ratings. Modifications were based on two fundamental exclusion criteria:

1. Losing outdoor activity space on the OPRFHS site was unacceptable for it cannot be recaptured as building space can through the use of multi-floored design.
2. Sites must be capable of sustaining a minimum sized 8-lane 25 yard pool for anything smaller will not adequately sustain an acceptable physical education and competitive swim program.

Based on these two criteria the Sites were reprioritized, eliminating those that fell within the above exclusion criteria, as follows:

Adjusted Site Priority Summary

Site Location

Site B – East Pool / South Gym

Site D – Fieldhouse

Additional discussion of the Fieldhouse site resulted in a potential for a combined site that included both Site D - Fieldhouse and Site E – West Pool sites that would allow for exploration of an east-west orientation of an 8-lane stretch pool which could preserve more of the existing Fieldhouse function particularly the basketball gymnasium. Also, results from the concurrent Long Term Facility Planning efforts indicate a more aggressive approach to Site G - Parking Garage involving demolition and reconstruction could accommodate an eight lane stretch pool. A final site priority based on the discussion and findings above yields the final top three sites as follows:

Final Site Priority Summary

Site Location

Site G – Parking Garage

Site B – East Pool / South Gym

Site D & E – Combination of Fieldhouse & West Pool Site

Site B is the only site above that cannot sustain an 8 – lane stretch pool which would be the priority solution for replacing the two existing pools. Site selections are based on the best information available at this time and clearly a more in depth schematic design study of the three sites would yield more detailed and accurate information on which to base the future pool replacement plans for OPRFHS.

4.0 RECOMMENDATIONS

While the clarity of the site selection could not be strongly established, a summary of the study findings and recommendations should be considered and may provide valuable direction and understanding as OPRFHS moves forward with their aquatic planning efforts.

Summary of Findings / Recommendations:

1. The existing pools are over 75 years old and have served their useful life and function.
2. A new modern 8-lane competition pool constructed on the OPRFHS site is likely to take up as much footprint as the two existing pools. The existing pools are substandard in the number of lanes, amount of deck space required for a modern competition pool and have unacceptable spectator capacity / site lines all which will increase the foot print requirements.
3. A partnership for an off-site competition pool is not likely in the next five years.
4. Given the condition and function of the existing pools we recommend that OPRFHS continue to investigate an on-campus pool solution for both the physical education swim program as well as the competitive needs of the school.
5. An on-campus competition pool is the priority of the Pool Committee.
6. It is highly unlikely that OPRFHS will have any more than 8-lanes of pool water for on-campus swimming in the future. It is recommended that OPRFHS move forward with one of the following on campus pool replacement options:
 - *Option One:* One new 8-lane competition stretch pool with seven (7) foot wide lap lanes and an integrated one meter diving well and movable bulkhead. Spectator seating capacity should be developed for 300 – 500 seats.
 - *Option Two:* One new 8-lane 25 yard competition pool with seven (7) foot wide lap lanes and an integrated one meter diving well. Spectator seating capacity should be developed for 300 – 400 seats.
7. The preferred 8-lane on-campus aquatic solution is Option One (8-lane competition stretch pool) which provides 70% more water surface than Option Two (8-lane 25 yard competition pool).

8. The top three sites are as follows:

Site Location

Site G – Parking Garage

Site B – East Pool / South Gym

Site D & E – Combination of Fieldhouse & West Pool Site

A more detailed schematic design level evaluation of the top three sites is recommended which considers the architectural, structural, mechanical, electrical and programmatic nuances. Accurate cost impacts to the existing facility, both operational and capital development oriented, are difficult to accurately assess without a higher level of detail.

9. Continue to nurture good partnerships to use available non-conflicting pool hours including the West Suburban Special Recreation District, West Cook YMCA and the Park District of Oak Park.
10. Encourage partnerships that can use non-conflicting pool hours for their programs. Hours that currently do not conflict with existing OPRFHS programs include:

- a. Sunday – all day
- b. Weekdays after 8:30 pm except Mondays

Note: Reducing the available pool water on-campus could change the available hours summarize above which must be considered in any discussions with future and existing partnerships.

11. Any future pools should consider standards as outlined by Illinois Department of Public Health (IDPH), National Federation of State High School Associations (NFSHSA); and FINA (standards for long course and Olympic swimming and diving). We recommend designing for the most stringent current and appropriate standards/requirements of the three organizations.
12. A significant joint use partnership with non-school public or semi-public users may necessitate the need for additional dedicated locker room space adjacent the new pool.
13. Location of the new pool a long distance from the physical education locker rooms may require some redundancy in lockers to accommodate participants swim gear.
14. Minimum lane width for any new competition pool should be seven (7) feet.
15. All future facilities need to comply with the current ADA requirements and regulations.

16. Future more detailed evaluation of pool sites should reference and consider all valid impacts as outlined in the Site Evaluation Matrix included in the Appendix of the study.

5.0 APPENDIX

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**Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
East Pool Daily Use Schedule**

Fall Season - Mid August through Mid-November

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
6:30 AM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
7:00 AM							Girls Swimming
7:30 AM							Girls Swimming
8:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
8:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
9:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
9:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
10:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
10:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
11:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
11:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
12:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
12:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
1:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
1:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
3:00 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
3:30 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
4:00 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
4:30 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
5:00 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
5:30 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
6:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
6:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:30 PM		West Suburban					
9:00 PM		West Suburban					
9:30 PM		West Suburban					
10:00 PM		West Suburban					
10:30 PM		West Suburban					
11:00 PM							
11:30 PM							
12:00 AM							

Girls Swimming
Phy. Ed.
YMCA
West Suburban

Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
East Pool Daily Use Schedule

Winter Season - Mid-November thru End-February

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
6:30 AM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
7:00 AM							Boys Swimming
7:30 AM							Boys Swimming
8:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
8:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
9:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
9:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
10:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
10:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
11:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
11:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
12:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
12:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
1:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
1:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
3:00 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
3:30 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
4:00 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
4:30 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
5:00 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
5:30 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
6:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
6:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:30 PM		West Suburban					
9:00 PM		West Suburban					
9:30 PM		West Suburban					
10:00 PM		West Suburban					
10:30 PM		West Suburban					
11:00 PM							
11:30 PM							
12:00 AM							

Boys Swimming
Phy. Ed.
YMCA
West Suburban

Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
East Pool Daily Use Schedule

Spring Season - March 1 thru End-May

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
6:30 AM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
7:00 AM							
7:30 AM							
8:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
8:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
9:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
9:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
10:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
10:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
11:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
11:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
12:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
12:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
1:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
1:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
3:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
3:30 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
4:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
4:30 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
5:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
5:30 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
6:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
6:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:30 PM		West Suburban					
9:00 PM		West Suburban					
9:30 PM		West Suburban					
10:00 PM		West Suburban					
10:30 PM		West Suburban					
11:00 PM							
11:30 PM							
12:00 AM							

Water Polo
Phy. Ed.
YMCA
West Suburban

**Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
East Pool Daily Use Schedule**

Summer Season - June 1 thru Mid-July

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
6:30 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
7:00 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
7:30 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
8:00 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
8:30 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
9:00 AM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
9:30 AM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
10:00 AM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
10:30 AM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
11:00 AM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
11:30 AM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
12:00 PM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
12:30 PM		Youth Swim Camps	Youth Swim Camps	Youth Swim Camps	Youth Swim Camps		
1:00 PM							
1:30 PM							
2:00 PM							
2:30 PM							
3:00 PM							
3:30 PM							
4:00 PM							
4:30 PM							
5:00 PM							
5:30 PM							
6:00 PM							
6:30 PM			Girls Water Polo		Girls Water Polo		
7:00 PM			Girls Water Polo		Girls Water Polo		
7:30 PM			Girls Water Polo		Girls Water Polo		
8:00 PM			Girls Water Polo		Girls Water Polo		
8:30 PM		West Suburban					
9:00 PM		West Suburban					
9:30 PM		West Suburban					
10:00 PM		West Suburban					
10:30 PM		West Suburban					
11:00 PM							
11:30 PM							
12:00 AM							

YMCA
West Suburban
Youth Swim Camps
Girls Water Polo

Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
West Pool Daily Use Schedule

Fall Season - Mid August through Mid-November

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM							
6:30 AM							
7:00 AM							Girls Swimming
7:30 AM							Girls Swimming
8:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
8:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
9:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
9:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
10:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
10:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Girls Swimming
11:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
11:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
12:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
12:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
1:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
1:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
3:00 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
3:30 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
4:00 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
4:30 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
5:00 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
5:30 PM		Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	Girls Swimming	
6:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
6:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:30 PM							
9:00 PM							
9:30 PM							
10:00 PM							
10:30 PM							
11:00 PM							
11:30 PM							
12:00 AM							

Girls Swimming
Phy. Ed.
YMCA

Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
West Pool Daily Use Schedule

Winter Season - Mid-November thru End-February

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
6:30 AM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
7:00 AM							Boys Swimming
7:30 AM							Boys Swimming
8:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
8:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
9:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
9:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
10:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
10:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Boys Swimming
11:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
11:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
12:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
12:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
1:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	YMCA
1:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
3:00 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
3:30 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
4:00 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
4:30 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
5:00 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
5:30 PM		Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	Boys Swimming	
6:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
6:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
7:30 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:00 PM		YMCA	YMCA	YMCA	YMCA	YMCA	
8:30 PM							
9:00 PM							
9:30 PM							
10:00 PM							
10:30 PM							
11:00 PM							
11:30 PM							
12:00 AM							

Boys Swimming
Phy. Ed.
YMCA

Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
West Pool Daily Use Schedule

Spring Season - March 1 thru End-May

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
6:30 AM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
7:00 AM							
7:30 AM							
8:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
8:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
9:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
9:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Water Polo
10:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
10:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
11:00 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
11:30 AM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
12:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
12:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
1:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
1:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:00 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
2:30 PM		Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	Phy. Ed.	
3:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
3:30 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
4:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
4:30 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
5:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
5:30 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
6:00 PM		Water Polo	Water Polo	Water Polo	Water Polo	Water Polo	
6:30 PM		Syncro Swim	Syncro Swim	Syncro Swim	Syncro Swim	Syncro Swim	
7:00 PM		Syncro Swim	Syncro Swim	Syncro Swim	Syncro Swim	Syncro Swim	
7:30 PM		Syncro Swim	Syncro Swim	Syncro Swim	Syncro Swim	Syncro Swim	
8:00 PM							
8:30 PM							
9:00 PM							
9:30 PM							
10:00 PM							
10:30 PM							
11:00 PM							
11:30 PM							
12:00 AM							

Water Polo
Phy. Ed.
Syncro Swim

Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
West Pool Daily Use Schedule

Summer Season - June 1 thru Mid-July

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5:00 AM							
5:30 AM							
6:00 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
6:30 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
7:00 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
7:30 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
8:00 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
8:30 AM		YMCA	YMCA	YMCA	YMCA	YMCA	YMCA
9:00 AM							
9:30 AM							
10:00 AM							
10:30 AM							
11:00 AM							
11:30 AM							
12:00 PM							
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9:30 PM							
10:00 PM							
10:30 PM							
11:00 PM							
11:30 PM							
12:00 AM							

YMCA

**Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
Diving Facility Dimensional Comparison**

Dimensions for Diving Facilities			FINA Springboard				National Federation of State High School Associations		Illinois Department of Public Health			
			1 Meter (ft)		3 Meter (ft)		1 Meter (ft)		1 Meter (ft)		3 Meter (ft)	
	Length		15.75		15.75		16					
	Width		1.64		1.64		1.67					
	Height		3.28		9.84		3.28		3.28		9.84	
			Horiz. (ft)	Vert. (ft)	Horiz. (ft)	Vert. (ft)	Horiz. (ft)	Vert. (ft)	Horiz. (ft)	Vert. (ft)	Horiz. (ft)	Vert. (ft)
A	From Plummets	Designation	A-1		A-3		A-1		A-1		A-3	
	Back to Pool Wall	Minimum	4.92		4.92		6		5		5	
	For regular metal stand	Preferred	5.91		5.91							
	For concrete platform	Preferred	7.35		7.35							
A/A	From Plummets	Designation										
	Back to Platform	Minimum										
	Plummet directly below	Preferred										
B	From plummet to Pool wall at side	Designation	B-1		B-3		B-1		B-1		B-3	
		Minimum	8.2		11.48		10		10		12	
		Preferred	8.2		11.48							
C	From plummet to Adjacent plummet	Designation	C 1-1		C 3-3, 3-1		C 1-1		C 1-1		C 3-3,3-1	
		Minimum	6.56		7.22		8		10		12	
		Preferred	7.87		8.53							
D	From plummet to Pool wall ahead	Designation	D-1		D-3		D-1		D-1		D-3	
		Minimum	29.53		33.63		29		34		34	
		Preferred	29.53		33.63							
E	On plummet, from Board to ceiling	Designation		E-1		E-3	E-1		E-1		E-3	
		Minimum		16.4		19.69	16		16		16	
		Preferred		16.4		19.69						
F	Clear overhead behind and each side of plummet	Designation	F-1	E-1	F-3	E-3			F-1	E-1	F-3	E-3
		Minimum	8.2	16.4	8.2	16.4			8	16	8	16
		Preferred	8.2	16.4	8.2	16.4						
G	Clear overhead ahead of plummet	Designation	G-1	E-1	G-3	E-3			G-1	E-1	G-3	E-3
		Minimum	16.4	16.4	16.4	16.4			16	16	16	16
		Preferred	16.4	16.4	16.4	16.4						
H	Depth of water at plummet	Designation		H-1		H-3				H-1		H-3
		Minimum		11.15		12.14		12		10		12
		Preferred		11.48		12.47						
J K	Distance and depth ahead from back wall	Designation	J-1	K-1	J-3	K-3	J-1	K-1	J-1	K-1	J-3	K-3
		Minimum	21.33	10.83	24.61	11.81	2 to 5 ^a	12	12 ^a	10	12 ^a	12
	For regular metal stand	Preferred	22.64	11.15	25.59	12.14						
	For concrete platform	Preferred	23.75	11.15	27.03	12.14						
L M	Distance and depth each side of plummet	Designation	L-1	M-1	L-3	M-3			L-1	M-1	L-3	M-3
		Minimum	4.92	10.83	6.56	11.81			4	10	6	12
		Preferred	6.56	11.15	8.2	12.14						
N	Maximum slope to Reduce dimensions beyond full requirements	Pool Depth	30 degrees						1 Vert: 3 Horiz. Slope			
		Ceiling Ht.	30 degrees						1 Vert: 2 Horiz. Slope			

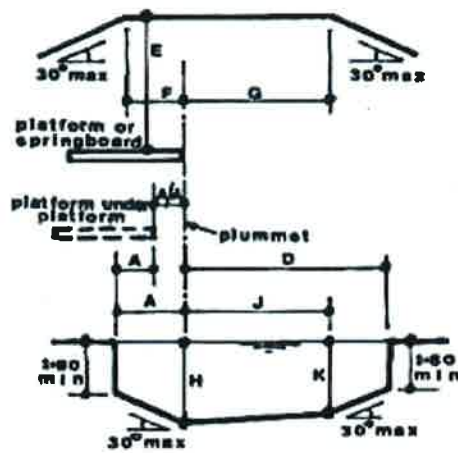
- Most stringent minimum standard for 1 meter diving
- Most stringent minimum standard for 3 meter diving
- Most stringent slope requirements

Note:

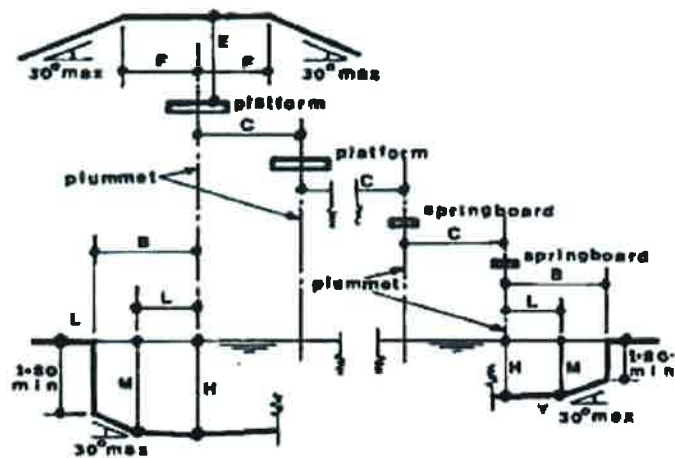
a) for distance from end of plummet

Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
Diving Facility Dimensional Graphic

DIVING FACILITIES DIAGRAM



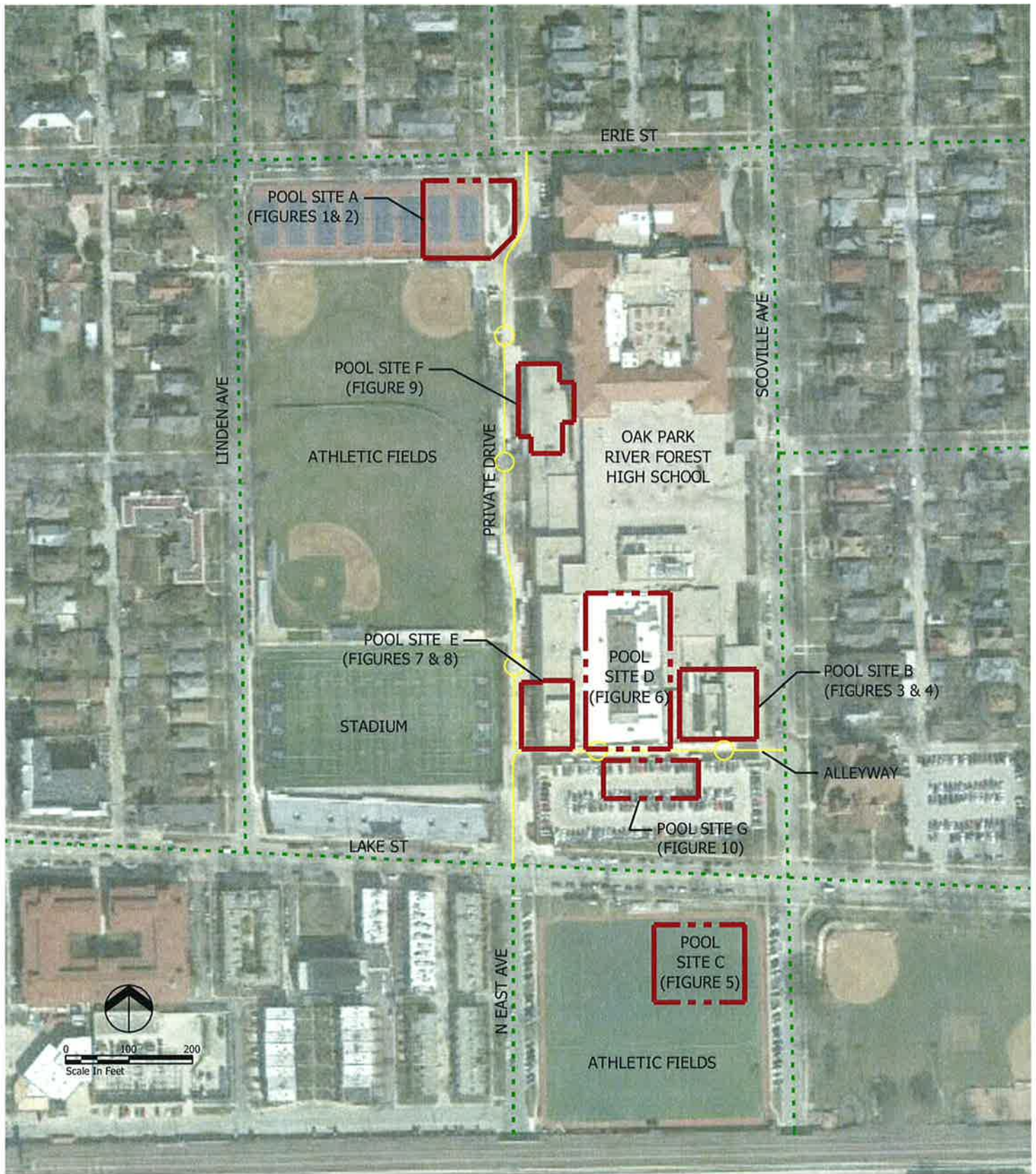
LONGITUDINAL SECTION
DIAGRAMMATIC ONLY



CROSS SECTION
DIAGRAMMATIC ONLY

**Oak Park River Forest High School
Competition Pool Upgrade/Relocation Study
Competitive Swimming Facility Dimensional Comparison**

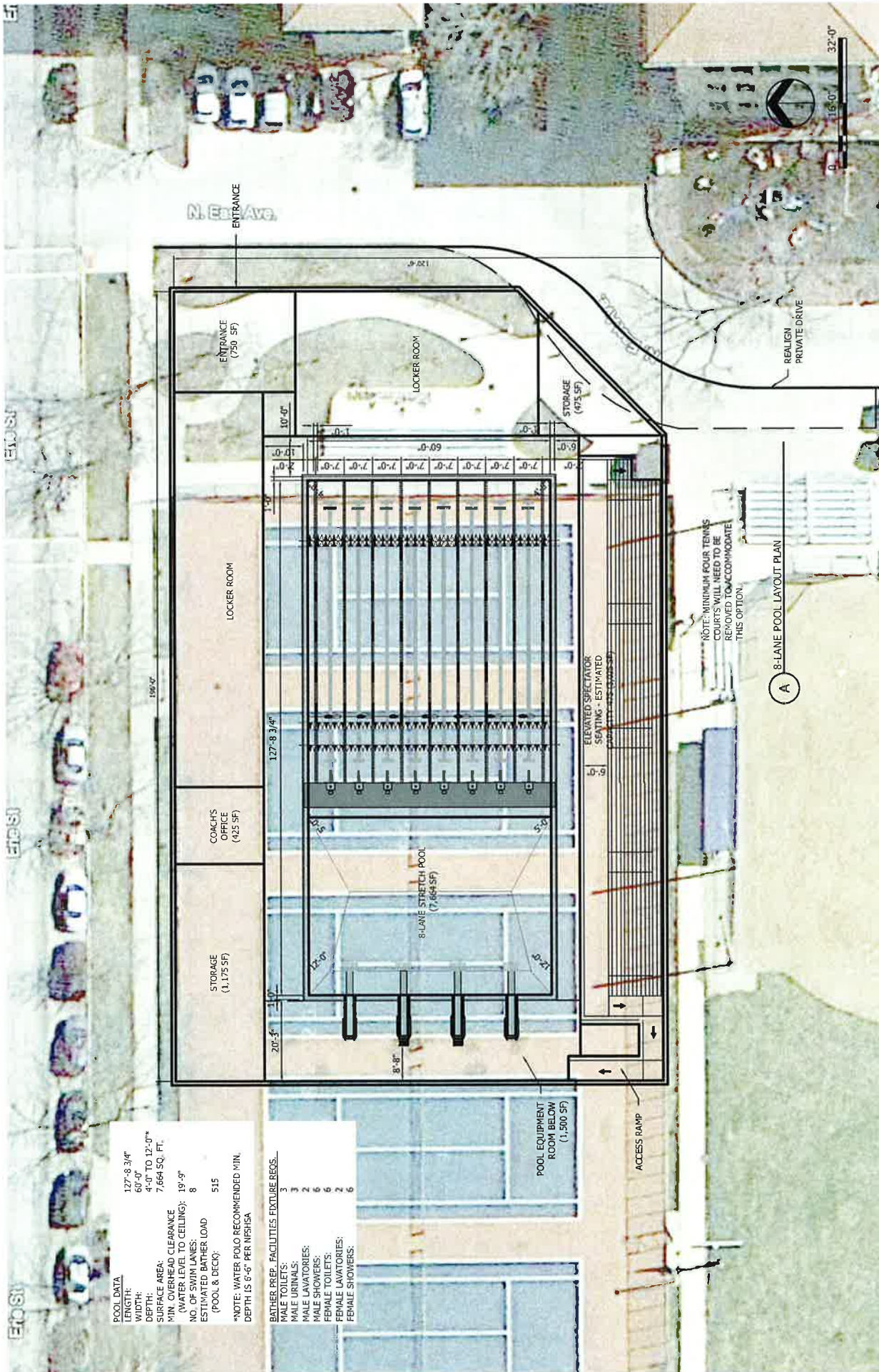
	Existing (East Pool)	FINA		National Federation of State High School Associations		Notes
Item	Feet	Feet	Meters	Feet	Meters	
Length	75	82.021	25	75 (25 yards)	22.87	
Length (Alt.)		164.042	50	82.021	25	
Width (Min.)	40	66.912	20.4	45		FINA Note: width for 8 lane pool
						NFSHSA Note: width for 6 lane pool
Width (Preferred)				60		NFSHSA Note: width for 8 lane pool
Starting End Depth (Min.)	4	4.428	1.35	4		FINA Note: 4.428 ft depth must be maintained from 1 meter to at least 6 meters from end wall with starting blocks
						NFSHSA Note: 4 ft depth must be maintained for 16 ft 5 inches from end wall with starting blocks
Lane Width (Min.)	6'-8"	8.2	2.5	7		FINA Note: two outer lanes must have spaces of at least 0.2 meters outside the lanes
						NFSHSA Note: two outer lanes may be wider



POOL RELOCATION OPTIONS

OAK PARK RIVER FOREST HIGH SCHOOL
COMPETITION POOL UPGRADE/RELOCATION STUDY





POOL SITE A - TENNIS COURTS NORTHWEST - 8-LANE STRETCH POOL LAYOUT

OAK PARK RIVER FOREST HIGH SCHOOL

COMPETITION POOL UPGRADE/RELOCATION STUDY

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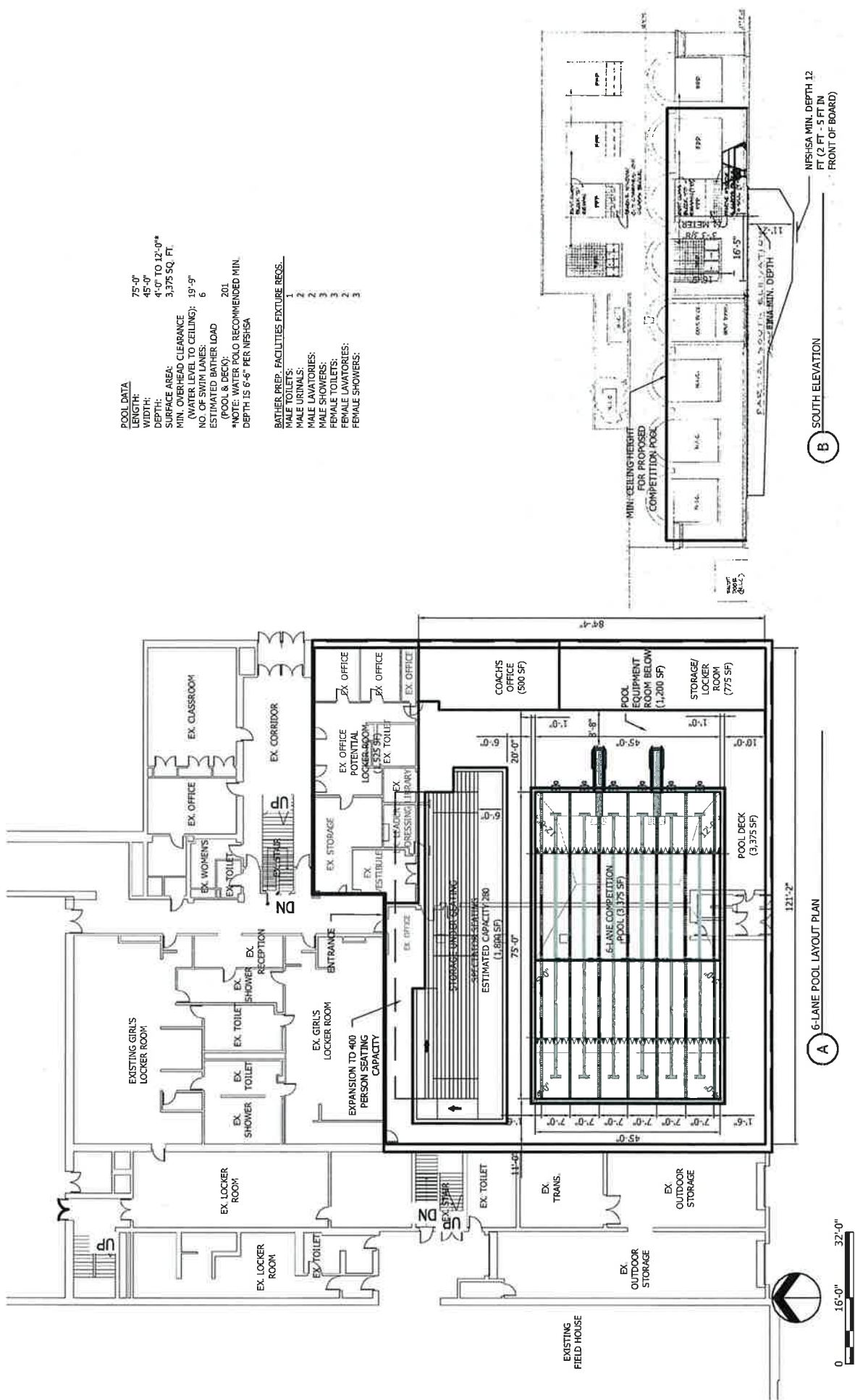
DATE:

COMM: 193801533

FIGURE 2



Stantec



POOL SITE B - EAST POOL/SOUTH GYM (WEIGHT ROOM) - 6-LANE 25 YARD POOL LAYOUT

FIGURE 3

OAK PARK RIVER FOREST HIGH SCHOOL

COMPETITION POOL UPGRADE/RELOCATION STUDY

COMM: 193801533

DATE:

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**Stantec**

FIGURE 4

OAK PARK RIVER FOREST HIGH SCHOOL

COMPETITION POOL UPGRADE/RELOCATION STUDY

43

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DATE:

COMM: 193801533

142'-0"

COACH'S OFFICE (425 SF)

LOCKER ROOM (2,150 SF)
270 LOCKERS, 5 TOILETS,
4 LAVATORIES, 8 SHOWERS

ENTRANCE (750 SF)

POOL DECK (3,575 SF)

POOL EQUIPMENT ROOM BELOW (1,325 SF)

ACCESS RAMP

8-LANE COMPETITION POOL (4,500 SF)

LOCKER ROOM (2,150 SF)
270 LOCKERS, 5 TOILETS,
4 LAVATORIES, 8 SHOWERS

STORAGE (1,100 SF)

ELEVATED SPECTATOR SEATING - ESTIMATED CAPACITY 200 (1,927 SF)
STORAGE UNDER SEATING

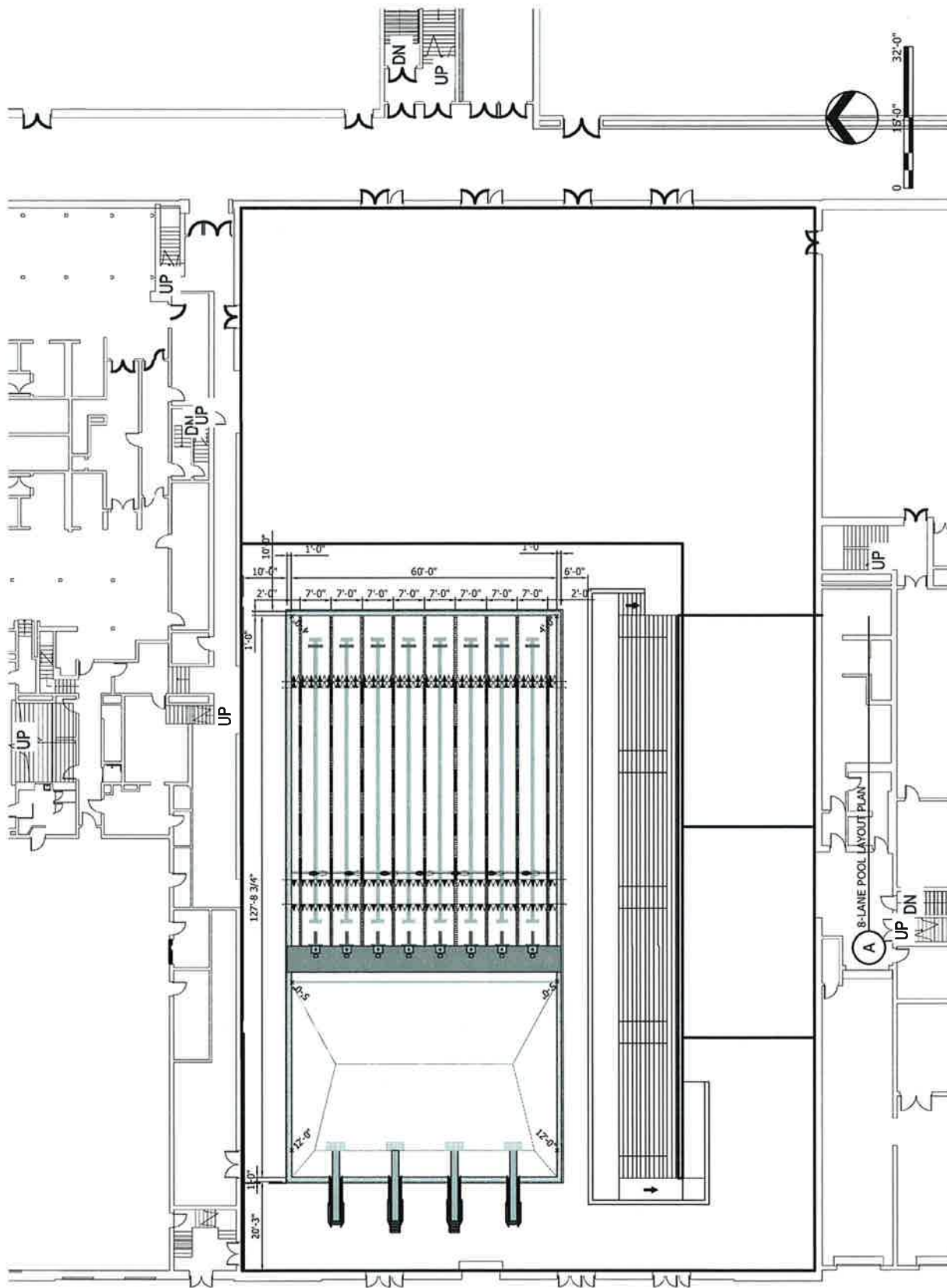
EXPANSION TO 400 PERSON SEATING CAPACITY

91'-0"



OAK PARK RIVER FOREST HIGH SCHOOL
COMPETITION POOL UPGRADE/RELOCATION STUDY

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POOL SITE D - FIELD HOUSE - 8-LANE STRETCH POOL LAYOUT

OAK PARK RIVER FOREST HIGH SCHOOL

FIGURE 6

COMPETITION POOL UPGRADE/RELOCATION STUDY

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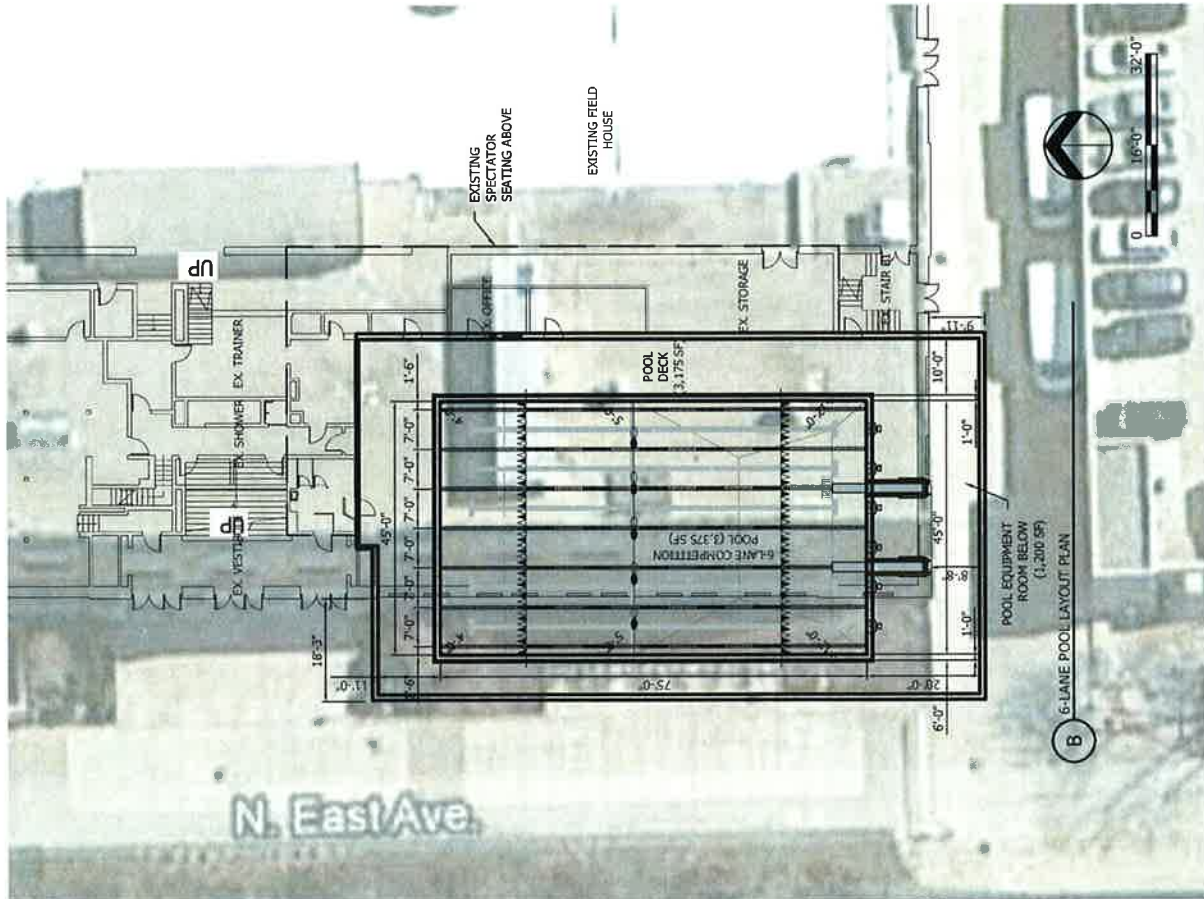
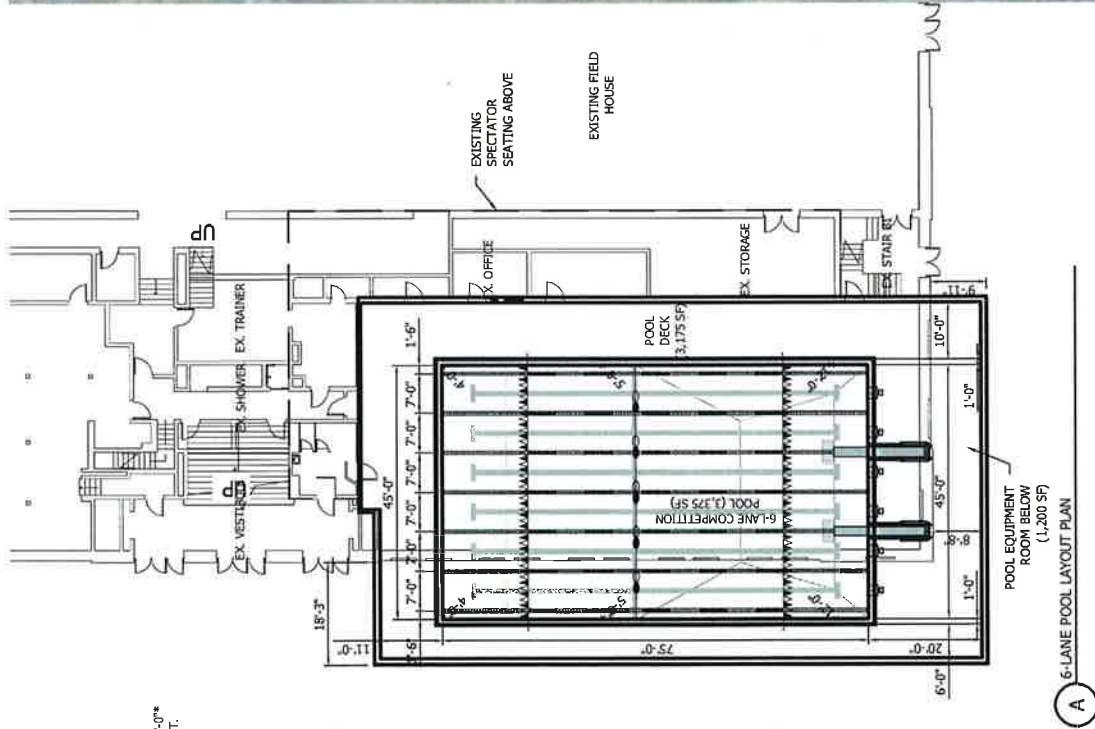
DATE:

COMM: 193801533



POOL DATA
 LENGTH: 75'-0"
 WIDTH: 45'-0"
 DEPTH: 4'-0" TO 12'-0" **
 SURFACE AREA: 3,375 SQ. FT.
 MIN. OVERHEAD CLEARANCE (WATER LEVEL TO CEILING): 19'-9"
 NO. OF SWIM LANES: 6
 ESTIMATED BATHER LOAD (POOL & DECK): 201
 *NOTE: WATER POLO RECOMMENDED MIN. DEPTH IS 6'-6" PER NFSHA

BATHER PREP. FACILITIES FIXTURE REQS.
 MALE TOILETS: 1
 MALE URINALS: 2
 MALE LAVATORIES: 2
 FEMALE TOILETS: 3
 FEMALE LAVATORIES: 3
 FEMALE SHOWERS: 3

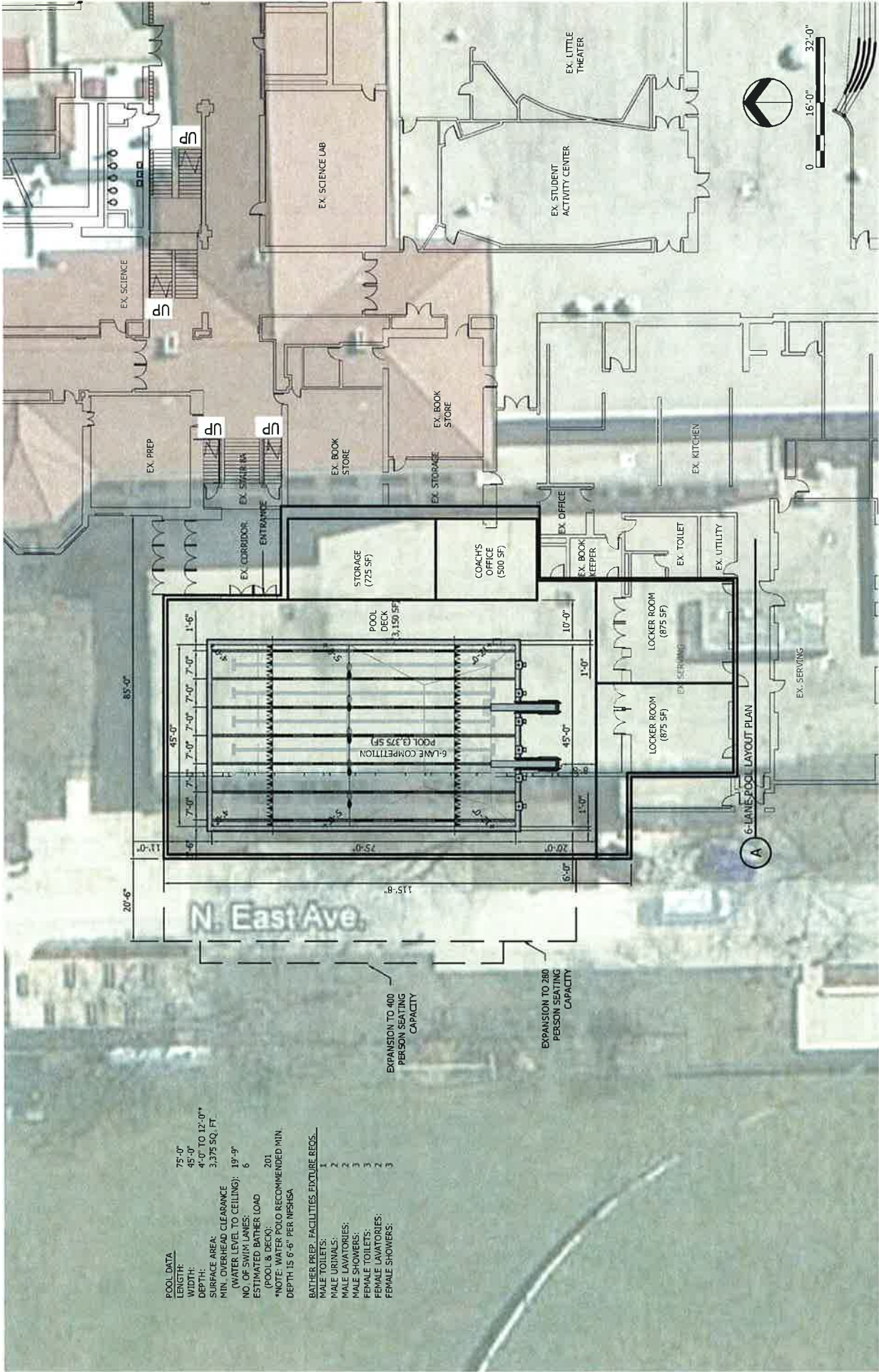


POOL SITE E - WEST POOL - 6-LANE 25 YARD POOL LAYOUT

OAK PARK RIVER FOREST HIGH SCHOOL
 COMPETITION POOL UPGRADE/RELOCATION STUDY

FIGURE 7





POOL SITE F - NORTH CAFETERIA - 6-LANE 25 YARD POOL LAYOUT

OAK PARK RIVER FOREST HIGH SCHOOL

COMPETITION POOL UPGRADE/RELOCATION STUDY

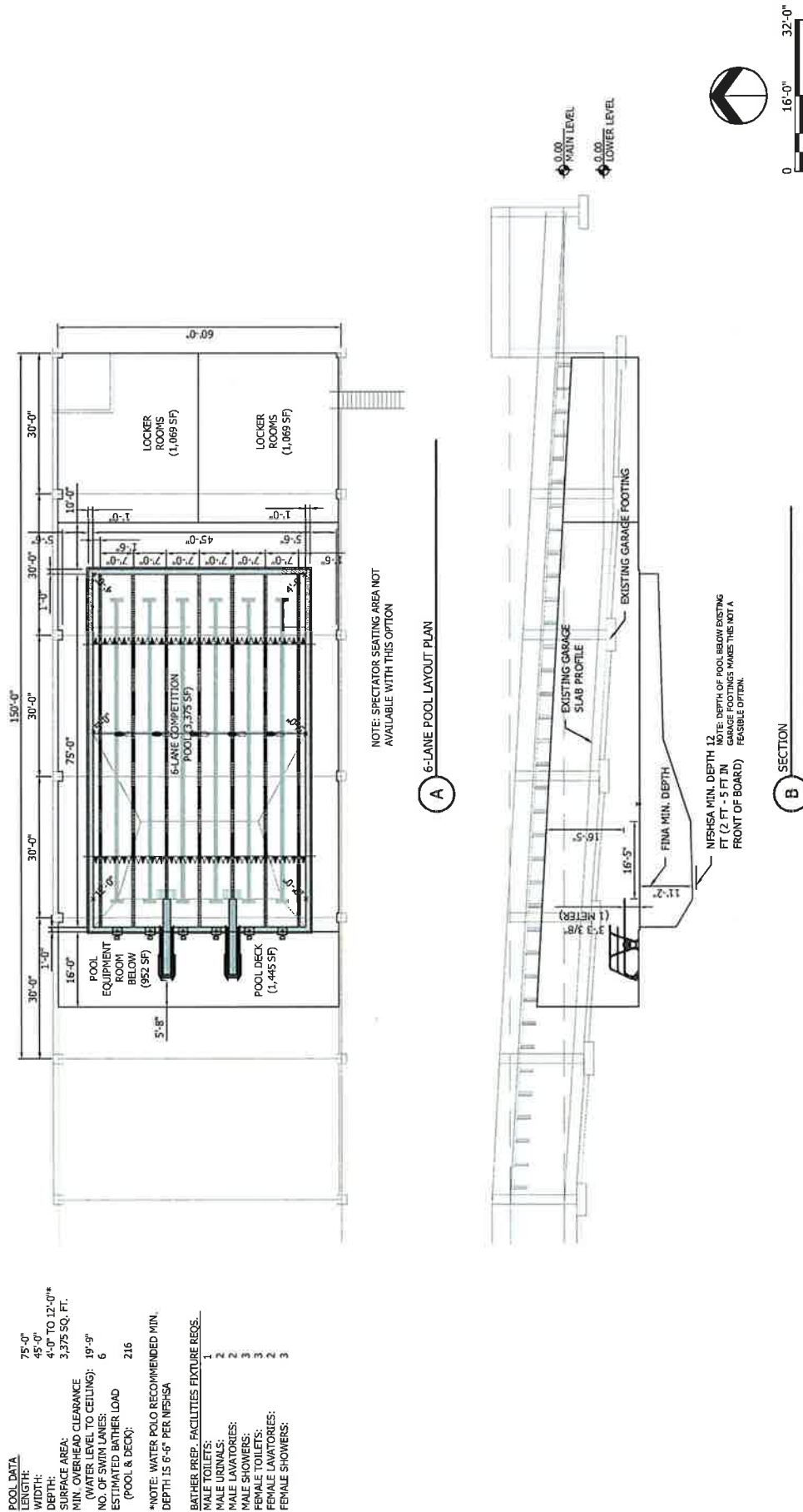
FIGURE 9

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COMM: 193801533





POOL SITE G - PARKING GARAGE - 6-LANE 25 YARD POOL LAYOUT

OAK PARK RIVER FOREST HIGH SCHOOL

FIGURE 10

COMPETITION POOL UPGRADE/RELOCATION STUDY

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DATE:

COMM: 193801533





SITE EVALUATION MATRIX
OAK PARK RIVER FOREST HIGH SCHOOL
COMPETITION POOL RENOVATION/RELOCATION STUDY
March 2013

Site Maximum Pool Size (Evaluation Categories and Criteria)	Category Impact Duration (ST=Short Term) (LT=Long Term)	Category Importance Factor (1 to 3)	Criteria Importance Factor (1 to 5)	Site A		Site B		Site C		Site D		Site E		Site F		Site G		
				8-Lane Stretch		8-Lane		8-Lane Stretch		8-Lane Stretch		8-Lane		8-Lane		8-Lane		
				Tennis Courts	E.Pool/S. Gym	Athletic Fields	Fieldhouse	West Pool	North Cafeteria	Parking Garage								
Pool Programming Impact Category				Raw	Weighted	Raw	Weighted	Raw	Weighted	Raw	Weighted	Raw	Weighted	Raw	Weighted	Raw	Weighted	
LT																		
Competitive Swimming				4	15	20	4	16	5	20	5	20	3	8	1	4	2	8
Competitive Water Polo				4	15	20	4	16	5	20	5	20	3	8	1	4	2	8
Synchronized Swimming				4	15	20	4	16	5	20	5	20	3	8	1	4	2	8
PE Classes				5	15	25	3	15	5	25	5	25	3	10	2	10	2	10
YMCA				3	15	15	4	12	5	15	5	15	4	12	7	6	2	6
West Suburban Use				3	15	15	5	15	5	15	5	15	5	15	5	15	5	15
Swim Camps				4	15	20	5	20	5	20	5	20	5	20	5	20	5	20
Future Use by Others (POOP, Public)				3	1	9	2	8	3	9	4	9	3	3	1	3	3	3
Category Subtotal (Raw and Weighted w/ Criteria Importance Factor)				43	164	25	132	43	164	43	164	24	88	19	20	23	86	
Average Category Score w/ Criteria Importance Factor Only					18.2		14.7		18.2		18.2		8.8		7.8		9.6	
Average Category Score w/ Category and Criteria Importance Factors				3	34.7		44.0		34.7		34.7		29.3		23.3		28.7	
Category Site Rating (2 best/7 worst)					1		4		1		1		5		7		6	
Impacts to Other Programs/Events Category				LT														
PE Classes				5	4	20	5	25	3	15	3	10	5	25	5	25	3	25
Tennis				4	1	4	5	20	3	20	5	20	5	20	5	20	5	20
Indoor Track				4	15	20	5	20	5	20	3	8	5	20	5	20	5	20
Outdoor Track				4	15	20	5	20	2	8	15	20	5	20	5	20	5	20
Wrestling				4	15	20	5	20	5	20	3	12	4	16	5	20	5	20
Basketball				4	15	20	5	20	5	20	3	12	4	16	5	20	5	20
Volleyball				4	15	20	5	20	5	20	3	12	4	16	5	20	5	20
Badminton				4	15	20	5	20	5	20	3	12	4	16	5	20	5	20
Pre-Season Baseball				4	15	20	5	20	5	20	3	12	4	16	5	20	5	20
All School Assemblies				5	15	25	5	25	5	25	3	10	5	25	5	25	5	25
Indoor Graduation				4	15	20	5	20	5	20	3	12	4	16	5	20	5	20
Winter Activities				4	15	20	5	20	5	20	3	12	5	20	5	20	5	20
Soccer				4	15	20	5	20	3	12	8	5	20	5	20	5	20	
Field Hockey/Lacrosse				4	15	20	5	20	3	12	8	5	20	5	20	5	20	
Category Subtotal (Raw and Weighted w/ Criteria Importance Factor)				65	269	70	290	57	236	17	133	63	231	20	290	70	290	
Average Category Score w/ Criteria Importance Factor Only					19.7		20.7		18.9		10.8		17.9		20.7		20.7	
Average Category Score w/ Category and Criteria Importance Factors				3	57.6		62.3		50.6		22.4		53.8		62.3		62.3	
Category Site Rating (2 best/7 worst)					4		3		6		7		5		1		1	
Displacement Impacts Category—Displaced and put somewhere else if possible, except for outdoor spaces which would be lost				LT														
Classrooms				4	15	20	5	20	3	20	5	20	4	16	4	16	3	20
Offices				3	15	15	4	12	5	15	5	15	4	12	5	15	5	15
Locker Rooms				5	15	25	4	20	5	25	3	25	4	20	5	25	5	25
Outdoor Athletic Fields				5	3	10	5	25	1	5	5	25	4	20	5	25	5	25
Fieldhouse				5	15	25	5	25	5	25	2	10	4	20	5	25	5	25
Weight Room				5	15	25	4	20	5	25	3	25	5	25	5	25	5	25
Food Service				5	4	20	5	25	5	25	1	5	5	25	5	25	5	25
Parking				3	13	9	5	15	5	15	5	15	5	15	5	15	3	9
Outdoor Tennis Courts				5	3	5	5	25	5	25	5	25	5	25	5	25	5	25
Water Systems				3	15	15	3	9	5	15	3	9	3	9	3	9	3	15
Sanitary Sewer Systems				3	15	15	3	9	5	15	3	9	3	9	3	9	3	15
Electrical Systems				4	15	20	3	12	5	20	3	12	3	8	3	8	3	20
HVAC Systems				4	15	20	3	12	5	20	3	12	3	8	3	8	3	20
Storm Sewer Systems				3	15	15	3	9	5	15	3	9	3	9	3	9	3	15
Gym Space				5	15	25	4	20	5	25	3	15	3	15	5	25	5	25
Category Subtotal (Raw and Weighted w/ Criteria Importance Factor)				65	264	83	264	71	280	60	231	57	240	59	248	72	288	
Average Category Score w/ Criteria Importance Factor Only					17.8		17.8		18.3		10.7		16.0		16.3		15.9	
Average Category Score w/ Category and Criteria Importance Factors				2	35.2		35.2		38.7		33.5		32.0		33.3		39.7	
Category Site Rating (2 best/7 worst)					3		2		2		5		7		6		1	
Construction Impacts Category—Are the areas still operable during construction				ST														
Use of one Existing Pools				5	15	25	2	10	5	25	2	10	2	10	5	25	3	25
Competitive Swimming Program				4	15	20	2	8	5	20	2	8	2	8	5	20	3	20
PE Class				5	15	15	2	10	3	15	1	5	2	10	5	25	5	25
Other Competitive Sports				4	1	4	2	8	2	8	1	4	2	8	5	20	5	20
Class Room				4	15	20	3	12	5	20	3	12	3	12	5	20	5	20
Office Use				3	15	15	2	8	5	15	3	9	3	9	5	15	5	15
Locker Room				5	15	25	3	15	5	25	1	5	5	25	5	25	5	25
Use of Pool by Others				3	15	15	3	9	5	15	3	9	3	9	5	15	5	15
Rooftop				5	4	20	3	15	5	25	2	10	3	15	2	10	5	25
Temporary Facilities/Relocation				5	1	5	3	15	1	5	1	5	3	15	1	5	4	20
Building Circulation				5	15	25	4	20	5	25	3	15	4	20	3	15	4	20
Neighborhood				5	1	5	3	15	1	5	1	5	3	15	4	20	7	20
Parking				3	15	15	4	12	5	15	4	12	4	12	4	12	3	9
Access				5	15	25	4	20	5	25	4	20	4	20	3	15	5	25
Gym Space				5	15	25	3	15	5	25	1	5	3	10	5	25	5	25
Category Subtotal (Raw and Weighted w/ Criteria Importance Factor)				60	239	39	268	65	283	34	144	42	193	62	267	66	293	
Average Category Score w/ Criteria Importance Factor Only					17.1		21.2		18.9		9.4		12.2		17.8		15.3	
Average Category Score w/ Category and Criteria Importance Factors				3	17.3		11.3		18.9		9.6		22.3		17.8		15.3	
Category Site Rating (2 best/7 worst)					4		6		2		7		5		7		3	
Location Impacts Category				LT														
Constructability				5	13	25	2	10	3	15	4	20	3	15	4	20	3	15
Property-Related Value				5	2	10	4	20	3	15	5	25	4	20	2	10	2	10
Pedestrian Access				4	13	20	4	16	5	20	4	16	4	16	4	16	4	16
Vehicle Access				3	15	15	4	12	5	15	4	12	4	12	2	6	1	3
Visibility				4	15	20	4	16	5	20	3	12	4	16	4	16	3	12
Event Parking				4	1	12	5	20	4	16	5	20	5	20	4	16	1	4
Building Circulation				4	2	8	3	12	5	20	4	16	5	20	3	12	2	8
Neighborhood Context				5	2	10	5	25	3	15	5	25	4	20	4	20	3	15
Development Restrictions				5	4	20	5	25	4	20	5	25	5	25	5	25	5	25
Expansion Potential				4	15	20	3	12	5	20	3	12	3	12	3	12	3	12
Zoning				5	2	10	5	25	2	10	5	25	3	15	3	15	1	5
Category Subtotal (Raw and Weighted w/ Criteria Importance Factor)				40	170	46	201	42	180	48	212	40	171	34	148	20	87	
Average Category Score w/ Criteria Importance Factor Only					15.5		17.1		17.7		15.5		13.5		13.5		7.4	
Average Category Score w/ Category and Criteria Importance Factors					30.9		36.5		32.7		31.3		31.3		26.9		15.8	
Category Site Rating (2 best/7 worst)					3		2		3		2		6		6		2	
Construction Cost Impact Category				ST														
Development Cost				4	3	12	4	16	3	12	4	16	3	12	4	16	3	12
Demolition Cost				4	4	16	2	8	3	12	3	12	3	12	3	12	2	8
Category Subtotal (Raw and Weighted w/ Criteria Importance Factor)					7	28	6	24	6	24	7	28	6	24	7	28	2	8
Average Category Score w/ Criteria Importance Factor Only					14.0		12.0		12.0		14.0		12.0		14.0		4.0	
Average Category Score w/ Category and Criteria Importance Factors				2		28.0		24.0		24.0		28.0		22.0		28.0		8.0
Category Site Rating (2 best/7 worst)					2		3		3		2		1		2		2	
Operational Cost Impact Category				LT														
Operational Cost				5	3	15	4	20	3	15	3	15	3	15	4	20	3	15
Category Subtotal (Raw and Weighted w/ Criteria Importance Factor)					3	15	4	20	3	15	3	15	3	15	4	20	3	15
Average Category Score w/ Criteria Importance Factor Only					25.0		20.0		15.0		15.0		15.0		25.0		15.0	
Average Category Score w/ Category and Criteria Importance Factors				3		45.0		45.0		45.0		45.0		45.0		45.0		45.0
Category Site Rating (2 best/7 worst)					3		2		3		2		3		1		2	
Grand Total (Raw and Weighted w/ Criteria Importance Factor)					276	1155.0	237	1087.0	281	1180.0	225	951.0	227	964.0	248	1057.0	253	1074.0
Site Rating (1 best/7 worst)					2		3		3		1		7		6		5	4
Grand Total (Average Category Score w/ Criteria Importance Factor Only)					116.8		114.5		116.8		103.8		102.5		110.3		86.8	
Site Rating (1 best/7 worst)					3		4		3		2		6		4		3	
Grand Total (Average Category Score w/ Category and Criteria Importance Factors)					268.7		273.1		264.5		241.6		251.3		251.3		218.9	
Site Rating (1 best/7 worst)					2		1		3		5		6		4		2	

Swimming Pool Maintenance

Project	Year	Cost	Annual cost
Chlorine	annual		\$ 4,800.00
Seresco humidification units	2005	\$ 600,000.00	
Girls Shower/Locker room renovations	1997	\$ 900,000.00	
PVC deck in west pool	2005	\$ 54,000.00	
Netting and replace ceiling tile west pool	2010	\$ 19,000.00	
East and West pool handicap lifts	2011	\$ 6,000.00	
Wheel chair lift by west pool	2011	\$ 28,300.00	
Heat Exchangers and hot water boilers	2010	\$ 866,400.00	
Variable frequency drives East and West pools	2011	\$ 10,300.00	
Modern energy annual maintenance for Seresco units	annual		\$ 1,600.00
Repair sand filters East pool	2010	\$ 10,160.00	
Replace floor drains for VGBA	2010	\$ 70,000.00	
Handicap lift for fieldhouse entrance (for sync swim)		\$ 34,000.00	
Natural gas	annual		\$ 34,200.00
Electric	annual		\$ 15,000.00
New ceilings and balcony railings in East and West pools	2005	\$ 100,500.00	
Replace West pool Deck	2012	\$ 75,000.00	
Repair Masonry wall	2012	\$ 40,960.00	
Dolphin Automatic pool cleaner	2007	\$ 2,900.00	\$ 1,450.00
Dolphin Automatic pool cleaner	2012	\$ 2,900.00	
West pool bathroom renovations	2012	\$ 35,000.00	
Water usage (refilling and leaks)	annual		\$ 2,485.00
Cleaning chemicals	annual		\$ 4,200.00
cleaning maintenance	annual		\$ 12,000.00
Total		\$ 2,855,420.00	\$ 75,735.00
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