



City of Bowie

Regular City Council Meeting

Monday, November 17, 2025
Council Chambers - 8 p.m.

AGENDA

- I. CALL MEETING TO ORDER**
- II. PLEDGE OF ALLEGIANCE**
- III. QUORUM**
- IV. AGENDA ADDITIONS/DELETIONS/AMENDMENTS**
- V. CITIZEN PARTICIPATION**
- VI. PRESENTATIONS**
- VII. CITY BOARDS AND COMMITTEES**
 - A.** Appointments/Reappointments/Swearing-in
- VIII. COUNCIL ANNOUNCEMENTS**
- IX. CITY MANAGER'S REPORT**
- X. CONSENT AGENDA**
 - A.** Approval of October 20, 2025 Council Meeting Minutes
 - B.** Approval of November 3, 2025 Council Meeting Minutes
 - C.** Adoption of Proclamation P-19-25 Proclaiming the Month of November as Municipal Government Works Month in the City of Bowie
 - D.** Adoption of Resolution R-103-25 Accepting Driveway Apron Improvements Constructed Under Permit DW-0006-25 at 12106 Forge Lane and the Release of Construction Securities
 - E.** Adoption of Resolution R-104-25 Accepting Driveway Apron Improvements Constructed Under Permit DW-0004-25 at 13525 Gresham Court and the Release of Construction Securities
 - F.** Adoption of Resolution R-105-25 Accepting the Construction of Stormwater Management Constructed Under Permit SWM-0003-24 for Dash-In Bowie at 4100 NW Robert Crain Highway and the Release of Construction Securities
 - G.** Adoption of Resolution R-107-25 Awarding a Contract to J. Fletcher Creamer & Son, Inc. to Replace Malfunctioning Valves, Install a New Valve and Fire Hydrant on Moylan Drive at the Intersection of Route 450 (Annapolis Road) in the Amount of \$174,988.00
 - H.** Introduction of Ordinance O-13-25 Amending the Adopted Budget for the Fiscal Year Beginning July 1, 2025 and Ending June 30, 2026, As Embodied in Ordinance O-4-25 and Amended by Ordinance O-11-25, to Appropriate Funds for the Following Projects: \$500,000 for Lighting Repairs, \$200,000 for the

Lateral Sewer Lining Project at Somerset, \$16,500 for Salaries and Fringe Benefits, \$10,000 for a Housing Grant, \$15,200 for a Folder/Sealer Machine and \$16,800 for the Building Permit Issuance for the Bowie Golf Course Maintenance Building.

XI. OLD BUSINESS

- A. Adoption of Resolution R-101-25 Approving the Creation of the Federal Employees Financial Assistance Program - **Eligible for Action**

XII. NEW BUSINESS

- A. Energy Efficiency and Conservation Block Grant (EECBG) Phase II - The City's consultant, Loring Consulting Engineers, will present the energy conservation measure (ECM) recommendations based on the Level 2 energy audits conducted at City Hall and Kenhill Center.
- B. Detail Site Plan DET-2024-016, Freeway Airport - Freeway Realty, LLC (the Applicant) proposes a Detailed Site Plan for 297 single-family detached units on 131.5 acres. The site address is 3900 Church Road, Bowie, MD, 20721, located southwest of where Church Road crosses US 50 (John Hanson Highway), and is outside the City limits - **Public Hearing/Eligible for Action.**

XIII. ADJOURNMENT AND MOVE TO CLOSED SESSION

To adjourn to closed session under the statutory authority of the Md. Annotated Code, General Provisions Article §3-305(b)(7): "To consult with counsel to obtain legal advice."

Note: The Ethics Commission has advised that under certain circumstances, members of the public may qualify as lobbyists when they testify before the City Council. If so, the Bowie Ethics Ordinance requires that certain information be filed with the Ethics Commission. Please review the information about lobbying that is provided with the City Clerk. If you have any questions about lobbying, please contact the Ethics Commission or the Assistant City Manager.

This meeting will be televised live on Verizon Channel 10 and Comcast Channel 71 and 996, repeated on 11/19/2025 and 11/22/2025 at 7:00 p.m., and [web-streamed live](#).

For a closed-captioned version of the meeting video, please go to <https://www.youtube.com/user/cityofbowiemd/playlists> and select the 2025 Council Meetings list. Once the meeting video opens, be sure to click on "CC" button to turn on closed captioning.

NEXT REGULAR MEETING OF THE BOWIE CITY COUNCIL - MONDAY, DECEMBER 1, 2025 - COUNCIL CHAMBERS - 8:00 P.M.



Memorandum

TO: City Council

FROM: Awilda Hernandez, City Clerk

SUBJECT: Committee Appointments/Reappointments/Swearing-in

DATE: 11/13/2025

Committee Appointments:

1. Mr. George Cowan was interviewed on November 3, 2025, for appointment to the Green Team Executive Committee. Council concurred to appoint him to the Committee as a Regular Member for a 2-year term. Please have Councilmember Rogers move to appoint him.

ATTACHMENTS: None

REGULAR CITY COUNCIL MEETING MINUTES

MONDAY, OCTOBER 20, 2025

CALL MEETING TO ORDER:

The Regular Meeting of the Bowie City Council was held on Monday, October 20, 2025, in Council Chambers at City Hall. Mayor Adams called the meeting to order at 8:02 p.m.

PLEDGE OF ALLEGIANCE TO THE FLAG:

Mayor Adams led the Pledge of Allegiance to the Flag of the United States of America.

QUORUM:

In attendance were Mayor Adams (virtual), Councilmembers Brady, Estève, Rogers, Truesdale and Woolfley, City Manager Lott, Assistant City Manager Mears, City Attorney Levan, City Clerk Hernandez and Staff.

AGENDA ADDITIONS/DELETIONS/AMENDMENTS:

None.

CITIZEN PARTICIPATION:

1. Victor Tapeh – Spoke about a potential music event to be held in the City.
2. Linetra Jackson, Governor Bridge Road – Spoke on issues of rodents at Governors Green Apartment complex.

PRESENTATIONS:

- A. Council presented a proclamation to Charles H. Wesley Lodge No. 147 on the celebration of their 35th anniversary.

CITY BOARDS AND COMMITTEES:

A. Appointments and Swearing-in:

1. Councilmember Rogers motioned to appoint Carla Carter to the Diversity Committee as a regular member for a 2-year term. Councilmember Estève second the motion. Motion passed 5-0 (Adams did not vote).

2. Councilmember Truesdale motioned to appoint Daniel Mehmedovich to the Community Recreation Committee as a regular member for a 2-year term. Councilmember Brady second the motion. Motion passed 5-0 (Adams did not vote).
3. Councilmember Estève motioned to appoint Rufus Bickersteth to the Administrative Review Board as an alternate member and Advisory Planning Board as a regular member for a 2-year term. Councilmember Brady second the motion. Motion passed 6-0.
4. Mayor Pro Tem Woolfley swore in the members to their respective committees.

COUNCIL ANNOUNCEMENTS:

Councilmember Rogers commented that she was honored to accept the City's Sustainability Award and MML Achievement Award on behalf of the City at the MML Fall Conference last week.

Councilmember Estève thanked Police Department staff for their support during the peaceful demonstrations that took place last weekend in the City.

CITY MANAGER'S REPORT:

City Manager Lott reported that leaf collection service will begin at the end of the month.

CONSENT AGENDA:

Councilmember Estève motioned to approve Consent Agenda items: A) Approval of September 15, 2025 Council Meeting Minutes; B) Adoption of Resolution R-85-25 Accepting the Storm Drain Improvements Constructed Under Permit SDP-0001-24 at Lake Melford Avenue Outfall and the Release of Construction Securities; C) Adoption of Resolution R-86-25 Accepting the Right-of-Way Improvements Constructed Under Permit ROW-0174-20-R2 at Melford Villages Block 3 and the Release of Construction Securities; D) Adoption of Resolution R-87-25 Accepting the Right-of-Way Improvements Constructed Under Permit ROW-0170-20-R1 at the Aspen of Melford and the Release of Construction Securities; E) Adoption of Resolution R-88-25 Request for 80% Performance Bond Reduction for Permit ROW-0129-18-R1 at Melford Town Center – Lake Melford Avenue; F) Adoption of Resolution R-89-25 Accepting the Right-of-Way Improvements Constructed Under Permit ROW-0006-24 at 13123 10th Street and the Release of Construction Securities; G) Adoption of Resolution R-90-25 Allowing for the Release of Securities for the Sediment Control of Rozon Homes, Lots 1 and 2, Improvement at 12601 Lanham Severn Road for Permit SC-0002-23; H) Adoption of Resolution R-91-25 Accepting the Construction of Stormwater Management Constructed Under Permit Number SWM-0001-23 for Rozon Homes, Lots 1 and 2, at 12601 Lanham Severn Road and the Release of Construction Securities; I) Adoption of Resolution R-92-25 Accepting a Bid Proposal for the FY26 Jericho Park Trail Segment Construction Phase 1 and FY27 Phase 2 Project From E&R Services Inc. in the Amount of \$325,084; J) Adoption of Resolution R-93-25 Awarding a Contract for Replacement of Athletic Field Scoreboards at Whitmarsh and Church Road Parks to Empire Graphics, LLC in the Amount of \$110,592.20; K) Adoption of Resolution R-94-25 Approving the Award of the City's Art Committee FY26 Grants; L) Adoption of Resolution R-95-25 Approving the Award of the City's Community Outreach Committee FY26 Grants; M) Adoption of Resolution R-96-25 Approving the Award of the City's Education Committee FY26 Grants; N) Adoption of Resolution R-98-25 Waiving the Competitive Bidding Requirements of Section 61 "Purchasing and Contracting" of the Charter of the City of Bowie to Allow the Purchase of Security Camera Equipment (CCTV) From Skyline Technology Solutions, LLC, and Authorizing the City Manager to Issue a Purchase Order in the Amount of \$140,463.42; O) Adoption of Resolution R-99-25 Accepting a Proposal for the Executive Search Firm to Recruit Candidates for the Position of City Manager From Strategic Government Resources in the Amount of \$29,419. Councilmember Rogers second the motion. Motion passed 6-0.

OLD BUSINESS:

A. Adoption of Ordinance O-12-25 Amending City Code, Chapter 14 “Motor Vehicles and Traffic”, Article III, §14-17b, “Speed Monitoring Systems”, to Increase the Fines for Certain Violations Thereof. City Attorney Levan summarized the Ordinance. The amendment will increase fines for certain speeding violations detected by the City’s speed monitoring system and aligns City policy with recent Maryland General Assembly legislation (House Bill 182), which authorized municipalities to raise fine limits. The City’s existing \$40 fine for drivers exceeding the speed limit by 12–15 mph will remain unchanged. New fine tiers are as follows: 1) 16–19 mph over: \$70; 2) 20–29 mph over: \$120; 3) 30–39 mph over: \$230; 4) 40 mph or more over: \$425.

Public Hearing:

Since no one signed up to speak, Mayor Pro Tem Woolfley declared the public hearing to have been held.

Councilmember Estève clarified that the base \$40 fine remains unchanged and emphasized public interest in expanding the speed camera program due to its popularity and safety benefits.

Councilmember Rogers noted that the fine increases stem from state legislation, not a City initiative for revenue generation, and reiterated that compliance prevents fines altogether.

Councilmember Brady expressed that the goal is safety, not revenue, and that most citations fall into the lowest tier. He reaffirmed that the City’s contractor does not profit from higher fines.

Councilmember Estève motioned to adopt Ordinance O-12-25. Councilmember Brady second the motion. Motion passed 6-0.

NEW BUSINESS:

A. Adoption of Resolution R-97-25 Authorizing The City of Bowie (The “City”) To Issue and Sell Two Separate Series of Its General Obligation Bonds Pursuant To The Authority Described Herein, Such Series of Bonds To Be Respectively Designated “The City Of Bowie Public Improvement Bonds, Series 2025A (Tax-Exempt)” (The “Tax-Exempt Bonds”) and “The City of Bowie Public Improvement Bonds, Series 2025B (Federally Taxable)” (The “Taxable Bonds” and, Collectively With The Tax-Exempt Bonds, The “Bonds”), The Proceeds of The Sale Thereof To Be Used and Applied For The Public Purposes of Financing or Reimbursing Costs of the Projects Described Herein and Costs of Issuance As Authorized By Ordinance O-9-25 Identified Herein, All As Further Described Herein; Prescribing the Forms and Tenor of the Bonds and the Terms and Conditions for the Issuance and Sale Thereof at Public Sale By Solicitation of Competitive Bids, Including the Substantially Final Form of the Notice of Sale and Other Details Incident to the Issuance, Sale and Delivery of the Bonds; Authorizing the City Manager to Determine Certain Matters Provided for Herein In Connection With the Sale of the Bonds; Authorizing and Approving the Preparation and Distribution of a Preliminary and a Final Official Statement In Connection With the Sale of the Bonds, and Any Supplements or Amendments City of Bowie Thereto; Designating a Bond Registrar and Paying Agent for the Bonds and Providing for an Agreement With Such Entity; Authorizing the Preparation, Execution and Delivery of a Continuing Disclosure Undertaking Pursuant to SEC Rule 15c2-12 and Covenanting To Provide Continuing Disclosure Relating to the Bonds; Providing for the Appropriation, Disbursement and Investment of the Proceeds of the Bonds; Providing for the Imposition of Any Taxes Necessary for the Payment of Debt Service on the Bonds; Pledging the Full Faith and Credit and Unlimited Taxing Power of the City to the Payment of Such Debt Service; Providing That Debt Service on the Bonds Also May Be Paid From Any Other Lawfully Available Sources of Revenue; Making or Providing for Certain Covenants, Determinations and Designations Relating to

the Tax-Exempt Status of the Tax-Exempt Bonds; Providing That the Provisions of this Resolution Shall Be Liberally Construed; and Generally Relating to the Issuance, Sale, Delivery and Payment of and for the Bonds Authorized Hereby – Assistant City Manager Mears summarized Resolution R-97-25 which authorizes the City of Bowie to issue and sell two series of general obligation bonds - Series 2025A (Tax-Exempt) and Series 2025B (Federally Taxable) to finance public improvements, including the replacement of the City's Ice Arena and utility infrastructure projects.

Lindsay Rader, City Bond Counsel, with Funk & Bolton stated that the combined principal of the two-bond series will not exceed \$33 million. The tax-exempt bonds will mature over approximately 20 years, and the taxable bonds will mature over approximately 30 years. Zions Bank Corporation will serve as the bond registrar and paying agent.

Councilmember Esteve reflected on the long history of this project, noting discussions began in 2013 as part of the City's review of aging amenities. He highlighted that the Ice Arena, over 50 years old, will be replaced with a modern, energy-efficient facility co-located with the Bowie Golf Course, creating operational synergy and long-term cost savings.

Mayor Adams emphasized the Council's plan to follow the Ice Arena replacement with the construction of indoor basketball courts on the site of the existing arena, underscoring the City's continued investment in recreational facilities.

Councilmember Rogers addressed public concerns about fiscal risk, noting that municipal bonds are among the safest investments.

Financial Advisor Jennifer Dierksen affirmed that the bonds' AAA rating and stable market conditions indicate minimal risk and a strong market reception.

Councilmember Truesdale emphasized the need to ensure equitable access to amenities for youth in all districts, particularly District 3, and thanked colleagues for addressing community equity concerns.

Councilmember Brady reiterated that maintaining and modernizing City amenities like the ice arena, gymnasium, and senior center is essential to Bowie's quality of life. He confirmed that the City's AAA bond rating will remain secure despite the new debt and praised the project as a responsible investment in the community's future.

Councilmember Brady motioned to adopt Resolution R-97-25. Councilmember Truesdale second the motion. Motion passed 6-0.

B. Bowie Center for the Performing Arts - Executive Director, Christopher Dwyer, addressed Council with operating challenges, capital needs, and request for increased City support; explore partnership for future events. The center serves as a cultural hub with frequent community and school events and drives foot traffic to nearby businesses. The City's contribution has been \$80,000 a year for the last 20 years. Major improvements need to be made, mainly the roof replacement, carpet installation, restroom upgrades and HVAC replacement. Mr. Dwyer requested Council consider an increase of 25-35% in next year's budget for BCPA.

Mayor Pro Tem Woolfley asked if any discussion has been had with Prince Georges County Public Schools for renegotiating their MOU's. Mr. Dwyer responded that some conversations have been had in the past week. No official commitment made.

Mayor Adams stated that the requests made are reasonable, they are not only cosmetic but address safety as well.

Council thanked Mr. Dwyer for his presentation and provided consensus to include an inflation-adjusted increase for BCPA in the upcoming budget cycle.

C. Grant Resources for Federal Employees – Jesse Buggs, Grants Director, presented Council with a City-funded assistance program, up to \$1,000,000 cap, to support impacted Bowie residents that have been furloughed due to the Federal Government shutdown. Bowie has about 5,400 federal workers. Furloughs and partial paychecks are creating acute hardship, especially for seniors, single-parent households, and renters. WSSC approved \$2.3M relief programs; BGE and Washington Gas offer payment plans and credits.

Councilmember Brady commends staff and urges creative partnerships including philanthropy. Criteria should not exclude non-federal residents in genuine need.

Mayor Pro Tem Wolfley noted many existing aids (eviction/foreclosure pauses, utility relief, interest-free loans, federal back pay). The program should target gaps, not duplicate. Recommended focus: food assistance; water bills (City-controlled; consider forbearance/fee waivers); deliver meaningful aid to highest-need cases rather than dilutive across thousands; include repayment protocols where back pay applies.

City Manager Lott will have staff work on a specific plan which details categories, eligibility, caps, and recoupment for the first Council meeting in November.

D. Update on Rat Infestation at Governor Green Apartments (ROSS Management Services) - Lori Cunningham, Assistant Director, Department of Community Services summarized the update. Code Enforcement to date have issued 7 violations totaling \$1,300. Multiple site visits confirm ongoing rodent activity. Property management has adjusted compactor pickup to Fridays, to avoid Monday overflow. They have cleared shrubbery near dumpster; covered several burrow holes and lined areas with rock. Ongoing work with extermination vendor. Staff's assessment is that the response remains insufficient—additional burrows observed; continued rodent presence near first-floor residences and parking areas.

City Manager Lott reiterated that a formal directive letter will be sent which will require submission of a third-party certified rodent extermination inspection report and a remediation plan; a 10-day deadline to comply and remediate to the City's satisfaction. If non-compliance/persistent conditions continue, the City will engage a qualified contractor, perform extermination/remediation, and bill the property including placement on tax bill if necessary.

Council consensus is to proceed with the formal directive letter and 10-day clock; escalate to City-led extermination and cost recovery if standards are not met. They also want a draft ordinance amendment to create a multi-family residential class for sanitation/pest violations; increase fine ceilings (up to \$5,000) for commercial/multi-family cases and present to Council with language ASAP.

ADJOURNMENT AND MOVE TO CLOSED SESSION:

Councilmember Rogers motioned to adjourn the regular City Council meeting and move to closed session under the statutory authority to the Md. Annotated Code, General Provisions Article §3-305(b)(7): "To consult with counsel to obtain legal advice", and §3-305(b)(8): "To consult with staff, consultants, or other individuals about pending or potential litigation". Councilmember Truesdale second the motion. Motion passed 6-0. The meeting adjourned at 10:34 p.m.

Awilda Hernandez, MMC
City Clerk

DRAFT

**PRESIDING OFFICER'S WRITTEN STATEMENT FOR CLOSING A MEETING ("CLOSING STATEMENT")
UNDER THE OPEN MEETINGS ACT (General Provisions Article § 3-305)**

This form has two sides. *Complete items 1 – 4 before closing the meeting.*

1. **Recorded vote to close the meeting:** Date: 10-20-25; Time: 10:33; Location: City Hall;
Motion to close meeting made by: Rogers Seconded by Trosdale;
Members in favor: All Aye; Opposed: _____;
Abstaining: _____; Absent: Ndebe mdu.

2. **Statutory authority to close session (check all provisions that apply).**
This meeting will be closed under General Provisions Art. § 3-305(b) only:

(1) ☐ "To discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom this public body has jurisdiction; any other personnel matter that affects one or more specific individuals"; (2) ☐ "To protect the privacy or reputation of individuals concerning a matter not related to public business"; (3) ☐ "To consider the acquisition of real property for a public purpose and matters directly related thereto"; (4) ☐ "To consider a matter that concerns the proposal for a business or industrial organization to locate, expand, or remain in the State"; (5) ☐ "To consider the investment of public funds"; (6) ☐ "To consider the marketing of public securities"; (7) ☒ "To consult with counsel to obtain legal advice"; (8) ☒ "To consult with staff, consultants, or other individuals about pending or potential litigation"; (9) ☐ "To conduct collective bargaining negotiations or consider matters that relate to the negotiations"; (10) ☐ "To discuss public security, if the public body determines that public discussion would constitute a risk to the public or to public security, including: (i) the deployment of fire and police services and staff; and (ii) the development and implementation of emergency plans"; (11) ☐ "To prepare, administer, or grade a scholastic, licensing, or qualifying examination"; (12) ☐ "To conduct or discuss an investigative proceeding on actual or possible criminal conduct"; (13) ☐ "To comply with a specific constitutional, statutory, or judicially imposed requirement that prevents public disclosures about a particular proceeding or matter"; (14) ☐ "Before a contract is awarded or bids are opened, to discuss a matter directly related to a negotiating strategy or the contents of a bid or proposal, if public discussion or disclosure would adversely impact the ability of the public body to participate in the competitive bidding or proposal process." (15) ☐ "To discuss cybersecurity, if the public body determines that public discussion would constitute a risk to: (i) security assessments or deployments relating to information resources technology; (ii) network security information . . . or (iii) deployments or implementation of security personnel, critical infrastructure, or security devices."

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3. For each provision checked above, disclosure of the topic to be discussed and the public body's reason for discussing that topic in closed session.

Citation (insert # from above)	Topic	Reason for closed-session discussion of topic
§3-305(b) ☒	Consult with Counsel	Potential Litigation
§3-305(b) ☒	Litigation	Potential Litigation
§3-305(b) ☐		
§3-305(b) ☐		
§3-305(b) ☐		

4. This statement is made by Sammy Jr. Adams, Presiding Officer.

WORKSHEET FOR OPTIONAL USE IN CLOSED SESSION: INFORMATION FOR SUMMARY TO BE DISCLOSED IN THE MINUTES OF THE NEXT OPEN MEETING. (See also template for summary.)

- For a meeting closed under the statutory authority cited above:

Time of closed session: 10:44

Place: City Hall

Purpose(s): Consult with Counsel; Litigation

Members who voted to meet in closed session: Adams Rogers Brady Estevé Woolfley Truesdale

Persons attending closed session: Rogers Truesdale Woolfley Estevé Brady Adams Cowan

Authority under § 3-305 for the closed session: (7) (8)

Topics actually discussed: Potential Litigation

Actions taken: Consensus to join Settlement

Each recorded vote: _____

Gott Meary
Tugard Platt
Goldstein Smith

- For a meeting recessed to perform an administrative function (§ 3-104): Time: _____

Place: _____

Persons present: _____

Subjects discussed: _____

REGULAR CITY COUNCIL MEETING MINUTES

MONDAY, NOVEMBER 3, 2025

CALL MEETING TO ORDER:

The Regular Meeting of the Bowie City Council was held on Monday, November 3, 2025, in Council Chambers at City Hall. Mayor Adams called the meeting to order at 8:00 p.m.

PLEDGE OF ALLEGIANCE TO THE FLAG:

Mayor Adams led the Pledge of Allegiance to the Flag of the United States of America.

QUORUM:

In attendance were Mayor Adams (virtual), Councilmembers Brady, Estève (arrived 8:03), Ndebumadu (virtual), Rogers and Woolfley, City Manager Lott, Assistant City Manager Mears, City Attorney Levan, City Clerk Hernandez and Staff.

AGENDA ADDITIONS/DELETIONS/AMENDMENTS:

Mayor Pro Tem Woolfley motioned to amend the agenda to include the Adoption of Proclamation P-15-25 Observing Veteran's Day, under Consent Agenda. Councilmember Brady second the motion. Motion passed 5-0 (Ndebumadu did not vote).

Councilmember Brady motioned to amend the agenda to include a brief discussion on Economic Development under New Business. Mayor Pro Tem Woolfley second the motion. Motion passed 5-0 (Ndebumadu did not vote).

CITIZEN PARTICIPATION:

None.

PRESENTATIONS:

- A. Prince Georges County Council Member Ingrid Watson and Maryland Senator Ron Watson presented proclamations to City Manager Lott on his upcoming retirement from the City.
- B. The City received the Sustainable Maryland Certified Community Silver Level Award and the MML Municipal Achievement Award in Sustainability highlighting the City's continued leadership and accomplishments in sustainability.

CITY BOARDS AND COMMITTEES:

None.

COUNCIL ANNOUNCEMENTS:

Councilmember Estève thanked City Manager Lott for his service to the City.

Mayor Pro Tem Woolfley also thanked City Manager Lott on his service.

Councilmember Brady thanked City Manager Lott for his service and staff for the Beechtree stakeholders' meeting that was held last week; it was very informative to the residents about the project.

Councilmember Rogers mentioned the 5k Veterans Walk that will take place next Saturday behind the Town Center and the Veterans Ceremony on November 11th at Veterans Park.

CITY MANAGER'S REPORT:

None.

CONSENT AGENDA:

Councilmember Estève motioned to approve Consent Agenda items: A) Approval of October 6, 2025 Council Meeting Minutes; B) Adoption of Resolution R-100-25 Accepting a Bid Proposal for the FY26 Bituminous Trail Repair/Replacement Along Northview Drive Project From E&R Services, Inc. in the amount of \$73,300; C) Adoption of Resolution R-102-25 Adopting the City of Bowie Emergency Operations Plan; D) Adoption of Proclamation P-15-25 Observing Veterans Day on November 11, 2025. Councilmember Brady second the motion. Motion passed 5-0 (Ndebumadu did not vote).

OLD BUSINESS:

None.

NEW BUSINESS:

A. Discussion on Economic Development – Councilmember Brady proposed to have staff draft a citywide Economic Development Policy framework using the 2022 Economic Development Strategy & Action Plan as a starting point; return with objectives and implementation steps. Assess creation of an Economic Development Corporation providing pros/cons, potential partners/stakeholders, examples from peer municipalities, and recommended structure. Develop a path to a new/revised Bowie Town Center Master Plan aligned with the City's vision; identify any impediments such as county zoning and/or state laws. With a timeline target of 3–6 months, or sooner where feasible.

Council concurred with the proposal made by Councilmember Brady.

ADJOURNMENT AND MOVE TO CLOSED SESSION:

Mayor Pro Tem Woolfley motioned to adjourn the regular City Council meeting and move to closed session under the statutory authority to the Md. Annotated Code, General Provisions Article §3-305(b)(3): "To consider the acquisition of real property for a public purpose and matters directly related thereto"; §3-305(b)(7): "To consult with counsel to obtain legal advice", and §3-305(b)(14): "Before a contract is awarded or bids are opened, to discuss a matter directly related to a negotiating strategy or the contents of a bid or proposal, if public discussion or disclosure would adversely impact the ability of the public body to participate in the competitive bidding or proposal process". Councilmember Brady second the motion. Motion passed 5-0 (Ndebumadu did not vote). The meeting adjourned at 8:34 p.m.

Awilda Hernandez, MMC
City Clerk

DRAFT

**PRESIDING OFFICER'S WRITTEN STATEMENT FOR CLOSING A MEETING ("CLOSING STATEMENT")
UNDER THE OPEN MEETINGS ACT (General Provisions Article § 3-305)**

This form has two sides. *Complete items 1 – 4 before closing the meeting.*

1. **Recorded vote to close the meeting:** Date: 11-3-25 Time: 8:34 Location: City Hall;
Motion to close meeting made by: Woolfley Seconded by Brady;
Members in favor: All Aye; Opposed: _____;
Abstaining: _____; Absent: _____.

2. **Statutory authority to close session (check all provisions that apply).**
This meeting will be closed under General Provisions Art. § 3-305(b) only:

(1) ☐ "To discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom this public body has jurisdiction; any other personnel matter that affects one or more specific individuals"; (2) ☐ "To protect the privacy or reputation of individuals concerning a matter not related to public business"; (3) ☒ "To consider the acquisition of real property for a public purpose and matters directly related thereto"; (4) ☐ "To consider a matter that concerns the proposal for a business or industrial organization to locate, expand, or remain in the State"; (5) ☐ "To consider the investment of public funds"; (6) ☐ "To consider the marketing of public securities"; (7) ☒ "To consult with counsel to obtain legal advice"; (8) ☐ "To consult with staff, consultants, or other individuals about pending or potential litigation"; (9) ☐ "To conduct collective bargaining negotiations or consider matters that relate to the negotiations"; (10) ☐ "To discuss public security, if the public body determines that public discussion would constitute a risk to the public or to public security, including: (i) the deployment of fire and police services and staff; and (ii) the development and implementation of emergency plans"; (11) ☐ "To prepare, administer, or grade a scholastic, licensing, or qualifying examination"; (12) ☐ "To conduct or discuss an investigative proceeding on actual or possible criminal conduct"; (13) ☐ "To comply with a specific constitutional, statutory, or judicially imposed requirement that prevents public disclosures about a particular proceeding or matter"; (14) ☒ "Before a contract is awarded or bids are opened, to discuss a matter directly related to a negotiating strategy or the contents of a bid or proposal, if public discussion or disclosure would adversely impact the ability of the public body to participate in the competitive bidding or proposal process." (15) ☐ "To discuss cybersecurity, if the public body determines that public discussion would constitute a risk to: (i) security assessments or deployments relating to information resources technology; (ii) network security information . . . or (iii) deployments or implementation of security personnel, critical infrastructure, or security devices."

Continued →

3. For each provision checked above, disclosure of the topic to be discussed and the public body's reason for discussing that topic in closed session.

Citation (insert # from above)	Topic	Reason for closed-session discussion of topic
§3-305(b) ☒ 3	Real Property	
§3-305(b) ☒ 7	Consult with Counsel	
§3-305(b) ☒ 14	Contract	
§3-305(b) ☐		
§3-305(b) ☐		

4. This statement is made by Samuel J. Adams, Presiding Officer.

WORKSHEET FOR OPTIONAL USE IN CLOSED SESSION: INFORMATION FOR SUMMARY TO BE DISCLOSED IN THE MINUTES OF THE NEXT OPEN MEETING. (See also template for summary.)

- For a meeting closed under the statutory authority cited above:

Time of closed session: 8:50
 Place: City Hall
 Purpose(s): (3) Real Property (7) Consult with Counsel (14) Contract
 Members who voted to meet in closed session: Adams Brady Rogers Esteve Woolfley Nleghumdu
 Persons attending closed session: Brady Rogers Esteve Adams Woolfley Nleghumdu Kevin Lett
 Authority under § 3-305 for the closed session: (3) (7) (14)
 Topics actually discussed: Environmental conditions for property acquisition
 Actions taken: _____
 Each recorded vote: _____

Mary Ann Hall
Spurgeon
Sines
Gernand

- For a meeting recessed to perform an administrative function (§ 3-104): Time: _____

Place: _____
 Persons present: _____
 Subjects discussed: _____

PROCLAMATION
OF THE COUNCIL OF THE CITY OF BOWIE, MARYLAND
PROCLAIMING THE MONTH OF NOVEMBER AS MUNICIPAL GOVERNMENT
WORKS MONTH IN BOWIE

WHEREAS, the City of Bowie was incorporated in 1916; and

WHEREAS, Maryland is home to 156 other municipalities; and

WHEREAS, municipal government represents the most responsive level of government, allowing citizens to have direct access to elected officials; and

WHEREAS, in an effort to educate citizens about municipal government and the importance of their participation, the City of Bowie is proud to promote municipal government awareness; and

WHEREAS, municipalities have enhanced the quality of life for their respective residents maintaining natural and historic sites and structures and helping to make Maryland a great place to live, work, play and explore.

NOW, THEREFORE, BE IT PROCLAIMED that the Council of the City of Bowie, Maryland hereby joins the Maryland Municipal League in declaring November to be Municipal Government Works Month in Bowie, Maryland.

INTRODUCED AND PASSED by the Council of the City of Bowie, Maryland at a meeting on November 17, 2025.

ATTEST:

Timothy J. Adams
Mayor

Awilda Hernandez, MMC
City Clerk



Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: Request for Bond Release –12106 Forge Lane
Resolution R-103-25

DATE: 11/13/2025

Robin Thompson is requesting the release of the bond associated with permit number DW-0006-25 for construction to the driveway apron located at 12106 Forge Lane. The performance bond, in the amount of \$2,000.00, was recorded for the purpose of securing the completion of public improvement related to the development and acceptance of improvements to the right-of-way.

All conditions and requirements for which the bond was secured have been completed and approved by the Department of Public Works. The conditions meet the City of Bowie's Standards, Specifications, and City Codes: <https://www.cityofbowie.org/2373/Engineering-Review-Permitting>.

Based on the project's successful completion, the fulfillment of all bond agreement obligations, and the satisfactory final inspection results, the release of the performance bond in the amount of \$2,000.00 is recommended.

I concur with the above recommendation and request your approval for Resolution R-103-25.

ATTACHMENTS: 1. 20251117 - Resolution R-103-25

RESOLUTION
OF THE COUNCIL OF THE CITY OF BOWIE, MARYLAND
ACCEPTING THE DRIVEWAY APRON IMPROVEMENTS CONSTRUCTED
UNDER PERMIT DW-0006-25 AT 12106 FORGE LANE AND THE RELEASE OF
CONSTRUCTION SECURITIES

WHEREAS, the owner Robin Thompson provided securities for the permit number DW-0006-25 for the performance bond in the amount of \$2,000.00 to guarantee completion of construction to the driveway apron at 12106 Forge Lane; and

WHEREAS, the City of Bowie Directors of Public Works and Planning have certified that the work required by the permit has been completed according to the plans and specifications; and

WHEREAS, all requirements of Section 21B-18 of the Bowie City Code, concerning approval and acceptance of work, have been fulfilled; and

WHEREAS, it is in the best interest of the City to accept the improvement to the driveway apron into the public system.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Bowie, Maryland, that the City does hereby accept the improvement to the driveway apron at 12106 Forge Lane and authorizes the release of securities for the performance bond in the amount of \$2,000.00 provided by Robin Thompson for permit number DW-0006-25.

INTRODUCED AND PASSED by the Council of the City of Bowie, Maryland at a meeting on November 17, 2025.

ATTEST:

THE CITY OF BOWIE, MARYLAND

 Awilda Hernandez, MMC
 City Clerk

 Timothy J. Adams
 Mayor



Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: Request for Bond Release – 13525 Gresham Court
Resolution R-104-25

DATE: 11/13/2025

Michael Evans is requesting the release of the bond associated with permit number DW-0004-25 for construction to the driveway apron located at 13525 Gresham Court. The performance bond, in the amount of \$2,000.00 was recorded for the purpose of securing the completion of public improvement related to the development and acceptance of improvements to the right-of-way.

All conditions and requirements for which the bond was secured have been completed and approved by the Department of Public Works. The conditions meet the City of Bowie's Standards, Specifications, and City Codes: <https://www.cityofbowie.org/2373/Engineering-Review-Permitting>.

Based on the project's successful completion, the fulfillment of all bond agreement obligations, and the satisfactory final inspection results, the release of the performance bond in the amount of \$2,000.00 is recommended.

I concur with the above recommendation and request your approval for Resolution R-104-25.

ATTACHMENTS: 1. 20251117 - Resolution R-104-25

RESOLUTION
OF THE COUNCIL OF THE CITY OF BOWIE, MARYLAND
ACCEPTING THE DRIVEWAY APRON IMPROVEMENTS CONSTRUCTED
UNDER PERMIT DW-0004-25 AT 13525 GRESHAM COURT AND THE RELEASE
OF CONSTRUCTION SECURITIES

WHEREAS, the owner Michael Evan provided securities for the permit number DW-0004-25 for the performance bond in the amount of \$2,000.00 to guarantee completion of construction to the driveway apron at 13525 Gresham Court; and

WHEREAS, the City of Bowie Directors of Public Works and Planning have certified that the work required by the permit has been completed according to the plans and specifications; and

WHEREAS, all requirements of Section 21B-18 of the Bowie City Code, concerning approval and acceptance of work, have been fulfilled; and

WHEREAS, it is in the best interest of the City to accept the improvement to the driveway apron into the public system.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Bowie, Maryland, that the City does hereby accept the driveway apron improvement at 13525 Gresham Court and authorizes the release of securities for performance bond in the amount of \$2,000.00 provided by Michael Evans for permit number DW-0004-25.

INTRODUCED AND PASSED by the Council of the City of Bowie, Maryland at a meeting on November 17, 2025.

ATTEST:

THE CITY OF BOWIE, MARYLAND

 Awilda Hernandez, MMC
 City Clerk

 Timothy J. Adams
 Mayor



Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: Request for Bond Release – Dash-In Bowie
Resolution R-105-25

DATE: 11/13/2025

Dash-In Food Stores, Inc is requesting the release of the bonds associated with the permit number SWM-0003-24 for construction completed to the stormwater management facility for Dash-In Bowie located at 4100 NW Robert Crain Highway. The performance bond, in the amount of \$158,125.00 and the payment bond in the amount of \$63,250.00, were recorded for the purpose of securing the completion of public improvement related to the development and acceptance of improvements to the right-of-way.

All conditions and requirements for which the bond was secured have been completed and approved by the Department of Public Works. The conditions meet the City of Bowie's Standards, Specifications, and City Codes: <https://www.cityofbowie.org/2373/Engineering-Review-Permitting>.

Based on the project's successful completion, the fulfillment of all bond agreement obligations, and the satisfactory final inspection results, the release of the performance and payment bonds in the combined amount of \$221,375.00 is recommended.

I concur with the above recommendation and request your approval for Resolution R-105-25.

ATTACHMENTS: 1. 20251117 - Resolution R-105-25

RESOLUTION
OF THE COUNCIL OF THE CITY OF BOWIE, MARYLAND
ACCEPTING THE CONSTRUCTION OF STORMWATER MANAGEMENT
CONSTRUCTED UNDER PERMIT SWM-0003-24 FOR DASH-IN BOWIE AT 4100
NW ROBERT CRAIN HIGHWAY AND THE RELEASE OF CONSTRUCTION
SECURITIES

WHEREAS, the developer Dash-In Food Stores, Inc provided securities for the permit number SWM-0003-24 for the performance bond in the amount of \$158,125.00 and the payment bond in the amount of \$63,250.00 to guarantee completion of construction of the stormwater management for Dash-In Bowie at 4100 NW Robert Crain Highway; and

WHEREAS, the City of Bowie Directors of Public Works and Planning have certified that the work required by the permit has been completed according to the plans and specifications; and

WHEREAS, all requirements of Section 21B-18 of the Bowie City Code, concerning approval and acceptance of work, have been fulfilled; and

WHEREAS, it is in the best interest of the City to accept the construction of the stormwater management into the public system.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Bowie, Maryland, that the City does hereby accept the construction of the stormwater management for Dash-In Bowie at 4100 NW Robert Crain Highway and authorizes the release of securities for performance bond in the amount of \$158,125.00 and payment bond in the amount \$63,250.00 for a combined amount of \$221,375.00 provided by Dash-In Food Stores, Inc for permit number SWM-0003-24.

INTRODUCED AND PASSED by the Council of the City of Bowie, Maryland at a meeting on November 17, 2025.

ATTEST:

THE CITY OF BOWIE, MARYLAND

Awilda Hernandez, MMC
City Clerk

Timothy J. Adams
Mayor



Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: Valve Replacement – Moylan Drive
Resolution R-107-25

DATE: 11/13/2025

A legal notice advertising an Invitation for Bids to replace malfunctioning valves, install a new valve and fire hydrant on Moylan Drive at the intersection of Route 450 (Annapolis Road), was placed on eMaryland Marketplace Advantage and Bid Locker on October 6, 2025. At the close of bidding at 1:00 p.m., Monday, November 10, 2025, the City received three (3) bids. Below is a tabulation of the bids received:

J. Fletcher Creamer & Son, Inc. Hackensack, New Jersey	\$174,998.00
Pay Dirt LLC Edgewater, Maryland	\$186,341.53
Humphrey and Son, Inc. Laurel, Maryland	\$231,850.00

This work is being performed in accordance with the Capital Improvement Program for the Water Treatment Plant. The budget for this work is \$460,000.

The Public Works Department recommends awarding the bid from J. Fletcher Creamer & Son, Inc. in the amount of \$174,998.00.

I concur with the above recommendation to award to J. Fletcher Creamer & Son, Inc. in the amount of \$174,998.00 and request your approval of Resolution R-107-25.

ATTACHMENTS: 1. 20251117 - Resolution R-107-25

RESOLUTION
OF THE COUNCIL OF THE CITY OF BOWIE, MARYLAND
AWARDING A CONTRACT TO J. FLETCHER CREAMER & SON, INC. TO
REPLACE MALFUNCTIONING VAVES, INSTALL A NEW VALVE AND FIRE
HYDRANT ON MOYLAN DRIVE AT THE INTERSECTION OF ROUTE 450
(ANNAPOLIS ROAD) IN THE AMOUNT OF \$174,998.00

WHEREAS, a legal notice advertising an Invitation for Bids to replace malfunctioning valves, install a new valve and fire hydrant on Moylan Drive at the intersection of Route 450 (Annapolis Road), was placed on eMaryland Marketplace Advantage and Bid Locker on October 6, 2025; and

WHEREAS, at the close of bidding at 1:00 p.m., Monday, November 10, 2025, the City received three (3) bids; and

WHEREAS, after careful review of the bids submitted it was determined that J. Fletcher Creamer & Son, Inc. of Hackensack, New Jersey had submitted a responsible and responsive bid of \$174,998.00.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Bowie, Maryland, that the Council hereby accepts the bid of J. Fletcher Creamer & Son, Inc. in the amount of \$174,998.00 and authorizes the City Manager to enter into a contract with J. Fletcher Creamer & Son, Inc.

INTRODUCED AND PASSED by the Council of the City of Bowie, Maryland at a meeting on November 17, 2025.

ATTEST:

THE CITY OF BOWIE, MARYLAND

 Awilda Hernandez, MMC
 City Clerk

 Timothy J. Adams
 Mayor



Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: Ordinance Approving Supplemental Appropriations for the Annual Budget for Fiscal Year 2026 - Ordinance O-13-25

DATE: 11/13/2025

Ordinance O-13-25 proposes to amend the City's Fiscal Year 2026 Annual Budget to provide additional appropriations for the following purposes:

A total of \$700,000 in additional funding is requested to address unplanned and under-budgeted infrastructure expenses. Lighting Maintenance; \$500,000 is needed to cover shortfalls from unplanned repairs at Black Sox Park and higher-than-expected cable replacement volumes, with current maintenance costs averaging \$90,000 per month. A total of Sewer Lining at Somerset; \$200,000 is required to connect private plumbing to main lines to complete the lateral sewer lining project, which was underestimated due to incomplete footage data, resulting in budget insufficiencies.

The ordinance also proposes converting the Permits/Stormwater Management Specialist position from 0.8 FTE to 1.0 FTE to meet growing operational demands. The position's responsibilities include plan reviews, permit applications, and annual stormwater management facility documentation which now require full-time attention. This change will ensure timely processing of infrastructure and utility permits and enhance service quality. Duties include managing plan reviews, bonding and permit processes, tracking and issuing permits, and maintaining databases.

The full-time role will also support processing new applications for erosion and sediment control, grading, stormwater management, and public utilities. Overall, these amendments are essential to maintain service levels, address infrastructure needs, and improve operational efficiency. \$16,500 is requested for Personal Services related to this full-time staffing change which includes salaries, wages and fringe benefits.

The City has received a grant of \$10,000 from Prince George's County for approved housing, fair housing and homelessness services. The grants department is requesting that an additional \$10,000 be appropriated for housing assistance.

The Finance Department requests a supplemental appropriation of \$15,200 to replace the department's aging folder/sealer, which has exceeded its useful life. The equipment is essential for payroll and vendor check processing. A backup unit is also required to ensure continuity of operations for purchase in FY27.

The Bowie Golf Course requests a budget appropriation of \$16,800 to cover the final building permit fee for the Maintenance Building. Prompt payment is required to prevent the County from classifying the permit as “abandoned,” which would invalidate prior approvals and payments.

CITY OF BOWIE
SUPPLEMENTAL BUDGET APPROPRIATION O-13-25
FOR FISCAL YEAR JULY 1, 2025 - JUNE 30, 2026

General Fund			
<u>Revenues</u>			
01	43205	County Grant	\$ 10,000
01	48005	Appropriated Fund Balance	525,600
		Total Revenues	<u>\$535,600</u>
<u>Expenditure Appropriation</u>			
01120	55050	Municipal Grant- Homeless Assistance Fund	\$ 10,000
01340	51230	Repair and Maintenance	500,000
01140	52005	Materials, Supplies & Minor Equip	9,100
01310	50105	Salary & Fringe	16,500
		Total Appropriations	<u>\$535,600</u>
Capital Projects Fund			
<u>Revenues</u>			
10	48005	Appropriated Fund Balance	\$ 16,800
		Total Revenues	<u>\$ 16,800</u>
<u>Expenditure Appropriation</u>			
10545	57015	23019 Improvements other than buildings -Golf Course	\$ 16,800
		Total Appropriations	<u>\$ 16,800</u>
Water & Sewer Fund			
<u>Revenues</u>			
20	48015	Appropriated Retained Earnings	\$206,100
		Total Revenues	<u>\$206,100</u>
<u>Expenditure Appropriation</u>			
20141	52005	Materials, Supplies & Minor Equip	\$ 6,100
20360	57015	25011 Improvements other than Buildings - Pipe Lining	\$200,000
		Total Appropriations	<u>\$206,100</u>

Council’s approval of Ordinance O-13-25 providing supplemental appropriations for the annual budget for the fiscal year ending June 30, 2026 is requested.

ATTACHMENTS: 1. 20251117 - Ordinance O-13-25

ORDINANCE
OF THE COUNCIL OF THE CITY OF BOWIE, MARYLAND
AMENDING THE ADOPTED BUDGET FOR THE FISCAL YEAR BEGINNING JULY
1, 2025 AND ENDING JUNE 30, 2026, AS EMBODIED IN ORDINANCE O-4-25
AND AMENDED BY ORDINANCE O-11-25, TO APPROPRIATE FUNDS FOR THE
FOLLOWING PROJECTS: \$500,000 FOR LIGHTING REPAIRS, \$200,000 FOR
THE LATERAL SEWER LINING PROJECT AT SOMERSET, \$16,500 FOR
SALARIES AND FRINGE BENEFITS, \$10,000 FOR A HOUSING GRANT, \$15,200
FOR A FOLDER/SEALER MACHINE AND \$16,800 FOR THE BUILDING PERMIT
ISSUANCE FOR THE BOWIE GOLF COURSE MAINTENANCE BUILDING.

WHEREAS, as required by the Local Government Article of the Annotated Code of Maryland and the Charter of the City of Bowie, the Bowie City Council (hereinafter, “the City Council”) adopted Ordinance No. O-4-25 to appropriate funds for the several objects and purposes for which the City intended to provide for the Fiscal Year beginning July 1, 2025, and ending June 30, 2026; and

WHEREAS, Ordinance No. O-4-25 was amended by Ordinance No. O-11-25; and

WHEREAS, in accordance with Section 45 of the City Charter, no public money may be expended without having been appropriated by the City Council; and

WHEREAS, supplemental appropriations are necessary to reflect additional expenditures that were not included in Ordinances O-4-25 or its amendment, Ordinance O-11-25; and

WHEREAS, it has become necessary, for the reasons set forth herein to appropriate additional funding for the General Fund, Capital Projects Fund and Water and Sewer fund; and

WHEREAS, an additional appropriation of \$500,000 is required for lighting repairs to cover shortfalls from unplanned repairs at Black Sox Park and higher-than-expected cable replacement volumes, an additional \$200,000 is required to connect private plumbing to main lines for the lateral sewer lining project at Somerset, \$16,500 for salaries and fringe benefits to meet growing operational demands in Public Works, \$10,000 for a housing grant from Prince George’s County for approved housing, fair housing and homelessness services, \$15,200 for a folder/sealer machine for processing payroll and vendor checks in Finance and \$16,800 for the building permit for the Bowie Golf Course maintenance building; and

WHEREAS, pursuant to Md. Code Ann., Local Gov’t Article, § 5-205, the City may spend money for a purpose different from the purpose for which the money was

Asterisks * * *: Indicate numbers and language contained in the FY 26 Bowie Budget Ordinance that are not set forth in this Ordinance and which remains unchanged.

[Brackets]: Indicate numbers/language deleted from the FY 26 Bowie Budget Ordinance.

Bold Red type: Indicates numbers/language added to the FY 26 Bowie Budget Ordinance.

appropriated or spend money not appropriated at the time of the annual levy if approved by a two-thirds vote of all the individuals elected to the Council; and

WHEREAS, City Charter, Sec. 12 “Procedure for enacting ordinances” requires that ordinances become effective at the expiration of thirty (30) calendar days following their passage by the City Council.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED, by the Bowie City Council that the Budget for the Fiscal Year beginning July 1, 2025, ending June 30, 2026, as adopted by Ordinance O-4-25 and amended by O-11-25; is further amended as follows:

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[Brackets]: Indicate numbers/language deleted from the FY 26 Bowie Budget Ordinance.

Bold Red type: Indicates numbers/language added to the FY 26 Bowie Budget Ordinance.

GENERAL FUND**ESTIMATED REVENUES**

Revenues and Other Financing Sources	[\$71,409,500]	\$ 71,419,500
Appropriated Fund Balance	[19,273,300]	19,798,900
TOTAL REVENUES	[\$91,214,900]	\$ 91,750,500

APPROPRIATION BY ACTIVITY

City Manager	[\$2,026,000]	\$ 2,036,000
Streets	[10,315,600]	10,815,600
Finance	[1,792,000]	1,801,100
Public Works Administration	[2,713,400]	2,729,900
TOTAL APPROPRIATIONS	[\$91,214,900]	\$ 91,750,500

CAPITAL PROJECTS FUND**ESTIMATED REVENUES**

Appropriated Fund Balance	[\$7,029,800]	\$ 7,046,600
TOTAL REVENUES	[\$16,562,600]	\$ 16,579,400

APPROPRIATION BY ACTIVITY

Bowie Golf Course	[\$730,000]	\$ 746,800
TOTAL APPROPRIATIONS	[\$16,562,600]	\$ 16,579,400

WATER & SEWER FUND**ESTIMATED REVENUES**

Appropriated Retained Earnings	[\$0]	\$ 206,100
TOTAL REVENUES	[\$19,187,800]	\$ 19,393,900

APPROPRIATION BY ACTIVITY

Billing and Accounting	[\$730,000]	\$ 736,100
Sewer Main Rehab	[1,500,000]	1,700,000
TOTAL APPROPRIATIONS	[\$19,187,800]	\$ 19,393,900

AND, BE IT FURTHER ORDAINED BY THE COUNCIL OF THE CITY OF BOWIE that, this Ordinance shall become effective thirty (30) days after its enactment by the Council of the City of Bowie, Maryland, by at least a two-thirds vote, provided

Asterisks * * *: Indicate numbers and language contained in the FY 26 Bowie Budget Ordinance that are not set forth in this Ordinance and which remains unchanged.

[Brackets]: Indicate numbers/language deleted from the FY 26 Bowie Budget Ordinance.

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that a fair summary of this Ordinance is published at least once prior to the passage and at least once within ten (10) days after the date of passage in a newspaper having general circulation in the City.

INTRODUCED by the Council of the City of Bowie, Maryland, at a Meeting on November 17, 2025.

PASSED by the Council of the City of Bowie, Maryland, at a Meeting on December 1, 2025.

ATTEST:

THE CITY OF BOWIE, MARYLAND

Awilda Hernandez, MMC
City Clerk

Timothy J. Adams
Mayor

**APPROVED AS TO FORM AND
SUFFICIENCY:**

Elissa D. Levan
City Attorney

Asterisks * * *: Indicate numbers and language contained in the FY 26 Bowie Budget Ordinance that are not set forth in this Ordinance and which remains unchanged.

[Brackets]: Indicate numbers/language deleted from the FY 26 Bowie Budget Ordinance.

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Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: City of Bowie Federal Employees Financial Assistance Program - Resolution R-101-25

DATE: 11/13/2025

The federal government is in shutdown mode affecting thousands of individuals and families throughout the country, including many residents in Prince George's County and the City of Bowie. The City of Bowie has over 5,000 federal workers, second only to Rockville in the State of Maryland.

A proposal is presented for the City of Bowie to supplement the programs created by the state, county, county council, and many other parties, including all local utilities, to assist the city's affected residents. This proposal would create a fund of \$500,000 to \$1m to provide resources for help with payments for delinquent mortgages, rent, utilities, childcare, etc.

The fund would be managed by the City's Office of Grant Development and Administration (OGDA). OGDA manages all the city's major grant funds and has extensive experience providing emergency aid (food and financial assistance) to many of the city's residents. Additional assistance will be provided by other city departments to get the word out and to provide logistical and physical support for efforts to distribute resources, especially food and other supplies.

A plan has been developed by the Office of Grant Development & Administration: "Federal Employees Financial Assistance Program" for Council's review and comments.

We recommend that Council adopts Resolution R-101-25 authorizing the Federal Employees Financial Assistance Program.

ATTACHMENTS:

1. 20251117 - Resolution R-101-25
2. 20251117 - City of Bowie - Federal Employee Financial Assistance Program - Nov 2025
3. 20251117 - OGDA Federal Financial Assistance Program - Government Shutdown Presentation

RESOLUTION
OF THE COUNCIL OF THE CITY OF BOWIE, MARYLAND
APPROVING THE CREATION OF THE FEDERAL EMPLOYEES FINANCIAL
ASSISTANCE PROGRAM

WHEREAS, the City of Bowie (City), Maryland is a municipality with over 5,400 federal employees; and

WHEREAS, the federal government is shutdown affecting all these federal employees and city residents; and

WHEREAS, many federal employees have been terminated from their federal employment and/or furloughed without pay; and

WHEREAS, the City of Bowie desires to provide some financial assistance to its residents who are federal workers impacted by these conditions; and

WHEREAS, the City Council has directed staff to develop a plan to address these issues through the creation of a fund of \$1m for financial assistance to the impacted federal employees; and

WHEREAS, the goal of the fund is to supplement state and local government programs and resources for affected federal employees, as well as those of other entities like utility companies and other organizations; and

WHEREAS, staff has developed the Federal Employee Financial Assistance Program to provide resources from the fund as anticipate by the City Council.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Bowie, Maryland, does hereby approve the Federal Employees Financial Assistance Program attached as Attachment 1 to this Resolution.

BE IT FURTHER RESOLVED that the City Manager is authorized to implement the Federal Employees Financial Assistance Program.

INTRODUCED AND PASSED by the Council of the City of Bowie, Maryland at a meeting on November 17, 2025.

ATTEST:

THE CITY OF BOWIE, MARYLAND

 Awilda Hernandez, MMC
 City Clerk

 Timothy J. Adams
 Mayor

City of Bowie

Grant Resources for Federal Employees

Federal Employee Financial Assistance Program

Government Shutdown

November 2025

Jesse Buggs, Director
Office of Grant Development &
Administration
15901 Fred Robinson Way
Bowie, MD 20716
jbuggs@cityofbowie.org



CITY OF BOWIE

FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

On October 1, 2025, the federal government officially shutdown and furloughed employees, many are required to continue working with partial or no pay. This impacted over 700,000 federal employees nationwide, over 270,000 federal workers and 225, 000 federal contractors in the State of Maryland. Because several thousand additional Maryland residents are connected to these employees and contractors, the impact extends deep into the state's economy and communities. There are more than 5,400 federal employees in the City of Bowie, according to the MWCOG (Census/ACS), and this means that Bowie has the second-highest share of federal workers by percentage, after Rockville and before DC. In the DMV.

After a presentation to the Council on this issue by the Office of Grant Development and Administration on October 20, 2025, the City Council directed staff to prepare a detailed proposal/plan for the creation and implementation of a fund of \$1m to assist affected federal employees. On October 22, 2025, my staff and I held a strategic planning session on the creation of the fund and reviewed several elements of a similar fund that we managed under the federal program, the CARES ACT: approximately \$400,000. We provided Emergency Food Assistance and Emergency Rental Assistance to Bowie residents during the Covid-19 pandemic. We also reviewed all state, county, and nonprofit furlough relief programs applicable to Bowie area furloughed and fired residents. Additionally, we interviewed the Bowie Pantry leadership, consulted with the city attorney, and talked with residents currently furloughed and/or fired since January 20, 2025, and under the current federal shutdown.

Based upon our research and identified urgent needs, we propose a program which will be based on the following:

CITY OF BOWIE
FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

PURPOSE

- TO SUPPORT THE ECONOMIC FOUNDATION OF THE CITY AND THE FINANCIAL STABILITY OF FAMILIES BY CREATING A FUND TO PROVIDE TARGETED RELIEF FOR AFFECTED RESIDENTS
- TO PROVIDE FINANCIAL ASSISTANCE TO FEDERAL EMPLOYEES WHO ARE CITY OF BOWIE RESIDENTS AND ARE AFFECTED BY THE CURRENT GOVERNMENT SHUTDOWN.
- TO SUPPORT THE CRITICAL, URGENT NEEDS OF THIS GROUP BY PROVIDING PAYMENTS FOR CERTAIN COSTS AND EXPENDITURES.
- TO PRIORITIZE ASSISTANCE BASED UPON FACTORS AFFECTING LIFE, HEALTH, AND THE POTENTIAL FOR DISPLACEMENT.

Fund Size -\$1m

Eligible Groups

Federal Employees

Furloughed

Fired

Federal Contractors

Employees only (Food Only)

Period of Consideration: October 1 – Dec 31, 2025

Cohort Prioritization

Families with Dependent Children

Seniors

Disabled Residents

Veterans

Public Safety Employees

Others

CITY OF BOWIE
FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

Eligible Activities

Rent

Food*

Mortgage**

Childcare

Utilities**

Other Costs (Emergency-based)

* Food Distribution Might Also be Provided Through Gift Cards and Third Parties (Funded and Coordinated Through OGDA)

** See Access to Other State, Local, and Company Programs

Fund Allocation

Mortgages/Rent - \$500,000

Food - \$200,000

Utilities - \$100,000

Childcare - \$50,000

Fund Administration (Housing Initiative Partnership) - \$150,000

NOTE: These amounts could change as we receive applications and requests for assistance

CITY OF BOWIE
FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

The Council requested that we develop a resident “Payback Plan” for those receiving assistance from the proceeds of the fund. The agreement would have language like the following (FINAL LANGUAGE TO RPEPARED BY THE CITY ATTORNEY):

Provided Grantee’s household income is \$85,000 or greater [EXAMPLE], the Grantee agrees to repay the Grant if and when the Grantee receives backpay from the U.S. Government, over a period of six months, beginning on the first day of the month that is two full months from Grantee’s recall to his or her position with [INSERT NAME OF AGENCY], such repayment obligation to be forgiven to the extent of any unreimbursed funds in the event that the Grantee’s employment with [INSERT AGENCY] is involuntarily terminated during the repayment period for no fault of the Grantee and Grantee is not thereafter employed by another employer at a rate of compensation equal to or greater than [INSERT SAME \$ FIGURE] within six months of such termination.

Enforcement/Collection

Standard Collection Procedures

PROGRAM LOGISTICS

Council Review/Approval – November 17, 2025

Program Design – December 8, 2025

Council Budget Amendment Authorization – December XX, 2025

Vendor Agreement – December YY, 2025

Program Outreach – December ZZ, 2025

Program Implementation January AA, 2026 (Second Week)

Program Reports – Monthly

Program End – Fund Depletion

Program Closeout

CITY OF BOWIE
FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

PROGRAM DETAILS

Application (Required)

Proof of City Residency; phone bill, etc.

Proof of Federal Employment; federal id and statement of recent compensation

Proof of Employment Status; Notice of furlough/termination

Proof of Outstanding Expenses/Costs; bills (utility, rent, mortgage, childcare, etc.)

One-time Payment

Maximum Payment - \$15,000 per household

City Decisions - Final

NOTE1: Funds will be paid directly to the creditor/company; not to individuals.

NOTE2: Each agreement will contain a clause for repayment of funds to the city.

PROJECT/FUND MANAGEMENT

CITY MANAGER'S OFFICE

OFFICE OF GRANT DEVELOPMENT & ADMINISTRATION (OGDA)

Jesse Buggs (Program Director)

Gretchen Dade (Project Manager)

George Jones (Grants Manager)

Kay Starr (Outreach Assistance)

Housing Initiatives Partnership (Intake/Application Processing)*

COMMUNICATIONS, FINANCE, DCS, AND OTHERS (ASSISTANCE)

*Contractor Used in Previous Fund (CARES ACT) Assistance Program

CITY OF BOWIE

FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

We are requesting that HIP, the firm that administered our CARES ACT federal funds for Emergency Food and Rental Assistance, be retained to administer this fund. They handled the intake process (online applications including all supportive documents), review and critique of applications for complete documentation, ranking of applications based upon OGDAs criteria, and production of reports with profiles of each applicant and running totals of expenditures for the program by expense category.

HOUSING INITIATIVE PARTNERSHIP (HIP)

Founded in 1988, HIP's real estate development programs consist of multifamily housing, single-family rehabilitation and new construction. HIP has developed a reputation for creating high quality projects, focusing a great deal of attention on detail. Our staff has the skill and tenacity to solve extremely difficult and entrenched development problems. HIP also manages HUD-approved Homeownership and Foreclosure Prevention programs, featuring financial capability coaching for both homeowners and renters, including families at risk of homelessness. Our bilingual housing counseling program is one of the largest in the state of Maryland, with three offices in Prince George's County and Montgomery County.

HIP has been accredited by the Standards for Excellence Institute as meeting the highest standards of ethics, effectiveness and accountability and has been recognized by the Catalogue for Philanthropy as "one of the best nonprofits" in the Washington DC region. HIP has also been highlighted twice by the Washingtonian Magazine as one of the best nonprofit organizations to give money to in the region.



Housing Initiative Partnership, Inc.

CITY OF BOWIE
FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

QUESTIONS AND/OR COMMENTS

**Office of Grant Development &
Administration**

15901 Fred Robinson Way, Bowie, MD 20716

fedfundassist@cityofbowie.org

CITY OF BOWIE
FEDERAL EMPLOYEE FINANCIAL ASSISTANCE PROGRAM

ATTACHMENTS

SAMPLE AGREEMENT FROM PREVIOUS FEDERAL CARES ACT FUNDS

RENTAL ASSISTANCE AGREEMENT

This RENTAL ASSISTANCE AGREEMENT ("this Agreement") is made as of the Effective Date (defined hereinbelow) by and between the City of Bowie ("the City"), a Maryland municipal corporation, and India ABC ("the Tenant"), a natural person (each a "Party" and collectively the "Parties").

RECITALS

WHEREAS, as a result of the economic consequences of the COVID-19 health emergency, many tenants of rental properties in the City have had difficulty making timely and complete rental payments for the rental units occupied by them; and

WHEREAS, the City has received funds under section 601(a) of the Social Security Act, as added by section 5001 of the Coronavirus Aid, Relief, and Economic Security Act intended, in part, for mitigating the impact of the pandemic on the ability of persons to pay their monthly rent due to loss of income.

AGREEMENT

NOW THEREFORE, in consideration of the foregoing recitals, the mutual covenants hereinafter set forth, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and the Tenant agree as follows:

1. Purpose and Scope

The City will provide rental assistance to the Tenant to mitigate the Tenant's rent payment arrearages owed to XXX ("the Landlord"). To be eligible to receive rental assistance payments, the Tenant must satisfy the following eligibility requirements:

- 1.1 All requests for rental assistance payments must be for unpaid rent due between April 1 and September 30, 2021.
- 1.2 All unpaid rent for which rental assistance is requested must have arisen as a result of illness or loss of income caused by the COVID-19 public health emergency.
- 1.3 The Tenant must meet the income limits set forth in Exhibit A hereto.
- 1.4 The dwelling unit for which the Tenant seeks rental payment assistance must be located within the City's corporate boundaries.

2. Term

The term of this Agreement shall commence on the date that it has been signed by all parties (the "Effective Date") and shall continue until the City has paid the Rental Assistance Payment, as set forth in Section 3 hereof, to the Landlord or until earlier terminated in accordance with Section 5 hereof.

3. Rental Assistance Payments

3.1 Property

The Tenant seeks rental assistance payments for unpaid rent associated with the dwelling unit identified as YYY, Bowie, MD 20716.

3.2 Rental Assistance Payment Amount

The total rental assistance payment from the City to the Landlord on behalf of the Tenant shall be (\$ZZZ) (the "Rental Assistance Payment").

3.3 Manner of Payment

The Rental Assistance Payment shall be made to the Landlord by electronic funds transfer or such other manner as is determined by the City.

4. Confidential Information

Subject to the Maryland Public Information Act and any other applicable laws, all confidential information and documentation provided by the Tenant shall be held in confidence by the City. The City shall, however, be permitted to disclose relevant confidential information to its officers, agents, and personnel, to the extent that such disclosure is necessary for the performance of their duties under this Agreement. Each officer, agent, and personnel to whom any confidential information is to be disclosed shall be advised of, and bound by, the obligations hereunder.

5. Default

The Tenant's misstatement in this Agreement or in Tenant' Application for rental assistance of any material fact relating to the Tenant's eligibility for rental assistance under this Agreement shall constitute an event of default. If the City determines that the Tenant has made a material misstatement, the Tenant shall immediately become obligated to the City for repayment of the Rental Assistance Payment.

The Tenant irrevocably authorizes and empowers any attorney of record, or the Clerk or similar officer of any court of competent jurisdiction in Prince George's County, Maryland, as attorney for the Tenant, to appear for the Tenant in such court in any action brought against the Tenant to confess judgment against the Tenant in favor of the City in the full amount of the Rental Assistance Payment plus attorneys' fees of ten percent (10%) of the amount due, plus court costs, all without prior notice or opportunity of the Tenant for prior hearing. The Tenant waives the benefit of any and every statute, ordinance, or rule of court which may be lawfully waived conferring upon borrower any right or privilege of exemption, stay of execution, or supplementary proceedings, or other relief from the enforcement or immediate enforcement of a judgment or related proceedings on a judgment. The authority and power to appear for and enter judgment against the Tenant shall not be extinguished by any judgment entered pursuant thereto.

6. Indemnification

The Tenant releases the City from and agrees to defend, indemnify, and hold harmless the City, and each of its officials, employees and agents, from and against all claims, demands, actions, suits, damages, liabilities, losses, settlements, judgments, costs, expenses, and proceedings of any kind (including but not limited to reasonable attorney's and expert's fees and costs), whether or

not involving a third-party claim, that are caused by, relate to, or arise from this Agreement. The obligations of this Section shall survive indefinitely the expiration of the Term and/or the termination of the Agreement for other reasons.

7. Governing Law

This Agreement shall be interpreted in accordance with the laws of the State of Maryland. Any suit to enforce the terms hereof or for remedy for breach hereof shall be brought exclusively in the courts of the State of Maryland for Prince George's County, and the parties expressly consent to the jurisdiction thereof, acknowledge the venue is proper therein, and waive any right that they may otherwise have to bring such action in or transfer or remove such action to the courts of any other jurisdiction.

8. Entire Agreement

This Agreement, together with any exhibits attached hereto, represents the complete, total and final understanding of the Parties, and no other understanding or representations oral or written, regarding the subject matter of this Agreement shall be deemed to exist or bind the Parties at the time of the execution.

9. Amendments and Assignment

This Agreement may not be changed, altered, or modified except by written agreement executed by the Parties. Except for any specific provision of this Agreement that is amended in accordance with this Section, this Agreement remains in full force and effect after any such amendment. This Agreement shall not be assignable or transferable without the prior written consent of the Parties.

10. Notices

All notices hereunder shall be in writing and either delivered personally or sent by certified or registered mail, postage prepaid, with a copy via email, as follows:

If to the City, to:

With a copy to:

If to Tenant, to:

Jesse Buggs, Director, Grants Office City of Bowie

15901 Excalibur Road, Bowie, MD 20716, (301) 262-6200

Elissa D. Levan, City Attorney Funk & Bolton, P.A.

100 Light Street, Suite 1400, Baltimore, Maryland 21202, (410) 659-7700

ABC

XXX

Bowie, Maryland, 20716

1. Exclusive Benefit

This Agreement is for the exclusive benefit of the Parties. No other person or entity shall have rights under or be deemed a beneficiary of this Agreement.

IN WITNESS WHEREOF, on the date hereinabove set forth, the parties hereto have executed this Agreement in two duplicate originals, any one of these shall be adequate proof of this Agreement without locating or accounting for the other.

WITNESS: CITY OF BOWIE, MARYLAND

Awilda Hernandez, City Clerk

BY: _____
Alfred Lott, City Manager

DATE: _____

WITNESS
SIGNATURE

BY: _____

Approved as to Form and Legal Sufficiency:

Date: _____

Elissa D. Levan, City Attorney



Consent to Release & Discuss Information

Date:

I _____
(Full Name)

Give _____

(Full Name and Title)

Permission to collect and share information related to my case with the City of Bowie Offices and other entities for the purpose of assistance and the processing my information.

These entities may include but are not limited to the following:

Sincerely,

_____/_____/_____
_____/_____/_____

City of Bowie Office of Grant Development & Administration | 15901 Fred Robinson Way, Bowie, MD 20716
CDBG Programs, Housing, Fair Housing, & Homeless Services | Workforce Development, Innovation &
Entrepreneurship Training
Contact: bowiehse@cityofbowie.org

ADDITIONAL RESOURCES FOR IMPACTED (FURLOUGHED AND FIRED) FEDERAL EMPLOYEES

FYI

[Federal Government Shutdown Resources | Prince George's County](#)

<https://www.wsscwater.com/assistance>

NEW Emergency Relief Fund to Support Income-Constrained Customers Coming Soon

To further assist customers facing financial hardship, WSSC Water is also working to establish a \$2.4 million Emergency Relief Fund designed to provide one-time assistance of up to \$750 for income-constrained residential customers, including current and former federal employees and contractors impacted by recent government actions.

Eligibility requirements and more details will be posted at [wsscwater.com/assistance](https://www.wsscwater.com/assistance) when the Emergency Relief Fund

launches on December 1, 2025.

BGE

BALTIMORE (October 1, 2025) - With the federal government shutdown now in effect, BGE is providing expanded bill payment support options to impacted federal workers to help those customers manage their energy costs and avoid service disconnection.

Available support includes:

- **Flexible payment options:** Impacted customers will be eligible for multiple payment arrangements and budget billing plans.
- **Late payment charge waivers:** A 30-day waiver on late payment charges will be granted in increments for affected customers.
- **Streamlined verification:** Customers will not be required to provide government ID to access additional support measures.
- **Proactive assistance resources:** Customers who contact BGE's Care Center will be proactively offered support services available through BGE's self-service [Assistance Finder](#), which provides simple and personalized recommendations.

Impacted federal workers are encouraged to contact BGE's Customer Care team at 1-800-685-0123 for information about these support measures and how to access them.

"The federal government shutdown has created unexpected financial uncertainty for people across the country, including our friends, family, and neighbors living and working right here in central Maryland," said Tamla Olivier, president and CEO of BGE. "As part of BGE's commitment to helping customers when they need it most, we are stepping up to offer additional support for federal employees in this challenging time."

BGE customers can visit bge.com/heretohelp for more ways to manage their bill, use energy more efficiently, or access energy assistance. This includes:

- [Payment arrangements](#) and [due-date extensions](#).
- Financial assistance through [state programs](#) and the [Fuel Fund of Maryland](#).
- [Budget billing](#) information and online self-serve sign-up for customers who prefer a predictable monthly bill that spreads energy costs throughout the year.

[Energy efficiency programs](#) and [My Account tools](#) that offer insights

PEPCO

With the federal government shutdown (effective today, Oct. 1st) impacting our region and the nation, Pepco understands the uncertainty and financial strain this may cause for many of our valued customers.

Please know that we are here to help, and we remain committed to supporting our valued customers with flexible and accessible solutions during this challenging time.

Government Shutdown Support

We want you to be aware that there are key support measures available for your constituents, including:

- **Flexible Payment Options:** Impacted customers can access payment arrangements up to 12 months and budget billing plans to help manage monthly expenses and avoid service disconnection.
- **Late Payment Charge Waivers:** A 30-day waiver on late payment charges will be granted in increments for affected customers.

- **Proactive Assistance Resources:** Customers will be connected to agency assistance programs and tools like:
 - **Assistance Finder Tool:** Helps identify bill assistance and energy efficiency programs that customers may qualify for: <https://secure.pepco.com/assistance/landing>
 - **Single Stop (PHI only):** Helps customers quickly and privately check if they qualify for other benefits, including help with housing, money, food, school, healthcare, childcare, taxes, utility bills, and more. Customer can access the tool anytime on their phone, tablet, or computer.
- Impacted federal workers should contact our customer care team for more information about these added support measures and how to access.
 - **Pepco:** [pepco.com/BillSupport](https://www.pepco.com/BillSupport) or call 202-833-7500
 - **BGE:** [bge.com/heretohelp](https://www.bge.com/heretohelp) or call 1-800-685-0123

*Additionally, please note that support measures are also available to federal contractors.

Seasonal Bill Support

As we transition into colder winter months, we're also offering tools to help customers manage energy use and reduce costs:

- **High usage alerts**, which enable customers to receive alerts when their usage is trending higher than normal to help manage overall energy use, and energy-management tips to help customers manage energy use to save money now and on future energy bills.
- **Weekly energy reports**, which provide a weekly snapshot of usage and costs so that customers can keep track of how they're using energy that month. Residential customers will automatically receive these reports by email.
- **Energy efficiency offerings**, including services and incentives designed to help customers reduce energy use now and in the long term.

Year-Round Support

We also offer a variety of programs to help support our customers year-round, such as:

- Our **Customer Relief Program** offers eligible limited- and moderate-income customers **up to \$300 in relief on their energy bill**.

- **With the Gift of Energy**, anyone can make a payment toward a friend or family member's energy bill.
- **We offer a variety of individually tailored payment** arrangements aimed at bringing the account up to date over a mutually agreeable period of time.
- For customers whose main source of household income is from government or other low-income entitlement programs, they may **qualify for a regular extension of their bill** due date without incurring a late charge.

Thank you for your partnership in disseminating this information, and please let me know if you have any questions.

Thank you,

FACT SHEET

GOVERNOR WES MOORE ACTS IN SUPPORT OF MARYLAND'S FEDERAL PUBLIC SERVANTS AND SECURING ACCESS TO KEY FEDERAL PROGRAMS

Today the Moore-Miller Administration announced a series of actions to protect Marylanders during the federal government shutdown. According to data from 2023, there are approximately 269,000 federal employees residing in Maryland and 225,000 contractors working in Maryland. In addition, thousands of Marylanders rely on federal programs. In order to support impacted Marylanders, Governor Moore has announced additional actions to protect Marylanders during this difficult time. These actions build upon previous steps Governor Moore announced in February of this year to support Maryland's federal workers impacted by federal workforce layoffs, firings, and changes to federal funding.

Federal employees and contractors: These resources will support Maryland workers, support the communities they live in, and help protect our local economies. Governor Moore announced that his Administration:

- **Updated the [Maryland Public Servants Resource](#) website with a [new resource page](#):**
The public servants resource page now includes key resources available to federal employees and contractors impacted during the shutdown, such as unemployment insurance and housing and utility protections. This page builds upon the centralized hub created earlier this year in support of Maryland's federal employees and contractors impacted by federal workforce layoffs, firings, and changes to federal funding. You can visit this page at: go.md.gov/FederalShutdown.
 - Since launch, the Maryland Public Servants Resource Website has had more than 150,000 unique visitors and more than 236,000 views.
 - This website also includes [resources for veterans](#). Veterans make up a sizable portion of the federal workforce—approximately 1 in 4 federal civilian employees are veterans.
- **Sent a letter to the Judiciary highlighting new eviction and foreclosure protections:**
Pursuant to Real Property Article of the Maryland Code, Sections 7-105.1 and 8-401, an involuntarily furloughed federal government employee at risk of eviction or foreclosure can ask the court to temporarily pause the eviction or foreclosure during the shutdown. This protection was passed by the Maryland General Assembly in 2019 after the last federal government shutdown, and therefore this is the first time this protection will be applicable. Governor Moore sent Maryland Supreme Court Chief Justice Matthew Fader a letter highlighting this new provision to ensure that judges are aware of this protection when making eviction and foreclosure decisions.

Federal employees are protected even if they are required to work during a shutdown. To be eligible, the federal employee must:

- be a current federal government employee,
- currently live in the property at risk of eviction or foreclosure,
- be unpaid during the shutdown, and
- show up to any scheduled court hearing and ask the judge to pause the eviction or foreclosure.



EMPLOY PRINCE GEORGE'S

Impacted Federal Employee Resources

Discover a wealth of valuable resources curated to support federal workers during challenging times. Explore essential guidance, support, and specialized assistance tailored to help you navigate uncertainties effectively. Whether you're seeking employment advice or crucial information, this page is designed to provide you with the support you need.

[Employ Prince George's
Career Transition Resources](#)



At the start of President Trump's Administration, the Department of Government Efficiency (DOGE) was established, leading to significant downsizing of the federal government. This shift impacted numerous federal jobs in Maryland and Prince George's County. To support those affected, Employ Prince George's developed the Career Transition Resources initiative, aimed at assisting residents in transitioning to new career opportunities.

[Prince George's County Government
Federal Workers Resource Hub](#)



As the home to one of the highest populations of federal workers in the state, Prince George's County remains committed to helping residents rebuild, recover, and thrive. Explore resources, including rental assistance, mental healthcare, social services, job training and small business development.

[Maryland Resources for
Impacted Workers](#)



Uncover a comprehensive array of specialized resources designed to aid impacted workers in Maryland. Whether seeking assistance or crucial information, these resources are here to help you navigate through difficulties with clarity and support.

[Maryland Department of
Labor Resources](#)



Find a wealth of tailored resources provided by the Maryland Department of Labor to support federal workers during challenging periods. From guidance on employment matters to essential support, access the assistance you need to navigate through uncertainties effectively, like [Important UI Tips for Federal Civilian Employees – Unemployment Insurance](#).

Mental Health Resources

HOTLINES & CRISIS SUPPORT

- [Local Prince George's County Resources](#)
- [NAMI Prince George's County](#)
- [Childhelp National Child Abuse Hotline](#)
 - (800) 422-4453
- [Crisis Text Line](#) Text HOME to 741741
- [National Grad Crisis Line](#) (877) 472-3457
- [National Suicide and Crisis Lifeline](#) 988
 - [Chat online](#) or call
- [Gamblers Anonymous](#)
- [Maryland 211 Behavioral Health Support](#)
- [StrongHearts Native Helpline](#)
- [National Domestic Violence Hotline](#)
 - (800) 799-7233
- [Substance Abuse and Mental Health Services Administration National Helpline](#) (800) 662-4357
- [Veterans Crisis Line](#)
 - 988, then PRESS 1 or Text 838255
- [National Sexual Assault Hotline](#)
 - (800) 656-4673
- [Alcoholics Anonymous](#)

FIND A THERAPIST

- [Minority Mental Health Resources](#)
- [Open Path Collective](#)
- [Psychology Today](#)
- [Therapy For Black Girls](#)
- [Local Therapist for Black Men & Women](#)
- [Therapy for Latinx](#)
- [Asian Mental Health Collective](#)
- [Vitality Health & Wellness Group](#)
- [Grow Therapy](#)

LEARN MORE

- [The Mental Health Coalition](#)
- [The Trevor Project](#)
- [Autistic Women & Nonbinary Network](#)
- [Nalgebra Positivity Pride](#)
- [Mental Health America](#)
- [Eating Disorder Mental Health Guide](#)
- [Mental Health Association of Maryland](#)
- [Maryland Psychology Association](#)

MOBILE APPS

- **Sensory**
 - [Heat Pad](#)
 - [AntiStress](#)
 - [Fluid](#)
- **Mindfulness**
 - [Calm](#)
 - [Calm harm](#)
 - [Worrydolls](#)
 - [Headspace](#)
 - [Mindshift](#)
- **Wellness**
 - [MoodTools](#)
 - [WRAP](#)
 - [Forest](#)
 - [Finch: Self-Care Pet](#)
 - [Happify](#)
 - [Moodfit](#)
 - [Pause](#)
 - [Breathwork](#)
- **Tracking**
 - [Prosper: Self Care Companion](#)
 - [Bearable](#)
 - [Clue](#)
 - [MediSafe](#)
 - [I am Sober](#)
- **Planning**
 - [Suicide Safety Plan](#)
 - [Tiimo](#)
 - [Habitica](#)



Scan the QR
code for clickable
resource links



[Resources for Maryland's Former Federal Employees and Other Workers Impacted by the Federal Government Transition or Shutdown - Maryland Department of Labor](#)

Resources for Maryland's Former Federal Employees and Other Workers Impacted by the Federal Government Transition or Shutdown

Are you a Marylander who has recently lost your job as a federal employee or contractor, or who is affected by the federal government shutdown? This website provides information on resources like unemployment insurance benefits, career guidance, reemployment support, and available loan programs. This information will be updated as additional details become available.

Unemployment insurance for former federal employees and furloughed federal employees

Federal civilian employees who become unemployed or are furloughed due to government shutdown (not working and not being paid), due to no fault of their own, can apply for Unemployment Compensation for Federal Employees (UCFE). For information on eligibility, how to apply, and more, see the page [Maryland Unemployment Insurance Information for Federal Employees: FAQs](#) and the [unemployment insurance page](#) for federal employees impacted by a furlough.

Some federal employees impacted by federal agency reductions in force may be receiving severance pay as part of separation, which can impact unemployment benefits. For information on how severance pay will affect your eligibility for unemployment benefits in Maryland, call a claims agent at [667-207-6520](#), Monday through Friday, 8 a.m. to 4 p.m., so you can make an informed decision on if and when to apply.

[Steps to Prepare for a Reduction in Force](#) is our quick-reference guide on steps current federal employees can take now to help them in the event they need to apply for unemployment insurance benefits in the future.

Unemployment insurance for other workers impacted by federal actions

Other workers impacted by federal actions—such as employees who worked for a private sector employer that contracted with the federal government and are now unemployed (furloughed or laid off) due to no fault of their own—may be eligible to apply for regular unemployment insurance. See the [Regular Unemployment Insurance \(UI\) Overview flyer](#) for information on how to apply for the regular Maryland UI program.

See also the [unemployment insurance page](#) for federal employees and federal contractors impacted by a furlough.

Worker support in finding a new job

Maryland offers a wide range of virtual and in-person services for workers seeking new opportunities or in need of reemployment support.

A virtual workshop designed specifically for former federal employees, federal contractors, and other workers impacted by federal government transition is available on Wednesdays, 9 a.m. to 12 p.m. [See workshop details \(información del taller en español\)](#) and email FedWorker.Transition@maryland.gov to sign up.

Broader services are also available. These include résumé workshops, individualized career guidance, mock interviews, career and skills assessment, effective job search strategies, support in coping with job loss and job transition, networking support, reemployment workshops, and more.

These resources are provided through 33 [American Job Centers \(AJCs\)](#) and our specialized [Professional Outplacement Assistance Center \(POAC\)](#). For more details, [see our resource guide \(guía de recursos en español\)](#)

See our [FAQ page](#) for answers to common questions from workers transitioning from federal employment to new opportunities.

Federal Shutdown Loan Program

If you are a Maryland resident and federal employee who is designated as “excepted” (also called “essential”) during a federal government shutdown, and required to work without pay, you may be eligible for a \$700 no-interest loan. This loan is to be repaid 45 days after the shutdown ends, giving workers

time to receive their back pay from the federal government. Learn more on our [loan information page](#) or [submit an application](#).

Federal Worker Emergency Loan Program

If you are a Maryland resident and federal employee who was recently terminated from your position, you may be eligible for a \$700 no-interest loan, to be repaid within 180 days. Learn more on our [loan information page](#) or [submit an application](#).

Opportunities to return to state employment for recent federal employees who were also former state employees

If you are a former state employee and you resigned from your state position less than three years ago, you may be eligible to retain your seniority if you are rehired by the state. For more information please visit the Maryland Department of Budget and Management's [Reinstatement page](#) or call [410-767-4850](#).

Recruitment Events & Job Fairs

Recruitment events offer a great way for jobseekers and employers to connect. Check out our [recruitment event and job fair calendar](#) to learn more about hiring events scheduled across Maryland.

City of Bowie
Office of Grant Development and
Administration (OGDA)
FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE
PROGRAM – Government Shutdown

November 2025



Jesse Buggs, Director
Office of Grant Development &
Administration
jbuggs@cityofbowie.org



Office of Grant Development and
Administration

FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE PROGRAM

PURPOSE

- TO SUPPORT THE ECONOMIC FOUNDATION OF THE CITY AND THE FINANCIAL STABILITY OF FAMILIES BY CREATING A FUND TO PROVIDE TARGETED RELIEF FOR AFFECTED RESIDENTS
- TO PROVIDE FINANCIAL ASSISTANCE TO FEDERAL EMPLOYEES WHO ARE CITY OF BOWIE RESIDENTS AND ARE AFFECTED BY THE CURRENT GOVERNMENT SHUTDOWN.
- TO SUPPORT THE CRITICAL, URGENT NEEDS OF THIS GROUP BY PROVIDING PAYMENTS FOR CERTAIN COSTS AND EXPENDITURES.
- TO PRIORITIZE ASSISTANCE BASED UPON FACTORS AFFECTING LIFE, HEALTH, AND THE POTENTIAL FOR DISPLACEMENT.

FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE PROGRAM

Fund Size - \$1m

Eligible Groups:

Federal Employees

Furloughed

Fired

Federal Contractors

Employees only

Period of Consideration: Jan 20 – Dec 31, 2025

FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE PROGRAM

Cohort Prioritization

Families with Dependent Children

Seniors

Disabled Residents

Veterans

Public Safety Employees

Others

FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE PROGRAM

Eligible Activities

- Rent
- Food*
- Mortgage**
- Childcare
- Utilities**
- Other Costs (Emergency-based)

* Food Distribution Might Also be Provided Through Third Parties (Funded and Coordinated Through OGDA)

** See Access to Other State, Local, and Company Programs

FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE PROGRAM

PROJECT/FUND MANAGEMENT

CITY MANAGER'S OFFICE

OFFICE OF GRANT DEVELOPMENT & ADMINISTRATION (OGDA)

Jesse Buggs (Project Director)

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COMMUNICATIONS, FINANCE, DCS, AND OTHERS (ASSISTANCE)

*Contractor Used in Previous Fund (CARES ACT) Assistance Program

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- Founded in 1988, HIP's real estate development programs consist of multifamily housing, single-family rehabilitation and new construction. HIP has developed a reputation for creating high quality projects, focusing a great deal of attention on detail. Our staff has the skill and tenacity to solve extremely difficult and entrenched development problems. HIP also manages HUD-approved Homeownership and Foreclosure Prevention programs, featuring financial capability coaching for both homeowners and renters, including families at risk of homelessness. Our bilingual housing counseling program is one of the largest in the state of Maryland, with three offices in Prince George's County and Montgomery County.
- HIP has been accredited by the Standards for Excellence Institute as meeting the highest standards of ethics, effectiveness and accountability and has been recognized by the Catalogue for Philanthropy as "one of the best nonprofits" in the Washington DC region. HIP has also been highlighted twice by the Washingtonian Magazine as one of the best nonprofit organizations to give money to in the region.



Housing Initiative Partnership, Inc.

FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE PROGRAM

PROGRAM DETAILS

Application (Required)

Proof of City Residency

Proof of Federal Employment

Proof of Employment Status

Proof of Outstanding Expenses/Costs

One-time Payment

City Decisions - Final

NOTE1: Funds will be paid directly to the creditor/company; not to individuals.

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Office of Grant Development and
Administration

FEDERAL EMPLOYEES' FINANCIAL ASSISTANCE PROGRAM

PROGRAM LOGISTICS

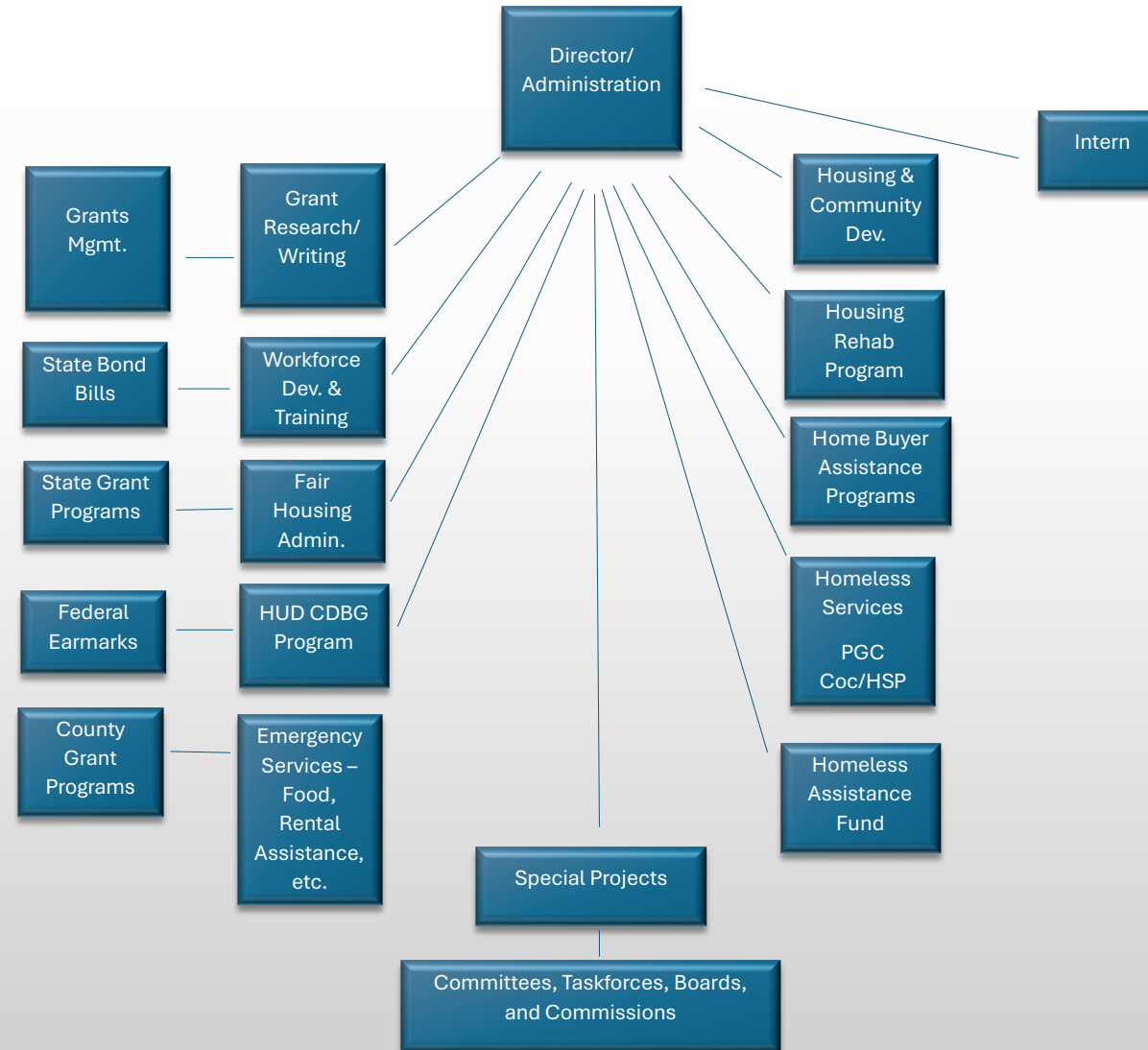
- Council Review/Approval – November 3, 2025
- Program Design – November 12, 2025
- Council Budget Amendment Authorization – November 17, 2025
- Vendor Agreement – November 18, 2025
- Program Outreach – November 24, 2025
- Program Implementation – December 8, 2025
- Program Reports – Quarterly
- Program End – Fund Depletion
- Program Closeout



City of Bowie

City Manager's Office

Office of Grant Development & Administration



Questions? Comments?

Office of Grant Development & Administration

15901 Fred Robinson Way, Bowie, MD 20716

fedfundassist@cityofbowie.org



Office of Grant Development and
Administration



Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: EECBG Phase II

DATE: 11/13/2025

The City's consultant, Loring Consulting Engineers, will present the energy conservation measure (ECM) recommendations based on the Level 2 energy audits conducted at City Hall and Kenhill Center. Loring has recommended a total of twenty-five ECMs to assist the City in electrifying and complying with the Building Energy Performance Standards (BEPS) outlined in the Maryland Climate Solutions Now Act of 2022.

ATTACHMENTS:

1. 20251117 - EECBG Phase II Presentation - Loring Consulting Engineers
2. 20251117 - Bowie City Hall - Energy Audit Report 2025-10-03
3. 20251117 - Kenhill Center - Energy Audit Report 2025-10-03



Energy Audits of Bowie City Hall and Kenhill Center

**City of Bowie, Department of Planning and Sustainability
City Council Meeting
November 17, 2025**

BACKGROUND

200+

Employees across

9

offices

- Durham, NC
- Gaithersburg, MD
- Houston, TX
- New York, NY
- Philadelphia, PA
- Parsippany, NJ
- Princeton, NJ
- Toronto, ON
- Washington, DC

50+ LEED Certified Projects

25+ Electrified Buildings

500+ Energy Audits

2,500,000+ MMbtu of Annual Energy Savings

100,000+ Metric Tons Co₂e of Annual GHG Emissions

62 PEs in the USA and Canada

Licensed in **38** States in the USA and **8** Provinces in Canada

52% of Management and Staff are Minorities

Technical Team

40 Mechanical Engineers

35 Mechanical Designers

42 LEED and WELL Professionals

30 Electrical Engineers

20 Electrical Designers

06 BIM Specialists

04 Building Envelope Cx Specialists

07 IT Designers

ESTABLISHED IN 1956

CONTENT

OVERVIEW AND PURPOSE

MD CLIMATE SOLUTIONS NOW ACT 2022

BUILDING ENERGY PERFORMANCE STANDARDS

BCH & KC PERFORMANCE VS. TARGETS

ESTIMATED PENALTIES – NO ACTION TAKEN

ENERGY AUDIT – PLAN OF ACTION

ENERGY END USE BREAKDOWN

TOTAL PROJECT SAVINGS AND COSTS

ECM HIGHLIGHTS

Q&A

OVERVIEW AND PURPOSE

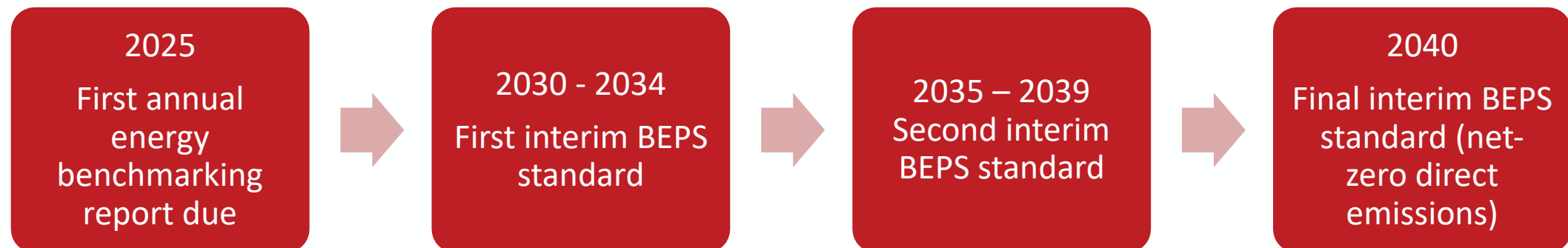
Purpose: The City of Bowie selected Loring to conduct ASHRAE Level 2 energy audits for two City-owned buildings subject to the new State of Maryland Building Energy Performance Standards (BEPS).

Goal of the Energy Audits: Provide decision-makers with a reliable, data-driven foundation to evaluate high-cost energy-saving projects and ensure compliance with BEPS regulations, including emissions reduction and energy use intensity (EUI) standards.



MD CLIMATE SOLUTIONS NOW ACT OF 2022

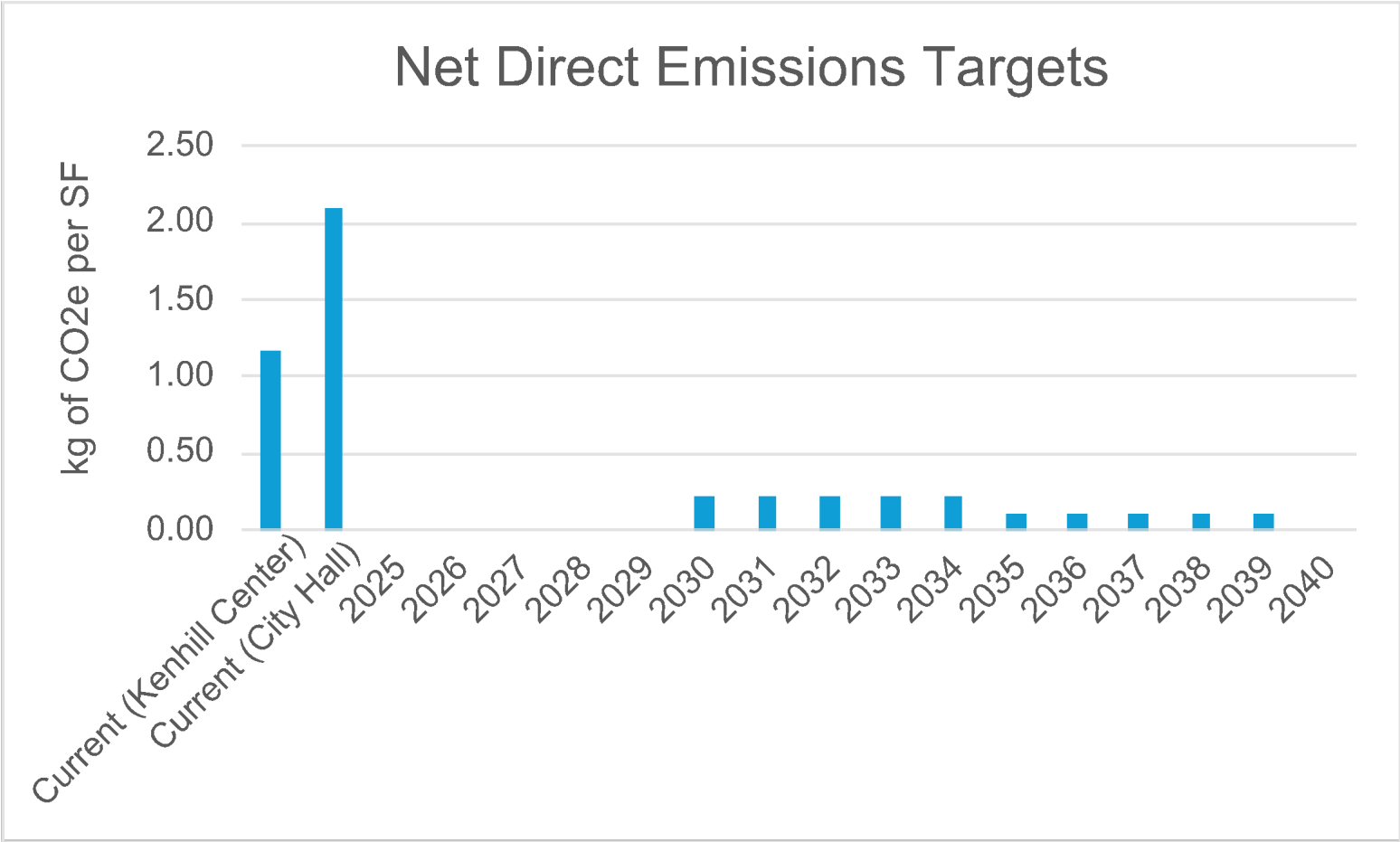
- Buildings over 35,000 SF must annually report their energy consumption and meet certain building energy performance standards (BEPS).
- BEPS sets limits for net-direct emissions (kg CO₂e/sf) and site energy use intensity (EUI – kbtu/sf).
- Alternative compliance fees will be assessed annually beginning with CY 2030 data by the state of MD for non-compliance.
- Applies to: Bowie City Hall, Kenhill Center, and the future Ice Arena



SITE ENERGY USE INTENSITY (EUI) STANDARD

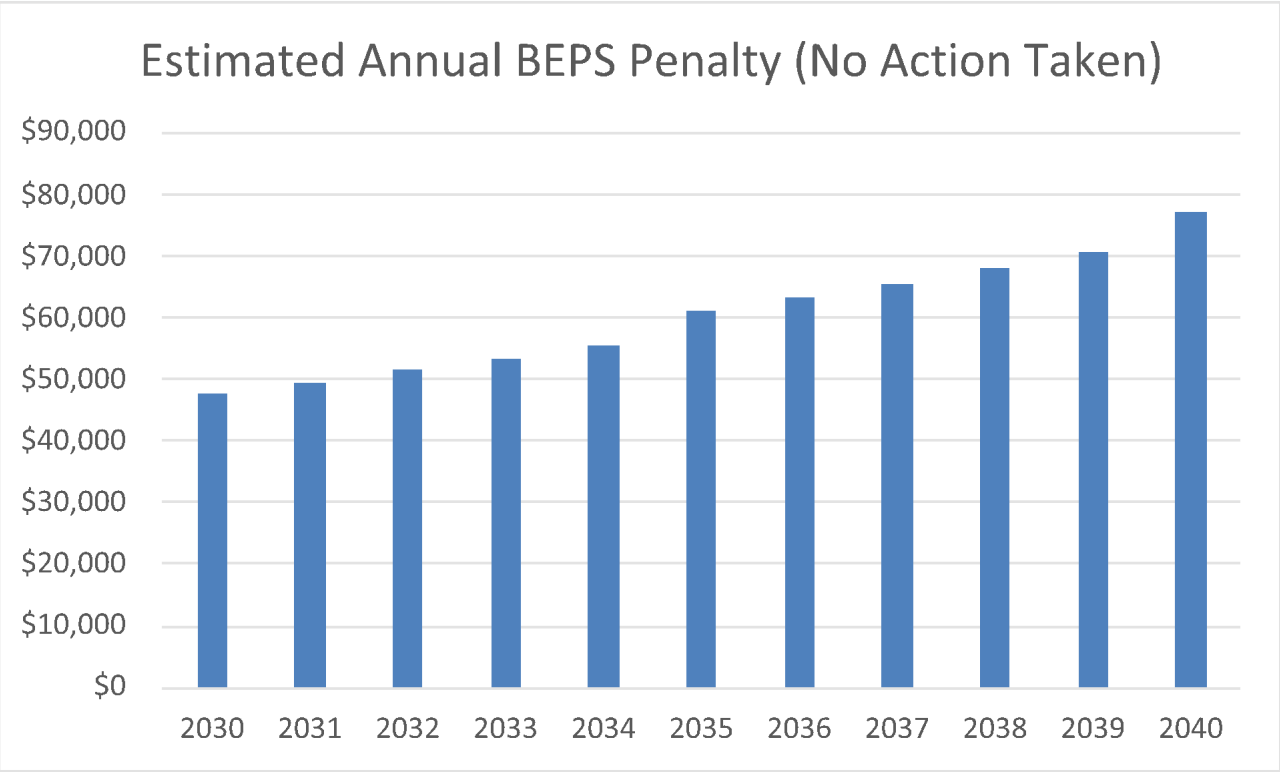
- MDE intends to adopt an energy efficiency standard, called site energy use intensity (EUI) in 2027
- Unknowns:
 - What level will the site EUI standards be set at?
 - When will they need to be met?
 - What are the penalties for missing them?

BCH & KC PERFORMANCE VS. TARGETS

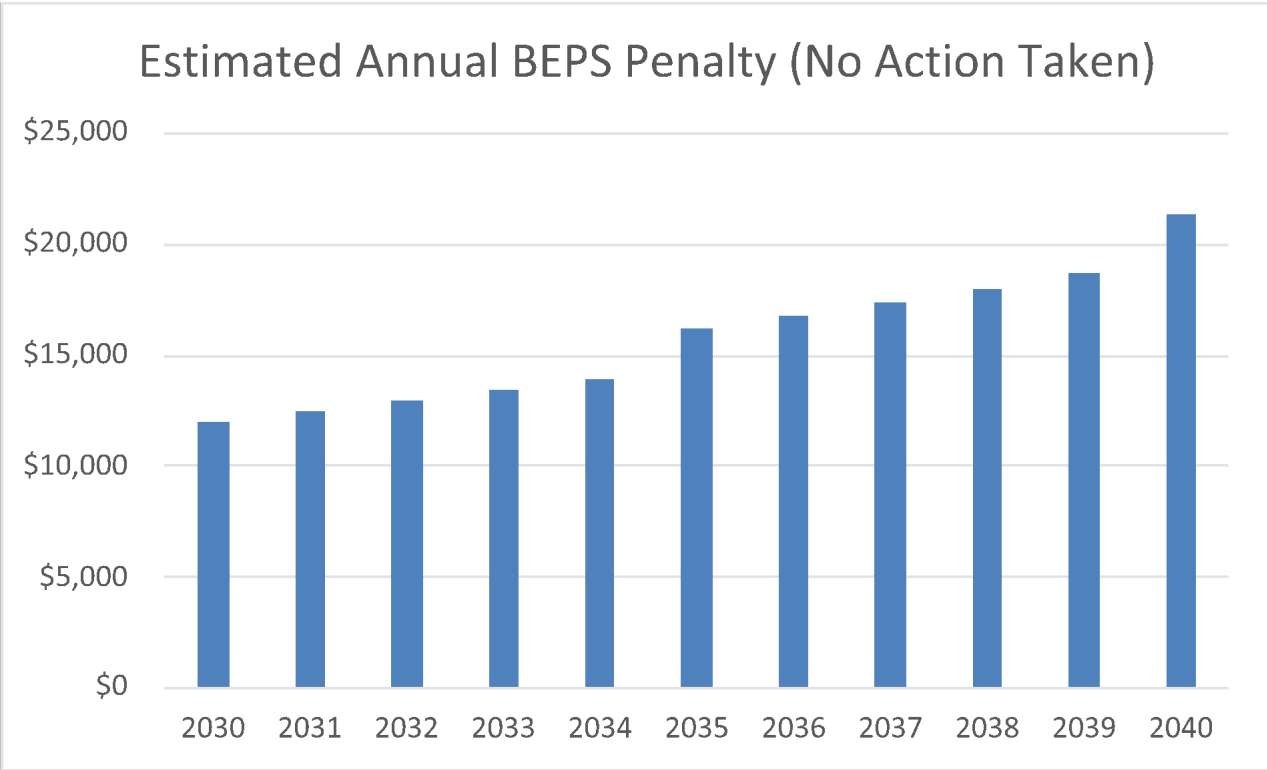


- City Hall:
 - 90% reduction by 2030
 - 95% reduction by 2035
- Kenhill Center:
 - 81% reduction by 2030
 - 91% reduction by 2035

ESTIMATED PENALTIES – CITY HALL



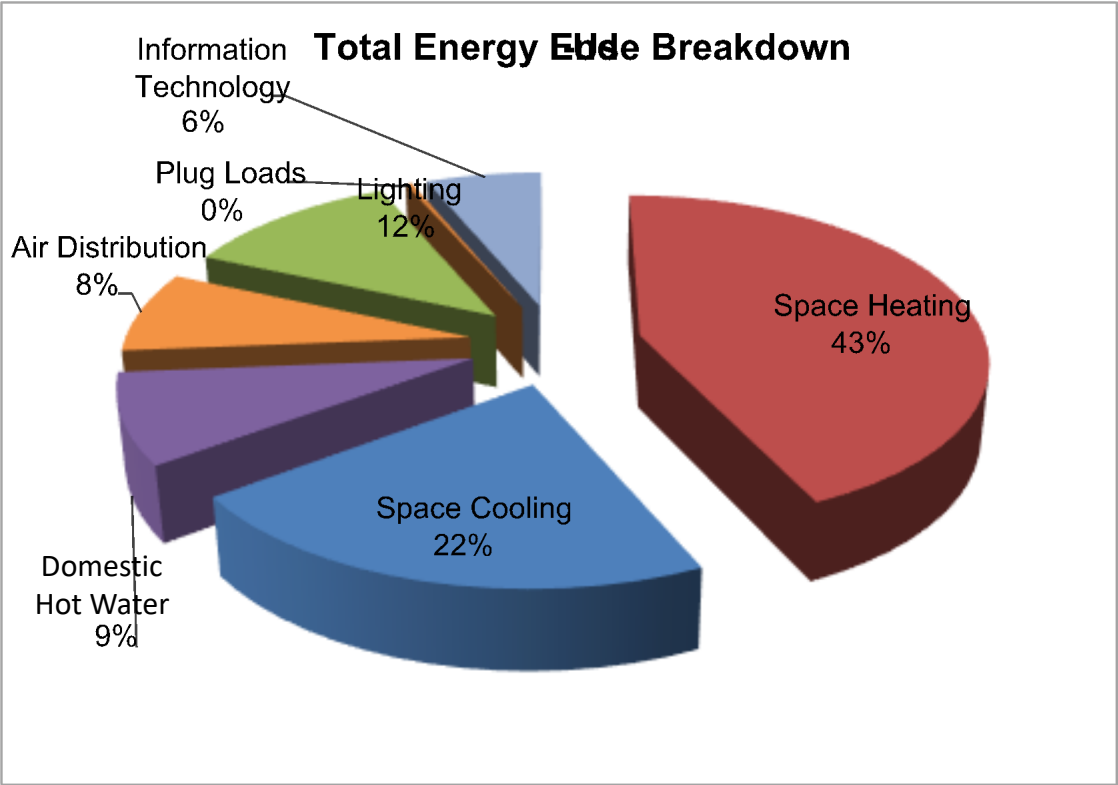
ESTIMATED PENALTIES – KENHILL CENTER



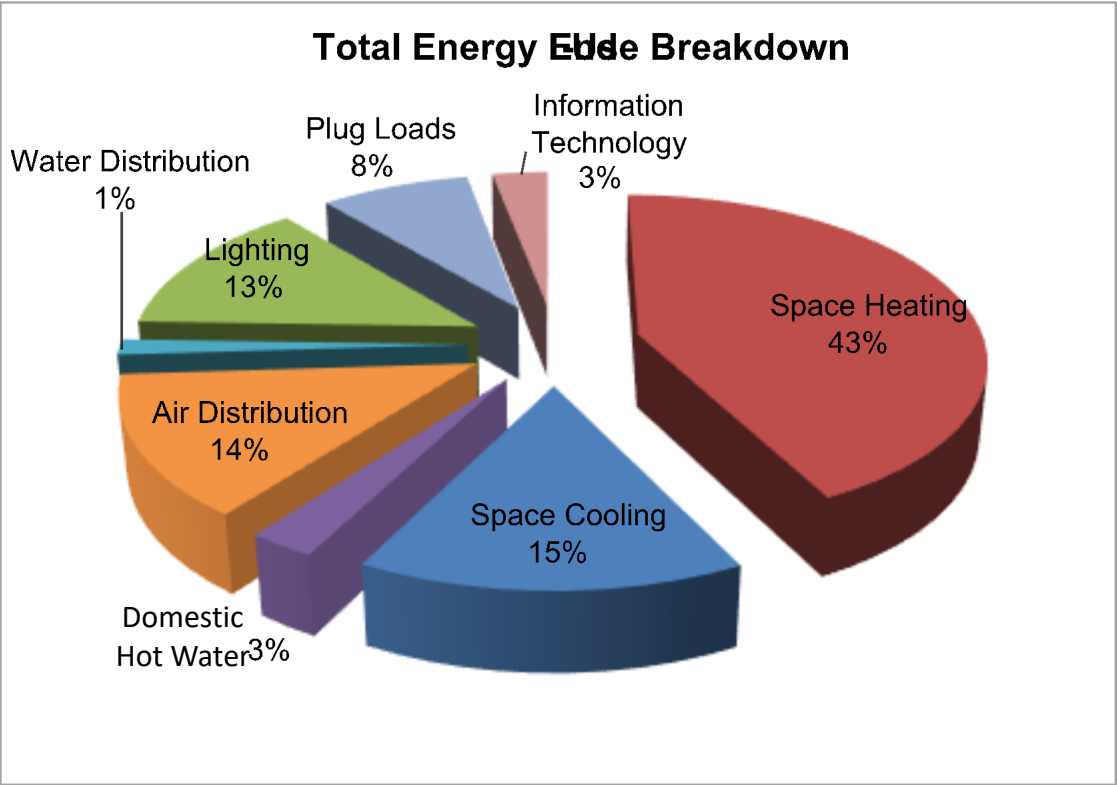
ENERGY AUDIT – PLAN OF ACTION

- An energy audit:
 - Establishes a baseline for a building's energy use
 - Identifies areas of energy use improvement
 - Provides a data-driven roadmap for achieving compliance

ENERGY END USE BREAKDOWN



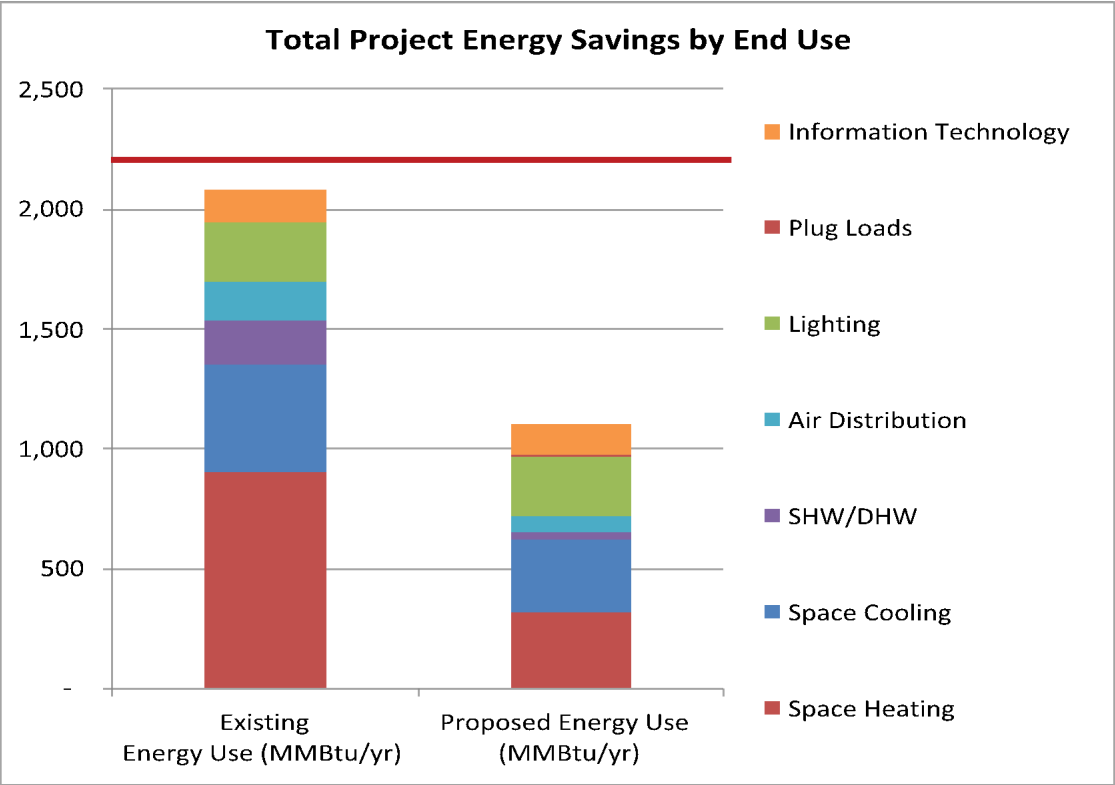
Kenhill Center



City Hall

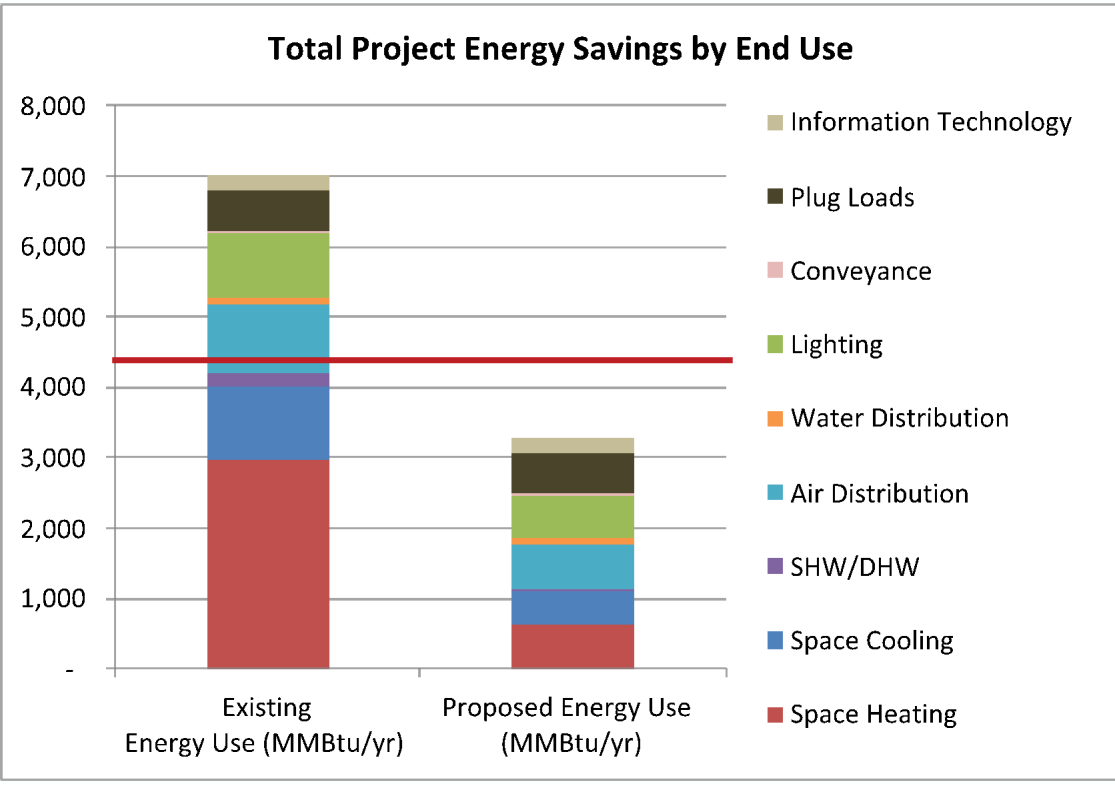
PROJECTED ENERGY SAVINGS

Energy End Use Breakdown



Kenhill Center

MMBTU Target: 2189 MMBtu/yr
(based on Montgomery County)



City Hall

MMBTU Target: 4397 MMBtu/yr
(based on Montgomery County)

CITY HALL - ENERGY SAVINGS & COSTS

ECM No.	Description	Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therm/yr)	Onsite Renewable Energy (kWh/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
ECM-01	Lighting upgrade to LED	92,761	19.1	-	-	9,285	-	21,000	2.3	25.2
ECM-02	Replace stairwell lights with dimmable LEDs with integral occupancy sensors	4,543	-	-	-	353	-	6,100	17.4	1.2
ECM-03	Unoccupied scheduling of RTU-1 and RTU-3 through the BAS	221,919	-	7,648	-	31,502	12,810	100	0.0	101.0
ECM-04	Perform maintenance of VAV terminal units	-	-	862	-	1,609	1,444	6,300	2.1	4.6
ECM-05	Increase RTU maximum supply air temperature	10,430	-	3,067	-	6,533	5,137	100	0.0	19.1
ECM-06	Use comparative enthalpy sensors to determine when to enable economizer mode	20,773	-	-	-	1,613	-	4,000	2.5	5.6
ECM-07	Implement hot water temperature reset (100 to 140 °F)	-	-	1,591	-	2,969	2,665	700	0.1	8.5
ECM-08	Replace natural gas-fired RTUs with heat pumps	-58,120	-6.6	7,370	-	8,514	12,344	920,000	44.1	23.4
ECM-09	Replace natural gas-fired boilers with heat pumps	-75,859	-8.7	7,672	-	7,479	12,850	690,000	34.0	20.2
ECM-10	Replace DHW heater with heat pump	-10,018	-1.1	1,872	-	2,590	3,135	37,000	6.4	7.2
ECM-11	Paint roof white (high SRI)	4,695	0.5	-	-	544	-	8,700	16.0	1.3
ECM-12	Install solar window film on south facing windows	4,048	0.5	-	-	476	-	16,000	32.8	1.1
ECM-13	Install rooftop solar PV	-	-	-	135,900	14,290	-	350,000	24.4	37.0
ECM-14	Install carport solar PV	-	-	-	266,400	28,012	-	450,000	16.2	72.4
	Total of ECMs	215,173	4	30,083	402,300	115,768	50,386	2,510,000	15.1	327.9

KENHILL CENTER - ENERGY SAVINGS & COSTS

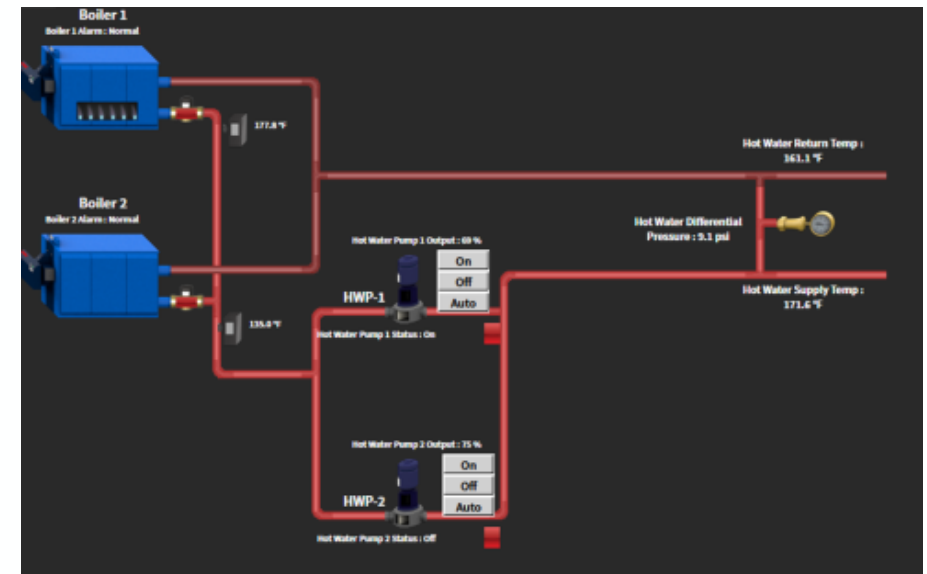
ECM No.	Description	Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therm/yr)	Onsite Renewable Energy (kWh/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
ECM-01	Scheduling for all RTUs on local thermostats	46,910	-	1,528	-	7,757	2,560	200	0.0	20.9
ECM-02	Use occupancy sensors to implement a vacancy mode for all RTUs	13,443	1.5	338	-	2,139	566	20,000	7.4	5.5
ECM-03	Replace food pantry trailer air conditioners with heat pumps	6,110	2.2	-	-	741	-	36,000	48.6	1.7
ECM-04	Provide dedicated A/C unit for IT room	6,290	-	-	-	483	-	7,900	16.4	1.7
ECM-05	Insulate DHW pipe in mechanical room	-	-	245	-	665	410	600	0.6	1.3
ECM-06	Install Low-flow aerators in bathrooms	-	-	86	-	235	145	200	0.5	0.5
ECM-07	Replace natural gas-fired HW heater with heat pump	-7,953	-0.9	1,486	-	3,320	2,489	6,800	1.2	5.7
ECM-08	Install roof insulation to underside of composite steel/concrete roof deck	7,431	0.8	899	-	3,369	1,506	170,000	34.9	6.8
ECM-09	Replace natural gas-fired RTUs with heat pumps	-34,085	-3.8	3,897	-	7,517	6,527	650,000	46.3	11.5
ECM-10	Install rooftop solar PV	-	-	-	157,000	12,052	-	400,000	33.2	42.7
ECM-11	Install carport solar PV	-	-	-	271,000	28,255	-	510,000	18.0	73.7
	Total of ECMs	38,146	-0	8,480	428,000	66,534	14,203	1,801,700	22.3	31.5

ECM HIGHLIGHT – LIGHTING UPGRADE TO LED



ECM HIGHLIGHT – HVAC CONTROLS OPTIMIZATION

- City Hall:
 - Unoccupied scheduling of RTU-1 and RTU-3 through the BAS
 - Perform maintenance of VAV terminal units
 - Increase RTU maximum supply air temperature
 - Use comparative enthalpy sensors to determine when to enable economizer mode
 - Implement hot water temperature reset (100 to 140 °F)
- Kenhill Center:
 - Scheduling for all RTUs on local thermostats
 - Use occupancy sensors to implement a vacancy mode for all RTUs



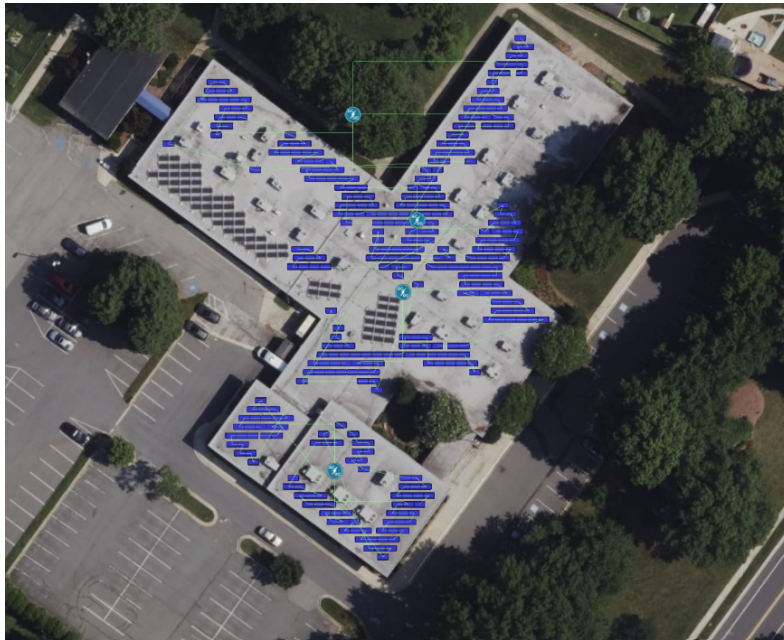
ECM HIGHLIGHT – ELECTRIFICATION OF NATURAL GAS SYSTEMS

- City Hall:
 - Replace natural gas-fired RTUs with heat pumps
 - Replace natural gas-fired boilers with heat pumps
 - Replace DHW heater with a heat pump
- Kenhill Center:
 - Replace natural gas-fired HW heater with heat pump
 - Replace natural gas-fired RTUs with heat pumps



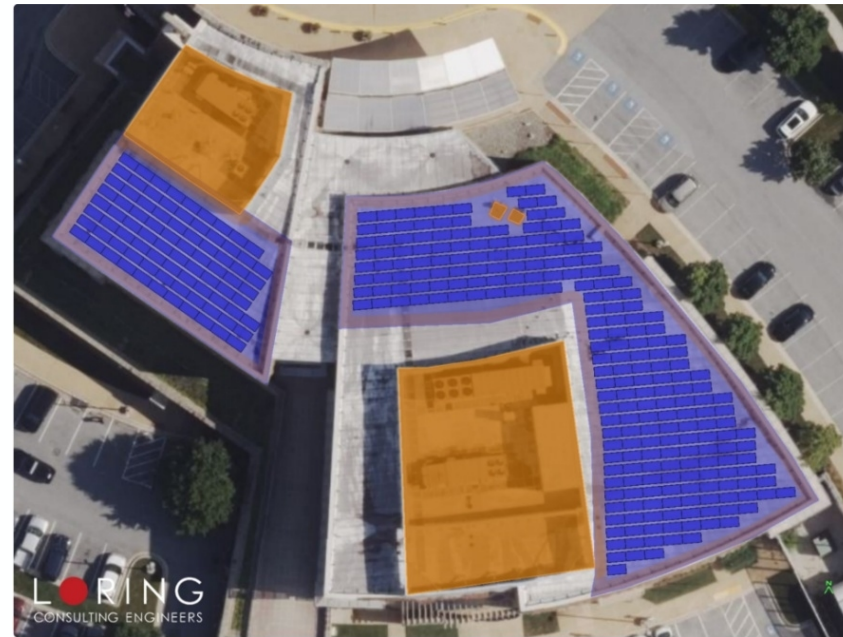
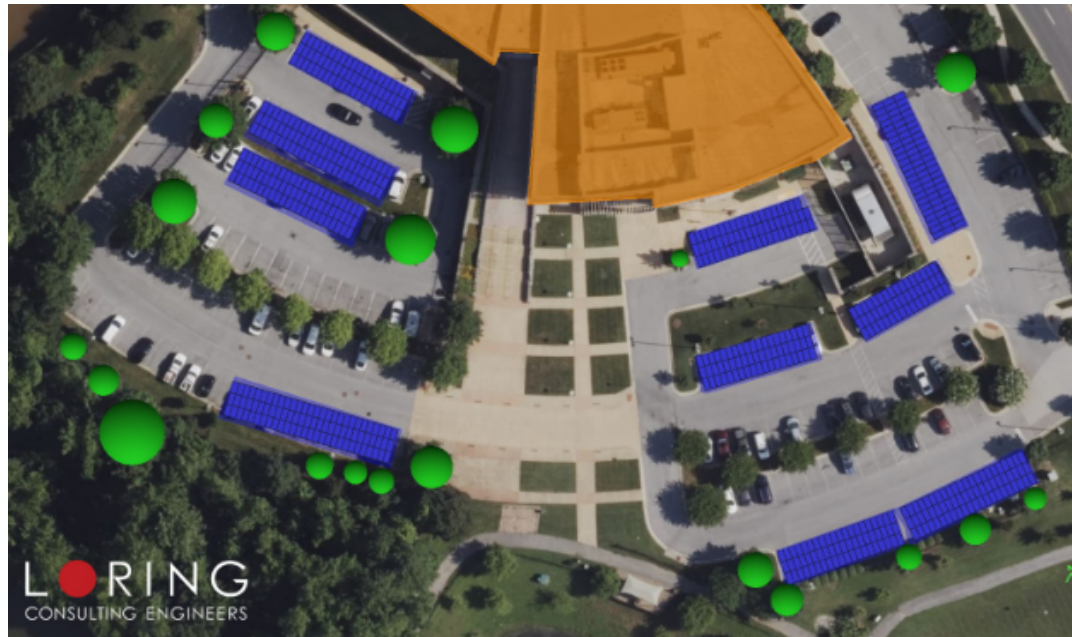
ECM HIGHLIGHT – ONSITE SOLAR PV

- Proposed solar PV installations on roof and parking lot of both facilities
- State of MD will provide a Site EUI credit for onsite renewable energy generation



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- State of MD will provide a Site EUI credit for onsite renewable energy generation





L●RING
CONSULTING ENGINEERS



Bowie City Hall
ASHRAE Level II Energy Audit
15901 Fred Robinson Way, Bowie, MD 20716

Prepared for: City of Bowie
Planning and Sustainability Department

Prepared by: Loring Consulting Engineers
9711 Washingtonian Blvd Suite 325
Gaithersburg, MD 20878

October 3, 2025
Loring No. 13988-000

Contents

EXECUTIVE SUMMARY	3
KEY FINDINGS	3
OVERVIEW OF POTENTIAL SAVINGS	3
BUILDING ENERGY PERFORMANCE STANDARDS	6
FACILITY DESCRIPTION	8
HEATING SYSTEMS	9
COOLING SYSTEMS	11
DOMESTIC WATER SYSTEMS	12
EXHAUST SYSTEMS	13
ELECTRICAL SYSTEMS	14
ENERGY CONSUMPTION ANALYSIS	15
HISTORICAL ENERGY USE	15
ELECTRICAL CONSUMPTION	15
HISTORICAL ENERGY COSTS	18
NATURAL GAS CONSUMPTION	20
UTILITY RATES	22
ENERGY END USE BREAKDOWN	24
ELECTRICITY	24
NATURAL GAS	25
ENERGY CONSERVATION MEASURES	27
ENERGY SAVINGS BY SYSTEM	27
PREDICTED ENERGY USAGE BY SYSTEM AFTER IMPLEMENTATION	28
MEASURES CONSIDERED BUT NOT RECOMMENDED	49
NEXT STEPS	50
APPENDIX A	51

EXECUTIVE SUMMARY

At the request of the City of Bowie, Loring Consulting Engineers, Inc. (Loring) performed an energy audit for the City Hall facility located at 15901 Fred Robinson Way, Bowie, MD. The purpose of this study is to identify energy conservation measures that are cost-effective, provide utility cost savings, and help the facility meet the State of Maryland building energy performance standards (BEPS).

KEY FINDINGS

Some of the key findings from the energy audit include:

- Bowie City Hall will be subject to penalties from the State of Maryland Building Energy Performance Standards (BEPS) beginning in 2030. Implementing energy conservation measures that reduce the reliance on utilities, especially natural gas, will reduce the potential penalties.
- The replacement of the existing natural gas-fired systems with electric heat pump equivalents will be expensive, but necessary to avoid future penalties. We recommend planning for this.
- Much of the building is lit by fluorescent lamps. LEDs are a low-cost replacement with a very quick payback. This should be prioritized.
- The HVAC systems are not operated with efficiency in mind, and several low-cost improvements are available, including reducing run-time through scheduling changes, reducing heating hot water temperatures, increasing supply air temperatures, and performing maintenance.
- The open roof and surface parking lots present opportunities for solar photovoltaic arrays to offset onsite electric usage.

OVERVIEW OF POTENTIAL SAVINGS

Loring has identified 14 Energy Conservation Measures (ECMs) with varying levels of simple payback. These ECM's represent measures which will reduce electric consumption, reduce greenhouse gas emissions, and reduce utility costs.

Table 1 compares the existing 2022 - 2024 electric and natural gas usage and cost (yearly average) to the potential electric and natural gas cost if all the ECMs presented are implemented. Also presented are the potential BEPS penalties (for the year 2030, which will increase each year thereafter) if no action is taken vs. if all recommendations are implemented.

Table 1: Comparison of Performance Indicators

Energy Use	Electric Energy Use (kWh)	Electric Energy Cost (\$)	Natural Gas Energy Use (therms)	Annual Natural Gas Cost (\$/yr)	Estimated BEPS Penalty (\$/yr in 2030)	Total Cost (Utility + Penalty) (\$/yr)
Baseline Use 2022 - 2024	1,129,816	101,289	31,572	74,926	47,800	224,014
Proposed Energy Use	512,344	41,651	1,489	18,795	0	60,446
Proposed Onsite Renewable Energy Production	402,300	-	-	-	-	-
% Savings	55%	59%	95%	75%	100%	73%

The energy savings compared to the baseline period (2022 – 2024) for each end-use category is summarized in Figure 1 and Table 2 below.

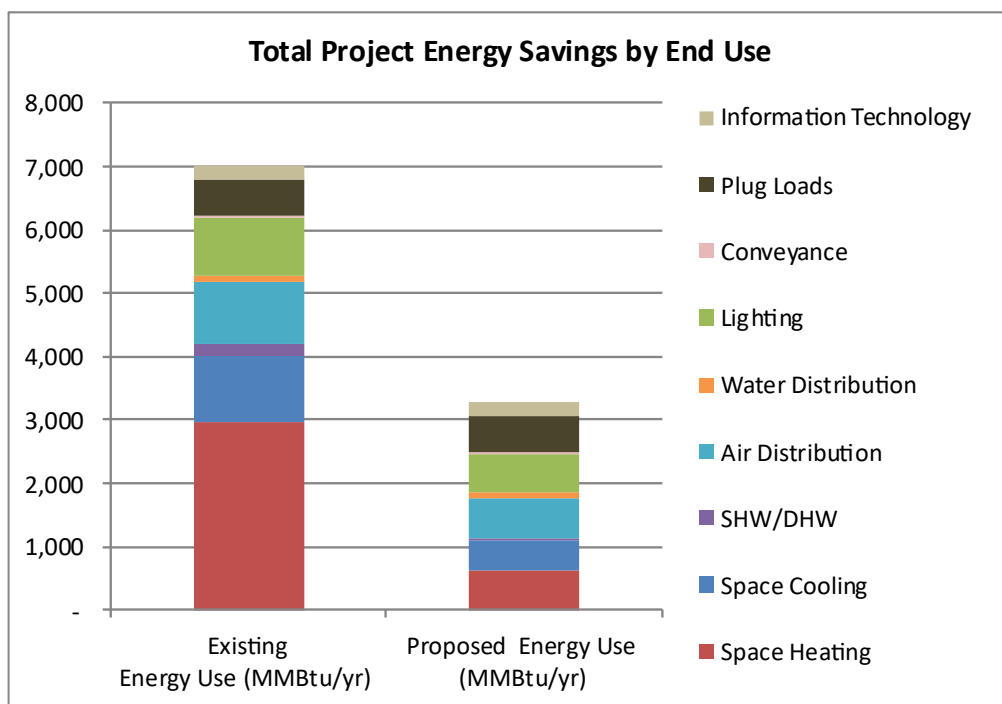


Figure 1: TOTAL Project Energy Savings by End Use

If all the recommended ECMs are implemented, they will provide the following estimated benefits to Bowie City Hall:

Table 2: Energy Savings by System Compared to 2022 - 2024

System Type	Savings (MMBtu/yr)	Percent Savings
Space Heating	2,364	80%
Space Cooling	560	53%
SHW/DHW	153	82%
Air Distribution	334	35%
Water Distribution	-	0%
Lighting	332	36%
Information Technology	-	0%
Total Building	3,742	53%

Table 3 presents the calculated impact on greenhouse gas emissions for Bowie City Hall if all the recommended ECMs are implemented. Based upon the emission rates presented by the Environmental Protection Agency's eGrid (2023 data), it is expected that Bowie City Hall will reduce its CO₂ equivalent emissions by 218 metric tons per year.

Table 3: GHG Emission Savings by System (Compared to 2022-2024)

System Type	Existing GHG Emissions (MT CO ₂ e/yr)	Proposed GHG Emissions (MT CO ₂ e/yr)	Annual Savings GHG Emissions (MT CO ₂ e/yr)
Space Heating	158	44	114
Space Cooling	84	39	45
SHW/DHW	10	3	7
Air Distribution	76	49	27
Water Distribution	8	8	-
Lighting	74	48	26
Conveyance	3	3	-
Plug Loads	45	45	-
Information Technology	17	17	-
Total Building	475	257	218

BUILDING ENERGY PERFORMANCE STANDARDS

Bowie City Hall is required to comply with the State of Maryland's Building Energy Performance Standards (BEPS). MD BEPS will require the facility to meet a site energy use intensity (EUI) target and a net direct emissions target. The State of Maryland has not yet announced the site EUI targets or penalties for missing them, but they have announced the net direct emissions targets. Net direct emissions refer to emissions that are a result of the burning of fossil fuels (e.g., natural gas) onsite. Natural gas-fired equipment at the facility includes boilers, rooftop units, and a domestic hot water heater.

Office buildings are required to meet a net direct emissions target of 0.22 kg CO₂e per square foot for the years 2030 – 2034, 0.11 kg CO₂e per square foot for the years 2035 – 2039, and 0 kg CO₂e per square foot for 2040 and all years thereafter. Bowie City Hall currently has net direct emissions of 2.10 kg CO₂e per square foot (average of 2022 – 2024). Therefore, the facility's net direct emissions must be reduced by 90% before 2030, 95% before 2035, and 100% before 2040, to avoid penalties.

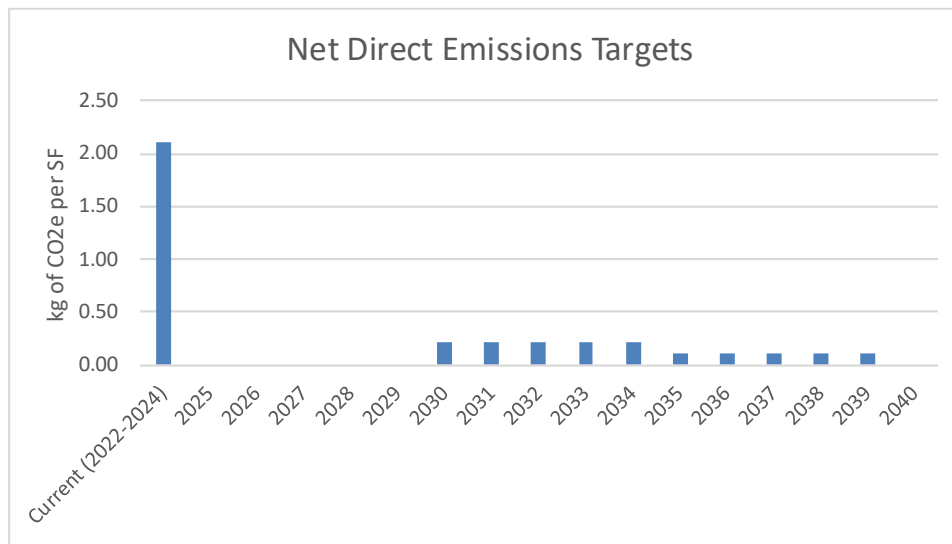


Figure 2: Net Direct Emissions Targets for BEPS

Energy performance is reported to the Maryland Department of the Environment via Energy Star Portfolio Manager. MDE will send notices letting facility owners know the penalty once data for each year has been collected.

The State of Maryland BEPS penalties are set at \$230 per metric ton of CO₂e above the standard, in 2020 dollars, adjusted for inflation, increasing by \$4.00 per metric ton of CO₂e, per year. We have estimated penalties for the year 2030 to be \$315 per metric ton of CO₂e. Therefore, the penalty can be estimated at \$47,800 for the year 2030, increasing each year, if no action is taken. The estimated annual penalty, if no action is taken, is shown in figure 3.

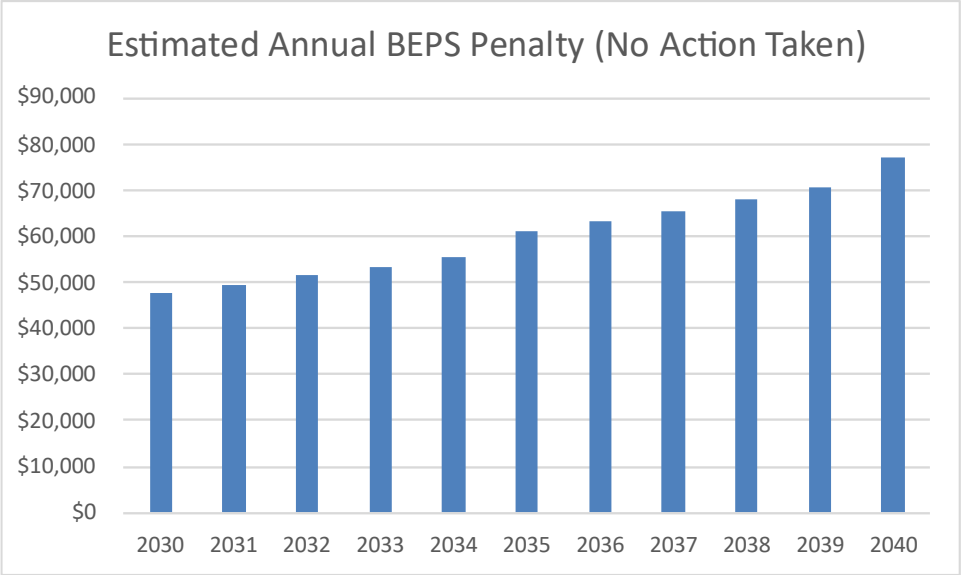


Figure 3: Estimated Annual BEPS Penalty

FACILITY DESCRIPTION

Bowie City Hall was built in 2010. It is an office building that is used to house local government offices. The lower level is occupied by the police department and is staffed 24/7. The main level has the Council Chambers.

About the building:

- Building square footage:
 - 79,970 square feet of office space
- Year of construction: 2010
- Building classification: Office
- Building floors: 1 floors below ground, 2 floors above ground

The equipment that is present in the building can be categorized by end-use into the following categories: heating, cooling, domestic hot water, air distribution, water distribution, lighting, conveyance, and plug loads.

HEATING SYSTEMS

Heating is provided to the building primarily via VAV terminal boxes with hot water reheat coils. The hot water plant is located in a mechanical room in the lower level. Hot water is provided by two natural gas-fired condensing boilers, sized for 800,000 btu/hr each. There are two primary hot water pumps (1/3 HP each), one associated with each boiler, that is interlocked to run when the boiler calls to run. There are two secondary hot water pumps (5 HP each). The secondary hot water pumps are both on VFDs. They operate on a lead/standby basis. The secondary pumps are each sized for 132.9 gpm at 54 ft of head. The hot water system is designed to supply water at 140 °F, however, it has an actual setpoint of 180 °F. The facility operates the heating system 24/7, year-round. The heating hot water system also serves a few cabinet unit heaters in stairwells, unit heaters in back of house spaces, and fin tube radiators in the lobby vestibules.

There are three rooftop units that also have natural gas heating furnaces, however, this is secondary to the heating hot water system. The heat in the RTUs runs sparingly. It is primarily there for morning warm-up, which doesn't currently get used, since the facility operates the RTUs 24/7, and for very cold weather.

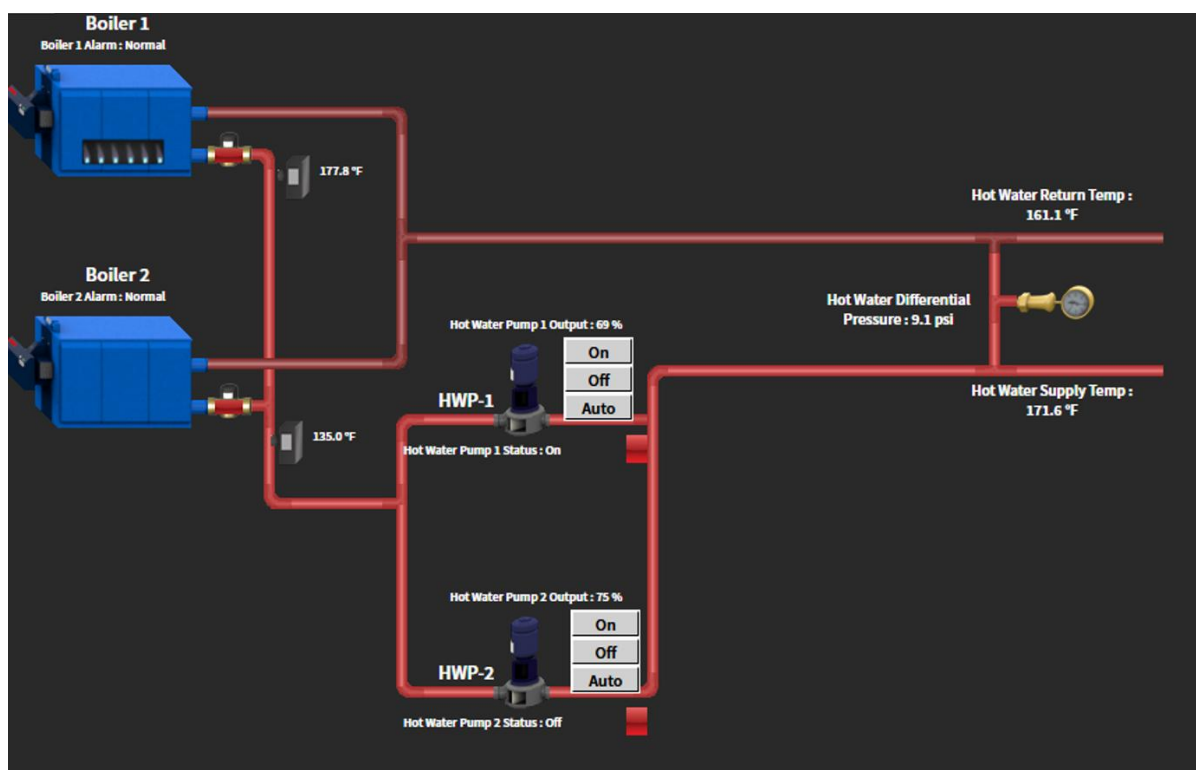


Figure 4: Hot water system schematic from the building automation system



Figure 5: Hot water boilers



Figure 6: Secondary hot water pumps

COOLING SYSTEMS

Cooling is primarily provided to the building via three rooftop units with DX cooling. RTU-1 is sized for 30,000 CFM of supply air, 943.8 total MBH. RTU-2 is sized for 11,812 CFM of supply air, 382.2 total MBH. RTU-3 is sized for 12,136 CFM of supply air, 391.6 total MBH. Each of the units have a relief air fan, which is used during economizer mode. Each unit has multiple compressors, utilizing R-410a refrigerant, which is being phased out by the EPA. New equipment will have to use refrigerant with a lower global warming potential, such as R-32 or R-454B. These units distribute air through ductwork to the VAV terminal units. The Boland Trane building automation system sets a supply air temperature setpoint using a reset logic, that is output to the RTUs. The RTUs are 15 years old, so they are nearing their end of life and show signs of aging.



Figure 7: One of three rooftop units

DOMESTIC WATER SYSTEMS

Domestic hot water is provided to the facility by a single gas-fired domestic water heater, located in the mechanical room with the heating hot water plant, on the lower level. It is sized for 300,000 btu/hr and was installed in 2022. It maintains a tank setpoint of 140 °F and is reduced to 120 °F at a master mixing valve. There is a domestic hot water recirculating pump.



Figure 8: Domestic water heater label



Figure 9: Domestic water heater

EXHAUST SYSTEMS

Exhaust air is provided by five fractional hp exhaust fans located on the roof. EF-1 serves the restrooms on the first and second floors. EF-2 serves the locker rooms on the lower level. EF-3 serves various spaces on the lower levels (restrooms, loading dock, sallyport, kennel). EF-4 serves the Council kitchenette. EF-5 serves various spaces on the lower level.



Figure 10: EF-1 and EF-2

ELECTRICAL SYSTEMS

The facility has a 1200 A, 480Y/277 V switchboard in the main electric room on the lower level. There is a standby diesel generator, rated for 1000 kW. The entire facility is supported by the emergency generator. The rooftop units, elevators, and certain A/C units are 480 V. Lighting is 277 V. Receptacles and miscellaneous plug loads are 120/208 V.



Figure 11: Switchboard 2

ENERGY CONSUMPTION ANALYSIS

HISTORICAL ENERGY USE

Historical energy usage at Bowie City Hall for its respective energy sources was analyzed and determined from historical utility bills based on energy consumption and associated energy costs. Analysis for the facility's energy use covered the years 2022, 2023, and 2024. In our analysis we also compared energy consumption against the weather patterns for this time period to identify correlations between heating and cooling loads with outdoor conditions. HDD and CDD information was obtained through www.degreedays.net for Washington, DC (Washington National Airport) with an HDD base temperature of 65°F and a CDD base temperature of 65°F. This information was used for historical energy consumption analysis and for any calculations that use HDD or CDD values. A summary of the facility's energy usage and costs is shown in Table 4.

Table 4: Annual Utility Bill Summary

Year	Electricity		Natural Gas	
	kWh	Cost (\$)	Therms	Cost (\$)
2022	1,081,882	84,385	30,888	101,549*
2023	1,151,839	105,933	30,758	61,522
2024	1,155,728	113,549	33,071	61,706
Average	1,129,816	101,289	31,572	74,926

* The natural gas cost for 2022 is high due to fluctuations in Constellation gas supply rates. Rates fluctuated from a high of \$10.205/Dth in December 2022 to a low of \$3.315/Dth in 2024.

ELECTRICAL CONSUMPTION

Electricity at Bowie City Hall is provided by BGE with account number 1933911000.

The monthly electricity consumption in 2022, 2023, and 2024 is displayed in Table 5 and Figure 12, and the monthly electric demand is shown in Table 6 and Figure 13.

Table 5: Monthly Electricity Consumption

Electricity Consumption (kWh)				
Month	2022	2023	2024	Average
January	74,533	80,944	75,928	77,135
February	65,949	70,783	76,947	71,226
March	70,985	71,911	67,708	70,201
April	82,071	98,963	75,204	85,413
May	89,681	92,154	92,434	91,423
June	86,594	116,503	121,249	108,115
July	128,752	130,153	127,373	128,759
August	120,194	121,677	120,801	120,891
September	120,926	124,777	122,852*	122,852
October	94,296	93,060	93,678*	93,678
November	79,365	76,745	110,202	88,771
December	68,536	74,169	71,353*	71,353
Total	1,081,882	1,151,839	1,155,728	1,129,816
Baseload	68,490	72,288	74,162	71,646

* Usage was not provided; we estimated it based on usage from prior years

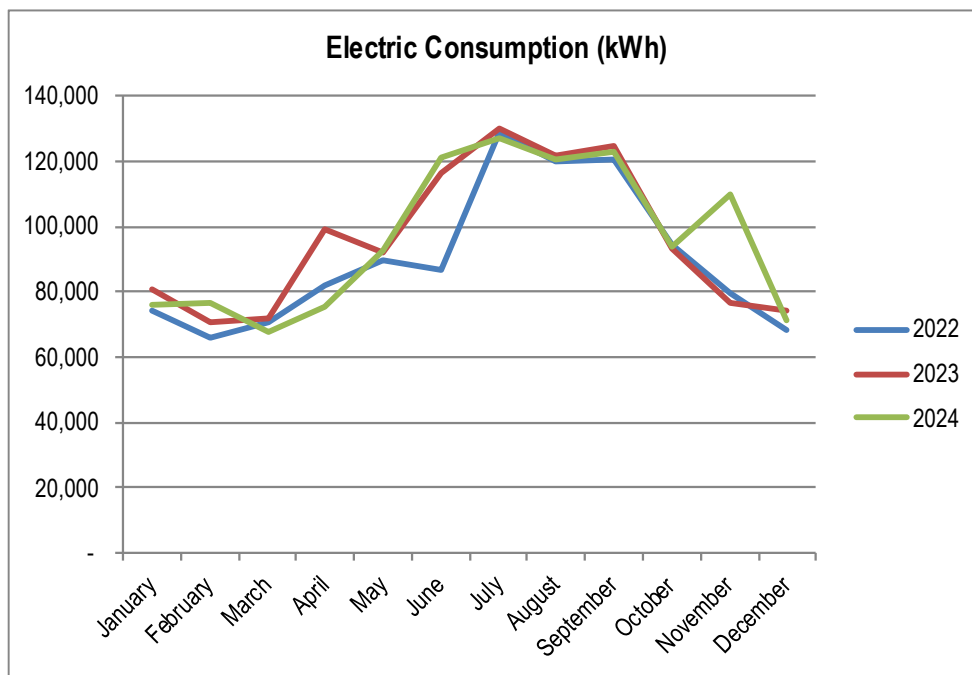


Figure 12: Monthly Electricity Consumption

Table 6: Monthly Electricity Demand

Electricity Demand (kW)				
Month	2022	2023	2024	Average
January	127	169	141	146
February	150	161	181	164
March	171	180	183	178
April	186	223	183	197
May	210	201	236	216
June	244	217	240	234
July	269	269	281	273
August	262	271	254	262
September	266	286	276*	276
October	201	229	215*	215
November	193	208	259	220
December	154	179	167*	167
Maximum	269	286	281	279
Baseload	144	170	177	163

* Demand was not provided; we estimated it based on demand from prior years

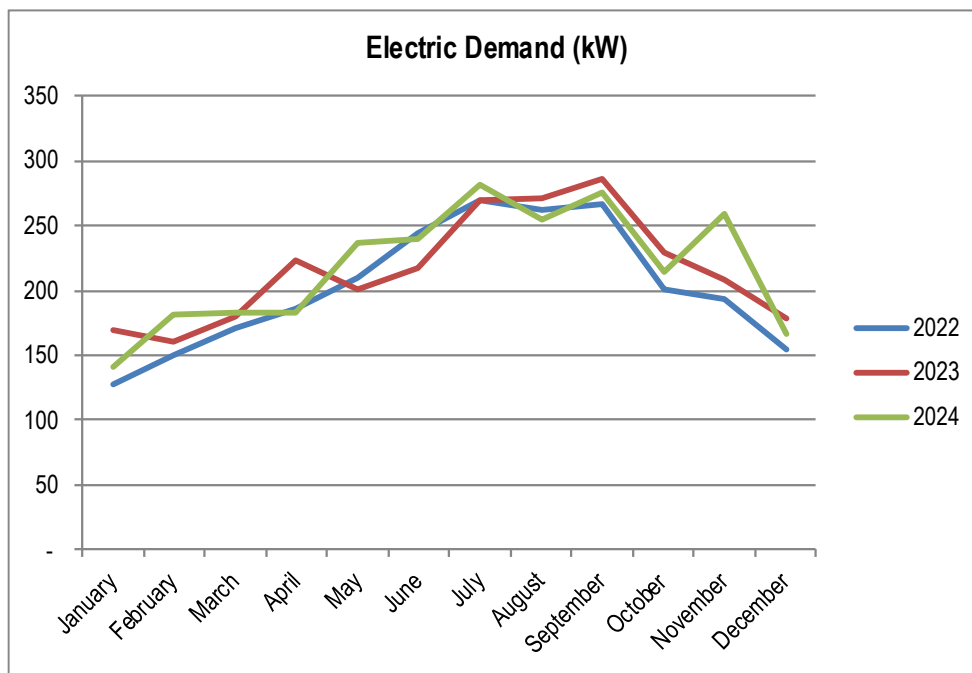


Figure 13: Monthly Electricity Demand

Figure 14 shows the electric consumption profile against heating and cooling degree days. The electric consumption and demand profiles show a clear summertime peak associated with cooling energy usage. The months with the lowest consumption are December, January, and February. The months with the highest consumption are July, August, and September. The baseload makes up about 76% of the total

electricity use, which is relatively high. Baseloads include non-weather dependent loads, such as lighting, pumps, fans, elevators, and plug loads. The remaining 24% includes weather dependent loads, including cooling energy and increased fan and pumping energy.

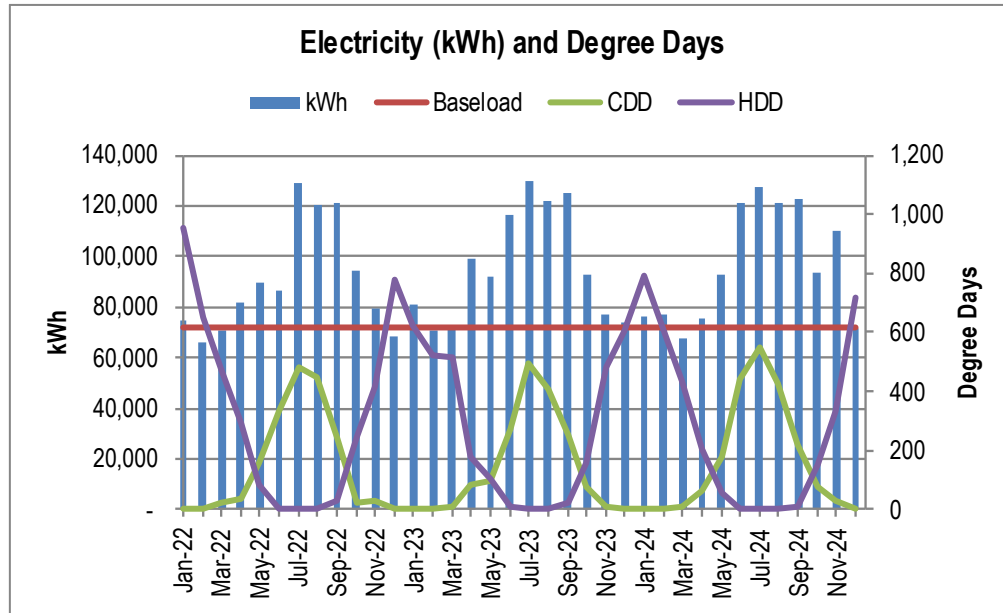


Figure 14: Electric Consumption and Baseload vs. Heating and Cooling Degree Days

HISTORICAL ENERGY COSTS

The monthly electricity costs are shown in Table 7 and Figure 15. Electricity costs are highest in the summer. The electric account at Bowie City Hall is on the Large General Service – TOU – Schedule GL. This rate schedule bills electricity usage at different rates depending on whether it was used in the peak, intermediate, or off-peak period. However, the City of Bowie uses a Tesla solar plant for its electric supply, and thus does not subject to the different rates (except for a period from September 2023 to June 2024, when BGE was the supplier, for reasons unknown to us).

Table 7: Monthly Historical Electric Costs

	Electricity Costs (\$)			
Month	2022	2023	2024	Average
January	5,391	6,387	10,897	7,559
February	5,090	5,646	10,762	7,166
March	5,510	5,895	7,463	6,289
April	6,308	7,837	7,881	7,342
May	7,125	7,276	9,781	8,061
June	7,220	8,786	14,891	10,299
July	9,915	10,026	10,239	10,060
August	9,353	9,550	9,601	9,501
September	9,429	16,890	9,821	12,047
October	7,287	10,112	7,489	8,296
November	6,341	7,797	9,021	7,720
December	5,414	9,731	5,704	6,950
Total	84,385	105,933	113,549	101,289

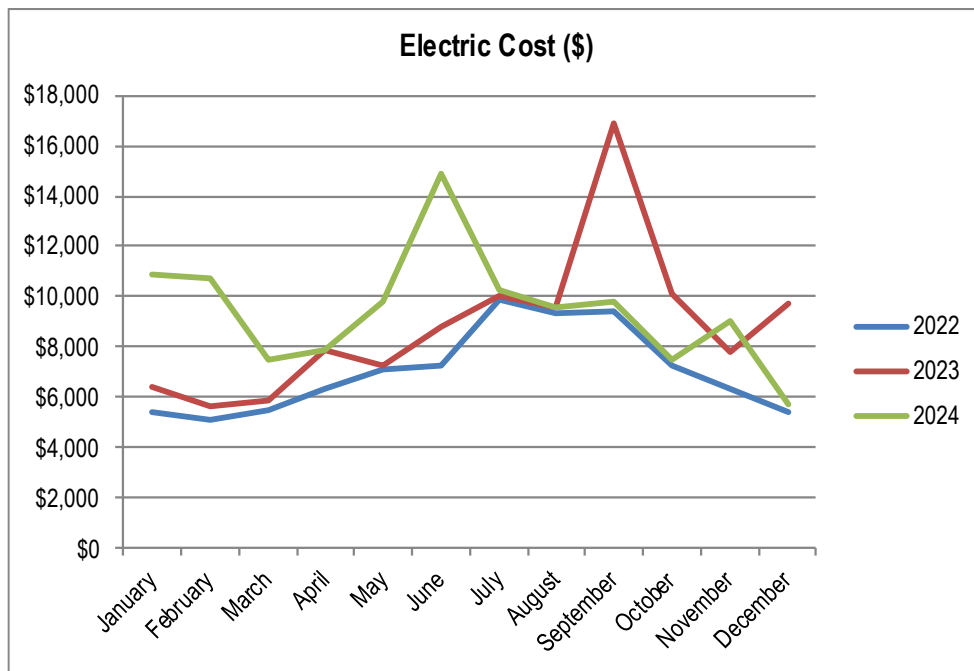


Figure 15: Monthly Historical Electric Costs

NATURAL GAS CONSUMPTION

Natural gas at Bowie City Hall is provided by Washington Gas with account number 220003233107. The City of Bowie uses Constellation as its supplier of natural gas.

The monthly natural gas consumption in 2022, 2023, and 2024 is displayed in Table 8 and Figure 16, and the monthly natural gas costs are shown in Table 9 and Figure 16. Natural gas-fired equipment at the facility includes a domestic hot water heater, heating water boilers, and rooftop units. The baseload makes up about 66% of the total natural gas use, which is relatively high. Baseloads include non-weather dependent loads, such as the year-round use of the boilers and domestic hot water. The remaining 34% includes weather dependent loads, including increased boiler energy usage in the heating season.

Table 8: Natural Gas Consumption

Natural Gas Consumption (Therms)				
Month	2022	2023	2024	Average
January	4,079	3,402	4,001	3,827
February	3,231	3,163	3,268	3,221
March	2,874	3,056	3,110	3,013
April	2,173	2,126	2,959	2,419
May	1,870	2,443	2,448	2,254
June	1,597	1,781	1,400	1,593
July	1,507	1,418	1,785	1,570
August	1,601	1,859	1,882	1,781
September	2,099	2,055	2,227	2,127
October	2,759	3,037	2,643	2,813
November	2,839	3,382	3,360	3,194
December	4,258	3,036	3,988	3,761
Total	30,888	30,758	33,071	31,572
Baseload	1,568	1,686	1,965	1,740

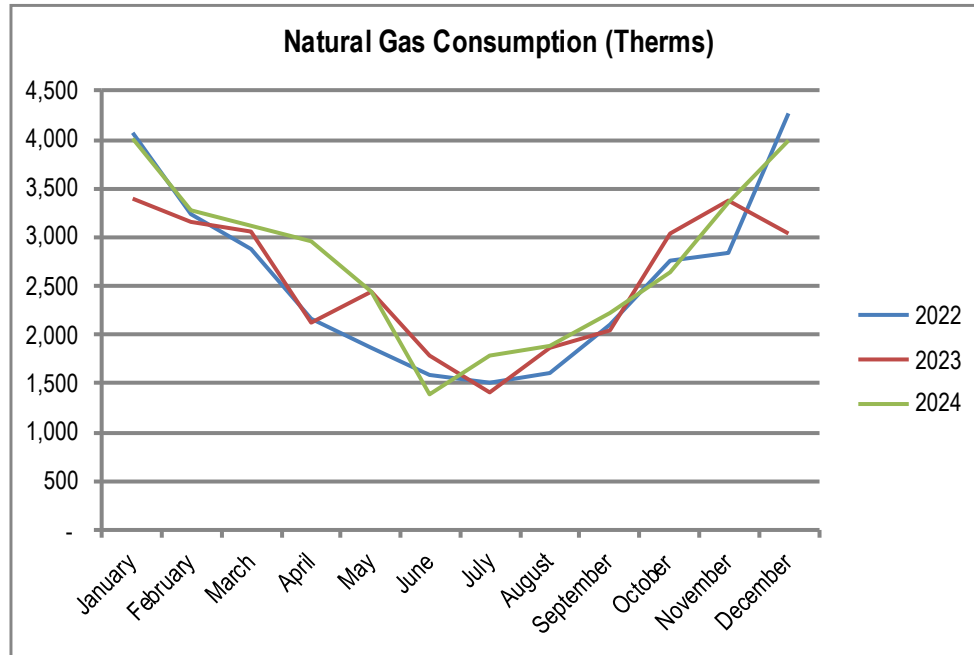


Figure 16: Natural Gas Consumption

The monthly natural gas costs are shown in Table 9 and Figure 17.

Table 9: Monthly Historical Natural Gas Costs

	Natural Gas Costs (\$)			
Month	2022	2023	2024	Average
January	13,173	9,452	8,651	10,425
February	13,587	9,287	8,327	10,400
March	7,547	5,722	5,679	6,316
April	6,007	3,523	4,831	4,787
May	4,767	3,884	3,576	4,076
June	4,327	2,492	2,369	3,063
July	4,937	3,033	3,581	3,850
August	524	3,391	3,631	2,515
September	8,723	3,866	3,902	5,497
October	7,685	4,445	4,536	5,555
November	8,203	5,866	5,655	6,575
December	22,068	6,561	6,967	11,865
Total	101,549*	61,522	61,706	74,926

* The natural gas cost for 2022 is high due to fluctuations in Constellation gas supply rates. Rates fluctuated from a high of \$10.205/Dth in December 2022 to a low of \$3.315/Dth in 2024.

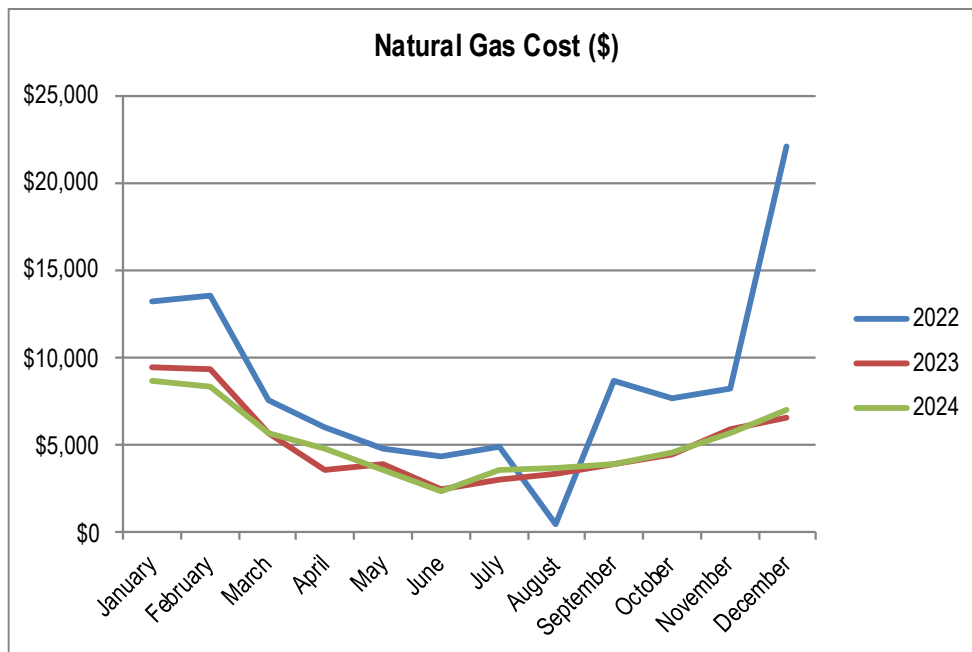


Figure 17: Monthly Historical Natural Gas Costs

UTILITY RATES

The average annual utility rates experienced by the facility are summarized in Table 10. The electricity rates shown in Table 10 include a blended rate that combines all charges, an energy rate that is the incremental cost per kWh, and a demand charge that is the cost per kW. These were obtained from the utility bills of the facility.

Table 10: Average Annual Utility Rates

Utility	Unit	2024 (average)
Electric Blended Rate	\$ per kWh	\$0.098
Natural Gas Rate	\$ per therm	\$1.866

Table 11 summarizes the energy data for 2022-24 (average) including consumption, cost, heating degree days, cooling degree days, and load factor. The electric load factor is 59% on average with lows of 52% in March and 53% in November and highs of 67% in January and 66% in June. Load factor is the ratio of energy used (kWh) in a given month divided by the product of the peak demand (kW) and total hours in the month. These values are neither significantly high nor low. The fact that the load factor is lower in the spring and fall indicates that during these periods, there is greater variability in energy usage, likely due to changing weather patterns.

Table 11: Energy Data Summary (Average year)

Annual Information			Electrical Data Analysis			Energy by Fuel Source (MMBtu)			Energy Cost by Source (\$)		
Month	CDD	HDD	Electric Demand (kW)	Electric Energy (kWh)	Load Factor	Electric	Natural Gas	Total	Electric	Natural Gas	Total
Jan	1	789	155	77,135	67%	263	383	646	8,642	10,425	19,068
Feb	1	592	171	71,226	62%	243	322	565	8,204	10,400	18,604
Mar	13	475	182	70,201	52%	240	301	541	6,679	6,316	12,995
Apr	62	227	203	85,413	58%	291	242	533	7,859	4,787	12,646
May	144	80	219	91,423	56%	312	225	537	8,529	4,076	12,604
Jun	347	4	229	108,115	66%	369	159	528	11,838	3,063	14,901
Jul	508	-	275	128,759	63%	439	157	596	10,132	3,850	13,983
Aug	429	1	263	120,891	62%	412	178	591	9,575	2,515	12,091
Sep	239	20	281	122,852	61%	419	213	632	13,355	5,497	18,852
Oct	57	185	222	93,678	57%	320	281	601	8,800	5,555	14,356
Nov	23	410	234	88,771	53%	303	319	622	8,409	6,575	14,984
Dec		700	173	71,353	56%	243	376	620	7,717	11,865	19,583
Annual	1,825	3,484	217	1,129,816	59%	3,855	3,157	7,012	109,741	74,926	184,666

ENERGY END USE BREAKDOWN

In order to understand the facility's energy performance as a combination of various sub-systems, it is necessary to break down site energy consumption by end-use. This will help to identify the avenues where improvements can be sought in order to achieve reductions in overall facility energy use.

Energy end-use for Bowie City Hall is broken down into the following categories: space heating, space cooling, domestic hot water, air distribution, water distribution, lighting, plug loads, conveyance, and Information Technology. Loring performed an energy breakdown analysis utilizing utility data provided by the City of Bowie and from data obtained from the walkthrough.

ELECTRICITY

Electricity is used for all of the end uses listed below.

The estimated end-use breakdown for electric consumption in 2022-2024 is shown in Table 12 and Figures 18 and 19.

Table 12: End-Use Breakdown for Electricity (2022-2024)

Electric End-Use Breakdown			
End Use	kWh	MMBtu	Percent
Space Cooling	310,016	1,058	27%
Air Distribution	280,578	957	25%
Water Distribution	31,012	106	3%
Lighting	269,883	921	24%
Conveyance	9,545	33	1%
Plug Loads	166,988	570	15%
Information Technology	61,794	211	5%
Total	1,129,816	3,855	100%

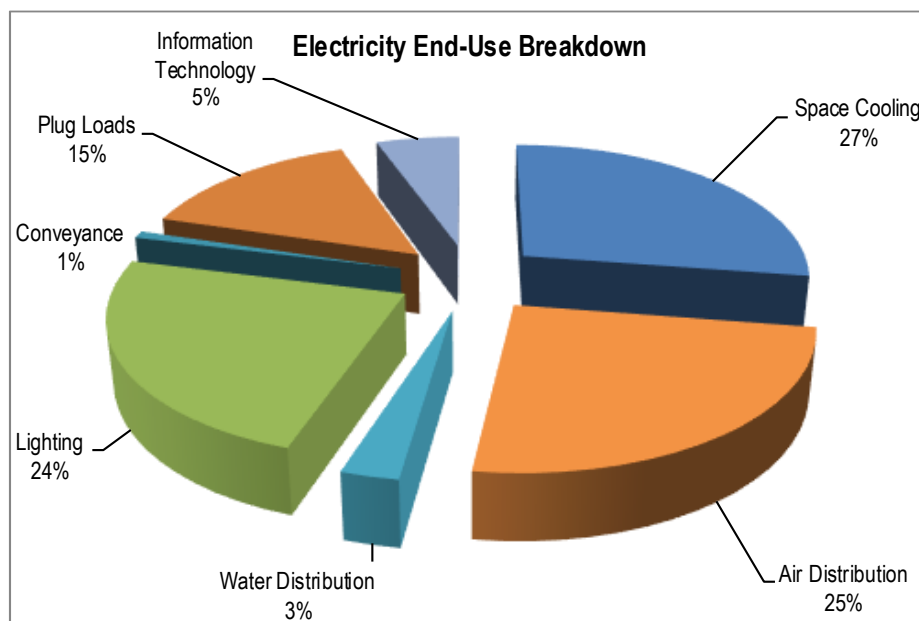


Figure 18: End-Use Breakdown for Electricity

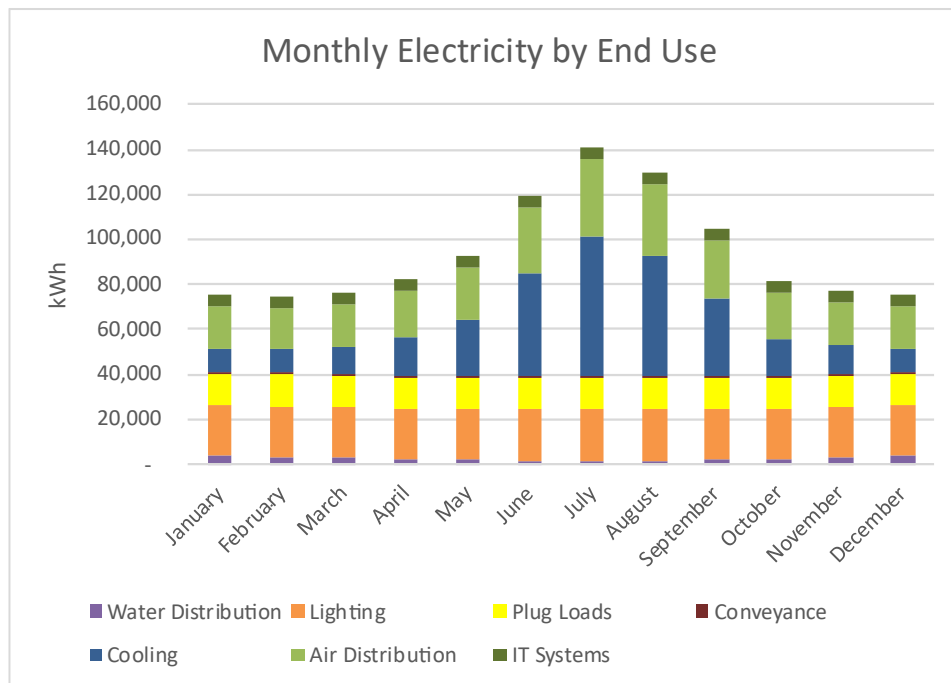


Figure 19: Monthly Electric by End Use

NATURAL GAS

Natural gas is used for all of the end uses listed below.

The estimated end-use breakdown for natural gas consumption in 2022-2024 is shown in Table 13 and Figures 20 and 21.

Table 13: End use breakdown for natural gas (2022-2024)

Natural Gas End-Use Breakdown			
End Use	Therms	MMBtu	Percent
Space Heating	29,705	2,970	94%
SHW/DHW	1,867	187	6%
Total	31,572	3,157	100%

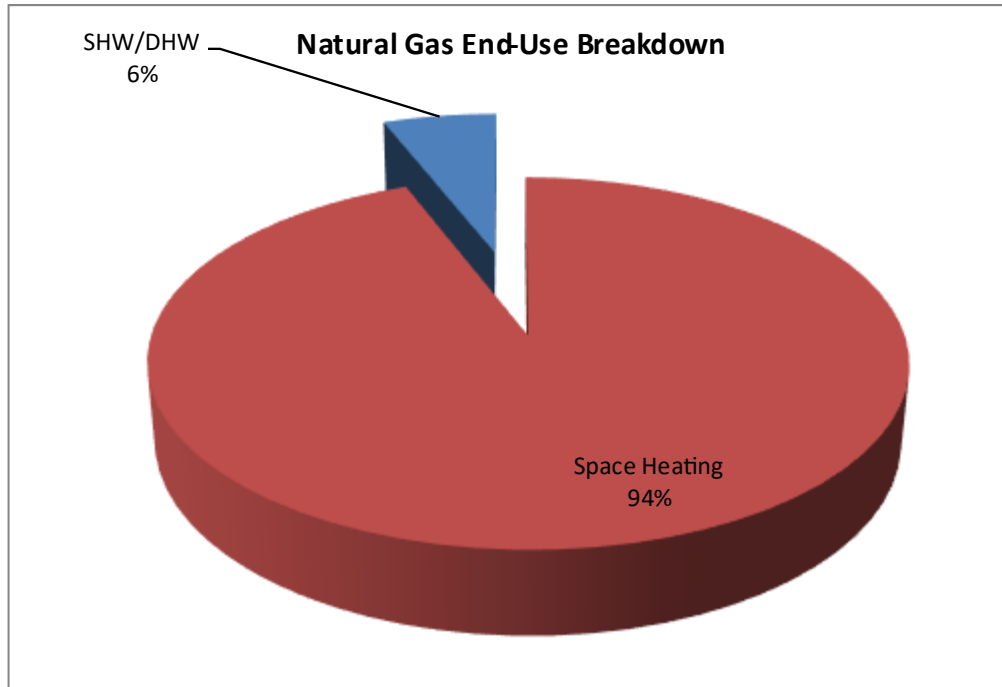


Figure 20: End use breakdown for natural gas

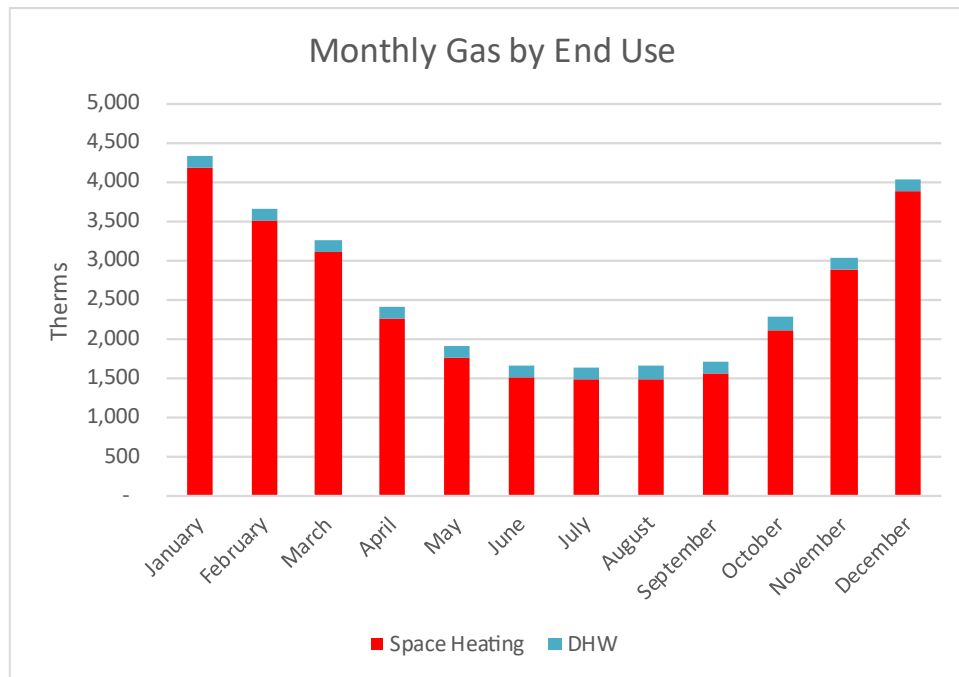


Figure 21: Monthly Natural Gas by End Use

ENERGY CONSERVATION MEASURES

Loring has identified and categorized several ECMs that can be implemented at Bowie City Hall. These measures can be implemented to reduce the facility's energy consumption, restore systems to their proper operating conditions and improve the overall functionality and maintenance of the facility. This section provides a summary of the facility's energy consumption savings by system after the implementation of all cost effective ECMs.

ENERGY SAVINGS BY SYSTEM

Table 14 depicts the potential energy savings by end-use associated with implementing all the ECMs presented in this report.

Table 14: Energy Savings by System

System Type	Existing Energy Use (MMBtu/yr)	Proposed Energy Use (MMBtu/yr)	Total Energy Savings (MMBtu/yr)	Percent Savings
Space Heating	2,970	606	2,364	80%
Space Cooling	1,054	495	560	53%
SHW/DHW	187	34	153	82%
Air Distribution	954	620	334	35%
Water Distribution	105	105	-	0%
Lighting	931	599	332	36%
Conveyance	32	32	-	0%
Plug Loads	568	568	-	0%
Information Technology	210	210	-	0%
Total Building	7,012	3,270	3,742	53%

PREDICTED ENERGY USAGE BY SYSTEM AFTER IMPLEMENTATION

Figure 22 presents an estimate of the facility's energy usage by system after the implementation of the measures if all of the recommended, cost effective ECMs presented in this report are applied.

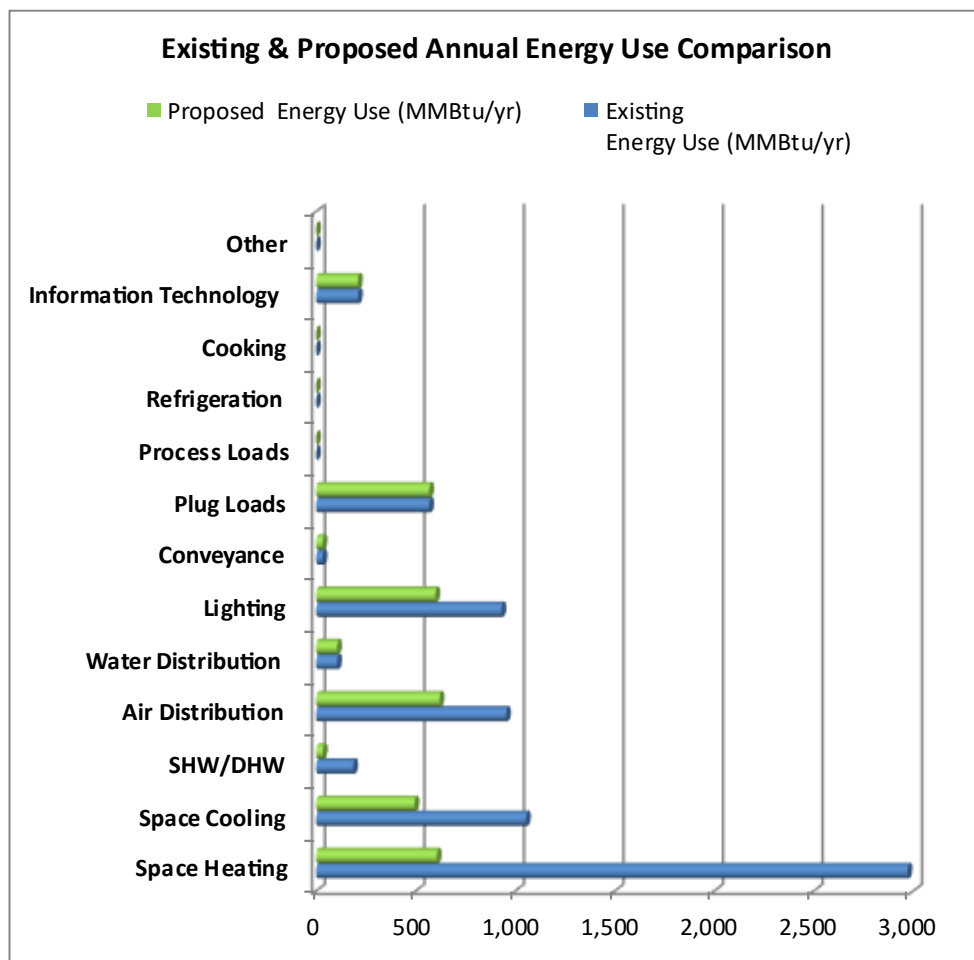


Figure 22: Annual Energy Use Comparison by End-Use

Table 15 presents a summary of all of the energy conservation measures presented in this section of the report. Details and descriptions of each ECM follow this page.

ECM No.	Description	Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therm/yr)	Onsite Renewable Energy (kWh/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
ECM-01	Lighting upgrade to LED	92,761	19.1	-	-	9,285	-	21,000	2.3	25.2
ECM-02	Replace stairwell lights with dimmable LEDs with integral occupancy sensors	4,543	-	-	-	353	-	6,100	17.4	1.2
ECM-03	Unoccupied scheduling of RTU-1 and RTU-3 through the BAS	221,919	-	7,648	-	31,502	12,810	100	0.0	101.0
ECM-04	Perform maintenance of VAV terminal units	-	-	862	-	1,609	1,444	6,300	2.1	4.6
ECM-05	Increase RTU maximum supply air temperature	10,430	-	3,067	-	6,533	5,137	100	0.0	19.1
ECM-06	Use comparative enthalpy sensors to determine when to enable economizer mode	20,773	-	-	-	1,613	-	4,000	2.5	5.6
ECM-07	Implement hot water temperature reset (100 to 140 °F)	-	-	1,591	-	2,969	2,665	700	0.1	8.5
ECM-08	Replace natural gas-fired RTUs with heat pumps	-58,120	-6.6	7,370	-	8,514	12,344	920,000	44.1	23.4
ECM-09	Replace natural gas-fired boilers with heat pumps	-75,859	-8.7	7,672	-	7,479	12,850	690,000	34.0	20.2
ECM-10	Replace DHW heater with heat pump	-10,018	-1.1	1,872	-	2,590	3,135	37,000	6.4	7.2
ECM-11	Paint roof white (high SRI)	4,695	0.5	-	-	544	-	8,700	16.0	1.3
ECM-12	Install solar window film on south facing windows	4,048	0.5	-	-	476	-	16,000	32.8	1.1
ECM-13	Install rooftop solar PV	-	-	-	135,900	14,290	-	350,000	24.4	37.0
ECM-14	Install carport solar PV	-	-	-	266,400	28,012	-	450,000	16.2	72.4
	Total of ECMs	215,173	4	30,083	402,300	115,768	50,386	2,510,000	15.1	327.9

Table 15: Energy Conservation Measures Summary

Regarding ECM-08 and -09, the simple payback period is very unattractive when considering only the implementation cost of the measure. However, when considering that this equipment will have to be replaced, the City of Bowie should compare the implementation cost of the measure with the cost of a like-for-like replacement. This will provide a more accurate, and attractive, simple payback period. The RTUs (ECM-08) are nearing their end-of-life now, whereas the boilers (ECM-09) have about 10 more years before replacement.

It is important to note that the energy savings of these measures are cascading – that is, after considering the energy savings of a particular measure, the following measures' energy savings result from that now-reduced energy usage for the facility. Were any one of these measures taken in a vacuum, without considering the other measures, its savings would be higher. However, we cannot present them this way, as that would result in overstating the energy savings of all the ECMs taken together.

The estimated avoided BEPS penalties are for the year 2030, the first year that penalties will be assessed. The State of Maryland BEPS penalties are set at \$230 per metric ton of CO₂e above the standard, in 2020 dollars, adjusted for inflation, increasing by \$4.00 per metric ton of CO₂e, per year. We have estimated penalties for the year 2030 to be \$315 per metric ton of CO₂e.

ECM No. 01: Lighting upgrade to LED

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
92,761	19.1	-	9,285	-	20,948	2.3	25.2

Existing Conditions

Interior light fixtures at City Hall primarily consists of: 2x4 troffers, 2x8 troffers, 1x4 troffers, pendants with fluorescent tubes, and 6" recessed can lights. The facility has been replacing existing fluorescent lamps with LED equivalents as they burn out. We estimate that about 40% of the facility is now LED.

Measure Description

This measure proposes replacing all existing interior lighting with LED lighting technology. It is recommended wherever possible to remove the existing lamps and fluorescent ballasts and wire directly, as this is more efficient and the lamps will last longer, compared with using "plug and play" LED lamps which work with the existing fluorescent ballasts. Plug and play lamps can be installed at a lower cost, but retrofit kits are sold that allow for the former, and there are excellent rebates through the EmPOWER Maryland program.

Scope of Work

For recessed troffer fixtures, remove the ballast and wire directly into the fixture, and replace the fluorescent tubes and lens with LED retrofit troffers. For suspended fixtures with tubes, remove the ballast and wire directly to the fixture, and replace the fluorescent tubes with LED tubes. For recessed downlights, it is recommended to replace the entire fixture with an LED equivalent fixture.

ECM Benefits

- Reduced electricity consumption
- Longer life expectancy, less frequent replacement reduces maintenance costs

ECM No. 02: Replace stairwell lights with dimmable LEDs with integral occupancy sensors

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
4,543	-	-	353	-	6,126	17.4	1.2

Existing Conditions

Stairwell light fixtures include two 4 foot 32 W fluorescent lamps each that are on 24/7.

Measure Description

Replace the existing fixtures with dimmable LED fixtures with integral occupancy sensors that dim the lamps when no occupancy is detected.



Figure 23: Example fixture (Warelight model WL-SWLED4-40W-CWS-WH-MS)

Scope of Work

Remove the existing fixtures. Install new 4' LED fixtures that have occupancy sensors. Set fixture to dim to 10% of full power when no occupancy is detected.

ECM Benefits

- Reduced electricity consumption

ECM No. 03: Unoccupied scheduling of RTU-1 and RTU-3 through the BAS

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
221,919	-	7,648	31,502	12,810	68	0.0	101.0

Existing Conditions

The HVAC systems are able to be scheduled on and off through the building automation system using the occupancy schedule. Currently, the HVAC systems at Bowie City Hall are scheduled to the occupied mode 24/7.

Measure Description

This measure proposes reducing the HVAC operating schedules as much as possible. This can be done at no cost by the building engineering staff and is a significant energy savings, both natural gas and electric. During the unoccupied mode, RTU-1 and RTU-3 should de-energize. RTU-2, which serves the lower level (police department) can be left in occupied mode 24/7. It is recommended that unoccupied space temperature setpoints be around 60 °F (heating) and 82 °F (cooling). If the average space temperature drops (or rises) to either of those setpoints, then the HVAC system shall energize to raise (or lower) the average space temperature by 3 °F, then shut off again.

For the savings calculations, Loring assumed the proposed occupied hours for Bowie City Hall to be from 7:00 am to 5:00 pm, Monday thru Friday.

If there are expected to be events outside of those hours that need extended HVAC time, the city's engineering staff can schedule these one-time extended hour events through the "special events" page of the building automation system.

Scope of Work

Through the building automation system, schedule RTU-1 and 3 to be unoccupied weekends and after hours.

ECM Benefits

- Reduced natural gas usage
- Reduced electric usage

ECM No. 04: Perform maintenance of VAV terminal units

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-	-	862	1,609	1,444	6,317	2.1	4.6

Existing Conditions

A review of the building automation system shows that there are numerous VAV terminal units that are, in one way or another, not performing properly. Issues include:

- Discharge air temperature sensors reading a value that shows the heat is on, when the heat is not being called for (see below, VAV-63, 70)
- Discharge air temperature sensors reading a value that shows the heat is off, when the heat is being called for (see below, VAV-3, 5, 8, 12, 60, 63, 70)
- Discharge air temperature sensors and room temperature sensors failed (or not communicating) (see below, VAV-2, 17, 23, 28, 40, 61, 62)

Below are screenshots showing several examples of these issues.

Vav Name	Damper Output	Heating Output	Discharge Air Temperature	Zone Temperature	Zone Temp Setpoint
VAV-2	40 %	0 %	0.0 °F {fault,stale}	68.5 °F {ok}	69.00 °F {overridden} @ 8
VAV-3	44 %	100 %	65.5 °F {ok}	69.4 °F {unackedAlarm}	73.00 °F {overridden} @ 8
VAV-5	30 %	100 %	65.2 °F {ok}	73.0 °F {unackedAlarm}	71.00 °F {overridden} @ 8
VAV-8	39 %	100 %	64.3 °F {ok}	70.8 °F {unackedAlarm}	73.50 °F {overridden} @ 8
VAV-12	55 %	96 %	64.7 °F {ok}	66.9 °F {unackedAlarm}	68.00 °F {overridden} @ 8
VAV-17	45 %	0 %	169.2 °F {ok}	67.8 °F {ok}	67.00 °F {overridden} @ 8
VAV-23	32 %	0 %	0.0 °F {fault,stale}	68.1 °F {ok}	0.00 °F {fault,stale} @ def
VAV-28	34 %	0 %	0.0 °F {fault,stale}	71.6 °F {unackedAlarm}	0.00 °F {fault,stale} @ def
VAV-40	40 %	0 %	0.0 °F {fault,stale}	65.9 °F {unackedAlarm}	65.00 °F {fault,overridden} @ 1
VAV-60	35 %	100 %	68.5 °F {ok}	69.3 °F {unackedAlarm}	70.00 °F {overridden} @ 8
VAV-61	41 %	0 %	0.0 °F {fault,stale}	66.2 °F {unackedAlarm}	68.00 °F {overridden} @ 8
VAV-62	38 %	11 %	0.0 °F {fault,stale}	69.0 °F {unackedAlarm}	70.00 °F {overridden} @ 8
VAV-63	45 %	0 %	98.1 °F {ok}	68.0 °F {unackedAlarm}	69.00 °F {overridden} @ 8
VAV-70	64 %	0 %	100.6 °F {ok}	69.2 °F {unackedAlarm}	68.00 °F {overridden} @ 8

Figure 24: Screenshots from building automation system showing a few VAV terminal unit issues at City Hall

These can result in unnecessary energy being used to heat air when not required, additional energy used by the RTU fan to try to reach a higher duct static pressure setpoint and supply more airflow than required, and a reduced ability to properly control the space temperature control.

Measure Description

It is recommended to routinely perform maintenance on VAV terminal units to eliminate these types of issues. This may be done by the city's building automation system contractor or by maintenance staff, as they are able. This work will include troubleshooting the issues, maintenance tasks such as cleaning of airflow tubes, resetting controllers, replacing faulty components such as controllers, control valves, and temperature sensors, and blowing down strainers.

Scope of Work

It is recommended to perform at least an annual, or more frequent test of all VAV terminal units: Command the heating valve to 100%; after a few minutes, record the discharge air temperature. Then command the heating valve to 0%; record the discharge air temperature again. Note any that are not operating properly. Then diagnose and correct any issues found.

Additionally, diagnose and correct any zone temperature sensors and discharge air temperature sensors that are not communicating.

ECM Benefits

- Reduced heating energy usage
- Reduced fan energy usage
- Improved occupant comfort

ECM No. 05: Increase RTU maximum supply air temperature

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
10,430	-	3,067	6,533	5,137	62	0.0	19.1

Existing Conditions

At Bowie City Hall, the rooftop units provide cold air to the building to satisfy zones needing cooling, while the VAV terminal units reduce the amount of airflow and reheat the air if cold air is not needed. The RTUs are controlled by the building automation system to maintain a supply air temperature (SAT) setpoint. This setpoint has a range from 54 to 56 deg. F for RTU-1 and RTU-3, and 53 to 56 F for RTU-2. These are adjustable on the BAS graphical interface. For example:



Figure 25: Screenshot from building automation system showing RTU-3 supply air temperature reset

The actual SAT setpoint at any given time is calculated by the system based on the return air temperature. The colder the return air temperature is, the SAT setpoint is raised towards the maximum supply air temperature setpoint. And vice versa: The warmer the return air temperature is, the SAT setpoint is lowered towards the minimum SAT setpoint.

However, by having the maximum SAT setpoint at 56 °F, in the winter, most zones do not need such cold air. This causes the VAV terminal units to reheat the air (simultaneously heating and cooling).

Measure Description

The SAT range should be set such that it reduces the amount of reheat needed while still providing cold enough air to the zones that need it. This typically requires a maximum SAT setpoint of 60 to 65 °F, corresponding with a minimum return air temperature of about 70 °F.

Scope of Work

Adjust the maximum supply air temperature setpoint to a value between 60 and 65 °F. This can take some tinkering by operations personnel to find the right setpoints that ensures that there aren't warm zones in the building (while also verifying that warm zones are not being caused by malfunctioning equipment; see the previous ECM). We recommend starting on the high end of this range (closer to 65 °F), monitoring building temperatures, and reducing by 1 °F degree at a time if it is found to be necessary.

ECM Benefits

- Reduced electricity usage (due to using less cooling)
- Reduced natural gas usage (less energy used to reheat air)

ECM No. 06: Use comparative enthalpy sensors to determine when to enable economizer mode

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
20,773	-	-	1,613	-	4,009	2.5	5.6

Existing Conditions

Economizing is the process of using outside air to cool buildings that have a cooling load during colder weather. This is done by opening the outside air damper at the air handling units to meet the supply air temperature setpoint. Currently, at Bowie City Hall, the dry-bulb economizer enable setpoint is 55 °F. This means that the economizer mode is activated when the outside air temperature is below 55 °F and there is a need for cooling.

Measure Description

The American Society for Heating Refrigeration and Air Conditioning Engineers (ASHRAE) researches and develops standards for the most efficient ways to operate HVAC systems. ASHRAE Standard 90.1 - Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings – sets a recommended dry-bulb economizer enable temperature setpoint for our region (region 4A) at 65 °F. This can be accomplished with little effort by a building engineer by simply entering a new value of 65 °F in the building automation system at each of the three rooftop units. This increases the hours that the economizers will be active, thus reducing the mechanical cooling demand.



Figure 26: Screenshot from building automation system showing how to adjust economizer enable setpoint

However, relying on outdoor dry-bulb temperature only ignores outdoor humidity levels. When the outdoor air relative humidity is high, it is disadvantageous to increase outdoor air rates, as this humidity gets brought into the building, ultimately requiring the RTUs to use more cooling energy to make occupants comfortable. ASHRAE's recommendation is to install humidity sensors in the return air stream of each RTU and one for the outdoor air, and enable economizer mode whenever an RTU's return air enthalpy is greater than the outdoor air enthalpy *and* the outdoor air dry-bulb temperature is below 75 °F. The enthalpy of air is calculated using the dry-bulb temperature and relative humidity.

Scope of Work

Install an outdoor air humidity sensor as well as a return air humidity sensor in the return air ductwork of each of the three rooftop units. Through programming in the building automation system, use the dry-bulb temperature and relative humidity to calculate the enthalpy of the outside air and each of the three airstreams. Enable economizer mode whenever an RTU's return air enthalpy is greater than the outdoor air enthalpy *and* the outdoor air dry-bulb temperature is below 75 °F.

ECM Benefits

- Reduced electricity usage due to reduced mechanical cooling demand

ECM No. 07: Implement hot water temperature reset (100 to 140 °F)

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-	-	1,591	2,969	2,665	676	0.1	8.5

Existing Conditions

At Bowie City Hall, the boilers are operated year-round and maintain a constant hot water supply temperature of 180 °F. These are condensing boilers that operate most efficiently at lower return water temperatures, particularly, below 120 °F return temperature. For example, see a condensing boiler efficiency curve shown in the figure below.

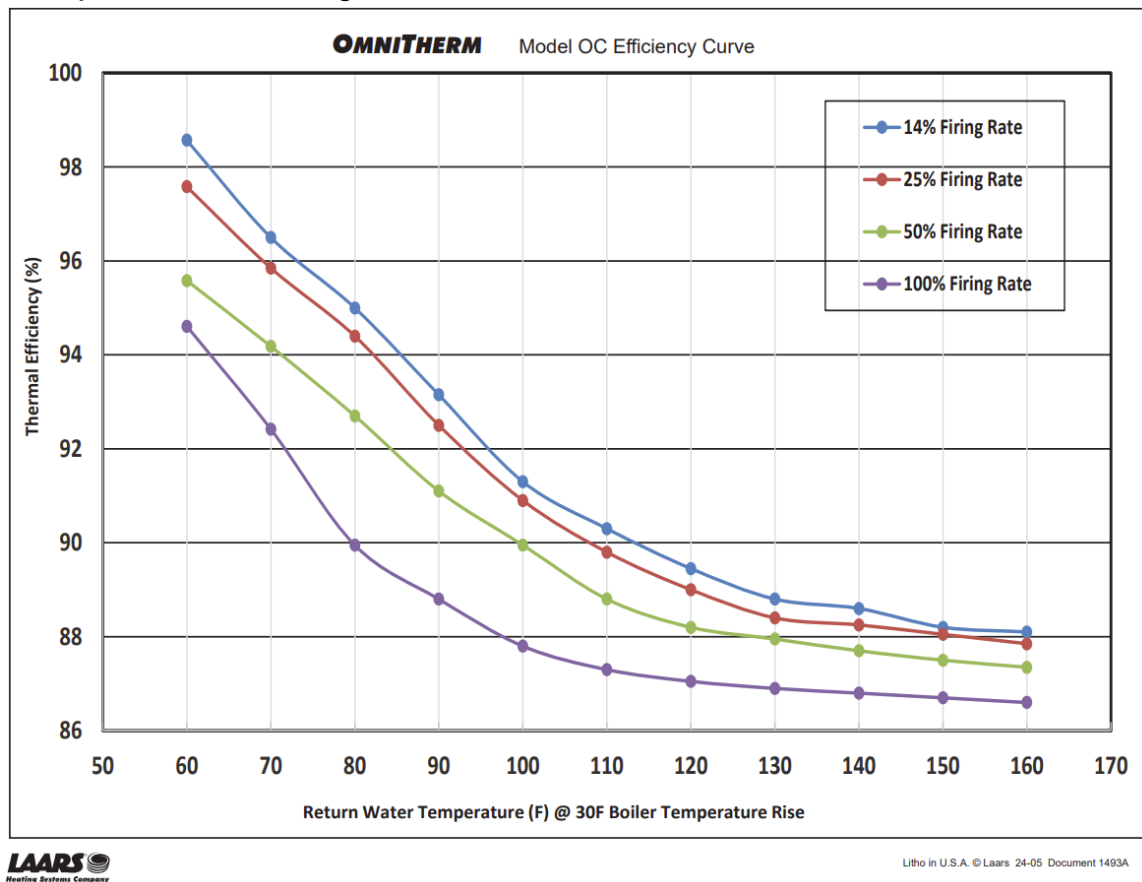


Figure 27: Condensing boiler efficiency curve (courtesy: Laars)

Measure Description

The hot water supply temperature should be kept at the lowest value possible that still provides enough heat to the heating coils. A lower temperature will improve the boiler operating efficiency and minimize piping heat losses.

The maximum hot water supply temperature setpoint should be equal to the design entering water temperature of the heating coils. Keep in mind that temperature is only required on a worst case, design heating day. At City Hall, the terminal unit heating coils were designed for 140 °F entering water temperature, so there should be no need for City Hall to ever be at 180 °F. City Hall should have a maximum hot water supply temperature of 140 °F.

There are a couple of ways to accomplish this. The simplest way is with a linear reset schedule based on the outdoor air temperature. The maximum supply temperature should correspond with a low outdoor air temperature (e.g., 20 °F) and the minimum supply temperature with a moderate outdoor air temperature (e.g., 65 °F). At outside air temperatures in between those values, the supply temperature is reset linearly. This is shown in the figure below. For those facilities whose terminal equipment requires the higher entering water temperature (180 °F) on peak heating days, the maximum and minimum values for the reset should be adjusted accordingly.

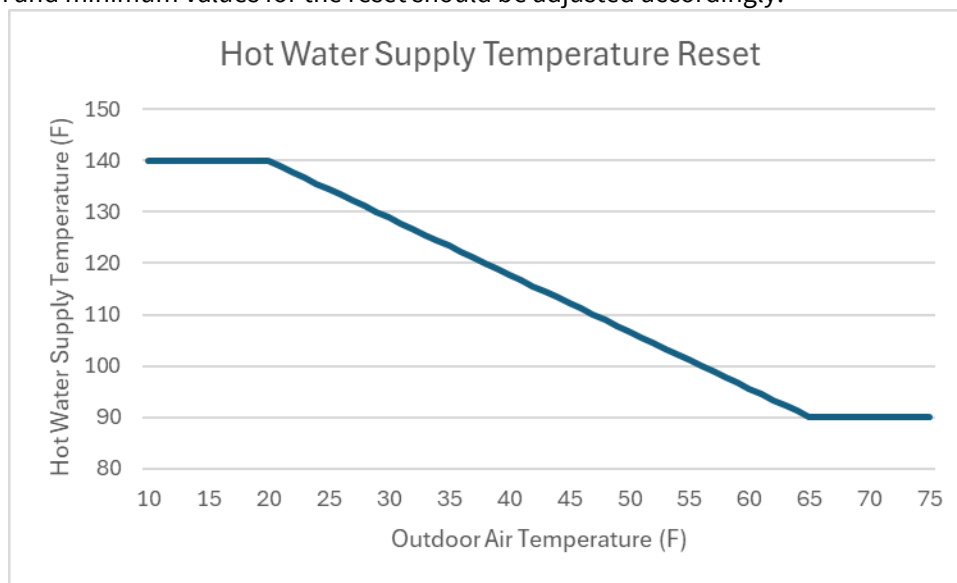


Figure 28: Hot water supply temperature reset based on outdoor air temperature

A second, more complex, method for implementing a hot water supply temperature reset is as follows: The American Society for Heating Refrigeration and Air Conditioning Engineers (ASHRAE) researches and develops standards for the most efficient ways to operate HVAC systems. ASHRAE Standard 36 – High Performance Sequences of Operation for HVAC Systems – recommends a trim and respond logic for hot water supply temperature reset. In this scenario, for the first 10 minutes when the hot water system is enabled, the hot water supply temperature is initially set to the maximum hot water supply temperature. Then, every 5 minutes, the building automation system determines the number of hot water reset requests (the number of terminal units calling for maximum heat). If there are two or fewer requests, the hot water supply temperature setpoint is reduced by 2 °F. If there are three or more requests, the hot water supply temperature setpoint is increased by 3 times the number of requests minus two °F. For example, if there are five requests, it would increase the setpoint by: $3 * (5 - 2) = 3 * 3 = 9$ °F.

Scope of Work

Choose one of the two options above. The second option would be slightly more efficient by responding precisely to the building needs, as opposed to the first option, which is simpler to program, but does not look at the actual building conditions.

An HVAC controls contractor knowledgeable in the Trane building automation system can implement this through programming.

ECM Benefits

- Reduced natural gas usage due to higher boiler operating efficiency and reduced piping heat losses

ECM No. 08: Replace natural gas-fired RTUs with heat pumps

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-58,120	-6.6	7,370	8,514	12,344	919,401	44.1	23.4

Existing Conditions

Bowie City Hall, has natural gas-fired rooftop units with natural gas-fired furnaces. Natural gas is a fossil fuel for which burning produces significant greenhouse gas emissions. When using heat pumps, electricity produces relatively less greenhouse gas emissions.

In addition, the use of onsite fossil fuels for heating of buildings over 35,000 square feet is being phased out by the Maryland Climate Solutions Now Act of 2022. This applies to City Hall, which will be required to replace those rooftop units with electrified solutions to comply with the law. Non-compliance fees begin to be assessed in 2030.

Also worth noting is that all the existing rooftop units and split systems use R-410a refrigerant which is now being phased out to be replaced with either R-32 or R-454b refrigerants due to the global warming potential of R-410a. Servicing of R-410a equipment (adding charge) will become more expensive as time goes by.

Rooftop units have a life expectancy of 15 years. The rooftop units at Bowie City Hall are nearing the end of their useful life. The existing equipment is summarized in the table below.

Table 16: Existing Gas-Fired Furnaces

Facility	Unit ID	Manufacturer	Model	MBH Heating	Year of Mfr.
Bowie City Hall	RTU-1	Johnson Controls	YPAL075MVE	375	2010
Bowie City Hall	RTU-2	Johnson Controls	V33AS34M7	267	2010
Bowie City Hall	RTU-3	Johnson Controls	V33AS34M7	267	2010

Measure Description

This measure proposes replacing the gas-fired equipment with heat pumps. Heat pumps have a coefficient of performance (COP) of over 3, meaning they produce 3 units of heat for each unit of energy consumed, whereas gas-fired units have a COP of around 0.8.

The simple payback period for this measure is very unattractive when considering only the implementation cost of the measure. However, when considering that this equipment will have to be replaced, the City of Bowie should compare the implementation cost of the measure with the cost of a like-for-like replacement. The RTUs are nearing their end-of-life now.

Newly purchased HVAC systems will use the new generation of refrigerants, either R-32 or R-454b (depending on the manufacturer), which have a lower global warming potential than R-410a. Servicing of R-410a equipment (adding charge) will become more expensive as time goes by. The phaseout of R-410a by the Environmental Protection Agency begins in 2025.

Scope of Work

It will be necessary during the design of these projects to assess the electrical distribution systems within the buildings. It will be necessary to increase the breaker and wire sizes feeding the RTUs to accommodate electric resistance strip heaters that will be needed for when the heat pump alone does not produce enough heating. During the design, select replacement units that have the necessary heating and cooling capacity. AAON makes heat pump rooftop units up to 70 tons in capacity.

Demolish and replace the rooftop units. Replace the breakers and wiring as needed. Integrate the equipment into the existing building automation system.

ECM Benefits

- Reduced natural-gas usage, with an increase in electrical usage, for a net reduction in greenhouse gas emissions

ECM No. 09: Replace natural gas-fired boilers with heat pumps

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-75,859	-8.7	7,672	7,479	12,850	691,434	34.0	20.2

Existing Conditions

Bowie City Hall has natural gas-fired boilers. Natural gas is a fossil fuel for which burning produces significant greenhouse gas emissions. When replaced with heat pumps, electricity produces relatively less greenhouse gas emissions.

In addition, the use of onsite fossil fuels for heating of buildings over 35,000 square feet is being phased out by the Maryland Climate Solutions Now Act of 2022. This applies to City Hall, which will be required to replace those boilers with electrified solutions to comply with the law. Non-compliance fees begin to be assessed in 2030.

Boilers have a life expectancy of 25 years. The boilers at Bowie City Hall were installed in 2010. This places the expected replacement year at 2035, however, if the City of Bowie wishes to avoid fees from the Maryland Climate Solutions Now Act, they should implement this measure before 2030.

Table 17: Existing Gas-Fired Water Boilers

Facility	Quantity	Manufacturer	Model	MBH	Year of Mfr.
Bowie City Hall	2	Lochinvar	KHN801	800	2010

Measure Description

This measure proposes replacing the gas-fired boilers with air to water heat pumps. Heat pumps have a coefficient of performance (COP) of over 3, meaning they produce 3 units of heat for each unit of energy consumed, whereas gas-fired units have a COP of around 0.8.

Existing heating systems are often oversized, and as electrified heating systems are expensive, it is recommended to perform a load analysis or trend analysis of peak heating conditions to determine the maximum heating load required and not buy more heating capacity than is required.

The simple payback period for this measure is very unattractive when considering only the implementation cost of the measure. However, when considering that this equipment will have to be replaced, the City of Bowie should compare the implementation cost of the measure with the cost of a like-for-like replacement. This will provide a more accurate simple payback period. The boilers likely have about 10 more years before replacement.

Scope of Work

During the design phase, perform heat load calculations to determine the heat pump capacity required. Based on the size of the existing boilers, it is estimated that four 30-ton modules will be required. Perform an electrical design to allocate the electrical systems for this new equipment. The

heat pumps need to be located outdoors so a location will need to be selected. This can either be on the roof or in a fenced yard located outdoors. A fenced yard near the boiler room will minimize piping runs and not require a structural analysis. However, it may be necessary to run the piping underground from the boiler room to the heat pump yard, which will require coordination with existing underground utilities. This equipment will require a fenced yard of at least 16' x 24' with a fence that allows at least 50% of airflow to pass through. See the figure below to get an idea. Rooftop placement can be considered if it is determined to be more feasible than the fenced yard, but that may require structural work to support the added weight.

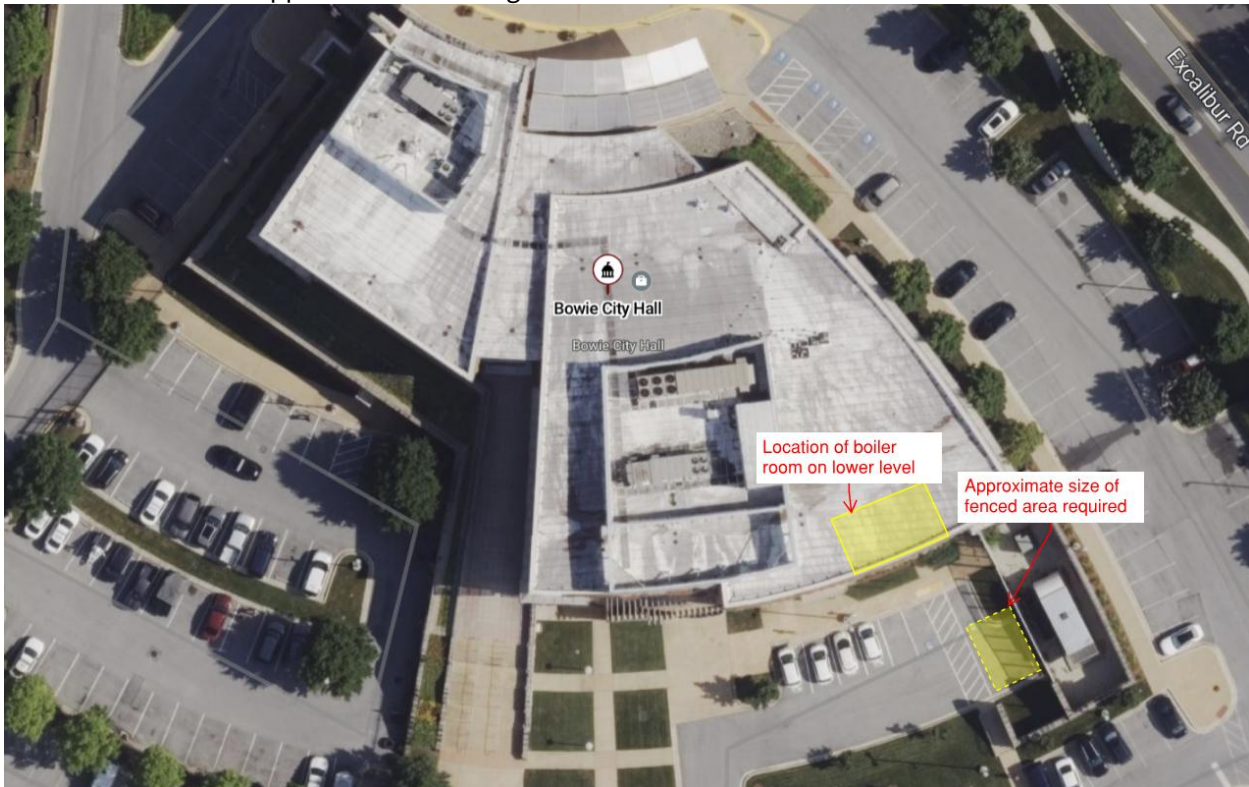


Figure 29: Location of boiler room and possible fenced area location

Demolish the existing boilers, hot water piping, flue piping, and electrical conduits. Install the new heat pumps, install piping between the heating hot water pumps located in the boiler room and the new heat pumps. This may require piping to be run underground. Install fencing around the heat pumps.

Loring recommends that this measure be commissioned by a third-party upon completion to verify that the boilers are operating properly and installed per the design.

ECM Benefits

- Reduced natural-gas usage, with an increase in electrical usage, for a net reduction in greenhouse gas emissions

ECM No. 10: Replace DHW heater with a heat pump

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-10,018	-1.1	1,872	2,590	3,135	36,624	6.4	7.2

Existing Conditions

Bowie City Hall has a natural gas-fired water heater in the lower-level mechanical room. Natural gas is a fossil fuel for which burning produces significant greenhouse gas emissions. When using heat pumps, electricity produces relatively less greenhouse gas emissions.

In addition, the use of onsite fossil fuels for heating of domestic hot water in buildings over 35,000 square feet is being phased out by the Maryland Climate Solutions Now Act of 2022. This applies to City Hall, which will be required to replace its water heater with an electrified solution to comply with the law. Non-compliance fees begin to be assessed in 2030.

Water heaters have a life expectancy of 12-15 years. This places the expected replacement year at 2034 – 2037. However, if the City of Bowie wishes to avoid paying non-compliance fees, this measure should be implemented prior to 2030. Below is a summary of the existing water heater.

Table 18: Existing Gas-Fired Water Heater

Facility	Manufacturer	Model	MBH	Year of Mfr.
Bowie City Hall	AO Smith	BTH-300A 300	300	2022

Measure Description

This measure proposes replacing the gas-fired water heater with a heat pump water heater. Heat pumps have a coefficient of performance (COP) of over 3, meaning they produce 3 units of heat for each unit of energy consumed, whereas gas-fired units have a COP of around 0.8.

Note: Replacing the natural gas-fired water heaters with electric resistance water heaters would help to meet the Maryland Climate Solutions Now Act requirement for eliminating net direct-emissions, but would actually result in an increase in greenhouse gas emissions and site energy use intensity. For this reason, it is recommended to use heat pumps which have a much higher efficiency than either natural gas or electric resistance units.

Scope of Work

Perform sizing calculations to determine the size water heater required for the application. The existing heater uses 120 V power, so determine where to get 208/240 V power as required for the heat pump water heater. Remove the existing water heater, cap the gas pipe, install the new heater, and bring electrical to the new heater.

ECM Benefits

- Reduced natural-gas usage, with an increase in electrical usage, for a net reduction in greenhouse gas emissions

ECM No. 11: Paint roof white (high SRI)

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
4,695	0.5	-	544	-	8,733	16.0	1.3

Existing Conditions

Bowie City Hall has an existing built-up roofing membrane system overtop a metal deck roof structure. This built-up roof is a hot rubberized asphalt system that is naturally dark in color which absorbs sunlight and is hotter in temperature than other roofing systems like TPO membranes.



Figure 30: Existing roof at City Hall

Measure Description

This measure proposes painting the existing roofing system with a white, reflecting coating to reflect sunlight during the warmer summer months as compared to a dark roof which is known to contribute to a phenomenon known as the heat island effect.

Scope of Work

Furnish and install a reflective roof coating directly overtop the existing roof membrane system. We recommend using Henry 287 Solar-Flex white elastomeric reflective roof coating, Henry 587 Dura-Brite white acrylic elastomeric reflective roof covering, Henry 687 Enviro-White Acrylic Elastomeric reflective roof coating or similar.

ECM Benefits

The reflective white roof covering reflects over 70% of the sun's heat and UV rays, lowers roof and interior temperatures, and as a result, will also lower electricity costs due to the reduced thermal load the building's existing air conditioning systems would see. This reflective paint is also mildew and stain resistant which can exist roofing systems with minimal slopes as is the case with the existing Bowie City Hall roof structure.

ECM No. 12: Install solar window film on south facing windows

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
4,048	0.5	-	476	-	15,607	32.8	1.1

Existing Conditions

The south and southwest faces of City Hall are exposed to solar radiation throughout the day which causes those space to get warm during the summer. This requires a lot of energy for air conditioning.

Measure Description

This measure proposes installing solar window film on the south and southwest facing windows. Solar window film has an adhesive on one side and a scratch resistant surface on the other. It is available in a range of tints to control the amount of light coming in. This will reduce heat radiation and block UV rays. It will also improve thermal comfort and reduce glare for the occupants of those spaces.

Scope of Work

Select locations to get window film in coordination with occupants to determine where it will have the most impact. The window film gets rolled on and cut to shape the windows.

ECM Benefits

- Reduce electricity use in cooling season
- Improved occupant comfort and reduction in glare



Figure 31: Example solar window film (credit: Uline)

ECM No. 13: Install rooftop solar PV

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
135,900	-	-	14,290	-	349,353	24.4	37.0

Existing Conditions

Electricity is supplied by BGE. There is no onsite solar renewable energy.

Measure Description

This measure proposes adding rooftop solar PV panels Bowie City Hall. Our analysis has found that there is space for a 100.8 kW DC array that will produce an estimated 135,500 kWh annually.

The full solar PV analysis is included in Appendix A. For the City of Bowie to be able to make the claims to the greenhouse gas reduction associated with the onsite solar arrays, they must own, not sell, the solar renewable energy credits (RECs).

Scope of Work

Design and install a solar PV array on the rooftop interconnected to the grid.

ECM Benefits

- Reduced greenhouse gas emissions
- Reduced source energy use intensity



Figure 32: Proposed design of rooftop solar PV system

ECM No. 14: Install carport solar PV

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
266,400	-	-	28,012	-	453,923	16.2	72.4

Existing Conditions

Electricity is supplied by BGE. There is no onsite solar renewable energy.

Measure Description

This measure proposes installing carport solar PV panels at Bowie City Hall. Carport arrays have the added benefit of providing shade to cars and sidewalks and don't have to compete for space with rooftop equipment. Our analysis has found that there is space for a 206.1 kW DC array that will produce an estimated 266,400 kWh annually.

The full solar PV analysis is included in Appendix A. For the City of Bowie to be able to make the claims to the greenhouse gas reduction associated with the onsite solar arrays, they must own, not sell, the solar renewable energy credits (RECs).

Scope of Work

Design and install a solar PV carport system interconnected to the grid.

ECM Benefits

- Reduced greenhouse gas emissions
- Reduced source energy use intensity



Figure 33: Proposed locations for carport solar

MEASURES CONSIDERED BUT NOT RECOMMENDED

The following measures were identified during the energy audit, but ultimately were determined to not be cost effective, and therefore are not recommended.

Measure Name: Lighting Controls: Install Occupancy Sensors

Scope of work: Perform a full assessment of the building to document for all spaces in the building whether they currently have occupancy sensors. Add occupancy (or vacancy) sensors to any spaces that do not have them currently.

Reason for not recommending: When this measure is undertaken after all lighting has been upgraded to LED, the simple payback period is estimated at 44 years, taking into account all utility cost savings and avoided BEPS penalties. Because LED lighting is very efficient, the electricity usage reduction from lighting controls is much less than with less efficient lighting.

Measure Name: Lighting Controls: Install Daylighting Sensors

Scope of work: Install daylighting controls in: Main lobby, Finance open office (100 area), 2nd floor kitchen/break room (room 224), planning and sustainability open office (230 area), IT open office (250 area). In the open office areas, create a daylighting zone using the row of lights closest to the windows. In the main lobby, create daylighting zones at the north and south lobbies that extend about 20 feet from the vertical fenestration. Install a photocell on the ceiling of each daylighting zone. Install power packs and wiring to fixtures.

Reason for not recommending: When this measure is undertaken after all lighting has been upgraded to LED, the simple payback period is estimated at 27 years, taking into account all utility cost savings and avoided BEPS penalties. Because LED lighting is very efficient, the electricity usage reduction from lighting controls is much less than with less efficient lighting.

NEXT STEPS

The next steps for the City of Bowie property management are to identify the most attractive ECMs as recommended by Loring for implementation. The savings and implementation cost estimates provided by Loring can assist in this decision-making process.

Measures with a simple payback of less than 8 years are recommended to be implemented as soon as possible: ECM-01, 03, 04, 05, 06, 07, and 10. Measures with a longer payback period should be considered for implementation at the end of the life of the equipment: ECM-08 and 09. However, the City of Bowie may wish to prioritize implementing these two measures sooner due to their impact on BEPS compliance. Other measures may be considered once the BEPS site EUI requirement has been determined by Maryland Department of the Environment. When and whether to install onsite solar PV (ECM-13 and 14) may be determined by how highly the City of Bowie prioritizes reaching net-zero. The size of the PV system to be installed will be determined based on the expected future needs based on which other ECMs get implemented and whether more onsite EV chargers are expected to be added.

Several ECMs can be implemented by the facility staff, with the assistance of contractors if necessary. Several measures will require engineering and project management support for implementation by contractors.

Loring can assist in producing design documents for certain measures that require them.

APPENDIX A

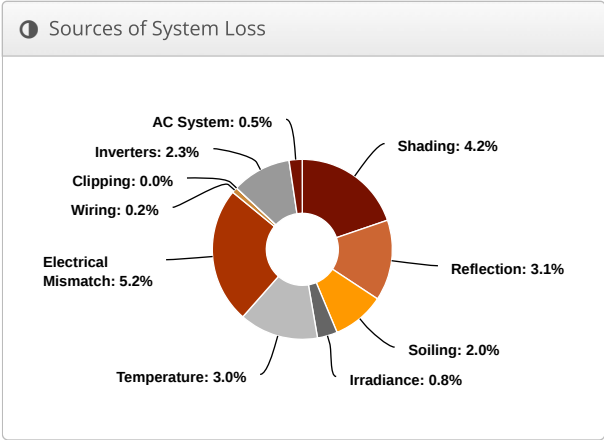
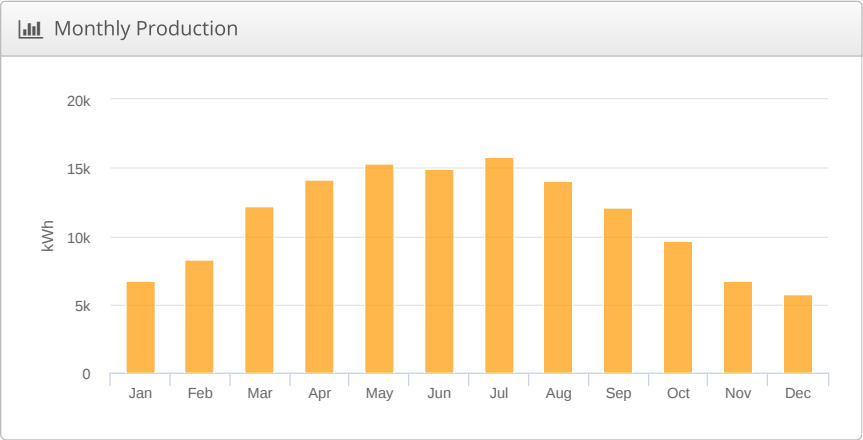
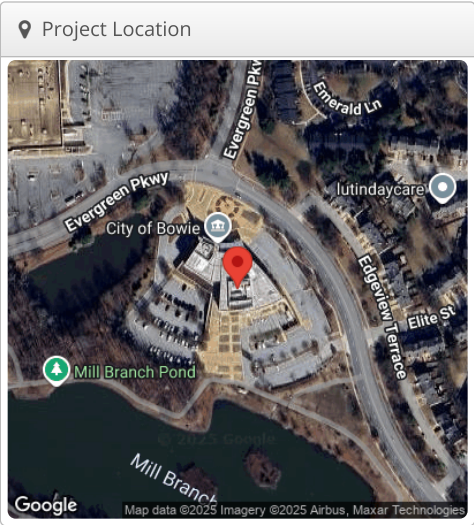
SOLAR PV DESIGN AND PRODUCTION

Bowie City Hall Rooftop

Bowie City Hall, 15901 Fred Robinson Way, Bowie, MD 20716

Report	
Project Name	Bowie City Hall
Project Address	15901 Fred Robinson Way, Bowie, MD 20716
Prepared By	Jonathan Ball helioscope@loringengineers.com

System Metrics	
Design	Bowie City Hall Rooftop
Module DC Nameplate	100.80 kW
Inverter AC Nameplate	96.24 kW Load Ratio: 1.05
Annual Production	135.5 MWh
Performance Ratio	80.6%
kWh/kWp	1,344.4
Weather Dataset	TMY, 10km grid (38.95,-76.75), NREL (prospector)
Simulator Version	bc926eb1a1-e159654628-c68e24bc92-41503a9340



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,548.0	
	POA Irradiance	1,667.7	7.7%
	Shaded Irradiance	1,597.7	-4.2%
	Irradiance after Reflection	1,548.5	-3.1%
	Irradiance after Soiling	1,517.5	-2.0%
	Total Collector Irradiance	1,517.6	0.0%
Energy (kWh)	Nameplate	153,058.2	
	Output at Irradiance Levels	151,888.4	-0.8%
	Output at Cell Temperature Derate	147,301.8	-3.0%
	Output after Electrical Mismatch	139,661.1	-5.2%
	Optimal DC Output	139,363.0	-0.2%
	Constrained DC Output	139,362.8	0.0%
	Inverter Output	136,196.3	-2.3%
	Energy to Grid	135,515.3	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		16.0 °C	
Avg. Operating Cell Temp		23.9 °C	
Simulation Metrics			
Operating Hours		4665	
Solved Hours		4665	

☁ Condition Set												
Description		Condition Set 1										
Weather Dataset		TMY, 10km grid (38.95,-76.75), NREL (prospector)										
Solar Angle Location		Meteo Lat/Lng										
Transposition Model		Perez Model										
Temperature Model		Sandia Model										
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance		5%										
Cell Temperature Spread		4° C										
Module Binning Range		-2.5% to 2.5%										
AC System Derate		0.50%										
Module & Component Characterizations	Type	Component						Characterization				
	Module	TSM-PD14 320 (May16) (Trina Solar)						Spec Sheet Characterization, PAN				
	Inverter	Sunny Tripower 24000TL-US (SMA)						Modified CEC				

 Components

Component	Name	Count
Inverters	Sunny Tripower 24000TL-US (SMA)	4 (96.24 kW)
Strings	10 AWG (Copper)	20 (950.0 ft)
Module	Trina Solar, TSM-PD14 320 (May16) (320W)	315 (100.80 kW)

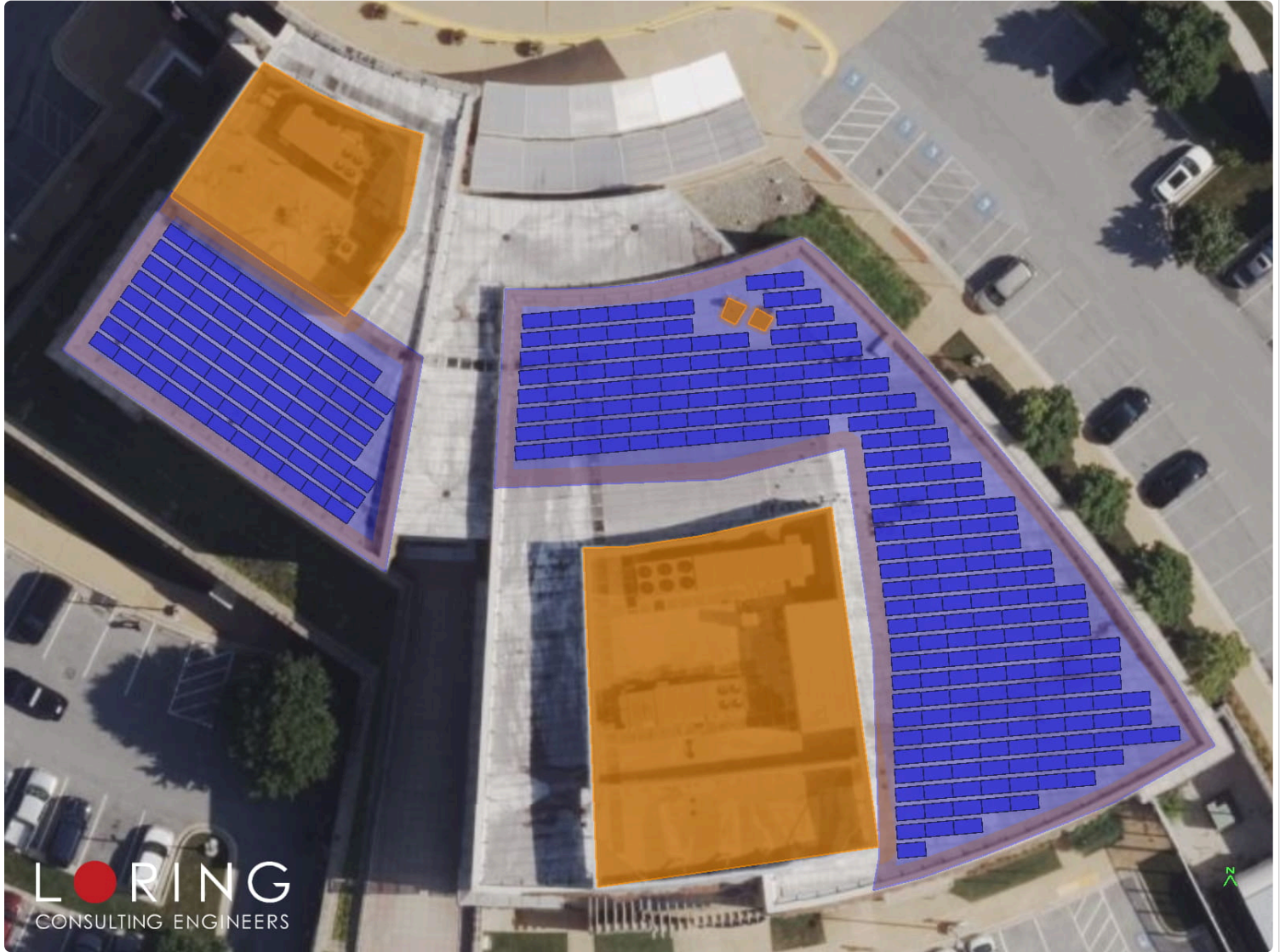
 Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-19	Along Racking

 Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	Module: 10°	Module: 175.04674°	1.0 ft	1x1	233	233	74.56 kW
Field Segment 3	Fixed Tilt	Landscape (Horizontal)	Module: 10°	Module: 215.01257°	1.0 ft	1x1	82	82	26.24 kW

Detailed Layout2

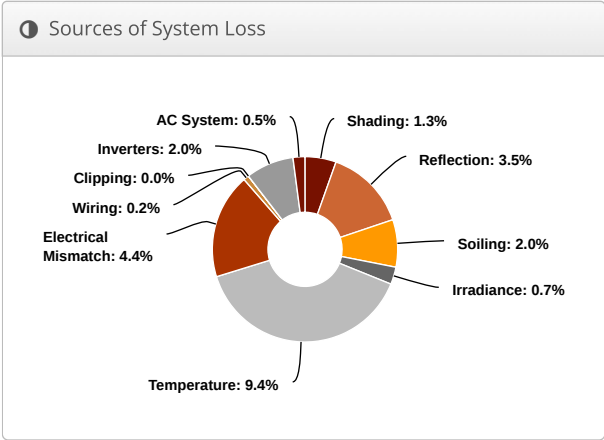
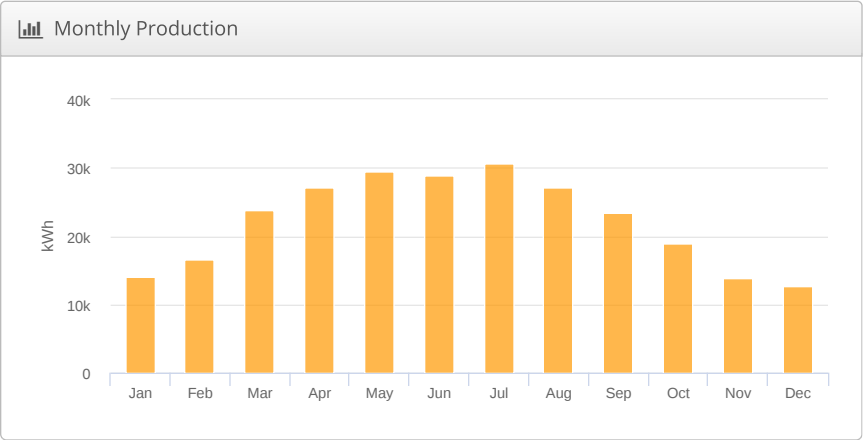
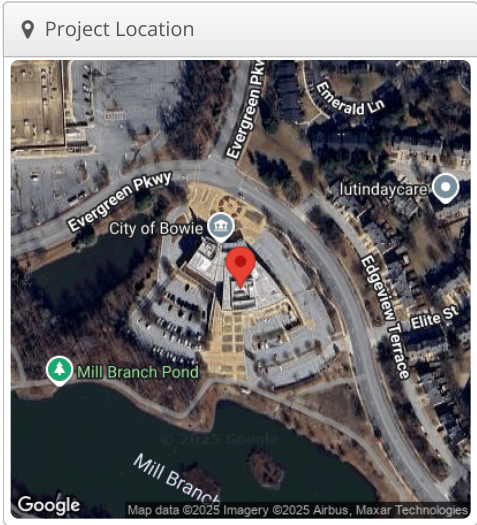


City Hall Carports

Bowie City Hall, 15901 Fred Robinson Way, Bowie, MD 20716

Report	
Project Name	Bowie City Hall
Project Address	15901 Fred Robinson Way, Bowie, MD 20716
Prepared By	Jonathan Ball helioscope@loringengineers.com

System Metrics	
Design	City Hall Carports
Module DC Nameplate	206.08 kW
Inverter AC Nameplate	168.42 kW Load Ratio: 1.22
Annual Production	266.4 MWh
Performance Ratio	78.1%
kWh/kWp	1,292.8
Weather Dataset	TMY, 10km grid (38.95,-76.75), NREL (prospector)
Simulator Version	bc926eb1a1-e159654628-c68e24bc92-41503a9340



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,548.0	
	POA Irradiance	1,656.4	7.0%
	Shaded Irradiance	1,634.6	-1.3%
	Irradiance after Reflection	1,577.8	-3.5%
	Irradiance after Soiling	1,546.2	-2.0%
	Total Collector Irradiance	1,546.4	0.0%
Energy (kWh)	Nameplate	318,856.1	
	Output at Irradiance Levels	316,527.8	-0.7%
	Output at Cell Temperature Derate	286,641.1	-9.4%
	Output after Electrical Mismatch	273,936.3	-4.4%
	Optimal DC Output	273,303.0	-0.2%
	Constrained DC Output	273,302.7	0.0%
	Inverter Output	267,760.6	-2.0%
	Energy to Grid	266,421.8	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		16.0 °C	
Avg. Operating Cell Temp		32.7 °C	
Simulation Metrics			
Operating Hours		4665	
Solved Hours		4665	

☁ Condition Set												
Description		Condition Set 1										
Weather Dataset		TMY, 10km grid (38.95,-76.75), NREL (prospector)										
Solar Angle Location		Meteo Lat/Lng										
Transposition Model		Perez Model										
Temperature Model		Sandia Model										
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance		5%										
Cell Temperature Spread		4° C										
Module Binning Range		-2.5% to 2.5%										
AC System Derate		0.50%										
Module & Component Characterizations	Type	Component							Characterization			
	Module	TSM-PD14 320 (May16) (Trina Solar)							Spec Sheet Characterization, PAN			
	Inverter	Sunny Tripower 24000TL-US (SMA)							Modified CEC			

Components

Component	Name	Count
Inverters	Sunny Tripower 24000TL-US (SMA)	7 (168.42 kW)
Strings	10 AWG (Copper)	35 (5,135.9 ft)
Module	Trina Solar, TSM-PD14 320 (May16) (320W)	644 (206.08 kW)

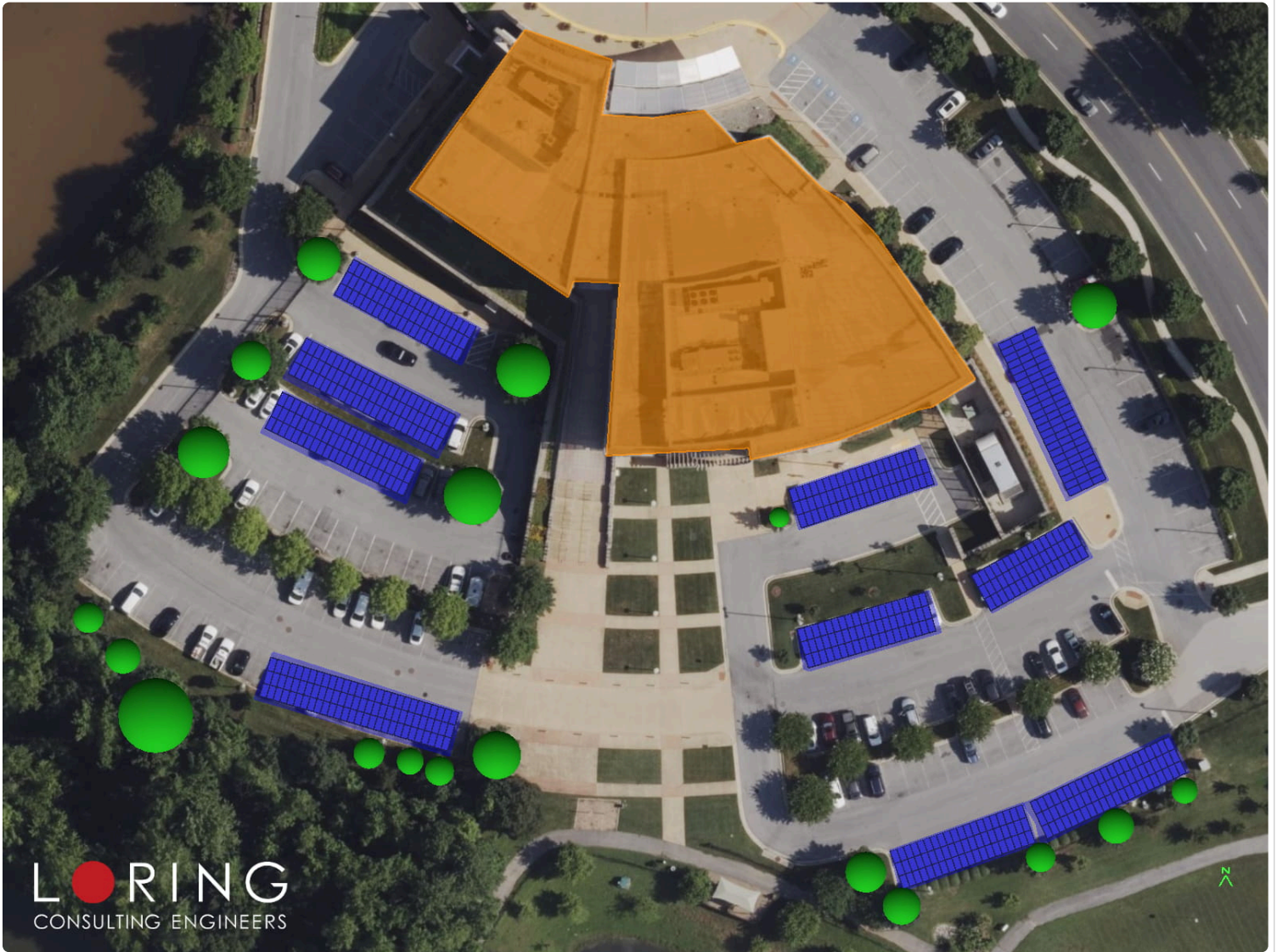
Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-19	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	10°	208.61874°	0.0 ft	1x1	60	60	19.20 kW
Field Segment 2	Flush Mount	Portrait (Vertical)	10°	207.36078°	0.0 ft	1x1	72	72	23.04 kW
Field Segment 3	Flush Mount	Portrait (Vertical)	10°	206.06467°	0.0 ft	1x1	66	66	21.12 kW
Field Segment 5	Flush Mount	Portrait (Vertical)	10°	196.28421°	0.0 ft	1x1	84	84	26.88 kW
Field Segment 6	Flush Mount	Portrait (Vertical)	10°	161.76932°	0.0 ft	1x1	59	59	18.88 kW
Field Segment 7	Flush Mount	Portrait (Vertical)	10°	244.62843°	0.0 ft	1x1	72	72	23.04 kW
Field Segment 7	Flush Mount	Portrait (Vertical)	10°	163.80267°	0.0 ft	1x1	57	57	18.24 kW
Field Segment 8	Flush Mount	Portrait (Vertical)	10°	150.92267°	0.0 ft	1x1	48	48	15.36 kW
Field Segment 9	Flush Mount	Portrait (Vertical)	10°	160.65788°	0.0 ft	1x1	60	60	19.20 kW
Field Segment 10	Flush Mount	Portrait (Vertical)	10°	154.71748°	0.0 ft	1x1	66	66	21.12 kW

Detailed Layout2





Kenhill Center
ASHRAE Level II Energy Audit
2614 Kenhill Dr, Bowie, MD 20716

Prepared for: City of Bowie
Planning and Sustainability Department

Prepared by: Loring Consulting Engineers
9711 Washingtonian Blvd Suite 325
Gaithersburg, MD 20878

October 3, 2025
Loring No. 13988-000

Contents

EXECUTIVE SUMMARY	3
KEY FINDINGS	3
OVERVIEW OF POTENTIAL SAVINGS	3
BUILDING ENERGY PERFORMANCE STANDARDS	6
FACILITY DESCRIPTION	8
HEATING SYSTEMS	9
COOLING SYSTEMS	11
DOMESTIC WATER SYSTEMS	13
EXHAUST SYSTEMS	14
ELECTRICAL SYSTEMS	15
ENERGY CONSUMPTION ANALYSIS	16
HISTORICAL ENERGY USE	16
ELECTRICAL CONSUMPTION	16
HISTORICAL ENERGY COSTS	19
NATURAL GAS CONSUMPTION	21
UTILITY RATES	23
ENERGY END USE BREAKDOWN	24
ELECTRICITY	24
NATURAL GAS	26
ENERGY CONSERVATION MEASURES	28
ENERGY SAVINGS BY SYSTEM	28
PREDICTED ENERGY USAGE BY SYSTEM AFTER IMPLEMENTATION	29
OTHER CONSIDERATIONS	50
MEASURES CONSIDERED BUT NOT RECOMMENDED	51
NEXT STEPS	52
APPENDIX A	53

EXECUTIVE SUMMARY

At the request of the City of Bowie, Loring Consulting Engineers, Inc. (Loring) performed an energy audit for Kenhill Center located at 2614 Kenhill Dr, Bowie, MD 20716. The purpose of this study is to identify energy conservation measures that are cost-effective, provide utility cost savings, and help the facility meet the State of Maryland building energy performance standards (BEPS).

KEY FINDINGS

Some of the key findings from the energy audit include:

- Kenhill Center will be subject to penalties from the State of Maryland Building Energy Performance Standards (BEPS) beginning in 2030. Implementing energy conservation measures that reduce the reliance on utilities, especially natural gas, will reduce the potential penalties.
- The replacement of the existing natural gas-fired systems with electric heat pump equivalents will be expensive, but necessary to avoid future penalties. We recommend planning for this.
- The HVAC systems runtimes are longer than necessary, with rooftop HVAC units controlled by the building automation system in the occupied mode until 9 pm, and rooftop units controlled by local thermostats set to hold a constant temperature year-round.
- The open roof and surface parking lots present opportunities for solar photovoltaic arrays to offset onsite electric usage.
- The building's roofing system has no real thermal barrier, thus the installation of one will significantly reduce energy consumption.

OVERVIEW OF POTENTIAL SAVINGS

Loring has identified 11 Energy Conservation Measures (ECMs) with varying levels of simple payback. These ECM's represent measures which will reduce electric consumption, reduce greenhouse gas emissions, and reduce utility costs.

Table 1 compares the existing 2022 - 2024 electric and natural gas usage and cost (yearly average) to the potential electric and natural gas cost if all the ECMs presented are implemented. Also presented are the potential BEPS penalties (for the year 2030, which will increase each year thereafter) if no action is taken vs. if all recommendations are implemented.

Table 1: Comparison of Performance Indicators

Energy Use	Electric Energy Use (kWh)	Electric Energy Cost (\$)	Natural Gas Energy Use (therms)	Annual Natural Gas Cost (\$/yr)	Estimated BEPS Penalty (\$/yr in 2030)	Total Cost (Utility + Penalty) (\$/yr)
Baseline Use 2022 - 2024	353,128	31,935	8,725	23,650	12,009	67,594
Proposed Grid Energy Use	-	-	268	587	0	587
Proposed Onsite Renewable Energy Production	457,606	-	-	-	-	-
% Savings	100%	100%	97%	98%	100%	99%

The energy savings compared to the baseline period (2022 – 2024) for each end-use category is summarized in Figure 1 and Table 2 below.

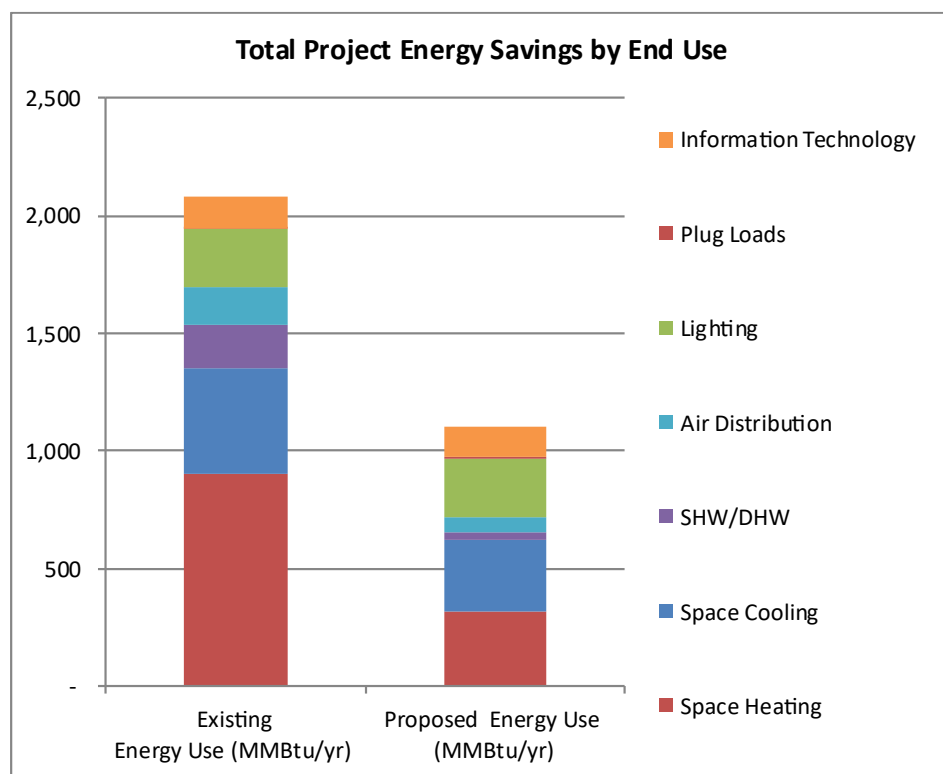


Figure 1: Total Project Energy Savings by End Use

If all the recommended ECMs are implemented, they will provide the following estimated benefits to Kenhill Center:

Table 2: Energy Savings by System Compared to 2022 - 2024

System Type	Savings (MMBtu/yr)	Percent Savings
Space Heating	582	65%
Space Cooling	145	32%
SHW/DHW	155	85%
Air Distribution	97	59%
Total Building	2,489	37%

Table 3 presents the calculated impact on greenhouse gas emissions for Kenhill Center if all the recommended ECMs are implemented. Based upon the emission rates presented by the Environmental Protection Agency's eGrid (2023 data), it is expected that Kenhill Center will reduce its CO₂ equivalent emissions by 55 metric tons per year.

Table 3: GHG Emission Savings by System (Compared to 2022-2024)

System Type	Existing GHG Emissions (MT CO ₂ e/yr)	Proposed GHG Emissions (MT CO ₂ e/yr)	Annual Savings GHG Emissions (MT CO ₂ e/yr)
Space Heating	53	24	29
Space Cooling	36	25	12
SHW/DHW	10	2	7
Air Distribution	13	5	8
Lighting	20	20	-
Plug Loads	1	1	-
Information Technology	10	10	-
Total Building	142	87	55

BUILDING ENERGY PERFORMANCE STANDARDS

Kenhill Center is required to comply with the State of Maryland's Building Energy Performance Standards (BEPS). MD BEPS will require the facility to meet a site energy use intensity (EUI) target and a net direct emissions target. The State of Maryland has not yet announced the site EUI targets or penalties for missing them, but they have announced the net direct emissions targets. Net direct emissions refer to emissions that are a result of the burning of fossil fuels (e.g., natural gas) onsite. Natural gas-fired equipment at the facility includes rooftop units and the domestic hot water heater.

Office buildings are required to meet a net direct emissions target of 0.22 kg CO₂e per square foot for the years 2030 – 2034, 0.11 kg CO₂e per square foot for the years 2035 – 2039, and 0 kg CO₂e per square foot for 2040 and all years thereafter. Kenhill Center currently has net direct emissions of 1.17 kg CO₂e per square foot (average of 2022 – 2024). Therefore, the facility's net direct emissions must be reduced by 81% before 2030, 91% before 2035, and 100% before 2040, to avoid penalties.

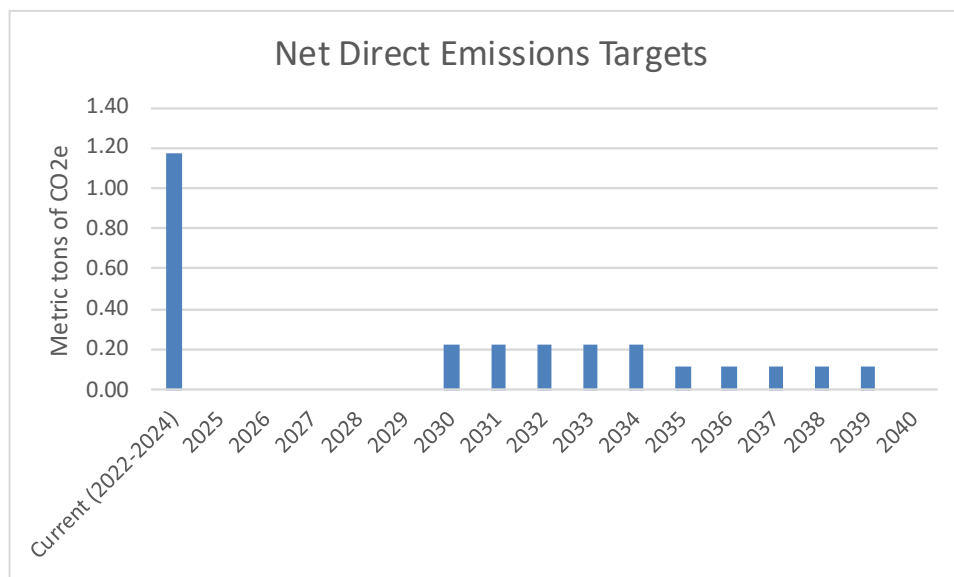


Figure 2: Net Direct Emissions Targets for BEPS

Energy performance is reported to the Maryland Department of the Environment via Energy Star Portfolio Manager. MDE will send notices letting facility owners know the penalty once data for each year has been collected.

The State of Maryland BEPS penalties are set at \$230 per metric ton of CO₂e above the standard, in 2020 dollars, adjusted for inflation, increasing by \$4.00 per metric ton of CO₂e, per year. We have estimated penalties for the year 2030 to be \$315 per excess metric ton of CO₂e. Therefore, the penalty can be estimated at 12,009 for the year 2030, increasing each year, if no action is taken. The estimated annual penalty, if no action is taken, is shown in figure 3.

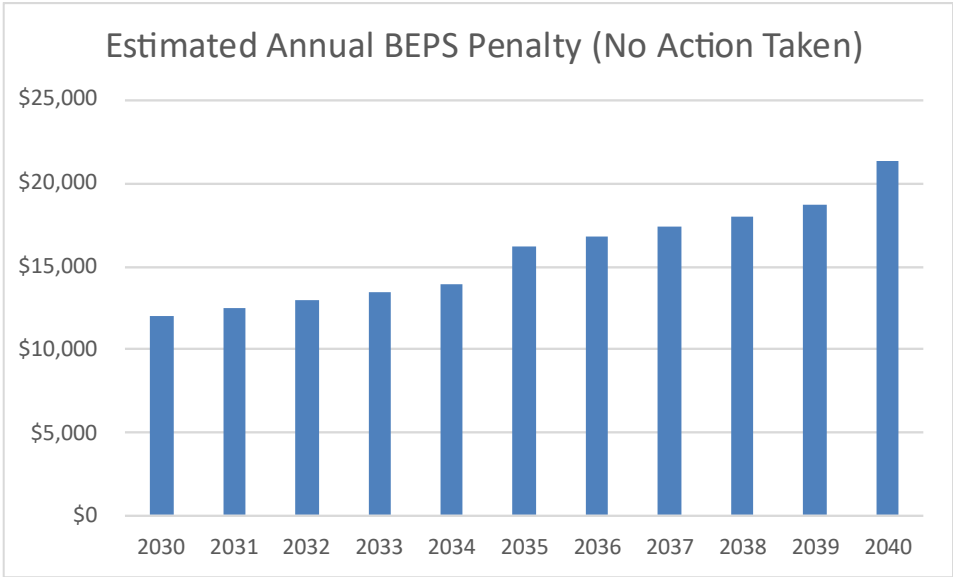


Figure 3: Estimated Annual BEPS Penalty

FACILITY DESCRIPTION

Kenhill Center was built in 1965. It is an office building that is used to house local government and various tenants. It also has a multi-purpose room, used for various community activities, like classes and indoor sports. The building has gone through many changes over the years. It was originally built as an elementary school and was later Bowie's City Hall before construction of the current City Hall. At the north end of the facility, there is an adjacent trailer that houses a food pantry.

About the building:

- Building square footage:
 - 39,803 square feet of office space
- Year of construction: 1965
- Building classification: Office
- Building floors: 1 floor above ground

The equipment that is present in the building can be categorized by end-use into the following categories: heating, cooling, domestic hot water, air distribution, lighting, IT systems, and plug loads.

HEATING SYSTEMS

Heating is provided to the building primarily via rooftop units with natural gas-fired furnaces. There is a total of 28 rooftop units with gas heat. The furnaces range in capacity from 60 MBH to 200 MBH each. Each modulates its heat to maintain a space temperature setpoint. 16 of the RTUs were replaced in 2024 and are controlled by space sensors through the Boland Trane building automation system. The other 12 RTUs were installed between 2007 to 2018 and have local thermostats that are not integrated into the BAS.

The food pantry trailer is heated by three wall-mounted PTACs that have electric resistance heat. These are controlled by local thermostats.

There are also a few electric heaters in various spaces and four packaged terminal heat pumps in three of the offices.

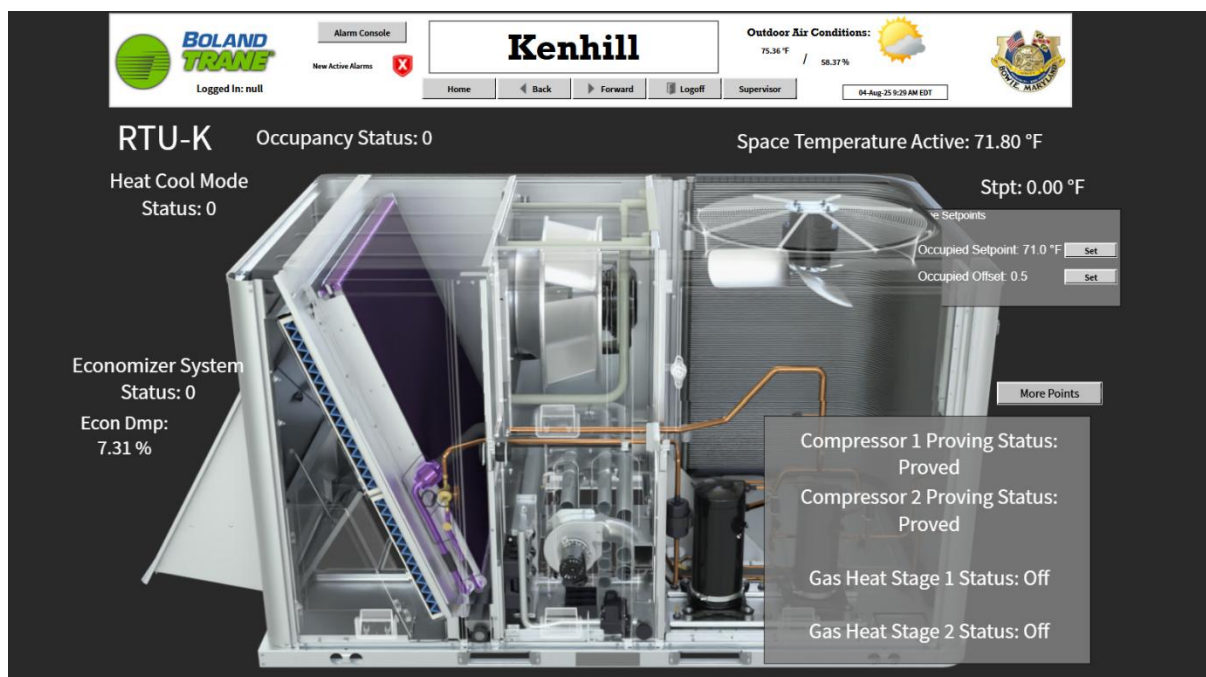


Figure 4: Example RTU schematic from the building automation system



Figure 5: One of the new RTUs



Figure 6: One of the old RTUs

COOLING SYSTEMS

Cooling is primarily provided to the building via 28 rooftop units with air-cooled DX cooling. The units range in capacity from 36 MBH (3 tons) to 120 MBH (10 tons). The three 10-ton units (RTU-A, RTU-B, and RTU-C) serve the multi-purpose room. The other units serve various office spaces. The RTUs have an economizer mode, which is controlled by the unit's on-board controller. 16 of the RTUs were replaced in 2024 and are controlled by space sensors through the Boland Trane building automation system. The other 12 RTUs were installed between 2007 to 2018 and have local thermostats that are not integrated into the BAS.

The food pantry trailer is cooled by three wall-mounted PTACs. These are controlled by local thermostats.

There are ten condensing units serving various IT spaces throughout the building. Eight of these are located at the roof level, one is wall-hung, and one sits inside an equipment fence owned by Comcast. The eight at the roof level range in capacity from 17 MBH to 165 MBH. The other two are inaccessible to view the nameplates but are estimated at 24 to 36 MBH apiece.

There are four packaged terminal heat pumps in three of the offices.



Figure 7: Thermostat for one of the new RTUs



Figure 8: Thermostat for one of the old RTUs



Figure 9: Thermostat in the food pantry trailer



Figure 10: One of three food pantry trailer PTACs

DOMESTIC WATER SYSTEMS

Domestic hot water is provided to the facility by a single gas-fired domestic water heater, located in the mechanical room. It is sized for 40,000 btu/hr and was installed in 2016. There is a domestic hot water recirculating pump.

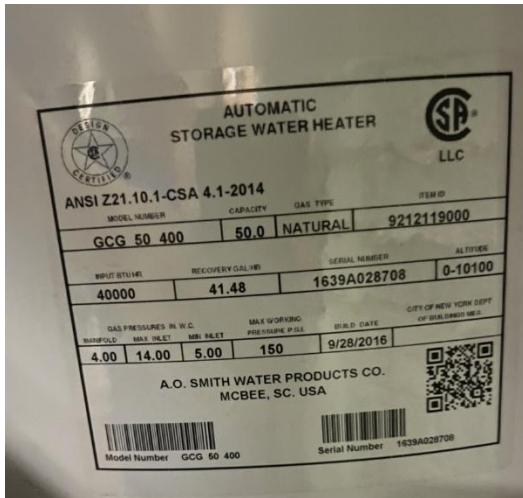


Figure 11: Domestic water heater label



Figure 12: Domestic water heater and RCP

EXHAUST SYSTEMS

The restrooms and janitor's closet are exhausted by a roof-mounted exhaust fan that runs continuously. There are three other roof-mounted exhaust fans that were not running during our visit. There are a few other small exhaust fans located below the ceiling, one controlled by a local wall switch and two controlled by thermostats.



Figure 13: One of several roof-mounted exhaust fans

ELECTRICAL SYSTEMS

The facility has two electrical services; one an 800 A, 208 V main distribution panel (MDP), and one a 400 A, 208 V distribution panel (DP) in the mechanical room. This room also houses the solar PV disconnect, emergency panel, and other subpanels. There is a standby generator, located inside the Comcast fence, that we could not access. It was reported to us that it only serves Comcast equipment. Other subpanels are located throughout the facility, in hallways, storage rooms, and other spaces.



Figure 14: Panel MDP



Figure 15: Main electrical service disconnects

ENERGY CONSUMPTION ANALYSIS

HISTORICAL ENERGY USE

Historical energy usage at Kenhill Center for its respective energy sources was analyzed and determined from historical utility bills based on energy consumption and associated energy costs. Analysis for the facility's energy use covered the years 2022, 2023, and 2024. In our analysis we also compared energy consumption against the weather patterns for this time period to identify correlations between heating and cooling loads with outdoor conditions. HDD and CDD information was obtained through www.degreedays.net for Washington, DC (Washington National Airport) with an HDD base temperature of 65°F and a CDD base temperature of 65°F. This information was used for historical energy consumption analysis and for any calculations that use HDD or CDD values. A summary of the facility's energy usage and costs is shown in Table 4.

Table 4: Annual Utility Bill Summary

Year	Electricity		Natural Gas	
	kWh	Cost (\$)	Therms	Cost (\$) *
2022	341,101	25,885	8,627	32,291
2023	354,472	31,623	7,782	18,432
2024	363,811	38,297	9,767	20,228
Average	353,128	31,935	8,725	23,650

* Constellation gas supply charges for Kenhill Center were not provided, so we assumed the same price per Dth as was billed to Bowie City Hall each month. The natural gas cost for 2022 is high due to fluctuations in Constellation gas supply rates. Rates fluctuated from a high of \$10.205/Dth in December 2022 to a low of \$3.315/Dth in 2024.

ELECTRICAL CONSUMPTION

Electricity at Kenhill Center is provided by BGE with account number 5381550000. There is also an onsite rooftop solar PV system.

The monthly electricity consumption in 2022, 2023, and 2024 is displayed in Table 5 and Figure 16, and the monthly electric demand is shown in Table 6 and Figure 17. This includes both the utility supplied electricity and the electricity produced by the onsite solar PV system.

Table 5: Monthly Electricity Consumption

Electricity Consumption (kWh)				
Month	2022	2023	2024	Average
January	31,445	33,805	34,522	33,257
February	26,881	29,287	33,991	30,053
March	24,007	29,381	25,270	26,219
April	26,726	25,662	22,746	25,045
May	23,927	26,395	22,959	24,427
June	31,639	29,859	34,720	32,073
July	36,049	36,063	44,808	38,973
August	34,082	31,489	37,271	34,281
September	30,879	33,826	31,918*	32,208
October	23,229	22,369	23,074*	22,891
November	25,017	25,979	23,779	24,925
December	27,220	30,357	28,754*	28,777
Total	341,101	354,472	363,811	353,128
Baseload	23,721	24,670	23,271	23,887

* BGE usage was not provided; we estimated it based on usage from prior years

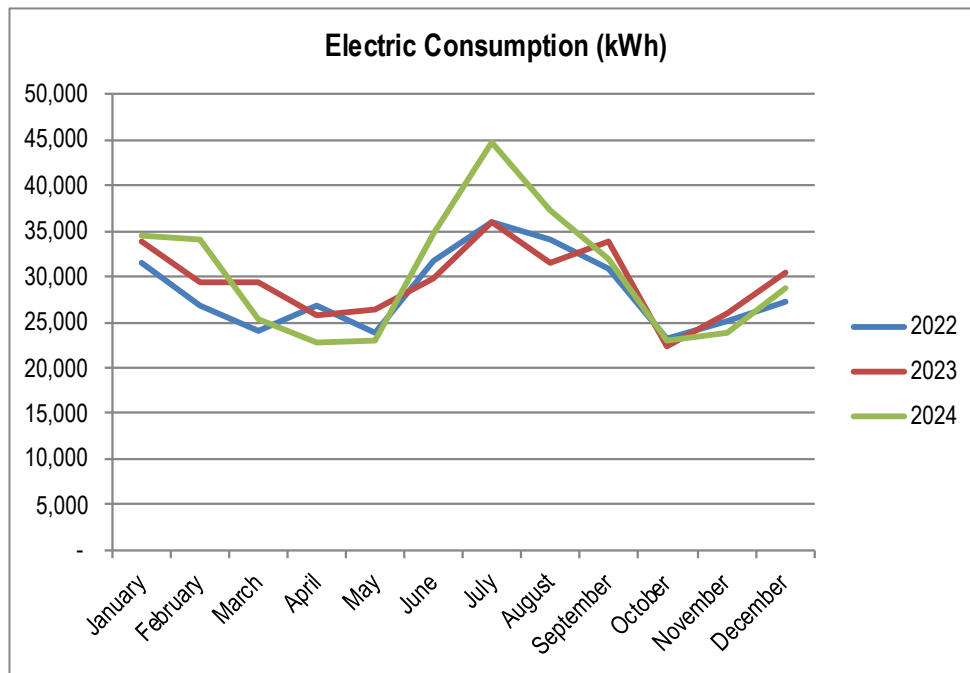


Figure 16: Monthly Electricity Consumption

Table 6: Monthly Electricity Demand

Electricity Demand (kW)				
Month	2022	2023	2024	Average
January	44	49	74	56
February	59	69	68	65
March	56	64	57	59
April	53	55	56	55
May	65	52	84	67
June	81	66	95	81
July	74	78	142	98
August	83	88	118	96
September	79	98	89*	89
October	55	57	56*	56
November	58	62	115	78
December	61	64	63*	63
Maximum	83	98	142	108
Baseload	51	52	59	57

* BGE demand was not provided; we estimated it based on demand from prior years

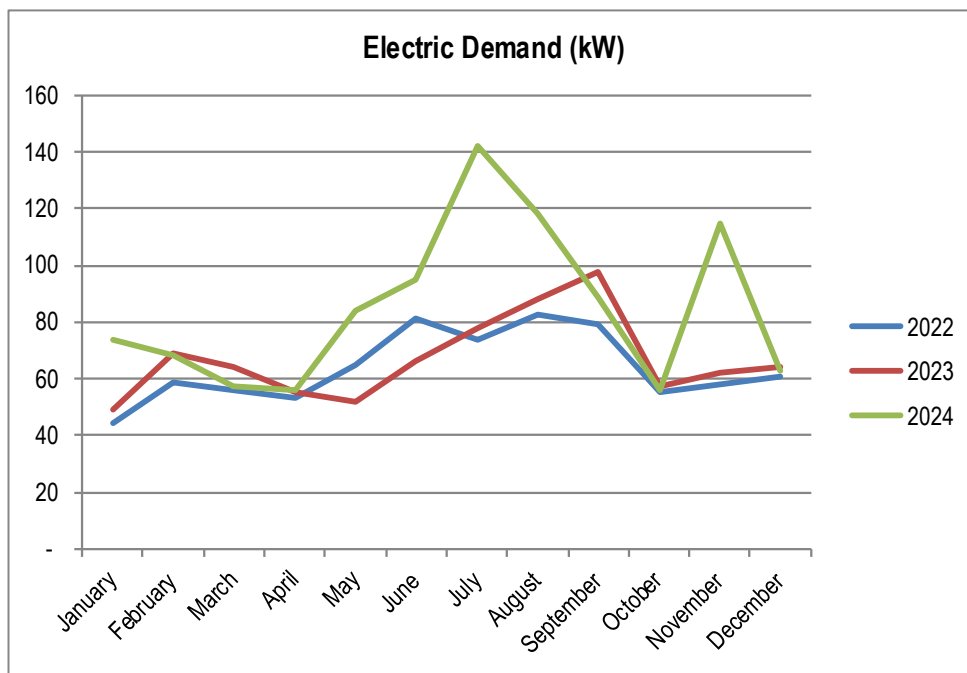


Figure 17: Monthly Electricity Demand

Figure 18 shows the electric consumption profile against heating and cooling degree days. The electric consumption and demand profiles show a clear summertime peak associated with cooling energy usage. The months with the lowest consumption are April, May, and October. The months with the highest consumption are January, July, and August. The baseload makes up about 81% of the total electricity use,

which is relatively high. Baseloads include non-weather dependent loads, such as lighting, fans, IT systems, and plug loads. The remaining 19% includes weather dependent loads, including cooling energy and increased fan energy.

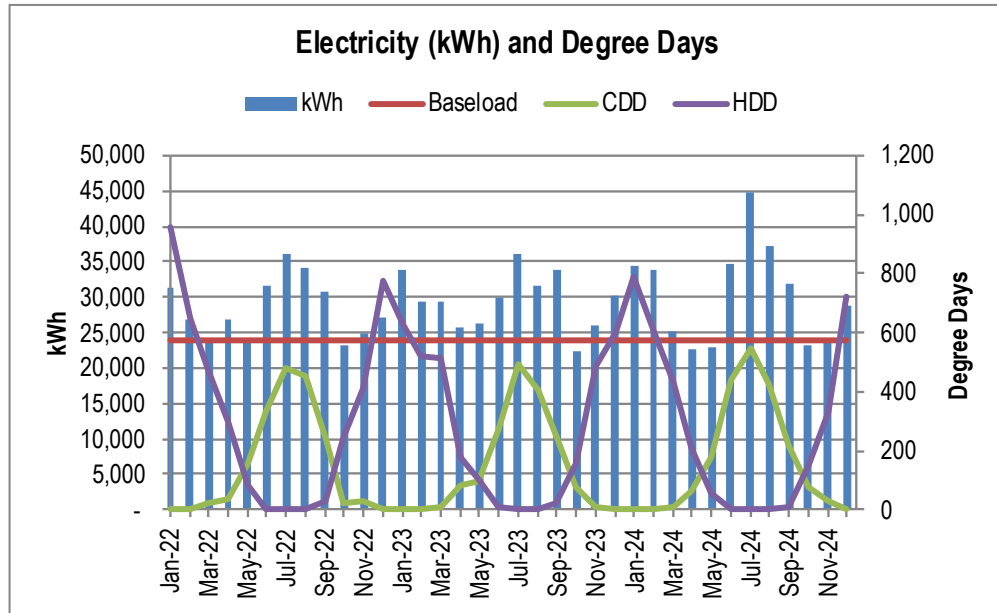


Figure 18: Electric Consumption and Baseload vs. Heating and Cooling Degree Days

HISTORICAL ENERGY COSTS

The monthly electricity costs are shown in Table 7 and Figure 19. Electricity costs are highest in the summer. The electric account at Kenhill Center is on the Large General Service – TOU – Schedule GL. This rate schedule bills electricity usage at different rates depending on whether it was used in the peak, intermediate, or off-peak period. However, the City of Bowie uses a Tesla solar plant for its electric supply, and thus does not subject to the different rates (except for a period from September 2023 to June 2024, when BGE was the supplier, for reasons unknown to us).

Table 7: Monthly Historical Electric Costs

	Electricity Costs (\$)			
Month	2022	2023	2024	Average
January	2,287	2,613	4,951	3,284
February	1,993	2,347	4,591	2,977
March	1,788	2,233	2,540	2,187
April	1,876	1,909	2,224	2,003
May	1,891	1,902	2,509	2,101
June	2,427	2,219	4,282	2,976
July	2,652	2,681	3,872	3,068
August	2,595	2,509	3,217	2,774
September	2,418	4,506	2,904	3,276
October	1,820	2,320	2,016	2,052
November	1,981	2,518	2,490	2,330
December	2,156	3,865	2,701	2,907
Total	25,885	31,623	38,297	31,935

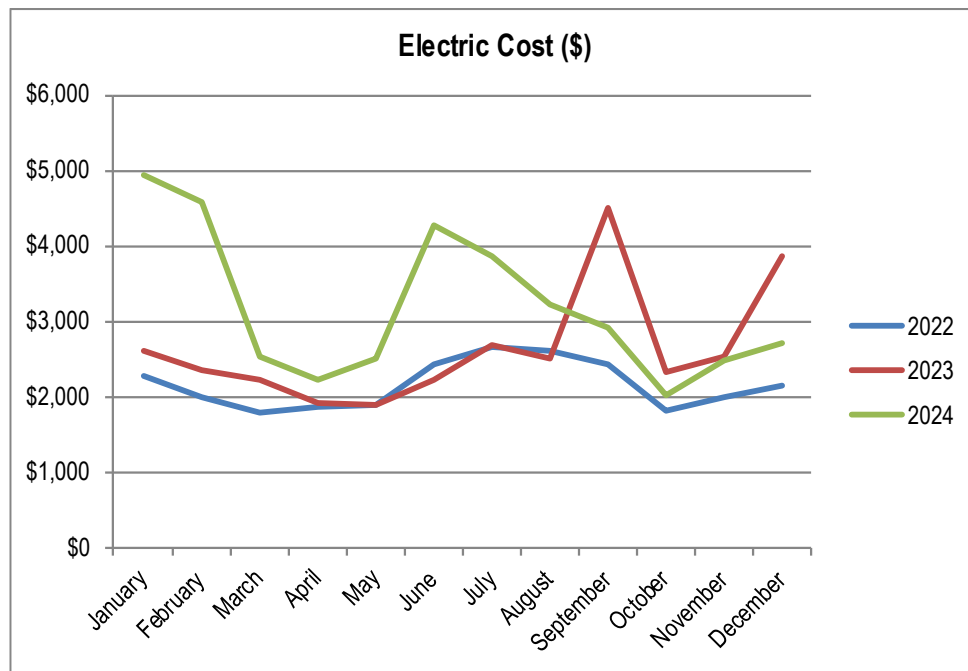


Figure 19: Monthly Historical Electric Costs

NATURAL GAS CONSUMPTION

Natural gas at Kenhill Center is provided by Washington Gas with account number 220002385924. The City of Bowie uses Constellation as its supplier of natural gas.

The monthly natural gas consumption in 2022, 2023, and 2024 is displayed in Table 8 and Figure 20, and the monthly natural gas costs are shown in Table 9 and Figure 21. Natural gas-fired equipment at the facility includes a domestic hot water heater and 28 rooftop HVAC units. The baseload makes up about 20% of the total natural gas use, which is relatively low. Baseloads include non-weather dependent loads, such as domestic hot water. The remaining 80% includes weather dependent loads (i.e., space heating).

Table 8: Natural Gas Consumption

Natural Gas Consumption (Therms)				
Month	2022	2023	2024	Average
January	1,896	1,463	2,034	1,797
February	1,460	1,405	1,710	1,525
March	930	1,231	964	1,042
April	461	283	571	438
May	231	292	215	246
June	113	134	158	135
July	103	129	239	157
August	117	117	203	146
September	102	110	234	148
October	389	236	479	368
November	965	940	889	931
December	1,860	1,444	2,071	1,792
Total	8,627	7,782	9,767	8,725
Baseload	106	118	218	147

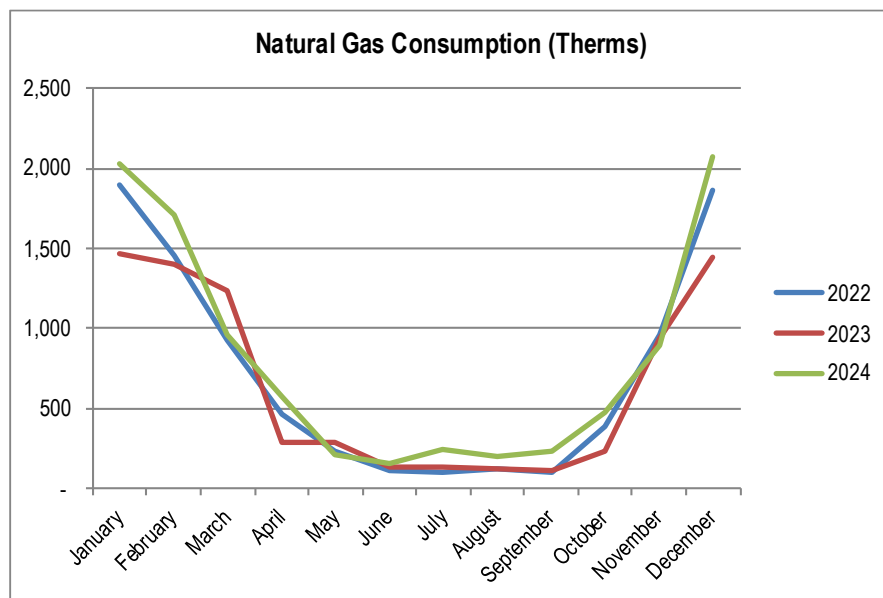


Figure 20: Natural Gas Consumption

The monthly natural gas costs are shown in Table 9 and Figure 21.

Table 9: Monthly Historical Natural Gas Costs

Month	Natural Gas Costs (\$) *			
	2022	2023	2024	Average
January	6,355	4,136	4,451	4,981
February	6,318	4,196	4,410	4,975
March	2,556	2,382	1,835	2,258
April	1,331	576	1,023	977
May	617	575	399	530
June	320	273	328	307
July	412	357	579	449
August	115	297	489	300
September	499	289	513	434
October	1,190	451	929	856
November	2,869	1,723	1,593	2,061
December	9,711	3,178	3,681	5,523
Total	32,291	18,432	20,228	23,650

* Constellation gas supply charges for Kenhill Center were not provided, so we assumed the same price per Dth as was billed to Bowie City Hall each month. The natural gas cost for 2022 is high due to fluctuations in Constellation gas supply rates. Rates fluctuated from a high of \$10.205/Dth in December 2022 to a low of \$3.315/Dth in 2024.

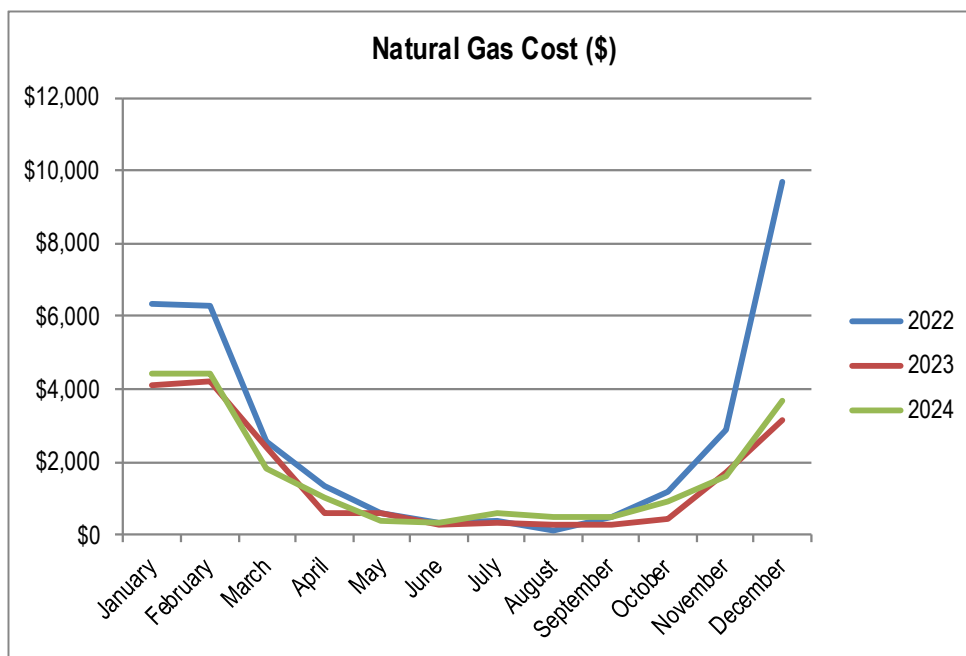


Figure 21: Monthly Historical Natural Gas Costs

UTILITY RATES

The average annual utility rates experienced by the facility are summarized in Table 10. The electricity rate shown in Table 10 is a blended rate that combines all charges. These were obtained from the utility bills of the facility.

Table 10: Average Annual Utility Rates

Utility	Unit	2024 (average)
Electric Blended Rate	\$ per kWh	\$0.114
Natural Gas Rate	\$ per therm	\$2.071

Table 11 summarizes the energy data for 2022-24 (average) including consumption, cost, heating degree days, cooling degree days, and load factor. The electric load factor is 49% on average with a low of 37% in November and a high of 71% in January. Load factor is the ratio of energy used (kWh) in a given month divided by the product of the peak demand (kW) and total hours in the month. The load factor in the spring, summer, and fall is slightly low indicating that during these periods, there is greater variability in energy usage, compared to the winter, likely due to the ability to turn down HVAC systems.

Table 11: Energy Data Summary (Average year)

Annual Information			Electrical Data Analysis			Energy by Fuel Source (MMBtu)			Energy Cost by Source (\$)		
Month	CDD	HDD	Electric Demand (kW)	Electric Energy (kWh)	Load Factor	Electric	Natural Gas	Total	Electric	Natural Gas	Total
Jan	1	789	56	33,257	80%	113	180	293	3,284	4,981	8,264
Feb	1	592	65	30,053	68%	103	152	255	2,977	4,975	7,952
Mar	13	475	59	26,219	60%	89	104	194	2,187	2,258	4,444
Apr	62	227	55	25,045	64%	85	44	129	2,003	977	2,980
May	144	80	67	24,427	49%	83	25	108	2,101	530	2,631
Jun	347	4	81	32,073	55%	109	14	123	2,976	307	3,283
Jul	508	-	98	38,973	53%	133	16	149	3,068	449	3,518
Aug	429	1	96	34,281	48%	117	15	132	2,774	300	3,074
Sep	239	20	89	32,208	51%	110	15	125	3,276	434	3,709
Oct	57	185	56	22,891	55%	78	37	115	2,052	856	2,909
Nov	23	410	78	24,925	44%	85	93	178	2,330	2,061	4,391
Dec	-	700	63	28,777	62%	98	179	277	2,907	5,523	8,430
Annual	1,825	3,484	72	353,128	56%	1,205	873	2,077	31,935	23,650	55,585

ENERGY END USE BREAKDOWN

In order to understand the facility's energy performance as a combination of various sub-systems, it is necessary to break down site energy consumption by end-use. This will help to identify the avenues where improvements can be sought in order to achieve reductions in overall facility energy use.

Energy end-use for Kenhill Center is broken down into the following categories: space heating, space cooling, domestic hot water, air distribution, lighting, plug loads, and Information Technology. Loring performed an energy breakdown analysis utilizing utility data provided by the City of Bowie and from data obtained from the walkthrough.

ELECTRICITY

Electricity is used for all of the end uses listed below.

The estimated end-use breakdown for electric consumption in 2022-2024 is shown in Table 12 and Figures 22 and 23.

Table 12: End-Use Breakdown for Electricity (2022-2024)

Electric End-Use Breakdown			
End Use	kWh	MMBtu	Percent
Space Heating	60,214	205	17%
Space Cooling	132,617	452	38%
Air Distribution	48,135	164	14%
Lighting	71,839	245	20%
Plug Loads	2,097	7	1%
Information Technology	38,226	130	11%
Total	353,128	1,205	100%

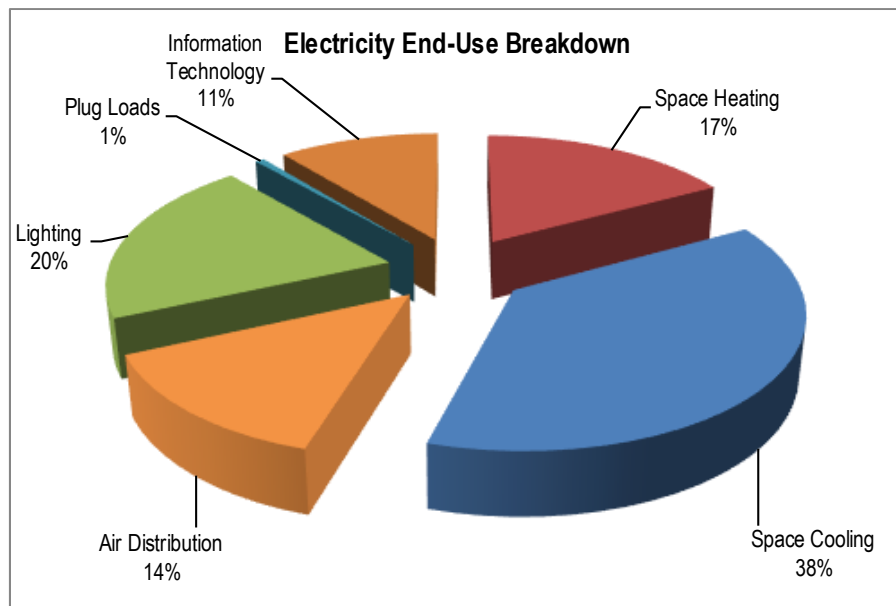


Figure 22: End-Use Breakdown for Electricity

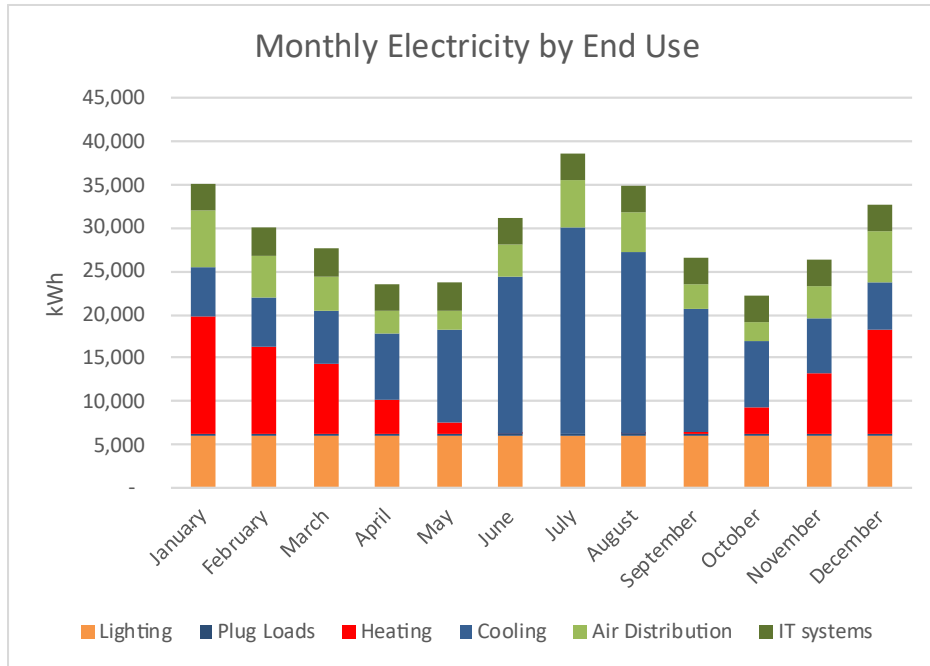


Figure 23: Monthly Electric by End Use

NATURAL GAS

Natural gas is used for all of the end uses listed below.
The estimated end-use breakdown for natural gas consumption in 2022-2024 is shown in Table 13 and Figures 24 and 25.

Table 13: End use breakdown for natural gas (2022-2024)

Natural Gas End-Use Breakdown			
End Use	Therms	MMBtu	Percent
Space Heating	7,041	704	81%
SHW/DHW	1,684	168	19%
Total	8,725	873	100%

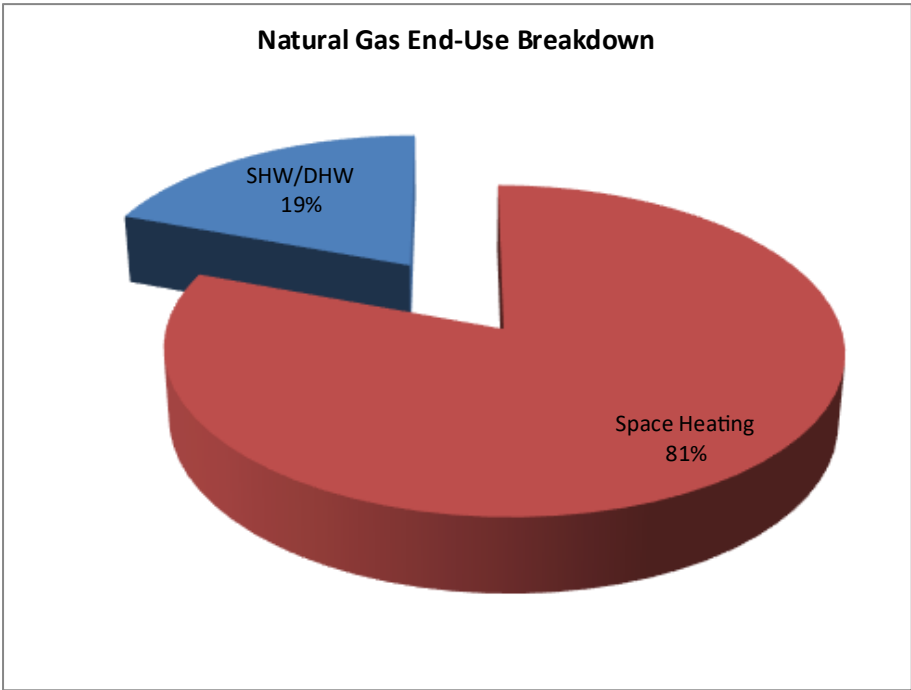


Figure 24: End use breakdown for natural gas

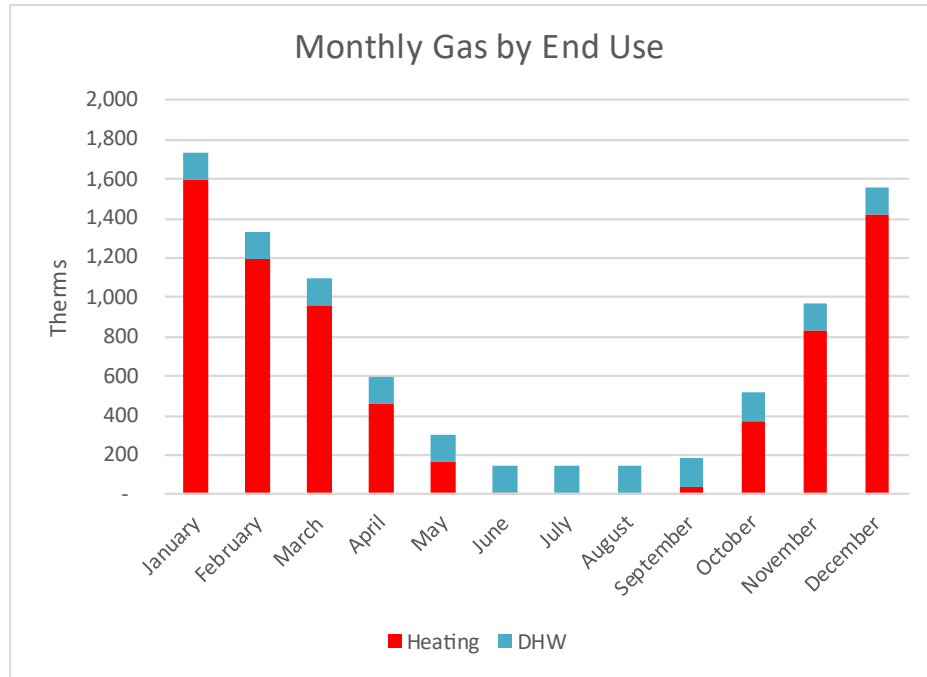


Figure 25: Monthly Natural Gas by End Use

ENERGY CONSERVATION MEASURES

Loring has identified and categorized several ECMs that can be implemented at Kenhill Center. These measures can be implemented to reduce the facility's energy consumption, restore systems to their proper operating conditions and improve the overall functionality and maintenance of the facility. This section provides a summary of the facility's energy consumption savings by system after the implementation of all cost effective ECMs.

ENERGY SAVINGS BY SYSTEM

Table 14 depicts the potential energy savings by end-use associated with implementing all the ECMs presented in this report.

Table 14: Energy Savings by System

System Type	Existing Energy Use (MMBtu/yr)	Proposed Energy Use (MMBtu/yr)	Total Energy Savings (MMBtu/yr)	Percent Savings
Space Heating	896	314	582	65%
Space Cooling	452	308	145	32%
SHW/DHW	182	27	155	85%
Air Distribution	164	67	97	59%
Lighting	245	245	-	0%
Plug Loads	7	7	-	0%
Information Technology	130	130	-	0%
Total Building	2,077	1,099	978	47%

PREDICTED ENERGY USAGE BY SYSTEM AFTER IMPLEMENTATION

Figure 26 presents an estimate of the facility's energy usage by system after the implementation of the measures if all of the recommended, cost effective ECMs presented in this report are applied.

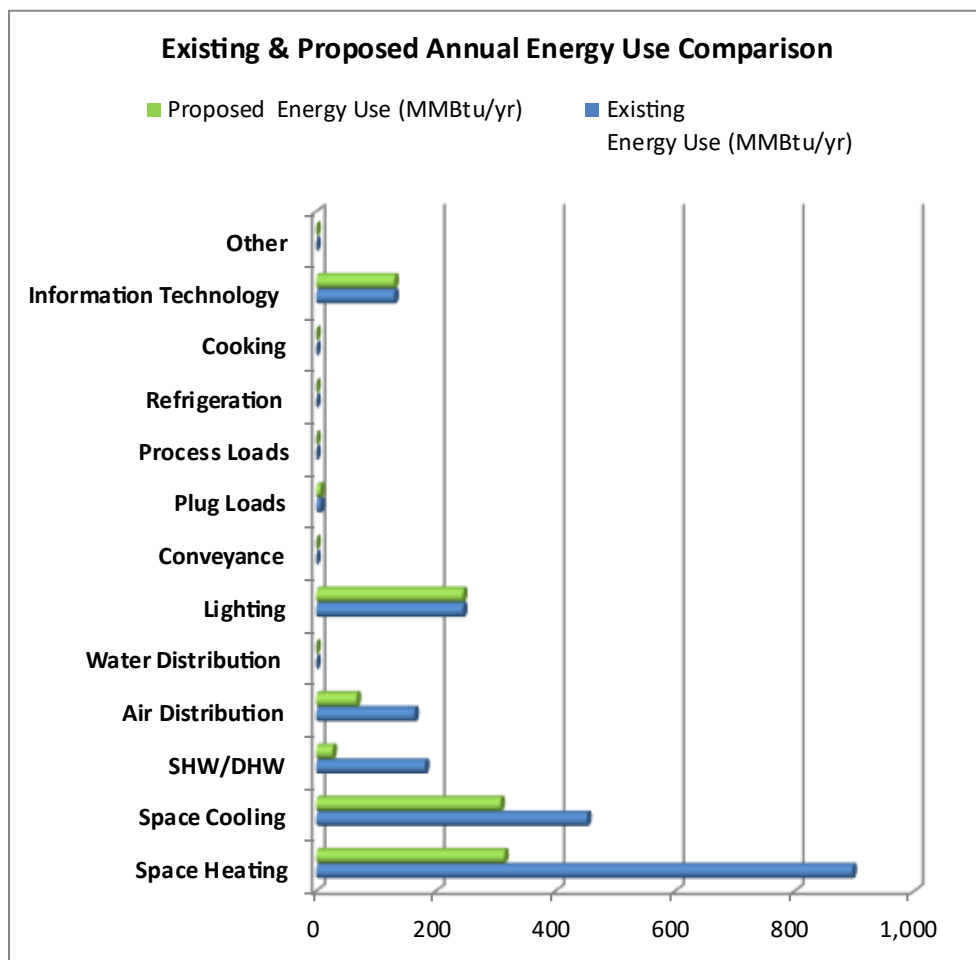


Figure 26: Annual Energy Use Comparison by End-Use

Table 15 presents a summary of all of the energy conservation measures presented in this section of the report. Details and descriptions of each ECM follow this page.

ECM No.	Description	Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therm/yr)	Onsite Renewable Energy (kWh/yr)	Estimated Utility Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
ECM-01	Scheduling for all RTUs on local thermostats	46,910	-	1,528	-	7,757	2,560	200	0.0	20.9
ECM-02	Use occupancy sensors to implement a vacancy mode for all RTUs	13,443	1.5	338	-	2,139	566	20,000	7.4	5.5
ECM-03	Replace food pantry trailer air conditioners with heat pumps	6,110	2.2	-	-	741	-	36,000	48.6	1.7
ECM-04	Provide dedicated A/C unit for IT room	6,290	-	-	-	483	-	7,900	16.4	1.7
ECM-05	Insulate DHW pipe in mechanical room	-	-	245	-	665	410	600	0.6	1.3
ECM-06	Install Low-flow aerators in bathrooms	-	-	86	-	235	145	200	0.5	0.5
ECM-07	Replace natural gas-fired HW heater with heat pump	-7,953	-0.9	1,486	-	3,320	2,489	6,800	1.2	5.7
ECM-08	Install roof insulation to underside of composite steel/concrete roof deck	7,431	0.8	899	-	3,369	1,506	170,000	34.9	6.8
ECM-09	Replace natural gas-fired RTUs with heat pumps	-34,085	-3.8	3,897	-	7,517	6,527	650,000	46.3	11.5
ECM-10	Install rooftop solar PV	-	-	-	157,000	12,052	-	400,000	33.2	42.7
ECM-11	Install carport solar PV	-	-	-	271,000	28,255	-	510,000	18.0	73.7
	Total of ECMs	38,146	-0	8,480	428,000	66,534	14,203	1,801,700	22.3	31.5

Table 15: Energy Conservation Measures Summary

Regarding ECM-03 and -09, the simple payback period is very unattractive when considering only the implementation cost of the measure. However, when considering that this equipment will have to be replaced, the City of Bowie should compare the implementation cost of the measure with the cost of a like-for-like replacement. This will provide a more accurate, and attractive, simple payback period. The trailer air conditioners (ECM-03) are nearing their end-of-life now, whereas the RTUs (ECM-09) are a variety of age – some nearing the end of their expected life but many just replaced in 2024.

It is important to note that the energy savings of these measures are cascading – that is, after considering the energy savings of a particular measure, the following measures' energy savings result from that now-reduced energy usage for the facility. Were any one of these measures taken in a vacuum, without considering the other measures, its savings would be higher. However, we cannot present them this way, as that would result in overstating the energy savings of all the ECMs taken together.

The estimated avoided BEPS penalties are for the year 2030, the first year that penalties will be assessed. The State of Maryland BEPS penalties are set at \$230 per metric ton of CO₂e above the standard, in 2020 dollars, adjusted for inflation, increasing by \$4.00 per metric ton of CO₂e, per year. We have estimated penalties for the year 2030 to be \$315 per metric ton of CO₂e.

ECM No. 01: Scheduling for all RTUs on local thermostats

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
46,910	-	1,528	7,065	2,560	200	0.0	21.4

Existing Conditions

The three PTACs serving the food pantry trailer and 12 rooftop units serving Kenhill Center are controlled through a local programmable thermostat. Currently, these HVAC units are scheduled to the occupied mode 24/7. This maintains a constant temperature, not allowing the units to be setback during unoccupied periods. The units are labeled on the diagram below.

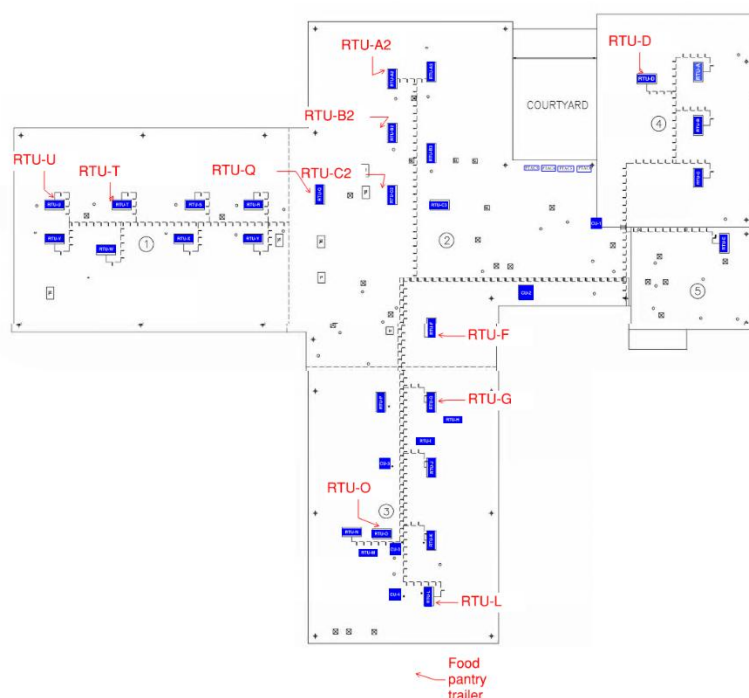


Figure 27: Locations of units with local thermostats marked

All other RTUs at Kenhill Center are controlled through an occupancy schedule in the building automation system. They are occupied from 6:30 am to 9:00 pm Monday through Friday.



Figure 28: Typical programmable thermostat at Kenhill Center with “hold” selected

Measure Description

This measure proposes reducing the HVAC operating schedules as much as possible. This can be done at little or no cost by the building engineering staff and is a significant energy savings, both natural gas and electric. For the 15 HVAC units (12 RTUs, 3 trailer A/C units) controlled by local thermostats, implement programming through the thermostats. For the 16 RTUs controlled by the BAS, adjust the ending time from 9:00 pm to 5:00 pm (or as much as it can be reduced). During the unoccupied mode, the RTUs and PTACs fans should be off. It is recommended that unoccupied space temperature setpoints be around 60 °F (heating) and 80 °F (cooling). If the space temperature drops (or rises) to either of those setpoints, then the HVAC system shall energize to raise (or lower) the space temperature, then shut off again.

For the savings calculations, Loring assumed the proposed occupied hours of Monday through Friday, 6:30 am to 5:00 pm.

Scope of Work

The city's engineering staff can program the above schedules and setpoints into the thermostats. This applies to the following, and are labeled on the diagram above:

- Food pantry trailer (3 units)
- RTU-A2
- RTU-B2
- RTU-C2
- RTU-D
- RTU-F
- RTU-G
- RTU-L
- RTU-O
- RTU-Q
- RTU-T

- RTU-U

ECM Benefits

- Reduced natural gas usage
- Reduced electric usage

ECM No. 02: Use occupancy sensors to implement a vacancy mode for all RTUs

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
13,443	1.5	338	2,141	566	20,000	7.4	5.5

Existing Conditions

Occupancy in Kenhill Center is somewhat light and unpredictable. The HVAC systems' controls maintain the same setpoint for each space regardless of whether it is occupied or not, which can use unnecessary energy.

Measure Description

Install occupancy sensors in each space to detect when the space is occupied and when it is unoccupied. The BAS will still schedule the RTUs occupied and unoccupied per the daily schedule program, however, if there is no occupancy detected by the occupancy sensor, set the space temperature up by 2 °F (cooling season) and down by 2 °F (heating season). When occupancy is detected, the unit shall maintain its normal occupied setpoints for a minimum of two hours.

For this to work, the RTUs must be integrated with the BAS. Since the City of Bowie is integrating the RTUs as they replace them, our calculations assume that this measure will be implemented after the 12 older RTUs are replaced with heat pumps (ECM No. 2), but before the other 16 get replaced.

Scope of Work

This shall be done now for the RTUs which were replaced in 2024 and are integrated into the BAS: RTU-A, RTU-B, RTU-B3, RTU-C, RTU-C3, RTU-E, RTU-K, RTU-J, RTU-P, RTU-R, RTU-S, RTU-V, RTU-W, RTU-X, RTU-Y. All others will be completed when the RTUs are replaced and they are integrated into the BAS. Coordinate this with the RTU replacement schedule in ECM No. 2.

Install an occupancy sensor in a central area served by each RTU that is used to determine the occupancy mode for the RTU. For example, if an RTU serves a set of offices, the occupancy sensor used to determine occupancy shall be one in a reception area where any occupant is expected to pass through.

Through programming in the BAS, each RTU's setpoint shall be increased by 2 °F (cooling season) or decreased by 2 °F (heating season) when there is no occupancy detected for a period of two hours or more.

Loring recommends that this measure be commissioned by a third-party upon completion to verify that the RTUs are operating properly and installed per the design.

ECM Benefits

- Reduced electricity usage
- Reduced natural gas usage

ECM No. 03: Replace food pantry trailer air conditioners with heat pumps

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
6,110	2.2	-	741	-	36,000	48.6	1.7

Existing Conditions

Kenhill Center has an attached trailer that houses the Bowie Interfaith Pantry. The trailer is conditioned by three (3) 2.5-ton wall-mounted air conditioners with 10 kW electric resistance heating coils. Additionally, these units use R-22 refrigerant, which was banned for use in new equipment in 2010 by the EPA due to its potential to deplete the ozone layer. These units were installed in 2006 and are at the end of their expected life.



Figure 29: One of three wall-mounted air conditioners

Measure Description

Electric resistance heating has a coefficient of performance (COP) of 1.0, but heat pumps have a COP of over 3.0, meaning they produce three times as much heat for the same amount of electricity (the COP for heat pumps drops in colder temperatures, but is still much higher than that of electric resistance heat). Wall-mounted heat pumps are available in the same wall-mounted configuration as the existing air conditioners allowing for a simple replacement.

The simple payback period for this measure is very unattractive when considering only the implementation cost of the measure. However, when considering that this equipment will have to be

replaced, the City of Bowie should compare the implementation cost of the measure with the cost of a like-for-like replacement. This will provide a more accurate simple payback period. The air conditioners are 19 years old and thus are at the end of their expected life.

Scope of Work

Replace the air conditioners with heat pumps, e.g., Bard model W30HB-A00. It is recommended to include an electric heat strip as a backup (second stage) of heat for when the heat pump alone cannot keep up with the heating load.

ECM Benefits

- Reduced electricity usage
- Reduced ozone depletion potential

ECM No. 04: Provide dedicated A/C unit for IT room

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
6,290	-	-	483	-	7,900	16.4	1.7

Existing Conditions

There is a 3-ton split system air conditioner, labeled CU-2, serving an area which includes an IT room, a storage room, and an office with a desk and chair. The storage room and office appear to be unused. The thermostat is in the office, set to 67 °F, apparently to keep the IT room cool enough. The condensing unit is on the roof; there is a ducted fan coil unit above the ceiling. Keeping this large of a space set to this low temperature, just to keep the IT room cool, is inefficient. The IT room door has two grilles.



Figure 30: Highlighted area shows IT room (yellow) and other spaces served by AC unit (green)



Figure 31: Condensing unit on roof



Figure 32: The space in question; IT room door is on left

Measure Description

Provide dedicated cooling to the IT room using a ductless split system. The existing AC unit can be kept only to serve the storage room and office. Turn up the thermostat in the office to a normal office temperature, and program it with occupied and unoccupied schedules (see ECM No. 5).

The grilles in the door should be blanked off and sealed to keep the IT room cool.

Scope of Work

Perform cooling load calculations to determine an appropriate size of the new ductless split system. Install the split system condensing unit at the roof level. Demolish and cap the ductwork serving the IT room from the existing fan coil unit.

Blank off the grilles in the door. This can be done simply using sheet magnets cut to fit, or something can be fabricated using plywood or other suitable wood to the exact size of the opening, secured in place using screws or a strong construction adhesive.

Set the IT room thermostat to 70 °F, or as determined by the IT department. Set the office thermostat to 74 °F in occupied hours, 82 °F in unoccupied hours (see ECM No. 5).

ECM Benefits

- Reduced electrical consumption

ECM No. 05: Insulate DHW pipe in mechanical room

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-	-	245	667	410	600	0.6	1.3

Existing Conditions

There is an estimated 25 feet of uninsulated hot water and hot water recirculation piping in the mechanical room at the water heater. Copper pipe is an excellent thermal conductor, so this results in heat loss to the surrounding area. Because the system has a hot water recirculation pump that runs 24/7, this assures that the water in the piping system never sits stagnant, so the water heater is always having to reheat the water even when the building is vacant.

Measure Description

Insulate all uninsulated piping.

Scope of Work

Insulate the uninsulated piping using 1" thick fiberglass insulation, or similar. Seal all joints using tape intended for the insulation product.

ECM Benefits

- Reduced natural gas usage

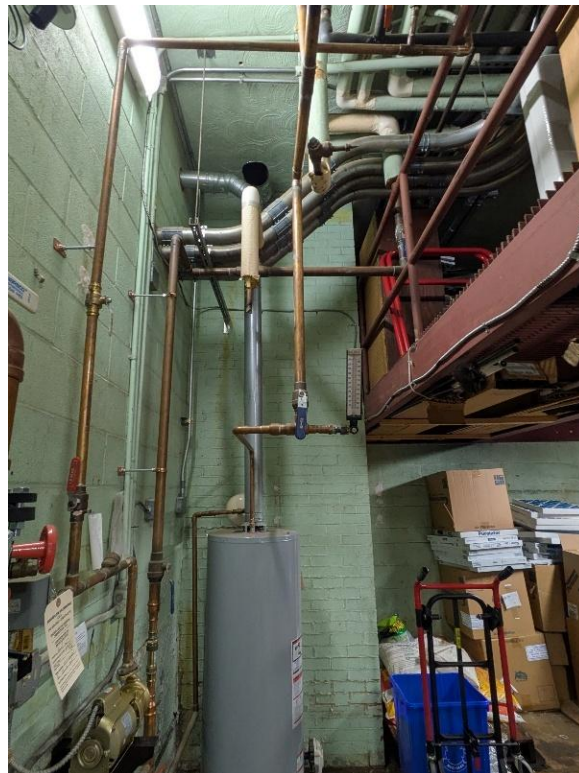


Figure 33: Uninsulated piping at water heater

ECM No. 06: Install Low-flow aerators in bathrooms

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-	-	86	236	145	200	0.5	0.5

Existing Conditions

The restrooms at Kenhill Center have sensor-operated lavatory faucets with 1.5 gpm outlets.

Measure Description

Replace the existing outlets with 0.5 gpm aerators.

Scope of Work

Unthread the existing outlets and screw on 0.5 gpm aerators.

ECM Benefits

- Reduced water and natural gas consumption



Figure 34: Existing lavatory faucet

ECM No. 07: Replace natural gas-fired HW heater with heat pump

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-7,953	-0.9	1,486	3,332	2,489	6,800	1.2	5.7

Existing Conditions

Kenhill Center has a natural gas-fired water heater. Natural gas is a fossil fuel for which burning produces significant greenhouse gas emissions. When using heat pumps, electricity produces relatively less greenhouse gas emissions.

In addition, the use of onsite fossil fuels for heating of domestic hot water in buildings over 35,000 square feet is being phased out by the Maryland Climate Solutions Now Act of 2022. Kenhill Center will be required to replace its water heater with an electrified solution to comply with the law. Non-compliance fees begin to be assessed in 2030.

Water heaters have a life expectancy of 12-15 years. Below is a summary of the existing water heater.

Table 16: Existing Gas-Fired Water Heater

Facility	Manufacturer	Model	MBH	Year of Mfr.
Kenhill Center	AO Smith	GCG 50 400	40	2016

Measure Description

This measure proposes replacing the gas-fired water heater with a heat pump water heater. Heat pumps have a coefficient of performance (COP) of over 3, meaning they produce 3 units of heat for each unit of energy consumed, whereas gas-fired units have a COP of around 0.8.

Note: Replacing the natural gas-fired water heater with an electric resistance water heater would help to meet the Maryland Climate Solutions Now Act requirement for eliminating net direct-emissions, but would actually result in an increase in greenhouse gas emissions and site energy use intensity. For this reason, it is recommended to use a heat pump which has a much higher efficiency than either natural gas or electric resistance units.

Scope of Work

Perform load calculations to determine the appropriate water heater required. Modify the electrical design to provide a sufficiently sized breaker and wires to the new heat pump water heater.

Demolish the existing water heater and flue piping. Cap and seal the flue piping penetration through the exterior wall. Cap the gas pipe. Install the new heat pump water heater. Connect piping and install the electrical work.

Insulate all hot water and hot water recirculation piping. Coordinate this work with ECM No. 05.

ECM Benefits

-
- Reduced natural-gas usage, with an increase in electrical usage, for a net reduction in greenhouse gas emissions

ECM No. 08: Install roof insulation to underside of composite steel/concrete roof deck

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
7,431	0.8	899	3,376	1,506	170,000	34.8	6.8

Existing Conditions

The existing roofing system is composed of a built-up roofing membrane system overtop lightweight concrete and a corrugated metal deck roof structure which only has an R-value of around R-2.

Measure Description

Install new mineral wool insulation at the underside of the existing corrugated metal deck of the roof structure to provide a thermal barrier at the roof level of the building.

Scope of Work

Furnish and install mineral wool insulation at the underside of the existing composite deck structure of the building. Remove and reinstall ceilings in spaces with an acoustical tile or gypsum board ceiling.

ECM Benefits

A thermal barrier within the roof assembly will provide for a higher R-value assembly which will reduce the envelope load seen by the heating and cooling systems serving the building.

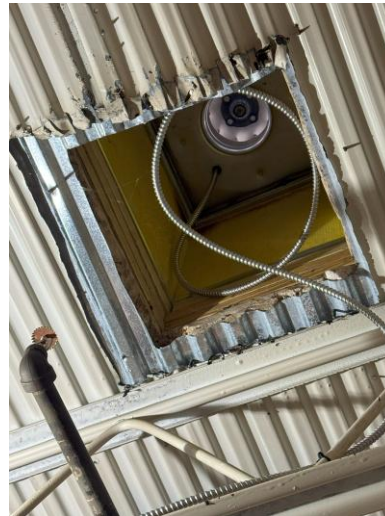
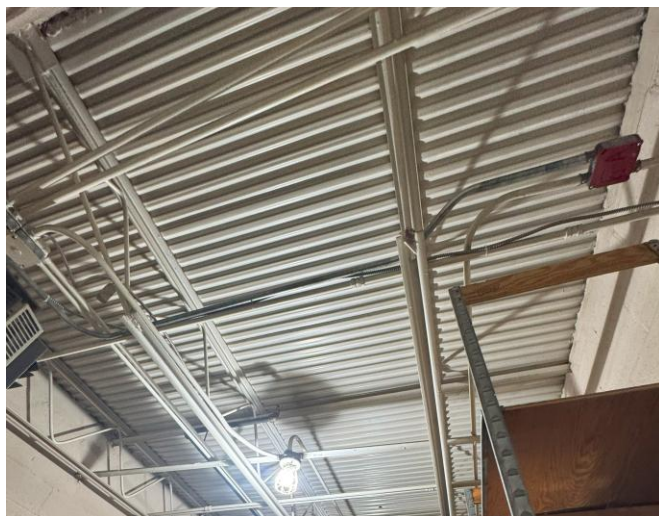


Figure 35: Existing roof assembly at Kenhill Center without any thermal barrier

ECM No. 09: Replace natural gas-fired RTUs with heat pumps

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
-34,085	-3.8	3,897	7,547	6,527	650,000	46.2	11.5

Existing Conditions

Kenhill Center has rooftop units with natural gas-fired furnaces. Natural gas is a fossil fuel for which burning produces significant greenhouse gas emissions. When using heat pumps, electricity produces relatively less greenhouse gas emissions.

In addition, the use of onsite fossil fuels for heating buildings over 35,000 square feet is being phased out by the Maryland Climate Solutions Now Act of 2022. This applies to Kenhill Center, which will be required to replace those rooftop units with electrified solutions to comply with the law. Non-compliance fees begin to be assessed in 2030.

Also worth noting is that all the existing rooftop units use R-410a refrigerant which is now being phased out to be replaced with either R-32 or R-454b refrigerants due to the global warming potential of R-410a. Servicing of R-410a equipment (adding charge) will become more expensive as time goes by.

Rooftop units have a life expectancy of 15 years. However, 16 of the 28 rooftop units at Kenhill Center were just replaced in 2024. The other 12 units have installation dates of 2007, 2012, 2016, and 2018. The existing equipment is summarized in the table below.



Figure 36: One of 28 gas rooftop units at Kenhill Center

Table 17: Existing Gas-Fired Furnaces

Facility	Unit ID	Manufacturer	Model	MBH Heating	Year of Mfr.
Kenhill Center	RTU-A	Trane	YSJ120	200	2023
Kenhill Center	RTU-A2	Carrier	48HCEA04	115	2012
Kenhill Center	RTU-A3	Trane	YHC047	60	2023
Kenhill Center	RTU-B	Trane	YSJ120	200	2023

Facility	Unit ID	Manufacturer	Model	MBH Heating	Year of Mfr.
Kenhill Center	RTU-B2	Carrier	48HCEA04	115	2012
Kenhill Center	RTU-B3	Trane	YHC067	80	2023
Kenhill Center	RTU-C	Trane	YSJ120	200	2023
Kenhill Center	RTU-C2	Carrier	48HCEA04	115	2012
Kenhill Center	RTU-C3	Trane	YSJ090	120	2023
Kenhill Center	RTU-D (labeled F)	Trane	YSC092	150	2017
Kenhill Center	RTU-E	Trane	YSJ090	120	2023
Kenhill Center	RTU-F	Carrier	48TCED08	180	2017
Kenhill Center	RTU-G	Carrier	48TCEA06	115	2015
Kenhill Center	RTU-J	Trane	YSJ072	120	2024
Kenhill Center	RTU-K	Trane	YSJ090	120	2023
Kenhill Center	RTU-L	Carrier	48HCEA05	115	2012
Kenhill Center	RTU-N	Bryant	Illegible	120	2007
Kenhill Center	RTU-O	Carrier	48HCEA04	115	2012
Kenhill Center	RTU-P	Trane	YSJ090	120	2023
Kenhill Center	RTU-Q	Carrier	48HCEA04	115	2012
Kenhill Center	RTU-R	Trane	YHC047	60	2023
Kenhill Center	RTU-S	Trane	YHC047	60	2023
Kenhill Center	RTU-T	Carrier	48TCEA05	115	2016
Kenhill Center	RTU-U	Carrier	48KCEA05	115	2017
Kenhill Center	RTU-V	Trane	YHC067	80	2023
Kenhill Center	RTU-W	Trane	YHC047	60	2023
Kenhill Center	RTU-X	Trane	YHC067	80	2023
Kenhill Center	RTU-Y	Trane	YHC067	80	2023

Measure Description

This measure proposes replacing the gas-fired equipment with heat pumps. Heat pumps have a coefficient of performance (COP) of over 3, meaning they produce 3 units of heat for each unit of energy consumed, whereas gas-fired units have a COP of around 0.8.

Due to the varying ages of the rooftop units at Kenhill Center, a phased replacement is recommended:

- In 2027, replace RTU-A2, B2, C2, L, N, O, Q
- In 2033, replace RTU-D, F, G, T, U
- In 2039, replace RTU-A, A3, B, B3, C, C3, E, J, K, P, R, S, V, W, X, Y

It will be necessary during the design of these projects to assess the electrical distribution systems within the buildings. Our preliminary assessment shows that the existing services (800 A and 400 A) are insufficient for the load required by the heat pumps that will require electric resistance heat as a second stage. A new panel (600 A) will need to be installed adjacent to the two existing main panels to serve roughly half of the rooftop units. Those RTUs will need to be refed from the new panel. All other RTUs will need an increase in breaker size and wire size to accommodate the increased amperage.

All new HVAC systems will use the new generation of refrigerants, either R-32 or R-454b (depending on the manufacturer), which have a lower global warming potential than R-410a. Servicing of R-410a

equipment (adding charge) will become more expensive as time goes by. The phaseout of R-410a by the Environmental Protection Agency begins in 2025.

The simple payback period for this measure is very unattractive when considering only the implementation cost of the measure. However, when considering that this equipment will have to be replaced, the City of Bowie should compare the implementation cost of the measure with the cost of a like-for-like replacement. This will provide a more accurate simple payback period.

Also, please reference the “Other Considerations” section toward the end of this document, where we provide options for a more efficient, electrified system, than simply replacing the existing rooftop units with new, heat pump rooftop units. Due to the phased nature of the replacement of RTUs, that is something that likely would not occur until the 2039 timeframe, but discussions about the long-term future of the HVAC systems at Kenhill Center should take place when replacing any mechanical equipment.

Scope of Work

Design the replacement rooftop units including modifications to the electrical system. As described above, there are six that are at or nearing the end of their expected life now, so design work on those should commence soon. Due to changes that occur to space usage over time, it is recommended that heating and cooling load calculations be performed, and determined if any changes to unit sizes, zoning, and locations of diffusers, grilles, and thermostats should take place.

Perform the construction work associated with the design.

Loring recommends that this measure be commissioned by a third-party upon completion to verify that the RTUs are operating properly and installed per the design.

ECM Benefits

- Reduced natural-gas usage, with an increase in electrical usage, for a net reduction in greenhouse gas emissions

ECM No. 10: Install rooftop solar PV

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
157,000	-	-	12,052	-	400,000	33.2	42.7

Existing Conditions

Electricity is supplied by BGE. There is a small existing rooftop solar panel array at Kenhill Center already.

Measure Description

This measure proposes adding a larger rooftop solar PV array, in addition to what is there already. Our analysis has found that there is space for a 114.2 kW DC array that will produce an estimated 157,000 kWh annually.

The full solar PV analysis is included in Appendix A. For the City of Bowie to be able to make the claims to the greenhouse gas reduction associated with the onsite solar arrays, they must own, not sell, the solar renewable energy credits (RECs).

Scope of Work

Design and install a solar PV array on the rooftop interconnected to the grid. Provide only as large a system as is needed. Decide between the rooftop solar PV array and the carport solar array (ECM No. 11). Note that both systems together would exceed the current annual electric usage of the facility, however, if the City of Bowie elects to convert natural gas heating systems to electric (ECM No. 07 and 09), this will increase the facility's annual electric usage. This should all be coordinated and planned.



Figure 37: Proposed rooftop solar PV design

ECM Benefits

- Reduced greenhouse gas emissions
- Reduced source energy use intensity

ECM No. 11: Install carport solar PV

Electricity Savings (kWh/yr)	Demand Savings (kW)	Natural Gas Savings (therms/yr)	Estimated Cost Savings (\$/yr)	Estimated Avoided BEPS Penalties (\$/yr)	Estimated Implementation Cost (\$)	Simple Payback Period (Years)	Annual CO ₂ e Reductions (metric tons)
271,000	-	-	28,255	-	510,000	18.0	73.7

Existing Conditions

Electricity is supplied by BGE. There is a small existing rooftop solar panel array at Kenhill Center already.

Measure Description

This measure proposes adding a carport solar PV array. Our analysis has found that there is space for a 197.1 kW DC array that will produce an estimated 271,700 kWh annually.

The full solar PV analysis is included in Appendix A. For the City of Bowie to be able to make the claims to the greenhouse gas reduction associated with the onsite solar arrays, they must own, not sell, the solar renewable energy credits (RECs).

Scope of Work

Design and install a solar PV carport system interconnected to the grid. Provide only as large a system as is needed. Decide between the rooftop solar PV array (ECM No. 10) and the carport solar array. Note that both systems together would exceed the current annual electric usage of the facility, however, if the City of Bowie elects to convert natural gas heating systems to electric (ECM No. 07 and 09), this will increase the facility's annual electric usage. This should all be coordinated and planned.



Figure 38: Proposed solar carport design

ECM Benefits

- Reduced greenhouse gas emissions
- Reduced source energy use intensity

OTHER CONSIDERATIONS

Long-term planning of HVAC systems

The City of Bowie should consider a more centralized HVAC system for Kenhill Center if they plan to hold onto this property long-term. As more than half of the rooftop units were just replaced in 2024, this likely wouldn't happen for at least a decade. But when the time comes to replace them again, there are more efficient solutions available. Options to consider include:

- Replace the rooftop units with a variable refrigerant flow system with roof-mounted condensers and refrigeration piping distributed throughout the building to branch selector boxes and fan coil units. The system will need provisions for outside air, which can be ducted to VRF fan coil units or supplied using a dedicated outside air (DOAS) system.
- Consolidate multiple rooftop units into larger rooftop units and install VAV terminal units with reheat coils; reheat coils to be served by a hot water loop heated by an air-to-water heat pump.
- Replace the rooftop units with water-source heat pumps connected to a water loop that is cooled by a cooling tower and heated by an air-to-water heat pump. The system will need provisions for outside air, which can be ducted to the water-source heat pumps or supplied using a dedicated outside air (DOAS) system.
- Water-source heat pumps connected to a water loop that is heated and cooled by a geothermal well field installed under the athletic field. The system will need provisions for outside air, which can be ducted to the water-source heat pumps or supplied using a dedicated outside air (DOAS) system.

Rainwater collection and reuse

Kenhill Center has gardens at the north of the property and lawns. To reduce potable water used for irrigation, rainwater from the roof can be diverted to a cistern and pump pit and used to irrigate the landscaping and gardens.

MEASURES CONSIDERED BUT NOT RECOMMENDED

The following measures were identified during the energy audit, but ultimately were determined to not be cost effective, and therefore are not recommended.

Measure Name: Lighting Controls: Install Occupancy Sensors

Measure Description: Approximately 80% of spaces in the facility use manual switches. This measure proposes installing occupancy and vacancy sensors to control all interior (non-egress) lighting. Both types will automatically turn lights off after a preset time interval when no motion is detected. Occupancy sensors turn lights on automatically when motion is detected, whereas vacancy sensors require a manual button press to turn the lights on. Vacancy sensors eliminate the possibility of accidental turning on of lights (by passersby).

Reason For Not Recommending: When this measure is undertaken with all lighting now having been upgraded to LED, the simple payback period is estimated at 85 years, taking into account all utility cost savings and avoided BEPS penalties. Because LED lighting is very efficient, the electricity usage reduction from lighting controls is much less than with less efficient lighting.

Measure Name: Paint roof white (high SRI value)

Measure Description: This measure proposes painting the existing roofing system with a white, reflecting coating to reflect sunlight during the warmer summer months as compared to a dark roof which is known to contribute to a phenomenon known as the heat island effect.

Reason For Not Recommending: This measure is estimated to have a simple payback period of 67 years, which exceeds the lifetime of the roof and the reflective paint.

Measure Name: Upgrade window treatments

Measure Description: The existing double pane windows at Kenhill Center are provided with outdated or no window treatments. It is recommended that new, higher quality window treatments are provided to reduce the thermal load of the building to thereby reduce the load on the air conditioning systems throughout the building.

Reason For Not Recommending: This measure is estimated to have a simple payback period of 172 years, which exceeds the lifetime of the window treatments.

Measure Name: Install exterior insulated metal panels atop existing façade

Measure Description: The existing exterior wall assembly is composed of face brick with CMU backup wall and lacks any true thermal barrier. Install new mineral wool insulated metal panels (IMP) at all existing face brick for providing for a thermal barrier to reduce energy costs during both heating and cooling season.

Reason For Not Recommending: This measure is estimated to have a simple payback period of 118 years, which exceeds the life expectancy of the wall system.

NEXT STEPS

The next steps for the City of Bowie property management are to identify the most attractive ECMs as recommended by Loring for implementation. The savings and implementation cost estimates provided by Loring can assist in this decision-making process.

Measures with a simple payback of less than 8 years are recommended to be implemented as soon as possible: ECM-01, 02, 05, 06, and 07. Measures with a longer payback period should be considered for implementation at the end of the life of the equipment: ECM-03 and 09. This is upcoming in the next few years for several systems. Other measures may be considered once the BEPS site EUI requirement has been determined by Maryland Department of the Environment. When and whether to expand the onsite solar PV (ECM-10 and 11) may be determined by how highly the City of Bowie prioritizes reaching net-zero. The size of the PV system to be installed will be determined based on the expected future needs based on which other ECMs get implemented and whether more onsite EV chargers are expected to be added.

Several ECMs can be implemented by the facility staff, with the assistance of contractors if necessary. Several measures will require engineering and project management support for implementation by contractors.

Loring can assist in producing design documents for certain measures that require them.

APPENDIX A

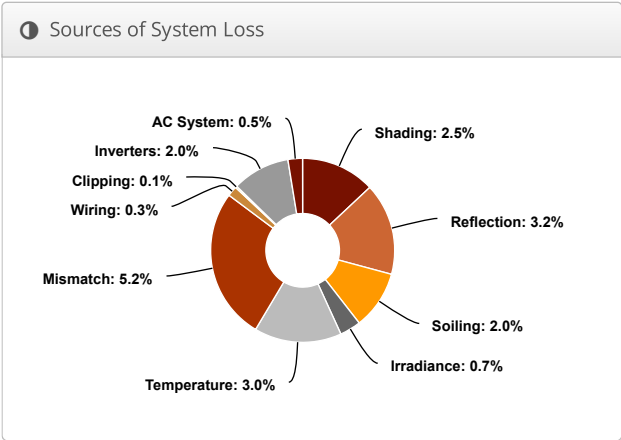
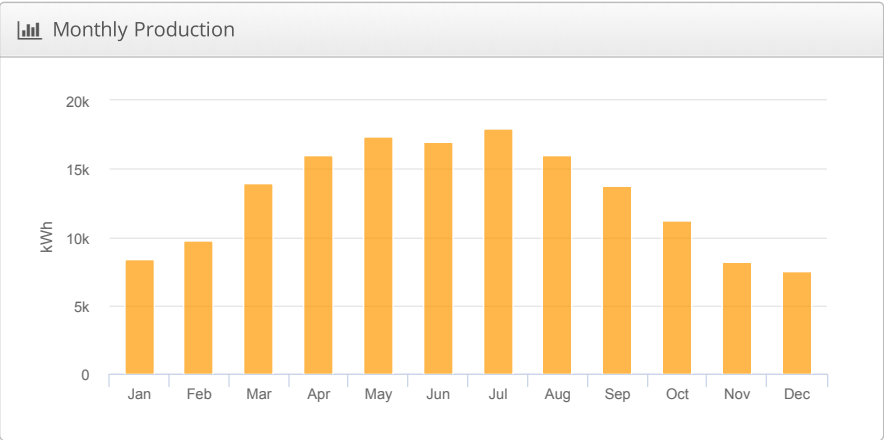
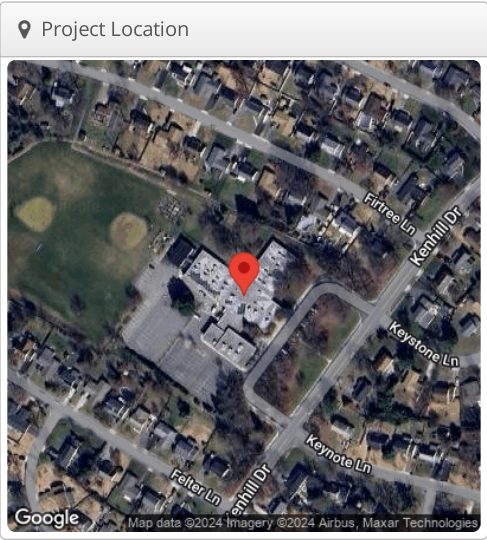
SOLAR PV DESIGN AND PRODUCTION

Kenhill Center Rooftop

Bowie Kenhill Center, 2614 Kenhill Dr, Bowie, MD 20715

Report	
Project Name	Bowie Kenhill Center
Project Address	2614 Kenhill Dr, Bowie, MD 20715
Prepared By	Jonathan Ball helioscope@loringengineers.com

System Metrics	
Design	Kenhill Center Rooftop
Module DC Nameplate	114.2 kW
Inverter AC Nameplate	96.2 kW Load Ratio: 1.19
Annual Production	157.0 MWh
Performance Ratio	82.1%
kWh/kWp	1,374.1
Weather Dataset	TMY, 10km grid (38.95,-76.75), NREL (prospector)
Simulator Version	e673bda70f-451c982c43-caecb4daa1-e2d77ada18



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,548.0	
	POA Irradiance	1,674.1	8.1%
	Shaded Irradiance	1,631.6	-2.5%
	Irradiance after Reflection	1,580.2	-3.2%
	Irradiance after Soiling	1,548.6	-2.0%
	Total Collector Irradiance	1,548.4	0.0%
Energy (kWh)	Nameplate	176,984.6	
	Output at Irradiance Levels	175,705.5	-0.7%
	Output at Cell Temperature Derate	170,448.9	-3.0%
	Output After Mismatch	161,595.5	-5.2%
	Optimal DC Output	161,038.2	-0.3%
	Constrained DC Output	160,949.3	-0.1%
	Inverter Output	157,766.9	-2.0%
	Energy to Grid	156,978.0	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		16.0 °C	
Avg. Operating Cell Temp		24.1 °C	
Simulation Metrics			
		Operating Hours	4665
		Solved Hours	4665

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km grid (38.95,-76.75), NREL (prospector)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module						Uploaded By		Characterization			
	TSM-PD14 320 (May16) (Trina Solar)						HelioScope		Spec Sheet Characterization, PAN			
Component Characterizations	Device						Uploaded By		Characterization			
	Sunny Tripower 24000TL-US (SMA)						HelioScope		Modified CEC			

📦 Components		
Component	Name	Count
Inverters	Sunny Tripower 24000TL-US (SMA)	4 (96.2 kW)
Strings	10 AWG (Copper)	20 (2,969.2 ft)
Module	Trina Solar, TSM-PD14 320 (May16) (320W)	357 (114.2 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-19	Along Racking

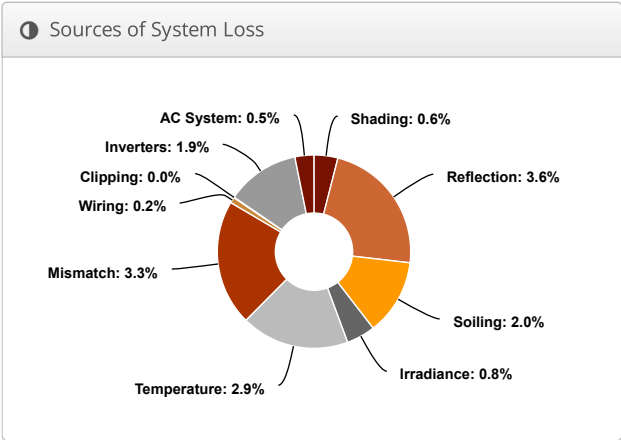
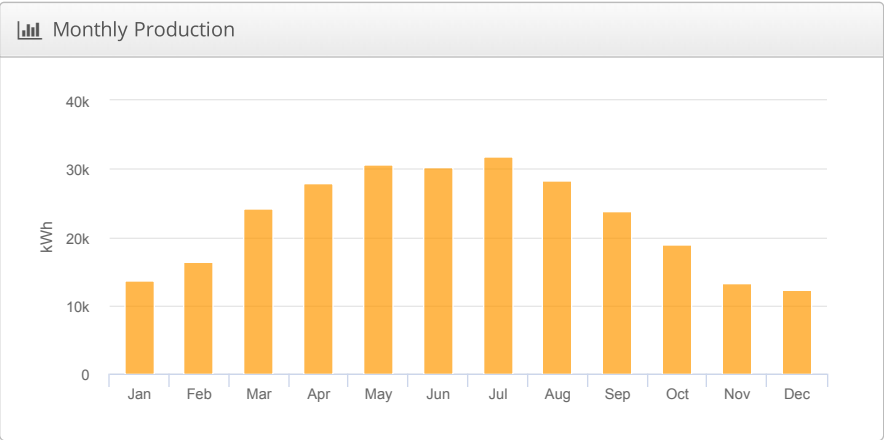
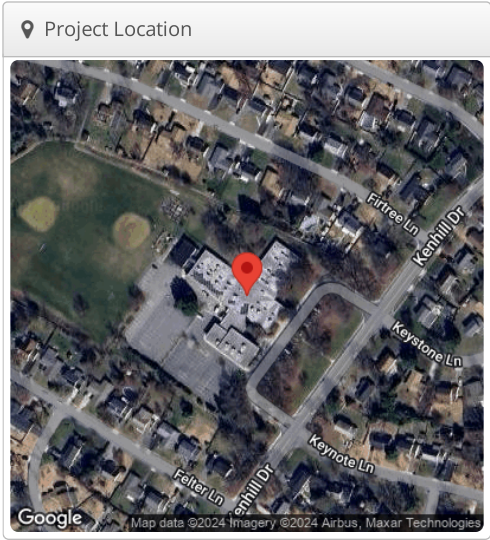
🏗 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	Module: 10°	Module: 180°	2.0 ft	1x1	60	60	19.2 kW
Field Segment 2	Fixed Tilt	Landscape (Horizontal)	Module: 10°	Module: 180°	2.0 ft	1x1	24	24	7.68 kW
Field Segment 4	Fixed Tilt	Landscape (Horizontal)	Module: 10°	Module: 180°	2.0 ft	1x1			0
Field Segment 3	Fixed Tilt	Landscape (Horizontal)	Module: 10°	Module: 180°	2.0 ft	1x1	273	273	87.4 kW

Kenhill Center Carports

Bowie Kenhill Center, 2614 Kenhill Dr, Bowie, MD 20715

Report	
Project Name	Bowie Kenhill Center
Project Address	2614 Kenhill Dr, Bowie, MD 20715
Prepared By	Jonathan Ball helioscope@loringengineers.com

System Metrics	
Design	Kenhill Center Carports
Module DC Nameplate	197.1 kW
Inverter AC Nameplate	168.4 kW Load Ratio: 1.17
Annual Production	271.7 MWh
Performance Ratio	85.3%
kWh/kWp	1,378.4
Weather Dataset	TMY, 10km grid (38.95,-76.75), NREL (prospector)
Simulator Version	e673bda70f-451c982c43-caecb4daa1-e2d77ada18



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,548.0	
	POA Irradiance	1,616.2	4.4%
	Shaded Irradiance	1,606.0	-0.6%
	Irradiance after Reflection	1,548.2	-3.6%
	Irradiance after Soiling	1,517.2	-2.0%
	Total Collector Irradiance	1,517.2	0.0%
Energy (kWh)	Nameplate	299,247.3	
	Output at Irradiance Levels	296,972.6	-0.8%
	Output at Cell Temperature Derate	288,501.4	-2.9%
	Output After Mismatch	278,938.3	-3.3%
	Optimal DC Output	278,516.6	-0.2%
	Constrained DC Output	278,474.1	0.0%
	Inverter Output	273,081.9	-1.9%
	Energy to Grid	271,716.5	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		16.0 °C	
Avg. Operating Cell Temp		24.0 °C	
Simulation Metrics			
Operating Hours		4665	
Solved Hours		4665	

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km grid (38.95,-76.75), NREL (prospector)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a		b		Temperature Delta						
	Fixed Tilt	-3.56		-0.075		3°C						
	Flush Mount	-2.81		-0.0455		0°C						
	East-West	-3.56		-0.075		3°C						
	Carport	-3.56		-0.075		3°C						
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module					Uploaded By		Characterization				
	TSM-PD14 320 (May16) (Trina Solar)					HelioScope		Spec Sheet Characterization, PAN				
Component Characterizations	Device						Uploaded By		Characterization			
	Sunny Tripower 24000TL-US (SMA)						HelioScope		Modified CEC			

📦 Components		
Component	Name	Count
Inverters	Sunny Tripower 24000TL-US (SMA)	7 (168.4 kW)
Strings	10 AWG (Copper)	35 (3,001.0 ft)
Module	Trina Solar, TSM-PD14 320 (May16) (320W)	616 (197.1 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-19	Along Racking

🏗 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 5	Carport	Portrait (Vertical)	10°	124.79603°	0.0 ft	1x1	110	110	35.2 kW
Field Segment 6	Carport	Portrait (Vertical)	10°	125.5039°	0.0 ft	1x1	120	120	38.4 kW
Field Segment 7	Carport	Portrait (Vertical)	10°	125.7974°	0.0 ft	1x1	164	164	52.5 kW
Field Segment 8	Carport	Portrait (Vertical)	10°	126.77592°	0.0 ft	1x1	132	132	42.2 kW
Field Segment 9	Carport	Portrait (Vertical)	10°	127.03039°	0.0 ft	1x1	90	90	28.8 kW

Detailed Layout





Memorandum

TO: City Council

FROM: Alfred Lott, City Manager

SUBJECT: Detail Site Plan DET-2024-016, Freeway Airport, LLC

DATE: 11/13/2025

I. Background and Proposal

Freeway Realty, LLC (the Applicant) proposes a Detailed Site Plan (DET) for 297 single-family detached units on 131.5 acres. The site address is 3900 Church Road, Bowie, MD, 20721, located southwest of where Church Road crosses US 50 (John Hanson Highway), and is outside of the City limits. The property is zoned Residential, Single-Family – Attached (RSF-A), is in the Established Communities growth policy area in the Prince George's County 2014 General Plan (Plan Prince George's 2035), and designated for "Residential Medium" future land use in the 2022 Bowie-Mitchellville & Vicinity Master Plan. This proposed project would replace the existing airport on the subject property.

The Preliminary Plan of Subdivision was heard by the BAPB on March 25th, 2025 and by City Council on April 7th, 2025.

II. Analysis of Detailed Site Plan DET-2024-016

Section 27-3605(e) of the County Zoning Ordinance requires that the following finding be made for a Detailed Site Plan to be approved by the County Planning Board:

The Planning Board may approve a Detailed Site Plan if it finds that the Plan represents a most reasonable alternative for satisfying the site design guidelines without requiring unreasonable costs and without detracting substantially from the utility of the proposed development for its intended use. If it cannot make this finding, the Planning Board may disapprove the Plan.

Site design guidelines are set forth in Section 27 of the Zoning Ordinance and include parking, loading and circulation; lighting; grading; service areas; and, architecture. The DET may be approved since it represents a reasonable alternative without requiring unreasonable costs and without detracting substantially from the utility of the proposed development for its intended use. Additionally, the use is permitted by right.

The Subdivision and Development Review Committee raised several comments with which City staff agrees. The Transportation Section of The Maryland-National Capital Park and Planning Commission (M-NCPPC) requests the applicant update the connectivity score to include three links along Church

Road and reference Figure 27-6206(f)(2) of the Zoning Ordinance and submit an exhibit for the revised calculation to be reviewed by the Transportation Planning Section. Also, to evaluate a ten-foot-wide shared-use path connection along McGee Landing or Rodenhauser Landing to the master planned side path along the site's frontage on Church Road, consistent with the requirements of section 27-6208 of the Zoning Ordinance. Staff have no recommendations for DET-2024-016.

III. Outstanding Issues

- N/A

IV. Recommendation

With the conditions set forth below, staff finds the Detailed Site Plan proposed for Freeway Airport will meet the findings for approval set forth in Section 27-3605(e). Specifically, the proposed Detailed Site Plan represents a reasonable alternative for satisfying the site design guidelines, without requiring unreasonable costs and without detracting substantially from the utility of the proposed development for its intended use. Therefore, staff recommends **APPROVAL** of Detailed Site Plan DET-2024-016.

- ATTACHMENTS:**
1. 20251117- Staff Report City Council Freeway Airport
 2. 20251117 - COB City Council Freeway DET-2024-016 Presentation (002)

LAND USE PETITION IN THE BOWIE PLANNING AREA

Maryland - National Capital Park and Planning Commission ID: DET-2024-016
Freeway Airport

Bowie Advisory Planning Board #25-08

Date: November 12, 2025

INTRODUCTORY NOTE: The proposed application is a request for approval:

- ☐ (a) of a zoning type case involving the specific use of land.
☐ (b) of a conceptual site plan.
☐ (c) to subdivide property into building lots and obtain adequate public facilities approval.
☒ (d) of a site plan for building and parking design, landscaping, architecture, etc. under the development regulations of Prince George's County. The application has been referred to the City for our review and recommendation. The position of the Bowie Advisory Planning Board in this matter is advisory to the City Council. The City Council will also conduct a public hearing on this application, and their vote will become the final City recommendation. Persons wishing to participate in these hearings must submit written testimony or sign up to speak at each public hearing. Each person wishing to speak at the City's hearings will be given up to five minutes. To participate in the County's hearings, you must make a separate, written request to become a person of record.

GENERAL DATA:

1. Nature of Petition: Detailed Site Plan
2. Petitioner: Freeway Realty
3. Represented by: Mr. Robert J Antonetti, Jr., Shipley & Horne, P.A.
4. Location of Petitioned Property: 3900 Church Road, Bowie, MD, 20721, located southwest of where Church Road crosses US 50 (John Hanson Highway)
5. Proposed Use of Petitioned Property: 297 single-family detached units on 131.5 acres
6. Size/Zone of Petitioned Property: RSF-A, (Residential, Single-Family-Attached)
7. Date of Hearing before BAPB: Tuesday, October 28, 2025, at 7:00 P.M.
8. Date of Hearing before City Council: Monday, November 17, 2025, at 8:00 P.M.
9. Date of Hearing before M-NCPPC: Tuesday, December 11, 2025 at 10:00 A.M. (tentative)
10. Date of Hearing before Hearing Examiner: N/A
11. Date of Hearing before District Council: N/A

NOTICES/LEGALS	Date	Number of Mailing/Signs
Notice sent to Adj. Properties:	10/14/25	121
Notice sent to Parties of Record:	N/A	
Date Signs Posted:	11/12/25	2
Date Legal Sent:	N/A	
Date Legal Appeared:	N/A	

RECOMMENDATIONS:

12. Department of Planning and Sustainability Recommendation:
The Department of Planning and Sustainability staff recommends **APPROVAL** with conditions
13. Bowie Advisory Planning Board Recommendation:
The Bowie Advisory Planning Board (BAPB) recommends **APPROVAL** with conditions.



City of Bowie

15901 Fred Robinson Way
Bowie, Maryland 20716

MEMORANDUM

TO: City Council

FROM: Bowie Advisory Planning Board

SUBJECT: Freeway Airport
Detailed Site Plan DET-2024-016

DATE: November 10, 2025

The Bowie Advisory Planning Board (BAPB) met on Tuesday, October 28th, 2025, to review the Detailed Site Plan DET-2024-016 for 297 single-family detached units on 131.5 acres. The site address is 3900 Church Road, Bowie, MD, 20721, located southwest of where Church Road crosses US 50 (John Hanson Highway), and is outside of the City limits. The property is zoned Residential, Single-Family – Attached (RSF-A), is in the Established Communities growth policy area in the Prince George’s County 2014 General Plan (Plan Prince George’s 2035), and designated for “Residential Medium” future land use in the 2022 Bowie-Mitchellville & Vicinity Master Plan. This proposed project would replace the existing airport on the subject property. The owner is Freeway Realty LLC.

Presentations

Mr. Robert Antonetti, the attorney representing Freeway Realty LLC., presented the Detailed Site Plan. The project is for the approval of a Detailed Site Plan for 297 single-family detached units on 131.5 acres. As of today, the subject property remains entirely dedicated to its existing function as Freeway Airport, an operational facility that currently constitutes the sole use and built form on the site. Freeway Airport has existed since 1961, when it was formally incorporated and became active in June of that year. It was built on the site of the old Gilpin Airfield, which was used to train pilots during the war effort. To keep the historic aspect of this Airport, the applicant worked diligently to signify the importance of Freeway airport in this proposed development.

The applicant has worked with the surrounding community to find common ground on the new development and agreed that no more than 297 dwelling units will be allowed on the property, that these units will be single-family detached, and that there will be no townhomes on the property. Both the Preliminary Plan of Subdivision and Detailed Site Plan today are consistent with this agreement. Mr. Antonetti provided information on the Detailed Site Plan and made note that this application does not show architecture for the houses because the applicant does not have a building partner yet. The applicant will return with a revised DES once architectural details are developed.

The development will have two access points that intersect with Church Road. The applicant has made necessary improvements at the intersections of McGee Landing / Church Road and Rodenhauser Landing / Church Road to accommodate the projected increase in peak-hour traffic. McGee Landing will operate as a right-in/right-out intersection with both accel and decel lanes. Rodenhauser Landing will operate as a full movement access which the applicant has concurrence from DPIE to install a new traffic signal at this location. There will be a SB right turn lane and NB left turn lane as well as accel lane for the egress traffic

MAYOR Timothy J. Adams

MAYOR PRO TEM Dufour Woolfley

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DET-2024-016
Freeway Airport

onto SB Church Road. Also, the applicant submitted a traffic study with the recently approved Preliminary Plan which included a stacking/queueing analysis showing that vehicles on NB Church Road turning left into the main entrance will not back up to the Dawn Whistle Way/Church Road intersection.

Two residents came to speak on the development. One had a concern about schools being overcrowded, there being enough recreation for kids, and is a certain percentage of cost going back into the neighborhood. The other resident was concerned about her house being shaken from WSSC drilling and worried that this development might have a similar effect. Also, she wanted the County to do something about public safety regarding the roadways.

Given the applicant's long history of working with the community on this plan, its conformance to the Master Plan and Zoning Ordinance, City staff recommend approval of Detailed Site Plan DET-2024-016.

Questions by BAPB Members

- Mr. Terry Rodgers: Wanted to know the lot and house size. **Answer: Mr. Robert Antonetti responded by saying the lot size can vary depending on where they are on the property with a minimum lot size of 6,000sq and since they do not have a building partner yet, he can't speak on the specific house size but envisions a minimum to be around 2,500sq on two levels and have 2 car garages.**
- Mr. Eric Ketterling: Wanted to know if the new units were going to be priced at market rate, and when discussing with the proposal with the County, did they have any discussions on obtaining an incentive to make some of the units affordable. **Answer: Mr. Robert Antonetti responded by saying all the homes are projected to be market rate. Going forward he said they would consider some of the incentives for affordable housing that are part of the broader housing discussion related to ADUs, density bonuses, impact fees, permit fees, and decreasing review time for permits.**
- Mr. Ronald Skotz: Wanted to confirm with the applicant's team that they are in agreeance with City Staff recommendations. **Answer: Mr. Robert Antonetti and the applicant's team have no issues and agree with staff recommendations.**

BAPB Motion

Mr. Terry Rodgers moved to recommend **APPROVAL** of Detailed Site Plan DET-2024-016 in accordance with City staff recommendation. The motion was seconded by Mr. Ronald Skotz and passed 3-1.



City of Bowie

15901 Fred Robinson Way
Bowie, Maryland 20716

MEMORANDUM

TO: Bowie Advisory Planning Board

FROM: Ridwan Coker
Transportation Specialist

SUBJECT: Staff Report - Detailed Site Plan DET-2024-016
Freeway Airport

DATE: October 17, 2025

I. Background and Proposal

Freeway Realty, LLC (the Applicant) proposes a Detailed Site Plan (DET) for 297 single-family detached units on 131.5 acres. The site address is 3900 Church Road, Bowie, MD, 20721, located southwest of where Church Road crosses US 50 (John Hanson Highway), and is outside of the City limits. The property is zoned Residential, Single-Family – Attached (RSF-A), is in the Established Communities growth policy area in the Prince George’s County 2014 General Plan (Plan Prince George’s 2035), and designated for “Residential Medium” future land use in the 2022 Bowie-Mitchellville & Vicinity Master Plan. This proposed project would replace the existing airport on the subject property.

The Preliminary Plan of Subdivision was heard by the BAPB on March 25, 2025 and by City Council on April 7, 2025.

II. Analysis of Detailed Site Plan DET-2024-016

Section 27-3605(e) of the County Zoning Ordinance requires that the following finding be made for a Detailed Site Plan to be approved by the County Planning Board:

The Planning Board may approve a Detailed Site Plan if it finds that the Plan represents a most reasonable alternative for satisfying the site design guidelines without requiring unreasonable costs and without detracting substantially from the utility of the proposed development for its intended use. If it cannot make this finding, the Planning Board may disapprove the Plan.

Site design guidelines are set forth in Section 27 of the Zoning Ordinance and include parking, loading and circulation; lighting; grading; service areas; and, architecture. The DET may be approved since it represents a reasonable alternative without requiring unreasonable costs and without detracting substantially from the utility of the proposed development for its intended use. Additionally, the use is permitted by right.

The Subdivision and Development Review Committee raised several comments with which City staff agrees. The Transportation Section of The Maryland-National Capital Park and Planning Commission (M-NCPPC) requests the applicant update the connectivity score to include three links along Church Road and reference Figure 27-6206(f)(2) of the Zoning Ordinance and submit an

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DET-2024-016
Freeway Airport

exhibit for the revised calculation to be reviewed by the Transportation Planning Section. Also, to evaluate a ten-foot-wide shared-use path connection along McGee Landing or Rodenhauser Landing to the master planned side path along the site's frontage on Church Road, consistent with the requirements of section 27-6208 of the Zoning Ordinance. Staff have no recommendation for DET-2024-016:

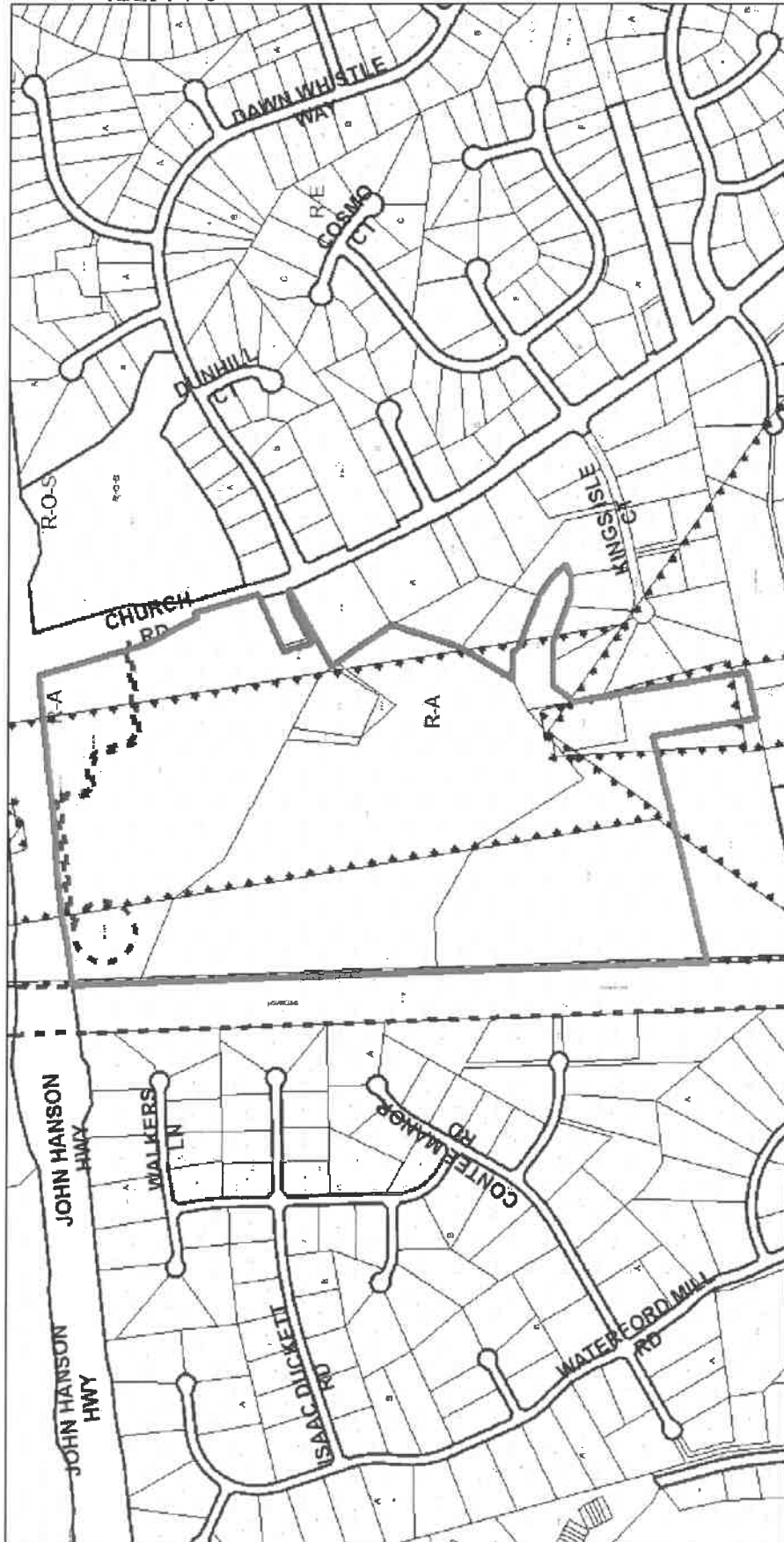
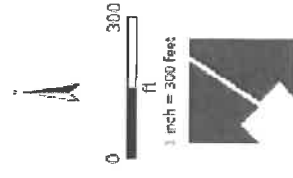
III. Outstanding Issues

- N/A

IV. Recommendation

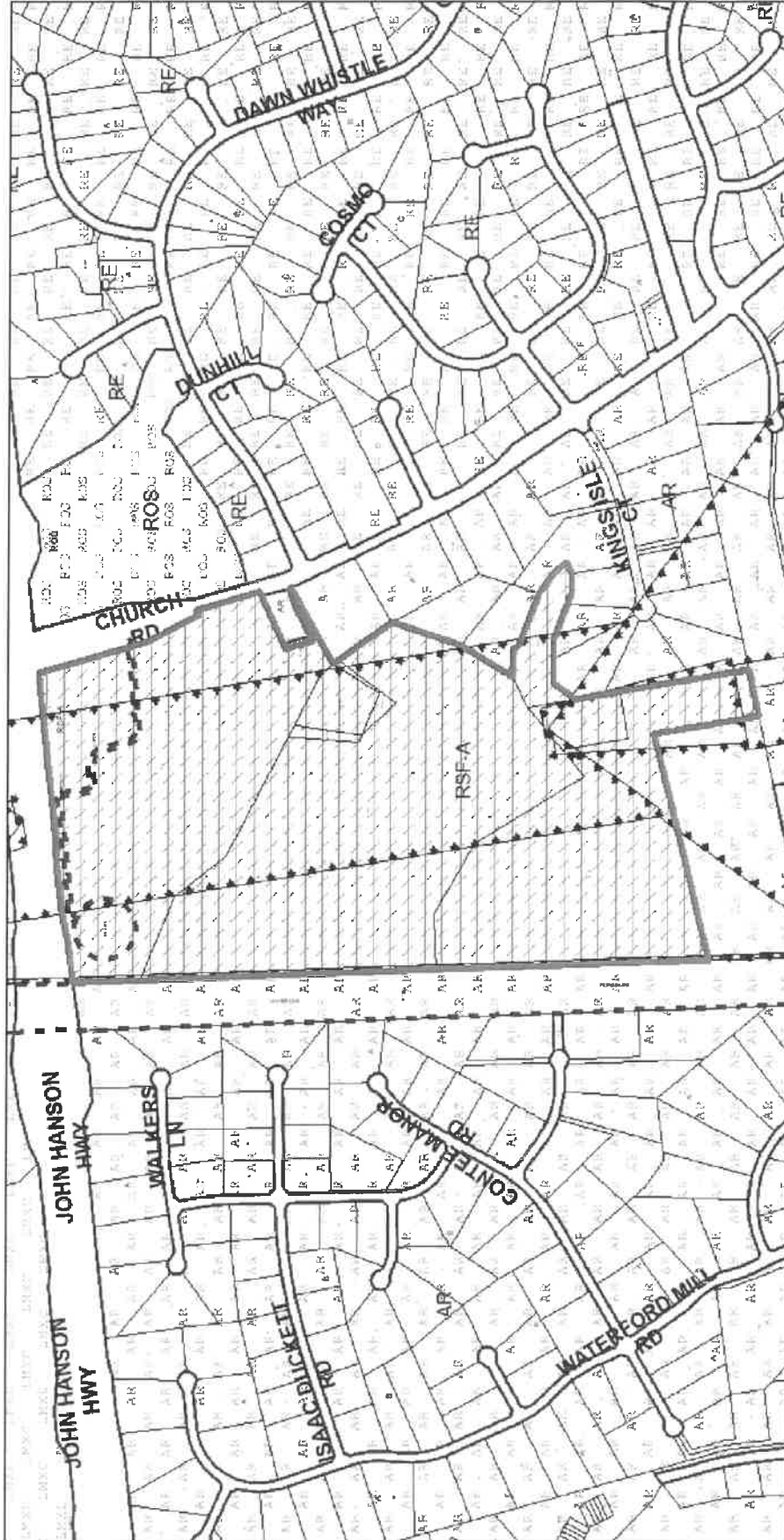
With the conditions set forth below, staff finds the Detailed Site Plan proposed for Freeway Airport will meet the findings for approval set forth in Section 27-3605(e). Specifically, the proposed Detailed Site Plan represents a reasonable alternative for satisfying the site design guidelines, without requiring unreasonable costs and without detracting substantially from the utility of the proposed development for its intended use. Therefore, staff recommends **APPROVAL** of Detailed Site Plan DET-2024-016.

APP NO: DET-2024-016
EXISTING ZONE:
PLANNING AREA: 74A
WSSC GRID: 206NE12
TAX MAP: 54
TAX GRID: C2
COUNCIL DISTRICT: 6



ZONING SKETCH MAP

APP NO: DET-2024-016
 EXISTING ZONE:
 PLANNING AREA: 74A
 WSSC GRID: 206NE12
 TAX MAP: 54
 TAX GRID: C2
 COUNCIL DISTRICT: 6



0 300

1 inch = 300 feet



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Created: 6/20/2025

**FREEWAY AIRPORT
DETAILED SITE PLAN: DET-2024**

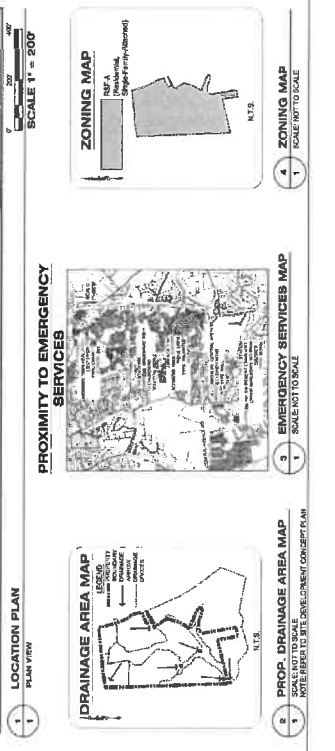
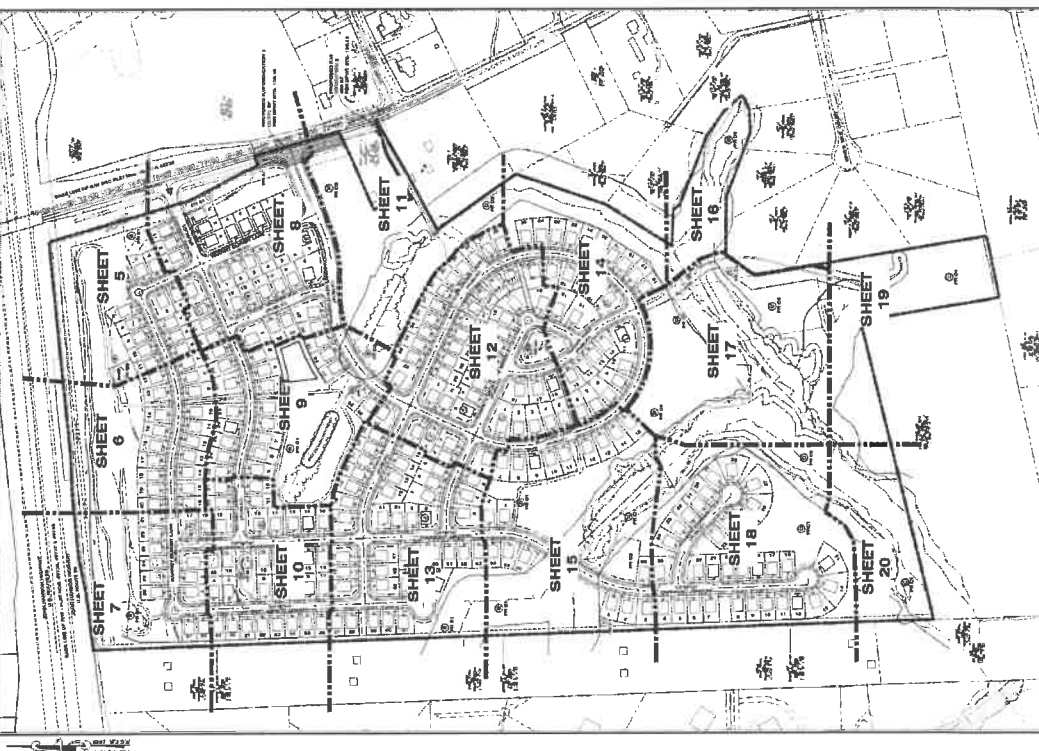
DETAILED SITE PLAN: DET-2024-016

SHEET INDEX	
1	COVER
2	LEGEND
3	APPROVALS
4	EXISTING CONDITIONS
5	30 SCALE - SITE PLAN
6	SITE DETAILS
7	SAFARI SERVER PUMPING STATION DETAILS
8	HIGH-VOLATILITY LOT EXHIBIT

SITE STATISTICS	
SITE	TOTAL
GROSS TRACT AREA	79.40 AC
EXISTING 30-YEAR FLOODPLAIN	11.1 AC

[illegible][illegible][illegible][illegible]

	THS (cells/L)	PLATELET (K)	WBC (K)	HAEMOGLOBIN (g/L)	HAEMATOCRIT (%)	MCV (fL)	RDW (%)	PLT (K)	MPV (fL)	PDW (%)	LYMPH (%)	NEUTRO (%)	MONO (%)	EOS (%)	BASO (%)
Pre-admission	10.2	100	10.5	12.5	35.5	34.4	13.5	100	10.0	1.0	10.0	90.0	0.0	0.0	0.0
Post-admission	10.2	100	10.5	12.5	35.5	34.4	13.5	100	10.0	1.0	10.0	90.0	0.0	0.0	0.0

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TOTAL		17	24/61/82	86/47	ALL PARCELS
D	PARCELS D-1	144,499			OPEN SPACE/GRASS
E	PARCELS E-1	144,499			OPEN SPACE/GRASS
F	PARCELS F-1	7,121			OPEN SPACE
G	PARCELS G-1	192,007			OPEN SPACE
H	PARCELS H-1	16,500			OPEN SPACE
I	PARCELS I-1	16,500			OPEN SPACE
J	PARCELS J-1	3,471			OPEN SPACE
K	PARCELS K-1	16,513			OPEN SPACE
TOTAL PARCELS DESIGNATION					5-5

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5

SHEET NO. 5 OF 23



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DETAILED SITE PLAN SHEET
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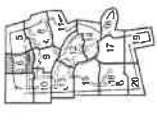
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Calgary, Alberta T2C 1A9
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CONTACT
MR. JIMMY BROWN
403.243.8888
JIM.BROWN@DEWBERY.COM

FREEWAY AIRPORT
DET-2024-016
7TH ELECTION DISTRICT
PRINCE GEORGE'S COUNTY, MD
WSPC GRID 2008E/12



PROPOSED DETAIL FOR THE
FREEWAY AIRPORT PROJECT
7TH ELECTION DISTRICT
PRINCE GEORGE'S COUNTY, MD
WSPC GRID 2008E/12
DATE: 04/10
DRAWN BY: JLB
CHECKED BY: JLB
APPROVED BY: JLB



SCALE: 1"=50'
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NO.	DATE	BY	DESCRIPTION
1	04/10	JLB	ISSUED FOR PERMIT

DRAWN BY: JLB
CHECKED BY: JLB
DATE: 04/10

REVISIONS			
NO.	DATE	BY	DESCRIPTION



SCALE	25	50
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KEY PLAN

FREEWAY AIRPORT
 DETAILED SITE PLAN
 DET-2024-016
 PRINCE GEORGES COUNTY, MD
 7TH ELECTION DISTRICT
 MAP 5632 - GRID P1 & MAP 5412 - GRID P10, G10
 WSSC GRID 205912

CONTACT
MR. ANDREW M. ROJAS
410-308-1292 (DIRECT)
ARJ@DJSJPL.COM

APPLICANT
FREEMAN REALTY, LLC
400 LORD BALTIMORE DRIVE
BALTIMORE, MD 21244

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1" = 30'

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19			DESIGN
20			DESIGN

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8

SHEET NO. 8 OF 22

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9

SET NO. 9 OF 23

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I, the undersigned, being a duly qualified and licensed Professional Engineer in the State of Maryland, do hereby certify that I am the author of the foregoing and that the same are true and correct to the best of my knowledge and belief.

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DATE

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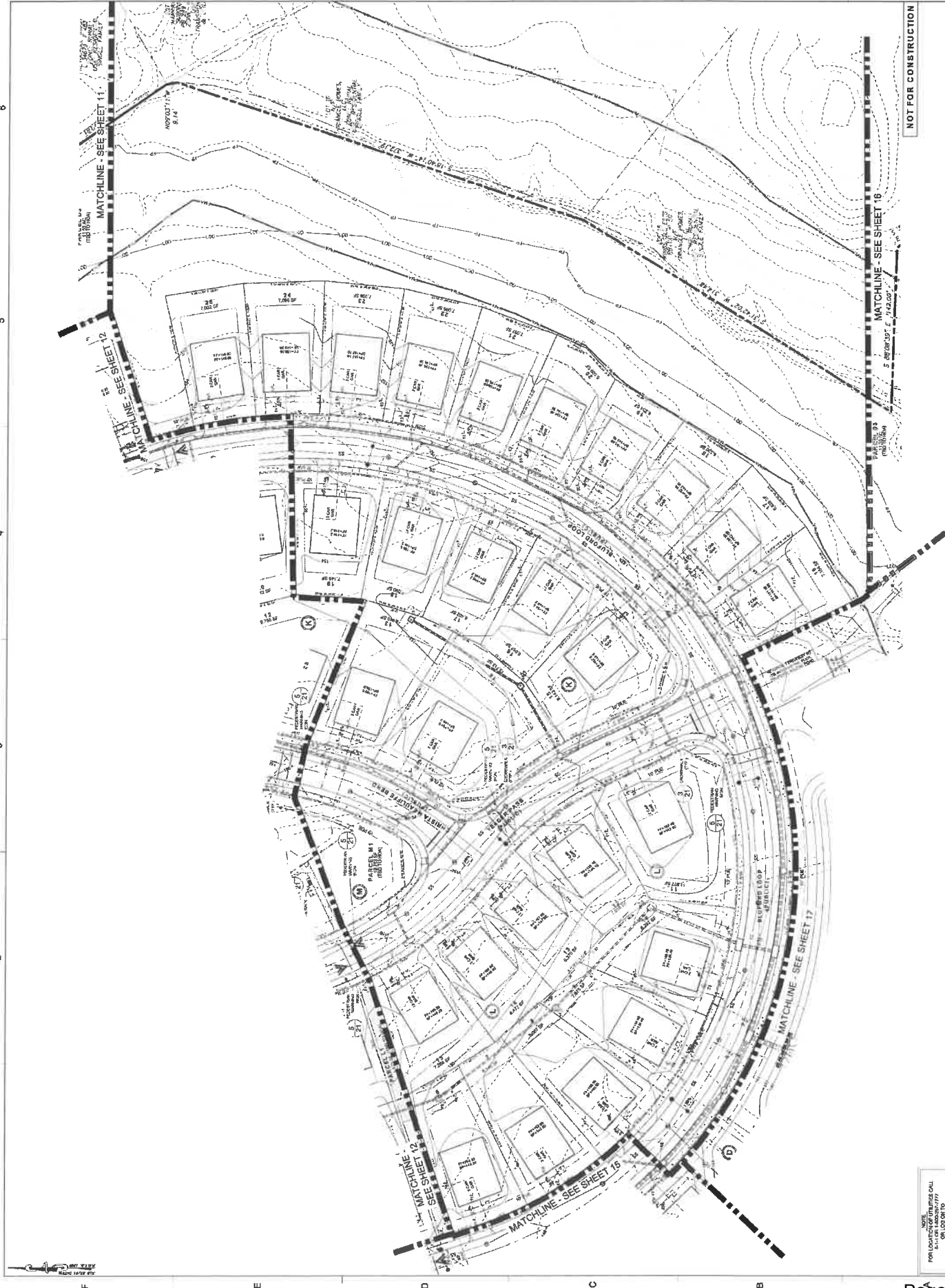
13

SHEET NO. 13 OF 21

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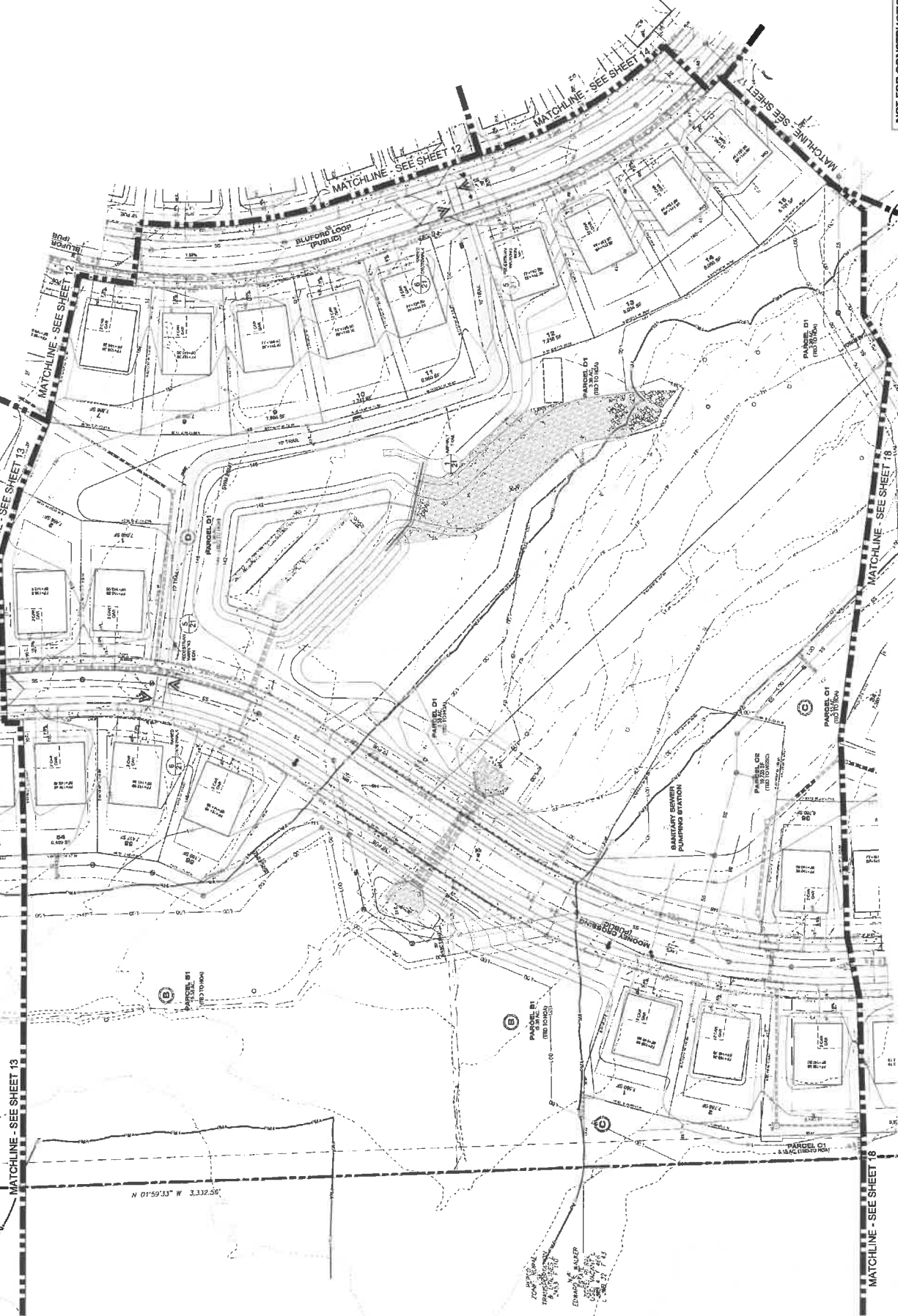
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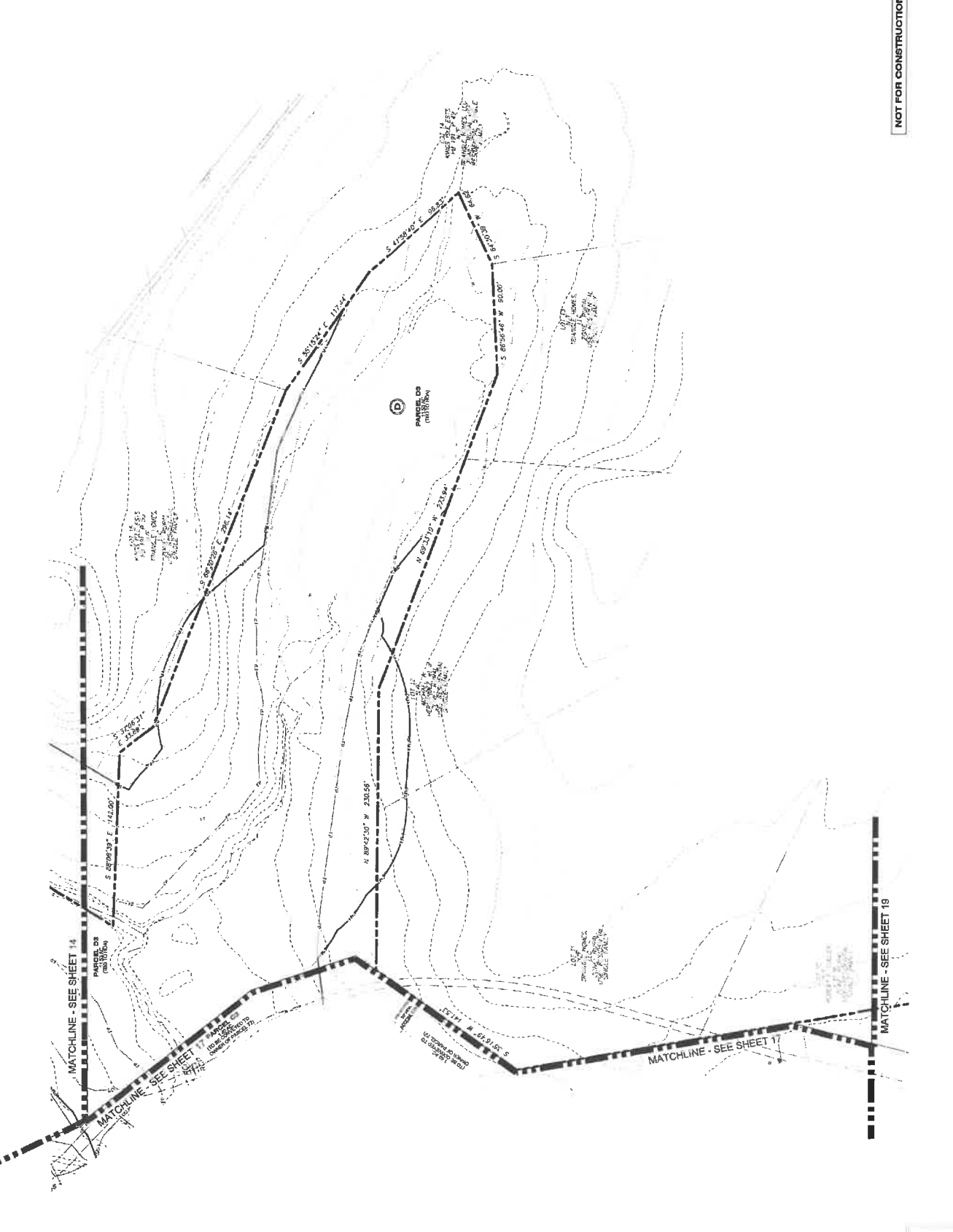
DETAILED SITE PLAN

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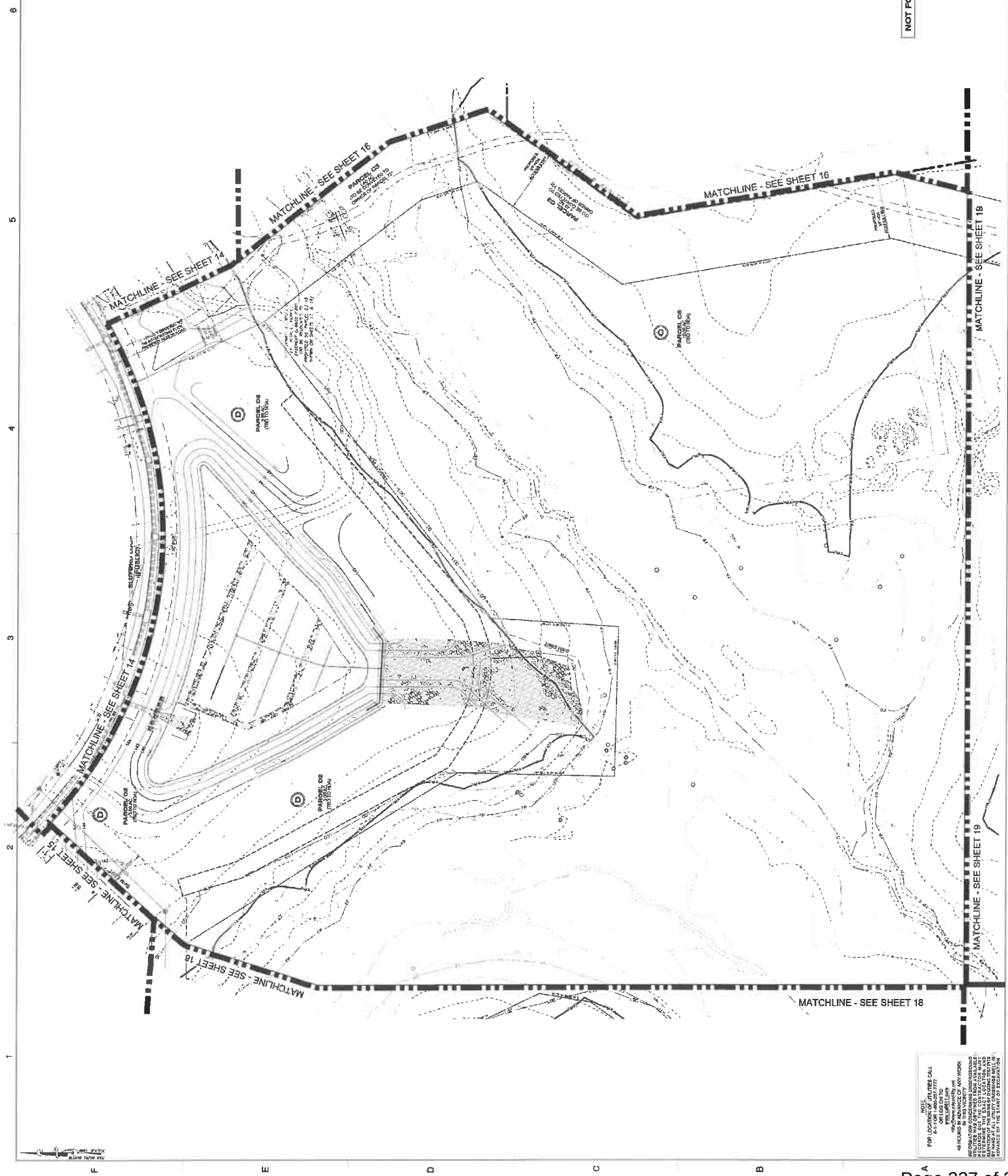
DETAILED SITE PLAN

DETAILED SITE PLAN

DETAILED SITE PLAN



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AND SHEET 16.
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UTILITIES. THE CONTRACTOR FOR MAJOR
REPAIRS MUST SUBMIT A REQUEST FOR MAJOR
REPAIRS TO THE EXACT LOCATION AND
ELEVATION OF THE MANHOLE DURING THE
BY HAND AT ALL UTILITY CROSSINGS WELL IN
ADVANCE OF THE START OF EXCAVATION

Dewberry
Engineering Inc.
10000 Greenbelt Road
Suite 200
Greenbelt, MD 20740
Tel: 410-326-7000
Fax: 410-326-7001
www.dewberry.com

APPLICANT
PRINCE GEORGES COUNTY
BALTIMORE, MD 21044

CONTACT
MICHAEL J. HARRIS
MICHAEL.J.HARRIS@PGC.GOV

WSSC GRID 2008112
MAP 1022 - GRID P1 & MAP 1042 - GRID P10, P11
PRINCE GEORGES COUNTY, MD
7TH ELECTION DISTRICT
DET-2024-016
FREEWAY AIRPORT
DETAILED SITE PLAN

REAL

PROFESSIONAL CERTIFICATION
I, the undersigned, being a duly licensed Professional Engineer in the State of Maryland, do hereby certify that I am the author of the foregoing design and that it was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Maryland.

DESIGNER: JLS
DATE: 07/11/24
PROJECT: FREEWAY AIRPORT



NO.	DATE	BY	DESCRIPTION
1	07/11/24	JLS	DESIGN
2	07/11/24	JLS	REVISION
3	07/11/24	JLS	REVISION
4	07/11/24	JLS	REVISION
5	07/11/24	JLS	REVISION
6	07/11/24	JLS	REVISION
7	07/11/24	JLS	REVISION
8	07/11/24	JLS	REVISION
9	07/11/24	JLS	REVISION
10	07/11/24	JLS	REVISION
11	07/11/24	JLS	REVISION
12	07/11/24	JLS	REVISION
13	07/11/24	JLS	REVISION
14	07/11/24	JLS	REVISION
15	07/11/24	JLS	REVISION
16	07/11/24	JLS	REVISION
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45	07/11/24	JLS	REVISION
46	07/11/24	JLS	REVISION
47	07/11/24	JLS	REVISION
48	07/11/24	JLS	REVISION
49	07/11/24	JLS	REVISION
50	07/11/24	JLS	REVISION

DETAILED
SITE
PLAN
PLAN SHEET

TITLE

DATE

BY

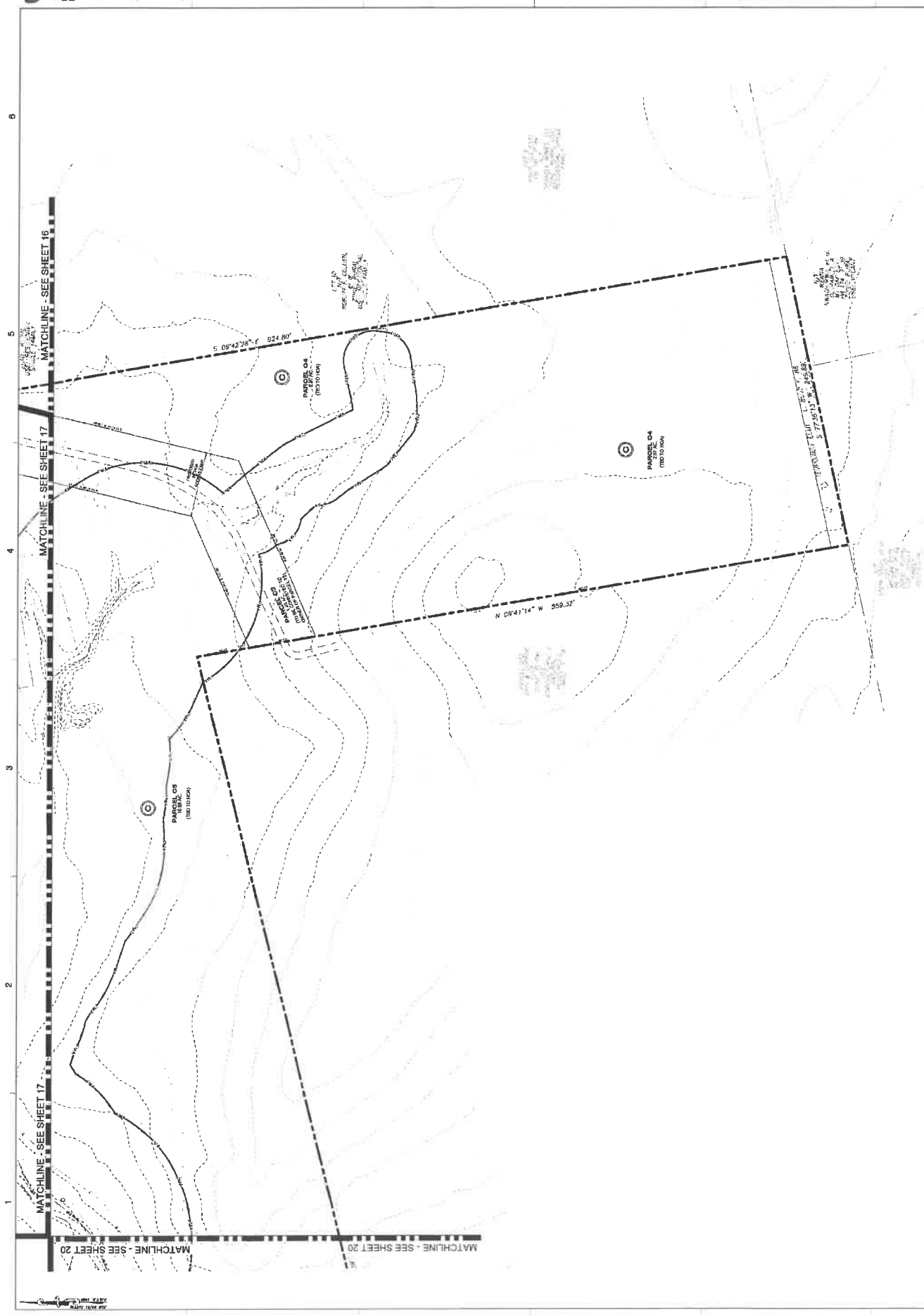
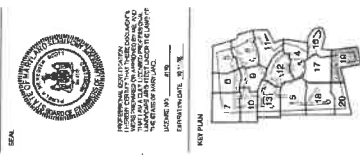
DESCRIPTION

18

SHEET NO.

18 OF 22





NOT FOR CONSTRUCTION

DETAILED
SITE
PLAN

PLAN SHEET

PLAN SHEET

NOTE:
FOR LOCATION OF UTILITIES CALL
6-1-1 OR 1-800-235-7777
OR LOG ON TO
www.cityofhouston.com
48 HOURS IN ADVANCE OF ANY WORK
IN THIS VICINITY



1 SOUND WALLS

Sound walls are designed to reduce noise from the highway. They are typically constructed of concrete or masonry. The design of the sound wall is based on the height of the wall, the distance from the wall to the road, and the type of traffic. The sound wall should be designed to meet the requirements of the local noise ordinance.

2 SOUND WALLS

Sound walls are designed to reduce noise from the highway. They are typically constructed of concrete or masonry. The design of the sound wall is based on the height of the wall, the distance from the wall to the road, and the type of traffic. The sound wall should be designed to meet the requirements of the local noise ordinance.

3 SOUND WALLS

Sound walls are designed to reduce noise from the highway. They are typically constructed of concrete or masonry. The design of the sound wall is based on the height of the wall, the distance from the wall to the road, and the type of traffic. The sound wall should be designed to meet the requirements of the local noise ordinance.

4 SOUND WALLS

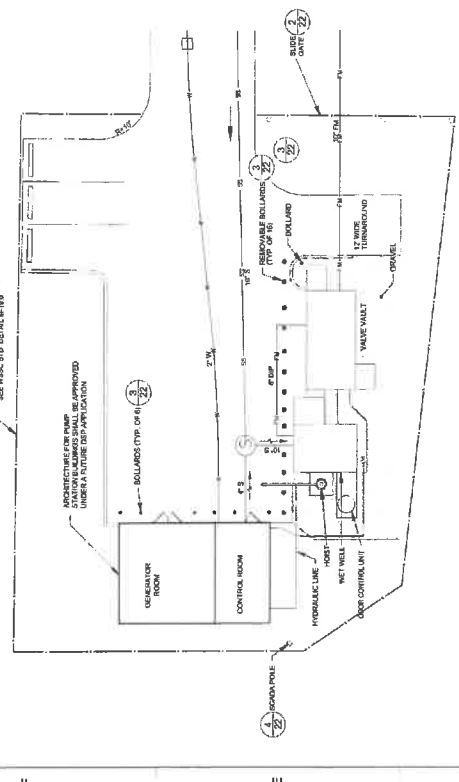
Sound walls are designed to reduce noise from the highway. They are typically constructed of concrete or masonry. The design of the sound wall is based on the height of the wall, the distance from the wall to the road, and the type of traffic. The sound wall should be designed to meet the requirements of the local noise ordinance.

5 SOUND WALLS

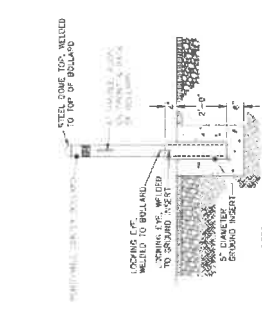
Sound walls are designed to reduce noise from the highway. They are typically constructed of concrete or masonry. The design of the sound wall is based on the height of the wall, the distance from the wall to the road, and the type of traffic. The sound wall should be designed to meet the requirements of the local noise ordinance.

6 SOUND WALLS

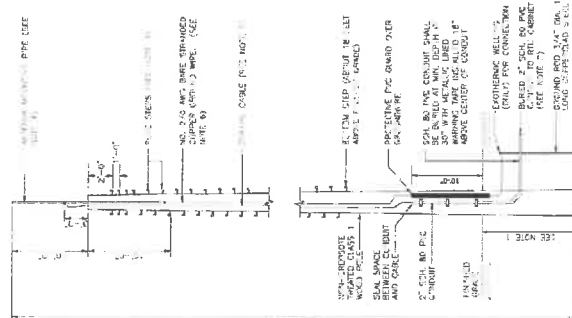
Sound walls are designed to reduce noise from the highway. They are typically constructed of concrete or masonry. The design of the sound wall is based on the height of the wall, the distance from the wall to the road, and the type of traffic. The sound wall should be designed to meet the requirements of the local noise ordinance.



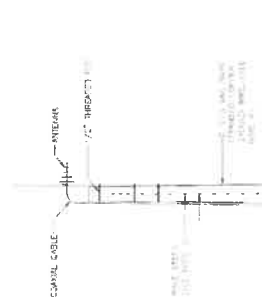
1 SANITARY SEWER PUMPING STATION LAYOUT
22 SCALE: 1"=10'



REMOVABLE BOLLARD DETAIL



7 FENCE & SLIDE GATE DETAIL



3724 | *Journal of Interpersonal Violence* 31(18) | DOI: 10.1177/0886260516662516
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[illegible]

SCADA POLE DETAIL

NOT FOR CONSTRUCTION

SITE
PLAN

SANITARY SEWER
PUMPING STATION
DETAIL SHEET

DEWBERRY JOB NO. 50161247



INTERNATIONAL GEN TOXICOLOGICAL CENTER, INC., 12000 ROCKWOOD DRIVE, SUITE 100, ROCKVILLE, MD 20850-4090, U.S.A. (TEL: 301/582-1000; FAX: 301/582-1001; E-MAIL: GEN@GENCENR.COM)



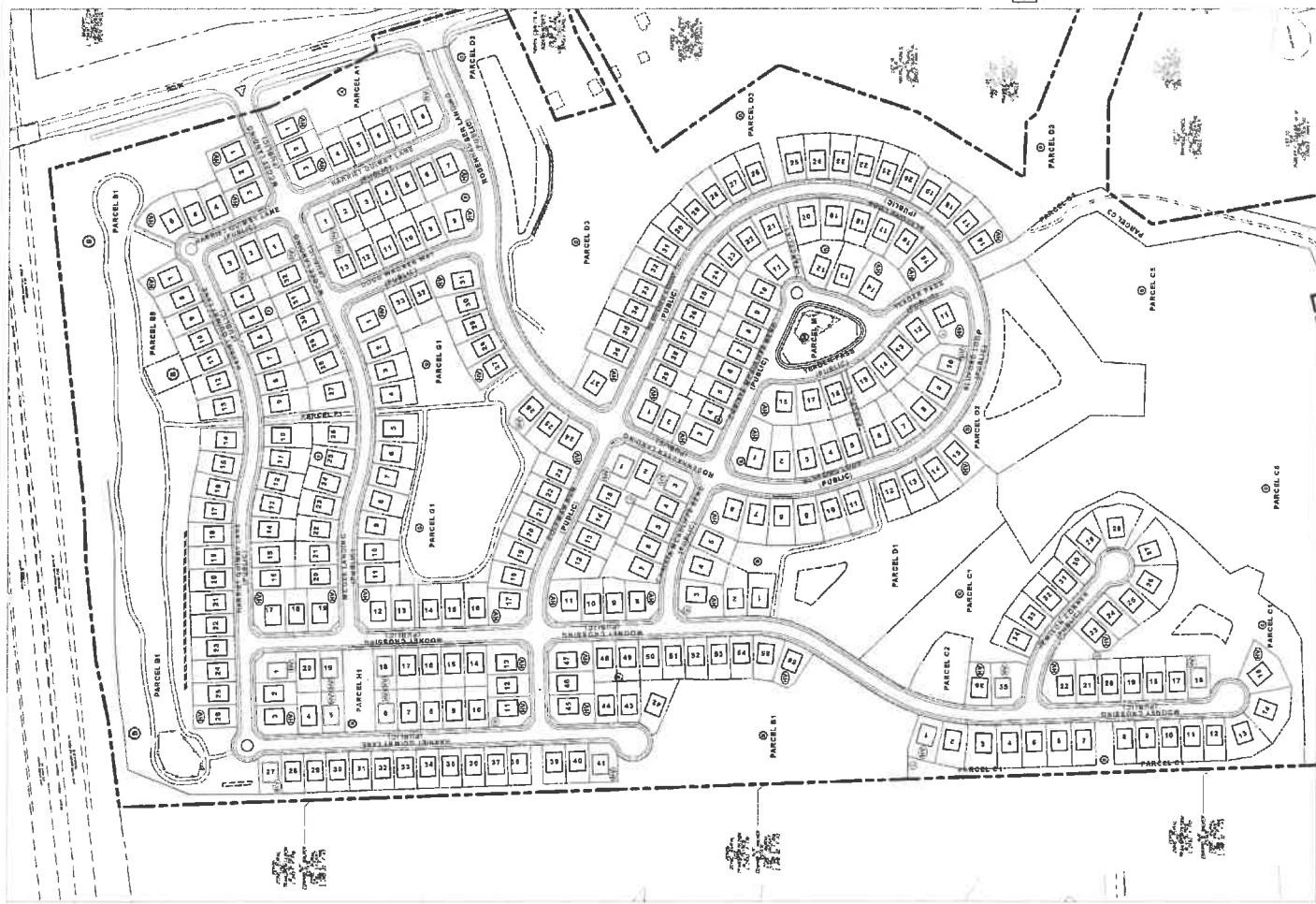
SCALE

SCALE 1" = 120'

No.	DATE	REVISIONS
BY	DATE	DESCRIPTION
DRAWN BY _____ APPROVED BY _____ CHECKED BY _____ DATE _____ JCT _____ PAIS _____ HAL _____ APRIL 2025 _____		

TITLE DETAILED
SITE
PLAN
HIGH VISIBILITY
LOT EXHIBIT

NOT FOR CONSTRUCTION



NOTE:
FOR LOCATION OF UTILITIES CALL
8-1-1 OR 1-800-257-7177
OR LOG ON TO
www.811.com
48 HOURS BEFORE ANY WORK
OBSERVATION CONCERNING UNDERGROUND
UTILITIES WAS OBTAINED FROM AVAILABLE
RECORDS BUT THE CONTRACTOR MUST
DETERMINE THE EXACT LOCATION AND
DEPTH OF ALL UTILITIES TO BE EXCAVATED
BY HAND AT ALL UTILITY CROSSINGS WITHIN
ADVANCE OF THE START OF EXCAVATION.

Freeway Airport DET-2024-016



Bowie City Council

November 17, 2025 at 8:00 P.M.

FREEWAY AIRPORT
PRINCE GEORGES COUNTY



