

Darien Public Schools
Capital Projects 2016-17, Priority 1

The Priority 1 projects noted in this most recent updated document are recommended as a result of Board of Education understanding that represents significant needs that fall into the categories of Code Compliance, Safety and Health, Instructional Need or Operational Efficiency. These are not wants but needs as determined by administrative staff, and all work is beyond the ability to address internally. Work is subject to RFPs and vendor selection; where applicable, exchange or consortium pricing will be used.

The following descriptions and review of Priority 1 projects are broken down following this template of guidelines:

1. Problem/opportunity being address
2. Project goal
3. Options investigated to address the problem
 - a. Potential costs/benefits/negatives
4. Option selected and reasoning
5. Project plan
 - a. Estimated cost, start date, completion date, risks, other pertinent details
6. Project benefits
 - a. Hard and soft, how will benefits be measured, any paybacks, state reimbursement eligibility and percentage if applicable

Darien High School

Cafeteria Expansion (\$1,025,000):

1. There is significant overcrowding in the existing cafeteria. Many students are forced to go elsewhere to eat. Currently several of the lunch waves have overcrowding especially during cold/inclement weather. The goal with this addition would be to add between 100 and 125 seats. It should be noted that DHS has already converted an auxiliary cafeteria into classroom space to accommodate a need for further classrooms. For the same reason locker pods have also been converted into classrooms all because of the failure to properly predict the growing enrollment of the school. By next year we will have enrolled 86 additional students (inclusive of the past four years) which exceeds the projections for the original capacity.
2. The goal is to make it possible for all students to eat in the cafeteria to meet the need for current and future enrollment needs.
3. The consultants looked at several lower cost alternatives. These were expanding into a staff room, removing interior walls and adding more furniture, and changing the type of furniture. None of these options achieved the goal of increasing the number of seats to accommodate all of the students. The current layout and fixed dividers limit flexibility to reconfigure the current layout or add tables and chairs.

4. The option of building out toward the track was selected because this option added the needed amount of seats and the work could be done while school was in session.
5. The cost of the project was estimated by the consultant as being \$1,025,000.00. The start date would be June 2017, following graduation. The work would take 6-8 months to complete.
6. The benefit is that all students will be able to eat in the cafeteria with improved supervision. It would also allow the cafeteria to be used as a multipurpose room, which it currently is not capable of. This project is eligible for state reimbursement at our rate of 20.71%

Replace Turf, Stadium Field (\$550,000):

1. The concern is that the existing turf field will have reached the end of its useful life. This field was built in 2004-05. The predicted useful life of a turf field is typically between 8 and 10 years. We have exceeded that number and for safety reasons we recommend this project move forward.
2. The goal would be to remove the turf and replace it with a premium artificial turf surface, hopefully from the same manufacturer, Field Turf. Since this is a public bid project, we have to hire the lowest priced qualified bidder. This bidder may or may not be the firm that the DAF used to build the Oval Fields.
3. The only option to changing out the turf surface would be to convert the field to natural grass. No one from the Athletics or Physical Education departments has ever asked that this happen, so the option was not explored.
4. The option selected is to budget for replacing the existing turf with the premium Field Turf Product.
5. Once the funding is approved, we plan on hiring the engineering firm Tighe and Bond, PE and use them to design the turf replacement and structural spray of the track. The planning and approvals will begin during the summer of 2016 and we should be able to bid out during the spring of 2017. Work will be done during the summer of 2017. The warranty on these types of fields is 8 years for the materials and one or two years on the labor. These fields usually last 12-15 years. We do not anticipate any major problems, as the existing field has good drainage and grade, but there is a small amount for contingency.
6. The benefit is that we will replace field and track in a timely manner and not impact any DHS sports.

Storage Facility (\$250,000):

1. The problem is there is a huge shortage of storage space on the DHS campus. There are currently 5 shipping containers located by the North Gym which have no additional storage space. Three of these containers store the track hurdles, pole vault and high jump mats, starting blocks, poles and standards. One container holds the field and tennis court netting and screens, the Adirondack chairs, and in the summer it holds the snow equipment and the golf carts. The other container located by the gym is filled

with Lacrosse Equipment. There is a smaller container by the throwing area which holds the items used for the discus, shot and hammer throws. There is one container located by the varsity baseball field which holds the baseball equipment. All of these items would be stored in the new facility. There are no vehicles, nor are there plans to store vehicles in the storage building. DHS was originally value engineered with limited storage space. With the projected enrollment to exceed planned capacity and limited storage facility at the town garage, the need for storage has increased. The consolidation of storage would allow better control/management and access of seasonal items.

2. The goal is to remove all the shipping containers and improve the amount and quality of the storage space available.
3. The options investigated were to continue buying storage containers, build 2 smaller storage buildings or build 1 storage building. The Town doesn't have enough space to store the equipment that they own, and there is no available space at any location. We did not consider a prefabricated building as we are looking for solutions that will be long lasting and will not need to be replaced in 10-15 years or become a maintenance burden.
4. The option selected was to build one storage facility. This would have less of an impact on the appearance of the High School.
5. The plan would be to seek P&Z approval and then begin the project. The work would likely start in the Spring of 2017. The risk is that the space will be filled up as soon as it is built. This project cannot realistically be split.
6. The benefits are more economical use of exterior space, and more secure storage which is badly needed.

Convert Remaining locker pods to classrooms (\$100,000):

1. Shortage of regular education classrooms at DHS.
2. Increase the number of regular education classrooms at DHS to account for growing enrollment (refer to Cafeteria).
3. Options investigated included converting computer labs in "B" building into regular classrooms, converting locker pods into classrooms, converting the wrestling room into several classrooms, and carving out several classrooms in underutilized Library space. The costs were pretty much the same, regardless of which proposal was used. The negatives were that the wrestling room is a large flexible space that has multiple uses all year long. The computer labs, some of which are used for language skills, are still considered an essential part of the current curriculum. There is a desire to preserve the appearance of the Library and enhance the function of the space. The school could possibly run out of lockers if enough students decided they wanted lockers.
4. The option selected is to convert the locker pods into classrooms. To a large degree, the lockers are not used. The locker pods have the same footprint as a regular classroom in "B" building. The exiting requirements for the area do not change and no structural work is required.

5. The cost is approximately \$45,000-\$50,000 per pod area. The start date will be the first Monday of the summer vacation, and will run about 5 weeks. The only risk is that the contractor will perform poorly.
6. The benefits are that there will be 3 more classrooms available by the fall of 2016. The benefit will be measured by the students having more flexibility with their schedule. There are no paybacks on a project such as this.

Replace Kitchen Hot Water Heater (\$88,000):

1. The current hot water heater is leaking water through the burner of the unit. The unit is 12 years old and we have been advised it is beyond repair.
2. The goal is to be able to provide hot water to the kitchen at the required temperature and volume.
3. We investigated replacing existing unit with a newer version of the same unit. Least complicated project would cost about \$88,000. We investigated installing a small oil fired boiler with multiple hot water storage tanks. This would cost about \$45,000, but that cost would not include alterations to the chimney flue, or the new piping and pump system that would all have to be designed by an engineer. Cost of everything would be about the same. We investigated repairing the existing unit, but the unit has previously been overhauled and is beyond repair. We had planned to replace each Hot Water heater, one this year and one next year. This summer the less expensive, viable option was to rebuild the one unit, rather than replace it. The unit to be replaced next summer broke shortly after the school year started. These hot water heaters use #2 fuel oil. The new hot water heater and the installation will comply with all state and local regulations.
4. We selected replacing with a newer version of the same hot water heater. We know this size and type of unit works well in the High School and we can install it quickly.
5. The cost as stated above is approximately \$88,000. We will start this project as soon after July 1 that the Town allows purchase orders to be issued. The unit will take about 8 weeks to arrive after the order is placed, and should be ready by October 1, 2016. In the meantime, we can get by with the one existing working Hot Water Heater.
6. The benefit is that we will once again have 100% redundancy for our hot water, both in the kitchen and in the bathrooms and locker rooms. The schools must have hot water available, and the kitchen has to have hot water in the correct volume, at the correct temperature. There are no real paybacks for this type of work.

Upgrade Sound System in Auditorium (\$40,000):

1. The existing sound system is obsolete. The plan is to upgrade to a digital mixer, which will allow for remote programming. The system is original to the auditorium (12 years old). This allows a transition from analog to digital.
2. The goal is to provide all of the musical and performing groups as well as speakers with a sound system that provides clear consistent performance, something that currently is inconsistent at best.

3. The options investigated were to get by with the existing system, renting larger, newer systems when needed, or upgrading.
4. The option to upgrade was selected because it becomes a long term fix to the problem. With the system in place, the students that work the stage can successfully operate the sound during the school days. The students that hold concerts in the auditorium will have a better sounding, more reliable system.
5. The plan will be a joint project with the High School, Facilities, and Jeff DeMaio. Once the money is approved, the equipment will be purchased. Jeff will install the equipment, hopefully before the start of the school.
6. The upgraded system will also include side speakers located on each side of the stage, lower than the existing speakers, and a replacement of the 12 year old hardwired microphones.

Middlesex Middle School

Replace Master Clock System (\$78,000):

1. The Master Clock is outdated and needs to be manually reset on a regular basis. It does not keep track of daylight savings time and does not automatically adjust clocks to the correct time when there is a power outage. The master clock does not send the correct signal to the classroom clocks, so they do not keep accurate time. The system is 17 years old, but the technology is closer to 30. Classrooms are not displaying the time correctly/consistently resulting in students having to check the time on their phones while teachers are trying to have them not use their phones in class. The cost of repairs/maintenance is not effective, leading to past replacement of battery operated clocks without sync function.
2. Install a new time clock system that can be integrated into the computer server and the bell system, change out the wall clocks to newer units that will keep accurate time.
3. The option is to either repair or replace. The system is outdated and obsolete; the vendors do not recommend repairing. The only viable option is to replace it.
4. See #3.
5. The cost will run between \$50-78,000. This will depend on whether the wall mounting boxes are useable, and how much of the existing wiring is still useable. The plan is to have the work started and completed over the summer of 2016. We are considering an atomic clock system, or a digital hard wired system. This project will be competitively bid out. The variance in cost is related to the type of system and how much of the existing wiring can be reused. This represents an upgraded clock system that is hard wired and sequenced to the bell system. Currently that coordination fails on a regular basis.
6. Student movement in the building is linked to the clock system. A system that is not synchronized causes obvious confusion. Additionally, a new clock system will make it easier when teachers are giving timed tests.

Install new carpet in Main Office, Library and Music Rooms (\$65,000):

1. Carpeting in these rooms is getting worn and frayed. This carpeting was installed in either 1999 or 2000. Many years of heavy traffic has caused permanent staining and it is not cost effective to repair or clean.
2. To provide an upgraded, safe flooring surface.
3. A flooring contractor was brought in to look at the floors and evaluate several options. The two options were to replace the carpeting with new carpet, or replace the carpeting with floor tile. There was no real cost benefit associated with either choice. There is a large volume of traffic in and out of the office. The staff and administration didn't want the noise associated with a hard, resilient floor.
4. The option selected is to replace the existing carpet with new carpet, except for the hallway in the Guidance Suite. That hallway will get floor tile. The rest of the areas are quieter with carpeting.
5. This work will start after July 1, 2016. The vendor will work with the custodial staff performing the summer cleaning so neither group prevents the other from doing their work in a timely manner.
6. There is no payback on this type of work. There are no additional benefits to the ones mentioned in #2. This is a basic maintenance upkeep item to keep our facilities in a state that allows for effective instruction.

Hindley Elementary School

Move Main and Nurse's Office (\$230,000):

1. When the building was renovated and added to, the main office never moved, even though the front entrance moved twice. The main office now sits in the middle of the building. The moving of the offices to the front of the building is a safety need. The majority of the visitors, on a daily basis, are going to the Nurse or the Main Office. The Campus Monitor checks the visitor in and the visitor walks by six classrooms, the gym and the Common Room before arriving at the offices. In all the other buildings the person is registered and then can be observed walking into the offices. This move will insure that people aren't walking down hallways unattended. This would bring Hindley up to the same standards as our other schools. Relocation of the office to the front of the school would provide a security buffer without loss of classrooms or impacting any other project (current planned – windows, or future expansion).
2. The goal is to move the main office close to the front entrance of the building.
3. The option selected is to take one of the existing front classrooms and convert that space into the office. The existing office or other space on the first floor could then be converted into a classroom.
4. There does not seem to be any other options for this work.

5. The plan would be to hire an architect to design and engineer the work. Due to the expected cost, the project would be publicly bid. The work might be able to be done during the 2016-17 school year, provided there is an available classroom on the first floor. If not, the work would be done over the summer of 2017.
6. The benefit would be that people checking into the building would proceed directly into the main office creating a greater sense of security. At this time, the visitors have to walk half the length of the hallway, past the kindergarten and first grade classrooms, the gym and lunch room before arriving at the main office. The main office is isolated from any activity at the main entrance or bus entrance.

Window replacement program, original building (\$52,000):

1. The windows in the original building were not replaced when the 1996 additions were built. These windows are not original to the building, but are at least 40 years old. Many are inoperable and repair parts are not available. The window replacement project does not include the area where it is proposed to move the Main Office and the Nurse's Office. Those spaces were built in 1996. The windows included are the windows in the area from the gym/common room up to the 1996 addition, both the front and rear elevations. There are 4 windows on the rear elevation that were changed out in 2014, after the hurricane damaged them. 48 windows will be replaced.
2. Goal is to retrofit new, energy efficient windows into the existing window frames.
3. Options investigated were to try and repair the existing windows, remove the existing windows and frames and replace, or remove the sash and hardware and replace with new.
4. The window frames are in good condition, and there was no need to go through the expense of replacing them. The retro fit option will retain the look of the building while improving the interior environment.
5. This project has the architect working on the specifications. The work will hopefully start this summer, with the gymnasium being the first space completed. This work is scheduled to run until 2019, with the majority of the work being done each summer. We have the names of two vendors who have done window installations for the school. This will be a public bid, open to all qualified vendors. The state does have a pool of pre-qualified vendors on a State web site. We will post this job on that web site.
6. The benefits will be windows that work correctly, are draft free and have screens so they can be opened in the spring and fall.

Install new bathroom partitions (\$38,000):

1. The existing metal partitions are all 20 years old. They have multiple scratches, some are broken and many have rust on the lower sections.
2. Replacement with longer lasting, mar-resistant partitions.
3. The replacement partitions are made out of two different plastic materials. One is a laminate and the other is a solid molded panel. The costs are similar and installation labor is the same.

4. We selected the solid molded panels for this project. We have replaced the partitions at Ox Ridge and Royle and have had great success. At the elementary level, they are impossible for the students to damage or vandalize. Graffiti, even indelible ink, just washes off the surface. The mounting hardware on the molded panels is stronger than the laminated panel hardware. The laminated panels have a tendency to start splitting after 8-10 years of use.
5. The plan is to measure the partitions during the spring, and place the order as soon as we are able to submit a Purchase Order. The work should be completed by the first week of August.
6. The benefit is an improved appearance in the restrooms. There will be no sharp metal edges or rusty partitions. There will be no need to close off a bathroom while we repaint damaged partitions.

Holmes Elementary School

Resurface parking lots and bus loop (\$80,000):

1. The asphalt surfaces of the parking lots and the bus loop need to be resurfaced and new lines, arrows and crosswalks need to be painted.
2. Smooth, level, safe parking lots and crosswalks.
3. The only option at this time is whether to level out the existing parking lot and put down new pavement, or mill the existing blacktop and use that as the base.
4. The decision to mill or not would be made after this winter. The amount budgeted does not include milling. The option of resealing was not explored as the blacktop has deteriorated past the point where that is an option. If needed, we will request additional funding to cover the cost of the milling.
5. The plan is to bid this work as part of the Town DPW paving bid. The timing of the work would be based on such factors as the weather and summer programs at Holmes. We have taken advantage of the Town paving bid for our work in the past, and plan to do so with this project. Last year's budget did not include Holmes; two years ago we paved the rear of the school.
6. Benefits are that we will have a new surface which should last for 20 years.

Replace sidewalk along Hoyt Street (\$45,000):

1. The sidewalk along Hoyt is in need of replacement. This sidewalk runs along Hoyt Street from the school property line to the intersection of Hoyt and Lake.
2. Replace with a new sidewalk of the correct width and height. Make the sidewalk ADA accessible at the crossings.
3. The state has a set of specifications for sidewalks that abut a state highway. There are no options. The state requires concrete curbing and aprons at the crosswalks. There are multiple materials available to use for the actual sidewalk. The state will give us a recommended material, which we assume will be concrete.

4. There is a division of traffic engineers who work on pedestrian safety. They will draw up the plans for us once the funding is in place.
5. The plan is to start the project as soon as we have received bids for the work. Ideally the work should take a week and it should be completed by the start of school. We have no estimated start or finish dates for the project. The work will take several weeks once it is approved by the state and then bid out.
6. The benefit is that the people who use the sidewalks will have a safer and handicapped accessible path to the school building.

Install Bathroom Partitions (\$35,000):

1. The project description and justification is the same as for Hindley.

Ox Ridge Elementary School

Replace gym flooring, including slab (\$45,000):

1. The existing surface is a regular tile floor. This floor also has multiple cracks in it. Safety has become a significant issue for not only our physical education classes but also for after school use by Darien groups that serve our children.
2. The goal is to eliminate the cracks and install a more appropriate floor.
3. The 3 options are a poured urethane floor, a wood floor, or an interlocking plastic tile floor. The wood floor was over 2.5 times as expensive as the urethane floor. The interlocking tiles have a very hard surface and are not easily cleaned.
4. The urethane floor will provide 10-15 years of use before needing to be rejuvenated.
5. The estimated cost is \$45,000. The work would start as soon as day camp ends and will be done before the school year begins.
6. There are 2 concerns regarding safety. The first concern is that the vinyl floor tile has no resiliency to it. The other types of floors have a certain amount of hardness to allow for stable footing, but also have a certain amount of bounce to them, which make them more absorbing when someone falls. The other concern is the cracks in the floor. These cracks have remained stable for the last few years, but installing a new floor will eliminate the issue.

Royle Elementary School

Install emergency generator (\$165,000):

1. When there is a power outage, the life safety systems will quickly lose the backup battery power. We will have no fire or burglar alarm, communication system, lighting, heating, elevator or refrigerator/freezer. This will be the final generator installed. All of the schools will have a generator when this building is completed.
2. Goal is to install a standby emergency generator that will keep the building safe and functioning in case of a power outage.

3. The available options were to install nothing, or install a larger generator capable of powering the whole building. There was no reason to do anything more or less than what was needed.
4. The option selected will keep the building from freezing up, it will keep the alarm systems operable, and it will keep the food in the refrigerator and freezer from spoiling. The emergency generator will also keep the communication system working.
5. The plan is to design and bid the work in the current fiscal year. This will enable us to award the work and have it completed during the summer of 2016.
6. The benefit is that regardless of the weather or power situation, the building will remain safe.

Fan /coil heaters in hallway of 1st grade wing (\$30,000):

1. The hallway and lobby areas in the first grade wing are very cold. Inadequate heating was designed with the original construction.
2. Goal is to increase the BTU output in the 2 lobby areas.
3. We looked at installing larger radiators or auxiliary electric heat. We decided that we could keep the radiators at the same or similar size by using fan coil units instead of radiators. Piping and electric would be minimal, and we could more than double the BTU output.
4. Fan coil units have been used as a method of heating lobby areas for several decades. Our lobbies in all the construction from 1995 and up have used fan coil heating. It is quiet and effective.
5. The plan would be to install the units over the summer so as not to interfere with the students going to the playgrounds or to the portable classrooms.
6. The benefits are that we will be replacing old radiators from the 1940's and 1950's with new more energy efficient units. Using the same amount or less steam, we will generate much more heat which will be circulated through the lower hallway.

Central Office

New slate roof, windows (\$500,000):

1. There are 3 slate roofs, all of different ages and condition on this building. The original construction project put forth by the Town did not include the slate roofs (\$485,000) or changing the windows (\$15,000) in the meeting room. Copper gutters were chosen because of the need to match the existing gutters given that we are part of a special zoning ordinance.
2. Change out the 2 older slate roofs and copper gutters on the building. The newer slate roof and the flat roof are not part of this project.
3. We investigated changing out with asphalt or imitation slate. Either change would require a special permit. The savings with using another material instead of slate is a combination of 2 factors. These factors are less labor and less expensive material.

4. Replacing the slate with new slate would match what we did at the Middle School. This would also be the easiest option to get all the approvals on. Using slate and copper would match the part of the building that is not receiving the new roof.
5. The plan is to develop the specifications now and get approval from the state for the project. This would entitle us to state building aid. We would seek local approval from the Town Fire Marshal and Building Inspector. Hopefully we could complete that process and bid in the late spring. A roofing project typically carries a two part warranty, one is for labor and material, and one is for material only. The labor part is usually for 1 or 2 years; the material can be for up to 20 years.
6. We would improve the comfort inside the building by eliminating the drafty windows and we would stop the leaks that we have every time it rains. There will be state aid, in the amount of 10.36%, which will go back to the Town. This is half the amount we would be eligible for if this building housed students on a regular basis.

District-Wide

Replace DAR-100 - 1997 Rack body/dump (\$55,000):

1. This truck is no longer used as an everyday vehicle, it is used as a spare truck in the summer and for sanding in the winter. It is a backup for both snow plowing and towing the lawn mower trailer. The frame has been welded twice, and the body is starting to get rusty along the bottom edges.
2. Project goal is to remove this vehicle and replace it with a 2017 model.
3. There aren't really any options, as we need a sander truck and we have several other trucks that will need to be replaced in the upcoming years.
4. We see no reason to keep putting money into a truck with a limited future. There is no point in a lease purchase or in buying used equipment. We are buying new equipment, the same brand in the same color year after year.
5. The cost is approximately \$55,000. We will be able to order the truck sometime in late July. This means the order will be placed in August and we will receive our new vehicle in early 2017.
6. The benefit is a safe reliable vehicle for the grounds department.

Replace Land Trekker at DHS with John Deere Gator (\$15,000):

1. Land Trekker is 10 years old, rusty, hard to get parts for it.
2. Replace with a more commercial type of utility vehicle.
3. Options included buying a similar ATV, buying a Lawn Tractor, or buying a Gator.
4. We selected a Gator because of previous experience with them. The options such as cabs, plows and lights are not add-ons, but are part of the basic unit.
5. Plan is to find a Gator on a GSA or DAS type of bid and order the unit to get it delivered this upcoming summer.
6. Benefit will be reliable safe method of picking up paper and garbage, getting from one side of the campus to the other side, plowing and salting the sidewalks.

Project Costs Summary

Darien High School	\$2,053,000
Middlesex Middle School	\$143,000
Hindley Elementary School	\$320,000
Holmes Elementary School	\$160,000
Ox Ridge Elementary School	\$45,000
Royle Elementary School	\$195,000
Central Office	\$500,000
District Wide	\$70,000
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Total Priority 1 2016-2017	\$3,486,000