



**MCRA**  
**ANNUAL REPORT 2018**

**Dedicated to providing services, products and opportunities of value that offer enrichment to the community.**

## **Vision Statement**

Montgomery County Revenue Authority (MCRA) is committed to growing a sustainable network that:

- Is nationally, regionally and locally recognized for its offerings and performance.
- Is dedicated to achieving higher environmental standards.
- Continues to offer new and innovative programs and services for the benefit of the community and our team.

MCRA is committed to the following core values:

1. Genuine Smile
2. Do-Anything Attitude
3. Deliver Excellence

## **MCRA - OVERVIEW**

The Montgomery County Revenue Authority (MCRA), created in 1957, is an instrumentality of Montgomery County, Maryland and a public corporation. The MCRA was established to construct, improve, equip, furnish, maintain, acquire, operate, and finance projects devoted wholly or partially for public use, good, or general welfare. A six-member Board governs the MCRA, with five members appointed by the County Executive and confirmed by the County Council. The sixth member – the Chief Administrative Officer of Montgomery County or designee serves in a non-voting, *ex-officio* capacity.

The two primary activities of the MCRA are to operate self-supporting facilities and to finance public facilities. On the operations side, the MCRA manages its golf course system comprised of nine golf courses along with the Montgomery County Airpark. The operated facilities generate various forms of revenue, which are used to fund MCRA operations and to provide for facility improvements. A portion of the operating revenues are used to retire any debt associated with operated facilities.

On the public financing side, the MCRA issues bonds to raise capital, to acquire land or other property, or to pay construction costs for Montgomery County facilities. Through a financing partnership with a broad range of County agencies, the MCRA has supported important public purposes as far reaching as economic development, education, transportation, health and human services, recreation, and the arts. The agencies' lease payments are used by the MCRA to retire the debt obligations.

### **Montgomery County Revenue Authority – 2018 Highlights**

The Montgomery County Revenue Authority (MCRA) remained committed to its mission to grow through new initiatives and continued partnerships. The golf industry saw a decrease in rounds of 4.8% nationally in 2018. Rounds of golf decreased by 14.1% locally and by 12.3% in the Baltimore Washington area, according to industry data. The MCRA golf courses experienced a decrease in rounds of 13.7%.

The MCRA issued revenue bonds refinancing the Montgomery College Arts Center project in November of 2015. The present value of the cash savings realized is \$3,578,120. The MCRA continues to enhance its operations and work with its partners to provide products that maximize the recreational enjoyment of the community while also identifying opportunities to save taxpayer dollars.

## **MCRA Golf Initiatives**

The MCRA's golf course system, operated under the flag of MCG, hosted 392,562 rounds in 2018 at its nine golf courses. This was an increase of approximately 21,800 rounds from the previous year. The following is a summary of the broad range of MCRA initiatives focused on the needs of the communities we serve.

- ***Community Assistance and Event Programs***
  - For a third year, MCRA worked with the Salute Military Golf Association, which focuses on rehabilitating local wounded warriors through the game of golf. Clinics and reduced fees were offered throughout the year for members of this organization.
  - MCRA donated auction items valued in excess of \$25,000 to more than 100 local charities including public and private schools.
  - Support of Montgomery County Public Schools continued by MCRA providing an excess of \$30,000 worth of free golf rounds to the high school golf teams. MCRA also donated tee times for the high schools for early season tryouts to aid in building their individual teams for the season.
  - MCRA hosted a golf outing at Northwest Golf Course, with proceeds donated to The First Tee of Greater Washington, DC and the Salute Military Golf Association.
  
- ***Family Golf***
  - MCRA continued with our popular Family Golf program, which is offered at all nine MCG courses throughout the summer. This program consisted of:
    - Family Golf clinics offered at our courses throughout the summer. During these special events, we provided golf tips and possibly put a golf club in people's hands for the first time.
    - \$10 rates for all families offered Monday – Friday at any time at our 9-hole courses and after 5 pm on our main 18-hole courses. Weekend Family Golf rates were available after noon at our 9-hole courses and after 5 pm at the 18-hole courses.
    - A “course within a course” is set up for juniors and new players to the game to make the game much more fun and enjoyable, along with family friendly scorecards.

- **FootGolf**
  - Northwest and Sligo Creek Golf Courses were the first FootGolf courses established in the DC Market in 2016.
  - FootGolf is a combination of soccer and golf whereby a player kicks a soccer ball and follows the rules of golf. This has proven to be a tremendous success at two facilities. In 2018, this program continued to grow with family parties, outing events and team building sessions.

- **MCG Academy**

- The MCG Academy has continued with our 6-step program for lessons. With Golf 101 and 102 for beginners, 103 and 104 focusing on the golfer's long or short game, 201 and 202 for private instruction and playing lessons, we have found an instructional plan for all levels of players. This step-by-step program allows golfers to start with a plan, or intermediate players to fit in based upon their experience level.
- In 2018, the MCG Academy increased its instructional program by more than 4% or \$27,000.



- **Robust Junior Golf Programs**

- The MCG Academy continues with weekly minicamp for kids. These mini camps were offered after school at Falls Road, Northwest, Needwood, and Little Bennett.
- We continued our long-standing partnership with The First Tee of Montgomery County, a program that uses golf to teach life skills to underprivileged kids. MCG Academy instructors host hundreds of juniors each session and have added a program at Little Bennett in 2018. Currently we have programs at Laytonsville, Needwood, Northwest and Sligo Creek, and Little Bennett.
- The MCG Junior League operated at 5 MCG golf courses.
- MCG Summer programs continued to go strong at 7 of the 9 MCG properties.

- **Golf Industry Supported Initiatives**

- Get Golf Ready, initiated in 2009, was continued through 2018 with great success. This national "grow golf" program was originally initiated by the World Golf Foundation.
- MCG Academy has redone the Get Golf Ready class and created a more affordable and enjoyable opportunity to allow community members to give golf a try. Golf 101 is a 3-class program for \$49, Golf 102 is a 4-class program for \$99, and Golf 103 is a 5-class program for \$149. The new class has exceeded revenue and total participants. Currently, these



programs are hosted at Falls Road, Needwood, Northwest, and Laytonsville.

- An estimated 2,500 participants have taken advantage of this great program since its inception. We are continuing to grow these programs in participants year over year.
- LPGA-USGA girls golf was introduced in 2015 at Falls Road, with more than 280 girls who participated.

- **Junior PGA Teams**

- MCG Junior Teams totaled 380 juniors who were involved in either the 7-9, 10-13, and the 14U division. MCG Junior Teams play and compete at Needwood, Falls Road, Northwest, Little Bennett, and Laytonsville. We continued to expand the program. MCG Junior Teams play a spring and fall division each year and the competition with a sense of team unity has created a truly enjoyable program for so many juniors.



- **MCG Junior Tour**

- MCG Academy created a competitive junior tour for kids in the age groups of 8-11, 12-13, and 14 & up. Offered for its inaugural year in the summer and fall of 2018, this tournament series paired boys and girls together within the age divisions playing from a different set of tees.
- Throughout 2018, MCG held 9 tournaments at different MCG courses, with close to 100 participants in the first 2 seasons.

- **MCG Programs**

- The MCG Academy team continued its successful Get Golf Ready and Keep Golf Going programs. We developed and implemented a new short game and long game program. More than 2,500 players participated in the program and many became loyal MCG customers and new golfers.
- Member for a Day -This program included an “all inclusive” price, which consists of continental breakfast, green fee, cart fee, lunch, driving range and replay rounds Monday – Friday. The program was successfully offered at Little Bennett, Laytonsville, Poolesville and Rattlewood.



Little Bennett Golf Course

- MCG has various Membership Programs that allow players to experience discounts on golf, food and beverage and pro shop merchandise. In 2018, these programs had more than 2,900 members registered.

- **MCG Events**

- In 2018, MCRA took MCG Events to a new level, with the goal to create a demand for private event rentals at our golf courses and to create events that would garner new customers (non-golfers and millennials). Both goals were achieved and continue to be a focus. MCG joined local chambers of commerce to educate the community about MCG's various programs and amenities.
- MCG created a monthly networking event called Third Thursdays, which rotated among six golf courses, developing a following from non-golfers.
- Summer Par-Tee events were held at the Northwest Golf Course driving range throughout the summer, complete with a live DJ, festive lights, food vendors and games. Several attendees signed up for golf lessons.
- The first annual Beer and Brat 5k race was held at Northwest Golf Course. It was the first golf course run in the region, certified by the Montgomery County Roadrunners. A festival followed, with a beer tasting, food vendors, sponsors, and games.
- A marketing campaign was created to promote the golf courses for private events, resulting in multiple bookings generating over \$30,000 in revenue.
- Sligo Creek Golf Course hosted a very popular summer concert series, with two concerts featuring a pop group and, for a second year, local jazz musician Marcus Johnson.
- Poolesville Golf Course was a stop along the celebrated 2018 Montgomery County Farm Tour, marking its presence in the Agricultural Reserve. Offerings included BBQ, locally sourced beer and wine, games, and music. The planned winery and education/event center were highlighted.



## Agronomy and Environmental Stewardship at MCRA Golf Courses

MCRA golf courses remained committed to important environmental initiatives in 2018 and finished another year with great playing conditions in large part due to the maintenance practices that have been implemented over the years. Important agronomic strategies continued, and a number of projects were undertaken that will have long-term benefits to playability and the environment.

**Agronomy:** Among the key agronomic programs that allow our superintendents to deliver appealing playing surfaces while reducing pesticide and fertilizer use are:

- **Core aeration:** This is the most important of all cultural practices we perform. Core aeration, wherein plugs of turf, thatch, and underlying soil are removed, allows for increased root growth, improved air exchange to roots, and improved water infiltration, among a host of other benefits. When aeration is performed on greens, holes are usually backfilled with 100% sand, which keeps these important channels open for weeks or months for continued turf health benefits. The sand is of specific angularity and particle size to allow it to maintain surface firmness as well as permit the playing surface to “breathe.” While this procedure is temporarily disruptive for golfers, it is a significant reason why highly scrutinized playing surfaces can be maintained in such great condition.



- **Deep vertical mowing with sand injection:** In addition to normal core aeration, most of our courses have implemented a more aggressive strategy of deep vertical mowing, combined with sand injection, to help combat the numerous plant health issues that can be exacerbated by excessive thatch. This process was performed in late fall to remove more thatch and allow these channels to be open all winter and help reduce potential injury caused by ice accumulation. We performed this procedure at 7 golf courses (all except Laytonsville and Rattlewood) and were able to successfully eliminate traditional spring core aeration in 2019 at those courses, resulting in improved playability for our customers. We are continuing to evaluate our agronomic practices to keep up with thatch dilution and removal, minimizing the impact on playability for the maximum number of players.





**Topdressing:** Weekly or bi-weekly applications of light amounts of sand, brushed into the greens, go virtually unnoticed by golfers. This important process not only continues to maintain the surface firmness desired by our golfers, but also helps to dilute thatch and organic matter that naturally builds up as the turf grows. Minimizing the buildup of organic matter in soil is important because thatch holds moisture (increasing disease pressure) and is a habitat or food source for insect pests.



- **Rolling:** Lightweight (800-lb) dedicated, motorized rollers are used typically 3-5 times per week on greens and have been shown in numerous university research studies to reduce incidents of disease such as dollar spot (*Sclerotinia*



*homeocarpa*), one of the diseases our greens are most prone to getting. Using these machines allows us to also increase green speed when necessary, as well as smooth the playing surface. We continue to utilize this practice to eliminate mowing 2-3 days per week by simply rolling greens in the morning to prepare the greens for play; this practice not only reduces disease pressure but also reduces fuel emissions. On these days, we reduce by 75% the amount of fuel used to prepare greens for play.

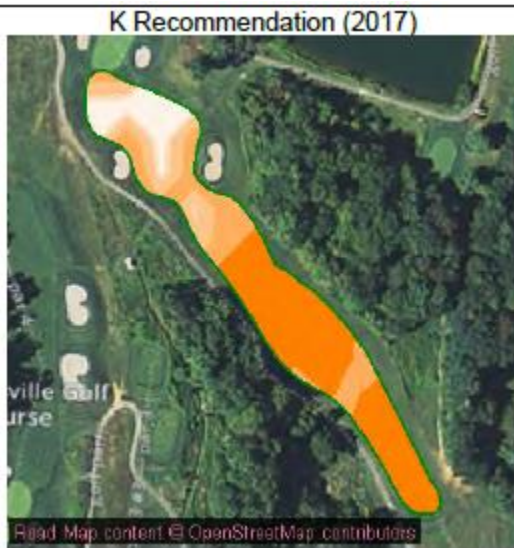
- **Venting/Spiking:** Every 2-4 weeks throughout the year, superintendents will perform another important but minimally disruptive practice. Venting is usually performed with equipment that leaves very small (0.2 – 0.25 inch) holes throughout the green at 1.25-inch spacing. This machine rolls the turf smooth afterwards as well. Spiking is typically done with special units that fit on a greens mower and leave small slits in the green. This process is much faster, but since the slits will close more quickly it is typically beneficial for a shorter period of time. Both practices are still very important tools that can help dry out a wet green and/or provide oxygen to the upper root zone and make the turf healthier.



- **Soil Testing:** Without a well-balanced soil, many of our efforts to maintain great turf are wasted. By taking soil samples of individual greens, tees, fairways, or roughs, we are able to determine exactly what the grass needs. And we save a lot of labor, fuel, and resources by only targeting specific applications of nutrients or soil amendments like gypsum or compost where the soil tests dictate. Not only does the grass perform better at an “ideal” nutrient ratio but the soil will also more readily support a diverse microbiology and have improved drainage properties. In 2016, we began to implement MLSN (Minimal Levels of Sustainable Nutrition) guidelines (<https://goo.gl/TzuOPI>), a sustainable approach to managing turfgrass nutrition developed by PACE Turf and the Asian Turfgrass Research Center after careful analysis of thousands of soil tests from around the world of healthy and unhealthy turf. We continued to successfully utilize this approach in 2018.

Total Exchange Capacity (M. E.)		4.86	4.01	
pH of Soil Sample		6.80	6.60	
Organic Matter, Percent		2.37	2.22	
ANIONS	SULFUR:	p.p.m.	13	14
	Mehlich III Phosphorous:	as (P <sub>2</sub> O <sub>5</sub> ) lbs / acre	264	226
	CALCIUM:	Desired Value lbs / acre	881	544
EXCHANGEABLE CATIONS		Value Found	644	498
		Deficit	-17	-46
	MAGNESIUM:	Desired Value lbs / acre	100	100
		Value Found	100	82
		Deficit		-18
	POTASSIUM:	Desired Value lbs / acre	100	100
	Value Found	82	71	
	Deficit	-18	-29	
	SODIUM:	lbs / acre	52	50

- **Soil texture mapping:** In late 2016, we began the process of using a Veris machine to map the texture of the soils of our fairways at all 9 courses using electrical conductivity. This process allows us to further reduce necessary fertilizer applications. The picture here is an example of the potassium recommendations for #6 fairway at Laytonsville. Areas lighter in color will not need any potassium applied, so on this hole we would see about a 50% reduction in that fertilizer. This picture also demonstrates the high variability of the soil around our properties, as well as our commitment to more precision turf management.



After the soils are mapped, soil samples are taken from each similar zone in every fairway to provide a recommendation. Nutrient recommendations are given for P, K, Mg, Ca, S, Zn, Mn, Fe, Cu, and B, as do most standard soil tests. We can look at this data combined with MLSN guidelines to provide an innovative new way to further reduce nutrient use.

- **Water conservation:** One of the keys to managing healthy turf is to maintain control of the water (when Mother Nature allows). Keeping soils dry, especially in the spring and fall, makes the grass search for water by growing deep roots. Deep roots help turf survive better by more efficiently accessing water and nutrition that is available in the soil. Irrigation computers are set up to specifically water dry areas when necessary on a large scale using highly efficient sprinkler heads. On a smaller scale, such as greens, much of the water comes in the form of hand watering. Superintendents and their teams can apply water to specific areas that need it at a time when overhead sprinklers that are more general in coverage may give unnecessary water to a wetter part of a green, for example, that could result in rapid turf decline. Hand watering and judicious irrigation programming saves an estimated 10 – 20 million gallons of water each year at our nine golf courses.



- **Wetting agents** are also used at our facilities in an effort to reduce watering and improve the effectiveness of our irrigation practices. Wetting agents allow water to more readily and evenly infiltrate into the soil. This immediately reduces runoff during heavy rain events and allows water from irrigation (when needed) to reach the entire root system and keep plant health at ideal levels to tolerate traffic and weather stress. Wetting agents can be targeted with a hose on localized dry spots, applied to entire turf areas such as greens, tees, or fairways, or applied through the irrigation system for a broad, positive impact as soil conditions dictate throughout the year. Rates are easily adjusted and different chemistries are available that allow water to be held near the surface or penetrate deeper into varying soil types from sand to clay and everything in between.

- **Technology:** MCRA continued its use of tools that we now consider indispensable: TDR 300 and 350 Field Scout Soil Moisture Meters. These devices are located at every facility, and allow the superintendents to instantly see moisture levels on a digital display. With this information, they can more accurately pinpoint areas that are deficient in water, or that are too wet. This has enabled us to use even less water as we manage our greens, and by ensuring proper moisture levels (not too wet, not too dry) throughout the entire green, plant health is consistently better, and the grass requires fewer inputs in the way of pesticides or fertilizers.



- **Scouting:** As a part of our Integrated Pest Management (IPM) strategy, scouting the golf courses daily for dozens of insect and diseased pests that can significantly damage turf is performed. One example of a pest that is causing significant turf damage in the Mid-Atlantic region is the Annual Bluegrass Weevil (ABW). The ABW has been a pest to the northern states such as Massachusetts and New York for many years and has now migrated south as far as North Carolina and adapted to the slightly warmer climate where it is difficult to control with as many as 4 generations throughout one growing season. We spend a significant amount of time talking with university researchers and other experts about ideal control strategies that will allow us to minimize chemical inputs and maximize control of this pest. There are multiple methods to scout for the ABW. A “soap flush” with lemon scented dish soap is applied with water to host turf (primarily *Poa annua*) which makes the adults rise from cover to the tops of grass blades to be identified and counted. A “salt flush” is used other times of year to draw larvae from grass stems and is done by simply adding salt to a jar with water and adding a small turf plug and shaking. Cutting into the turf then pulling apart the thatch to identify larger, older larvae can also be done. There are other monitoring techniques such as vacuuming to identify ABW numbers and develop a control plan if needed. After scouting data is collected, the turf manager will implement a control strategy to targeted areas, if needed, based on their findings.
- This is an example of the lengths our teams go to in order to monitor just one of many insects and turf diseases that can impact playing conditions.



**Environment:** MCRA courses continue to work within the guidelines of the Audubon International Cooperative Sanctuary Program for Golf Courses (<http://acspgolf.auduboninternational.org/>), as well as the Groundwater Guardian Greensite Program (<http://groundwater.org/gg/greensites.html>). These successful programs help manage green spaces such as golf courses, carry out safe groundwater practices against chemical use and pollution, and develop effective conservation and wildlife enhancement programs.

Poolesville, Little Bennett, Needwood, and Northwest golf courses have completed the Audubon International certification program. Through the end of 2018, all MCRA golf courses continue to work toward achieving Audubon certification by completing requirements in the six focus areas of this intensely-managed program:

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| ● Wildlife & Habitat Management | ● Water Quality Management        |
| ● Water Conservation            | ● Chemical Use Reduction & Safety |
| ● Environmental Planning        | ● Outreach and Education          |

**Research:** MCG courses continue to evaluate new and existing strategies for optimizing playing conditions with fewer inputs of water, fertilizer, and pesticides. One of the ways we do this is through the use of check plots when applications are made. By keeping a small plot of turf untreated with a particular application, it allows us to evaluate the effectiveness and timing of control strategies. The goal is to continue to enhance the ways in which we can manage our courses more sustainably – both environmentally and economically.

Needwood Golf Course's Executive 9 is home to a number of research projects aimed at reducing pesticide use with a variety of biorational products on greens, tees and fairways. In 2018, more observations from studies on greens, tees, and fairway areas here showed that none of these products has performed effectively during hot and humid summer weather conditions. Some products have shown good, but inconsistent results in spring and fall, but are far more costly than synthetic treatments. We will continue to assess these programs to evaluate how weather extremes can play a role in their integration.

**Projects:** After a tough weather year in 2018, some normal winter projects (like bunker rebuilds) were deferred. However, a number of priority projects were still completed.

- **Drainage** was installed in a number of fairway and rough areas at most of our golf courses after a record-setting wet year in 2018. Of all projects, continued drainage work at our facilities is among the highest priority because overly wet conditions will kill more turf than drought stress ever will. Weather patterns the last 2 decades or so are trending towards higher rainfall totals with more time in between rain events. Getting water off the short grass (greens, tees, fairways) as quickly as possible is key to maintaining healthy turf, particularly during stressful summer months!



- A defunct **Dry Hydrant** at Little Bennett was relocated in order to provide both the golf course as well as Montgomery County Fire and Rescue significantly more access to water for fighting fires in this part of Northern Montgomery County. The old system had the required capacity of 30,000 gallons, but the new location now provides over 1,000,000 gallons of water to help fight fires in and around Little Bennett Golf Course!



- The cart path bridge on #4 at Laytonsville was rebuilt by the talented grounds crew to provide many more years of service.



- Major irrigation pump station components were replaced at Rattlewood Golf Course, helping ensure that the heart of the irrigation system will remain in good condition for years to come.

- Preparations for vine planting at Poolesville Golf Course were underway in 2018. An education vineyard will be an important part of a larger economic development project expected to break ground in 2019! Key goals of this project will be to support local agriculture and the Maryland wine industry. Soil preparations are the first key to success; soil samples have been taken to assess existing and recommended soil nutrition, test pits have been dug to evaluate soil structure and suitability, and nematode assays to check for the presence of plant parasitic nematodes are just a few of the many important parts of this conversation. We have been working with a number of consultants, including Dr. Joseph Fiola, a specialist in viticulture and small fruit from University of Maryland Extension, who one of the foremost experts in Maryland in this area of study.



- A bentgrass nursery was constructed at Needwood. This nursery, maintained as a putting green, provides an important source for replacement plugs of grass if needed for an emergency repair. The variety of bentgrass selected, “007,” is known for its high resistance to many common turfgrass diseases.

## Montgomery County Airpark

The Montgomery County Airpark (Airpark), acquired in 1960, is owned and operated by the MCRA through a 99-year lease dating back to 1959. The MCRA maintains sole control over the northwest end of the Airpark property. In addition, the MCRA subsidizes the annual operating losses for the benefit of the County and the community.

As owner and federal grant sponsor, MCRA secures State and Federal funding for the Airpark and is responsible for the runways, taxiways, navigation aids, and other common areas. The fixed base operator (FBO) offers services to support aeronautical activities including fueling, aircraft storage, aircraft maintenance, flight training, and related services. Following the expiration of an 18-year lease with an aviation services company, the *long-term* leaseholder, doing business as DC Metro Aviation Services, became the fixed base operator (FBO). Since DC Metro Aviation Services took over as FBO, there have been vast improvements in both operations and facilities, including the construction of new hangars for aircraft storage and the addition of self-fueling service for pilots.

More than 150 aircraft are stored on the property. Montgomery County Airpark's 4,200-foot runway has three instrument approaches and is the closest "jetport" to the Nation's Capital. A portion of the traffic is of the commercial type or air taxis consisting of a variety of modern day aircraft such as Cessna Citation, Lear Jet, Beechcraft (both jet and turbine), and Falcon Jet. The Airpark is also home to an air taxi firm that specializes in transporting air travelers to various destinations in the east coast and the mid-west on a regular on-demand basis.

In 2016, the MCRA secured a \$5.477M FAA grant with a \$310k matching grant to refinish and relight the taxiway Airpark. This is the first of a two phase project and the MCRA will be seeking additional grants for phase 2.

According to 2018 economic data supplied by the Maryland Aviation Administration, the Airpark provides the following direct, indirect, and induced benefits to Montgomery County:

- 193 jobs
- \$9,661,000 million in personal income
- \$5,753,000 million in business revenues
- \$1,468,000 million in tax revenues



## Financing Activities

Long-term sustainability continues to be a focus at the MCRA. A key strategy to attain this, in addition to constant attention to the operating budget, is an ongoing effort to reduce overall liabilities. In January of 2018, MCRA took advantage of a favorable interest rate environment to replace its interest rate swaps on a principal balance of \$17,168,000. This will save MCRA approximately \$32,000 per year in debt service payments through the remaining life of the bonds. Final maturity occurs in December of 2027.

In addition to its own debt, the MCRA carries more than \$81 million in debt related to projects around the County, which is not considered part of the County's debt service calculation. The MCRA issued revenue bonds refinancing the Montgomery College Arts Center project in June of 2015. The present value of the cash savings realized is \$3,578,120. The Goldenrod Building was purchased in September of 2011 with bonds totaling over \$15 million. It is now owned by Montgomery College. MCRA refinanced the Bethesda North Conference Center bonds in 2012, thereby saving the County \$1.052 million in cash flow over the remaining life of the bonds.

Additional projects include:

- Bethesda North Conference Center
- Health and Human Services Building
- Germantown Indoor Swim Center and other County swim facilities
- Montgomery College Arts Center
- Montgomery College Silver Spring Parking Facility
- Goldenrod Building



Bethesda North Conference Center



Germantown Indoor Swim Center