

Interoffice Memorandum

DATE: June 3, 2025

TO: Mayor Jerry L. Demings and County Commissioners

THROUGH: N/A

FROM: Tanya Wilson, AICP, Director, Planning, Environmental, and Development Services Department

CONTACT: Renée H. Parker, LEP, Manager, Environmental Protection Officer

PHONE: (407) 836-1420

DIVISION: Environmental Protection Division

ACTION REQUESTED:

Acceptance of the findings and recommendation of the Environmental Protection Division staff and deny the Conservation Area Impact Permit CAI-23-07-034 for Luminar Technologies, Inc. District 5. (Environmental Protection Division)

PROJECT: Request for Conservation Area Impact Permit for Luminar Technologies, Inc. (CAI-23-07-034)

PURPOSE: The applicant, Luminar Technologies, Inc., is requesting a Conservation Area Impact Permit Application to authorize impacts to 17.82 acres of Class I wetlands for the construction of the Luminar Technologies research and office facility which includes associated infrastructure, pursuant to Chapter 15, Article X, Conservation Area Ordinance (adopted 1987). The project also includes 3.26 acres of secondary wetland impacts. The project is located in eastern Orange County within the Central Florida Research Park (CFRP) on Challenger Parkway in Orlando, Florida 32826, Parcel ID 15-22-31-1218-32-010; District 5

Environmental Considerations

The subject parcel is approximately 32.14 acres in size. The subject parcel has a Conservation Area Determination (CAD) #89-033, which was issued February 27, 1991 and included additional areas that are part of the CFRP. The onsite wetlands were designated as platted conservation areas in 1991 (PB 28, PG 65). Development rights within the conservation areas are currently dedicated to Orange County via the plat. The onsite wetlands identified in the plat are also currently encumbered by a conservation easement (OR 4372, PG 2674) dedicated to the St. Johns River Water Management

District (SJRWMD) as required by permit 4-095-0047GEM3 (aka. 20069-5). Within the project site there are 27.07 acres of Class I wetlands and 5.05 acres of uplands. Wetlands cover approximately 84.28 percent of the site. The wetland systems proposed for impact are predominantly mixed forested wetlands consisting of appropriate, healthy vegetation of moderately high functionality and quality. The wetlands are hydrologically connected to the Econlockhatchee River.

Project Review

The project is located within the Econlockhatchee River Protection Area. However, EPD staff has determined the project is exempt from the requirements of Chapter 15, Article XI, Econlockhatchee River Protection Ordinance because the project site was included in the CFRP Development Order (DO) (OR 3587, PG 2217) which was approved in 1984 prior to the effective date of Article XI in 1991.

The CAI Permit Application was received on July 3, 2023, prior to the effective date of the updated code effective June 1, 2024, and is therefore being reviewed under the prior version of Article X, adopted in 1987. The original site plan provided with the CAI Permit Application proposed 26.94 acres of Class I wetland impacts. As stated above, the current site plan proposes to impact 17.82 acres of Class I wetlands, which equates to 65.83 percent of all wetlands within the project boundary.

Additional documentation and discussion were needed to clarify the applicant's proposal. Accordingly, EPD issued three Request for Additional Information (RAI) letters to the applicant's agent, Bio-Tech Consulting, Inc. EPD also held three virtual meetings with the applicant's agent, the first of which included the applicant, to discuss the project and the RAIs. During the third virtual meeting, EPD staff discussed with the applicant's agent an alternative plan that EPD could possibly support. The third RAI was issued by EPD on April 5, 2024. EPD received the response to the third RAI on February 25, 2025. The responses included a statement from the applicant's agent indicating that they did not intend to submit responses to any additional RAIs and they requested to move forward to public hearing before the Board of County Commissioners. Subsequently, EPD sent a Notice of Application Complete letter on March 17, 2025, which advised the applicant that the application is not sufficient and does not appear to meet all the criteria of Chapter 15, Article X (1987). Additionally, EPD advised the applicant that the application does not appear to be consistent with all aspects of the Orange County Comprehensive Plan, but that EPD would proceed with processing the application as they requested. Finally, EPD sent a Notice of Intent to Recommend Denial letter to the applicant on March 31, 2025.

The application remains insufficient for several reasons which include questions regarding whether avoidance and minimization of wetland impacts has been demonstrated to the greatest extent practicable, details about the proposed 'Flood

Storage and Drainage By-Pass', minor plan discrepancies, and questions regarding the mitigation required under the original CFRP development.

In the first RAI sent July 31, 2023, the applicant was asked to demonstrate how the proposed impacts have been minimized to the greatest extent practicable and how cost effective design alternatives that could avoid impacts have been considered. EPD staff inquired about what appeared to be areas of unused space within the site, the number and size of stormwater ponds, the number of parking spaces, and the configuration of the proposed buildings. The applicant's responses and EPD staff's analysis are summarized later in this report. In every RAI sent, EPD has informed the applicant that it does not agree that adequate avoidance and minimization of impacts has been sufficiently demonstrated.

EPD acknowledges that impacts have been reduced from what was originally proposed. However, the development still appears to be inconsistent with Section 15-362(5) as further described below.

Early in the review process, EPD informed the applicant that the proposed use of the site as a private development is not typically considered to provide an overriding public benefit. The applicant was also asked to demonstrate there are no other feasible or practical alternatives to the proposed Class I impacts and that the impacts are necessary to allow a reasonable use of the site. In response, the applicant's agent provided an alternatives sites analysis which considered four alternative sites for the proposed project. The alternatives analysis and responses regarding overriding public benefit provided by the applicant, along with EPD staff's analysis, are summarized later in this report.

Although the applicant has modified the plans to provide some practical alternatives to Class I impacts, the development still appears to be inconsistent with Section 15-419(1)(a), as further described below.

Analysis of Comprehensive Plan Policies

- **FLU6.4.3** – All actions taken by the County with regard to development orders shall be consistent with Conservation Element Policy C1.4.1 and the regulations adopted pursuant thereto with respect to wetland protection. (See Conservation Element below);

C1.4.1 – Orange County shall continue to adopt and enforce regulations that protect and conserve wetlands and surface waters as defined in Orange County Code. Such regulations shall include criteria for identifying the functional habitat value of wetlands or surface waters.

- Staff Analysis – The project appears to be inconsistent with C1.4.1 because the applicant has not demonstrated compliance with Chapter 15, Article X.
- **FLU6.4.5** – The Land Development Code shall provide regulations for the protection and conservation of wildlife listed as endangered, threatened, or species of special concern, and their occupied habitat, floodplains, and the natural function of wetlands.
 - Staff Analysis – The applicant provided a wildlife survey that stated no listed species are within the development area. Additionally, the survey indicated that no eagle nest trees are within the vicinity of the development area.
- **FLU6.4.6** – Orange County shall continue to protect wildlife corridors, rare upland vegetative communities and wetland vegetative communities through the adoption of land development regulations or by utilizing other mechanisms such as transfer of development rights; development exactions; development incentives; or acquisition (by use of possible bond issues, existing tax dollars, or the Conservation Trust Fund) and the Green Place Program.
 - Staff Analysis – The development will impact one of the last existing undeveloped parcels within Central Florida Research Park. The wetlands onsite provide habitat for wildlife and other biological functions. The wetlands onsite are under conservation easement dedicated to SJRWMD and are platted conservation areas with development rights dedicated to the County.
- **FLU6.4.7** – Orange County shall provide for compatible public and/or private land uses adjacent to significant natural resources that are managed for public benefit. Methods of protection to be considered may include, but shall not be limited to, coordination with appropriate state agencies, Notice of Proximity, the use of density and intensity limitations on land use and development, and the use of buffers.

C1.9.2 – Orange County shall continue to require compatible land uses and enhanced protective mechanisms, such as, but not limited to, Notices of Proximity, buffers, vegetative buffers, setbacks, density restrictions, easements, physical barriers, pollution abatement swales, erosion control techniques, treatment of stormwater runoff, and fire management that will permit continued habitat management practices in areas adjacent to major managed natural resources. This is necessary in order to minimize adverse impacts from development and allow continuation of management activities for these areas.

- Staff Analysis – The wetlands on the development site and the wetlands on the parcel directly adjacent to the north are under a conservation easement dedicated to SJRWMD. The proposed development does not appear to be a compatible land use to the adjacent natural resources. The applicant is proposing no upland

buffers which results in adverse secondary wetland impacts. The applicant has not provided detailed plans demonstrating how hydrology across the site will not be impeded or how the hydrology of remaining adjacent wetlands will not be affected.

- **C1.2.15** – Orange County shall identify areas within the County that are susceptible to impacts associated with nutrient loadings from specific activities including lawn and turf fertilizer application and reclaimed water irrigation. These susceptible areas shall include but are not limited to: Total Maximum Daily Load (TMDL) impaired waterbodies, Outstanding Florida Waters, Outstanding National Resource Waters, waterbodies with declining water quality associated with nutrient loads and areas adjacent to surface water conveyance systems that drain to a waterbody of special interest. The County will make efforts to reduce the potential impacts from these specific activities. The identified areas will also be used for planning and future use considerations.
 - Staff Analysis – The wetlands within the development site are hydrologically connected to the Econlockhatchee River. The Econlockhatchee River (WBID 2991/2991A) is an impaired waterbody (for algal mats and *Escherichia coli*). Additionally, the Econlockhatchee River is an Outstanding Florida Water.
- **C1.3.1** – Orange County shall continue to improve and enforce the Orange County Floodplain Management Ordinance by requiring compensatory storage for encroachment in floodplains, restricting encroachment in floodways, and requiring habitable structures to be flood-proofed.

FLU6.4.19 – County shall continue to require the flood-proofing of structures and the restriction of development that diminishes flood carrying or flood storage capacities. The County shall also continue to require non-residential and residential development in special flood hazard areas, as defined by the Federal Emergency Management Agency, to have the lowest floor, including basement, elevated no lower than one foot above the base flood elevation; and, if solid perimeter walls are used to elevate structures, openings sufficient to facilitate the unimpeded movement of floodwater, as well as continue to prohibit development within floodways that increase flow levels to protect areas subject to periodic or seasonal flooding.

- Staff Analysis – Most of the proposed development is within a FEMA-mapped flood zone. The applicant has not yet provided detailed plans regarding how compliance with County floodplain standards will be met.
- **C1.4.9** – An upland buffer of a minimum of 25 feet is recommended, unless otherwise stated elsewhere in Orange County Code or in the Orange County Comprehensive Plan for all wetland systems unless scientific data dictate a larger or smaller buffer

based on wetland function or local conditions. This shall be incorporated into Chapter 15 of the Orange County Code.

- Staff Analysis – The proposed plan does not meet C1.4.9. The applicant is not proposing to leave any upland buffers within the development footprint, which results in adverse secondary impacts to remaining adjacent wetlands. The applicant is providing mitigation for secondary impacts to a depth of 25 feet into the adjacent wetlands. It does not appear that all areas of secondary impact are being assessed appropriately, based on the provided site plan.
- **C1.5.4** – Orange County shall incorporate regulations into the Land Development Code concerning soils and their suitability for future development. These regulations shall include restricting development in areas with hydric soils, preservation of groundwater recharge areas, and controlling the location of individual on-site sewage disposal systems.
 - Staff Analysis – The development is proposing impacts to at least 17.82 acres of wetlands with hydric soils that are mapped as somewhat important for groundwater recharge.

Analysis of Chapter 15, Article X Standards and/or Criteria

- **Section 15-362(5)** – Where wetlands serve a significant and productive environmental function, the public health, safety and welfare require that any alteration or development affecting such lands should be so designed and regulated so as to minimize or eliminate any impact upon the beneficial environmental productivity of such lands, consistent with the development rights of property owners.
 - Applicant's Position (summarized) – The applicant has provided an updated plan that demonstrates elimination and reduction of wetland impacts to the greatest extent practicable. The reduction was accomplished by consolidating the vehicle evaluation center and generator building into the main research building. The main parking lot size was reduced by re-locating parking spaces into the open space areas adjacent to the research building and within the long range testing facility. The number of parking spaces shown is what would be allowable by Orange County code. The long range testing facility has been eliminated as a stand-alone feature and will utilize the employee parking lot so that additional wetland impacts are not required. The stormwater ponds are of the minimum size required to attenuate and treat runoff from the site and provide compensating storage for floodplain impacts.
 - Staff Analysis – Following the first RAI, the applicant reduced impacts from 26.94 acres to 17.67 acres. The current proposed impact acreage is 17.82 acres, due

to a slight configuration change of the drainage by-pass. A “practicable” design need not provide the highest economic value or other “best” use of the property. Though the applicant has reduced impacts from their original submittal, it is staff’s opinion that other alternatives exist (for example, a multifamily residence/apartment or a small office building project that utilizes the uplands in the southwest portion of the parcel) that would result in less direct wetland impacts.

- **Section 15-419(1)a.** – *Class I conservation areas.* The removal, alteration or encroachment within a Class I conservation area shall only be allowed in cases where no other feasible or practical alternatives exist that will permit a reasonable use of the land or where there is an overriding public benefit. The protection, preservation and continuing viability of Class I conservation areas shall be the prime objective of the basis for review of all proposed alterations, modifications or removal of these areas. When encroachment, alteration or removal of a Class I conservation area is permitted, habitat compensation or mitigation as a condition of development approval shall be required.
 - Applicant’s Position (summarized) – The applicant’s agent provided an alternatives sites analysis which considered four alternative sites for the proposed development, along with the applicant’s preferred alternative, the subject site.
 - Alternative #1 includes Parcel IDs 15-22-31-1218-28-010 and 15-22-31-1218-28-011. The site appears to contain approximately five acres of uplands and nine acres of wetlands. Due to the small size of the uplands, all onsite wetlands would be required to be impacted. One parcel has an onsite retention pond which spans the width of the site reducing the developable area. The site was determined to be too narrow and of insufficient size to accommodate the proposed development.
 - Alternative #2 includes Parcel IDs 15-22-31-0000-00-031 and 15-22-31-0000-00-029. The site appears to contain approximately seven acres of uplands and six acres of wetlands. The uplands are fragmented into small areas divided by wetlands. This site could possibly support a portion of the proposed development, but not the entire project, and was eliminated due to insufficient parcel size to accommodate the proposed development.
 - Alternative #3 includes Parcel ID 10-22-31-1240-01-000. The site appears to contain approximately nine acres of uplands and five acres of wetlands. This site was eliminated due to insufficient parcel size to accommodate the proposed development.
 - Alternative #4 includes Parcel ID: 15-22-31-1218-30-012. It appears to contain approximately one acre of uplands and four acres of wetlands. This alternative

was eliminated due to its irregular shape and because it is insufficient in size to accommodate the proposed development.

- The applicant's preferred alternative is the currently proposed project site. This site is preferred because it meets the applicant's location and size requirements and the applicant currently owns the site. The environmental assessment did not identify any listed species within the site. The developable uplands are contained within a single area that adjoins Challenger Parkway.

Additional responses from the applicant's agent are summarized below:

- The subject property is located within the CFRP planned development which is a campus-like environment in which tenants form research and technology relationships with the adjacent University of Central Florida.
 - The subject property meets the applicant's location and size requirements. The development potential of the site is supported by the existing infrastructure and partnerships in place for tenants of CFRP. Due to the applicant's size requirements and design constraints, no other feasible or practical alternatives existing, therefore, development of the subject parcel is a reasonable use of the land.
 - The proposed plan allows the applicant to construct the Long Range Test Facility, a test facility allowing Luminar Technologies to validate their life-saving software across a myriad of tests. The test track will allow Luminar to test real world conditions such as blinding light, slick roads, and heavy rain. The technology enables a vehicle to step in and engage confidently and safely.
 - A reasonable use of the land is supported by the applicant's specific capacity and site design requirements crucial to their research in developing new technologies. The proposed land use is consistent with the CFRP purpose of creating a research and development center.
- Staff Analysis – All 17.82 acres of the proposed impacts are to Class I wetlands. There will be at least 3.26 acres of secondary wetland impacts to Class I wetlands. The development is for a private research and office facility. It is not a development type typically considered to provide an overriding public benefit (e.g., school, power generation, sewage treatment, hospital, public transportation).

There appear to be practical alternatives to the proposed Class I wetland impacts, as described above, including constructing a different type of development such as a multifamily residence/apartment or a small office building that utilizes the uplands in the southwest portion of the parcel) that would result in less direct

wetland impacts. These alternatives would allow for a reasonable use of the development site, while still greatly reducing the impacts to Class I wetlands.

No sites located outside of the CFRP area were considered in the applicant's alternative sites analysis. No alternative sites of sufficient size for the proposed development were considered by the applicant in their alternative sites analysis, only sites that were too small.

The wetlands proposed for impact serve a significant and productive environmental function. They are among the last undeveloped wetlands within the CFRP and are hydrologically connected to the Econlockhatchee River. The proposed land use has the potential to degrade the quality of the surrounding wetlands. The protection, preservation, and continuing viability of this regionally significant Class I wetland system is the prime objective of the basis for review of the proposed alterations and removal of these areas.

The onsite wetlands were placed under conservation easement dedicated to SJRWMD and appear to have been used for mitigation for a SJRWMD permit. Additionally, the wetlands were platted as conservation areas with development rights dedicated to Orange County and it appears some or all of the onsite wetlands were used as mitigation for the County's previous approval of the CFRP Section IV development.

- **Section 15-362(1)** – The county contains large wetlands which are significant and productive in the maintenance and preservation of viable populations of plant and animal species.
 - Staff Analysis – The wetlands within and in the vicinity of the development area are Class I wetlands which are hydrologically connected to the Econlockhatchee River, are platted conservation areas with development rights dedicated to Orange County, and are under a conservation easement dedicated to SJRWMD.
- **Section 15-362(2)** – The preservation and protection of property rights of the people of the county require that mechanisms be established which will concurrently provide for the orderly regulation and preservation of environmentally significant and productive wetlands (so as to preserve or restore the productivity of such lands), and the equitable compensation for property development rights denied by reason of such preservation.
 - Staff Analysis – The wetlands within the development area are environmentally significant and productive wetlands. Wetlands cover approximately 84.28 percent of the development site and impacts are proposed to approximately 65.83 percent of those wetlands. It appears other types of development could be constructed on

the property to utilize the available uplands and still allow a reasonable use of the site while greatly reducing the Class I wetland impacts.

- **Section 15-362(3)** – The environmental productivity of wetlands is sensitive to all agricultural, residential, commercial, industrial or public uses in or near such lands.
 - Staff Analysis – The wetlands on the development site and the wetlands on the parcel directly adjacent to the north are under conservation easement dedicated to SJRWMD. They are also platted as conservation areas with development rights dedicated to Orange County. The proposed development does not appear to be a compatible land use to the adjacent natural resources. The applicant is proposing no upland buffers which results in adverse secondary wetland impacts. The applicant has not provided detailed plans demonstrating how hydrology across the site will not be impeded or how the hydrology of remaining adjacent wetlands will not be affected.
- **Section 15-362(7)** – Under certain conditions, the public health, safety and welfare may be enhanced by the elimination of isolated, nonviable wetlands and their replacement by interconnected wetlands comprising a viable and productive ecosystem.
 - Staff Analysis – The wetlands within and in the vicinity of the development area are not isolated and are not nonviable. The proposed impacts are to Class I wetlands which are connected to the Econlockhatchee River and provide a moderately high ecological function.
- **Section 15-379(2)** – Are wetlands lawfully set aside as local, state or federally designated sanctuaries or refuges.
 - Staff Analysis – The wetlands within and in the vicinity of the development site are under conservation easement dedicated to the SJRWMD. They are also platted as conservation areas with development rights dedicated to Orange County. Some or all of the wetlands on the site appear to have been utilized as mitigation for previous approvals for CFRP Section IV by the SJRWMD and Orange County.
- **Section 15-379(3)** – Are wetlands, the destruction or alteration of which would materially affect in a detrimental way natural drainage characteristics, sedimentation patterns, flushing characteristics, or other related and significant environmental characteristics.
 - Staff Analysis – The applicant has not provided detailed plans demonstrating how hydrology across the site will not be impeded or how the hydrology of remaining

adjacent wetlands will not be affected. The proposed development could reduce the flood attenuation ability of the remaining wetlands offsite.

- **Section 15-383(1)** – The functional significance of lands identified as potential conservation areas shall be determined by the degree of natural biological functions including, but not limited to, food chain production, general habitat and nesting, spawning, rearing, feeding and resting sites for aquatic or wetland dependent species, including those designated as endangered, threatened or of special concern, pursuant to F.S. § 581.185, and Rules 68A-27.003, 68A-27.004 and 68A-27.005, Fla. Admin. Code.
 - Staff Analysis – The wetlands within and in the vicinity of the development site provide a moderately high level of natural biological functions and are hydrologically connected to the Econlockhatchee River.
- **Section 15-383(3)** – The replaceability of habitat shall be determined by reviewing the probability that similar or improved habitat values, vegetation dominants or inundation regimes can be established to mitigate or compensate for values or functions occurring in an area (on or off the development site) proposed for alteration or development.
 - Staff Analysis – The wetlands within the development site are not listed as scarce by Section 15-383(2), however there are few undeveloped wetlands within the CFRP. The wetlands onsite have already been preserved by a conservation easement dedicated to SJRWMD and via the plat with development rights dedicated to Orange County. Some or all of the wetlands onsite were used as mitigation for the SJRWMD and Orange County CFRP approvals. The proposed project seeks to remove that preservation. The applicant has not indicated that they will provide additional mitigation to offset the loss of that preservation and the mitigation it provided for some of the original CFRP wetland impacts.
- **Section 15-416** – In those circumstances where the development proposal will result in an adverse impact upon conservation areas not excluded by this article, the development may proceed by either complying with the provisions of section 15-396 or under a mitigation plan approved pursuant to this division.
 - Staff Analysis – Based on the Uniform Mitigation Assessment Method (UMAM) scoring, it appears that the proposed mitigation plan will offset the functional loss which would result from the proposed development. However, the applicant has not indicated that they will provide additional mitigation to offset the loss of the original mitigation areas, which appear to be on the development site, that offset some of the original CFRP wetland impacts.

- **Section 15-418(6)** – Additional information as may be required by the county to evaluate the mitigation proposal;

Section 15-419(5) – The applicant shall provide other items that may be required by the board of county commissioners to provide reasonable assurance that the mitigation plan requirements are met.

- Staff Analysis – The applicant has not provided documentation that the required mitigation credits have been reserved from the TM-Econ Mitigation Bank. The applicant has not indicated that they will provide additional mitigation to offset the loss of the original mitigation areas, which appear to be on the development site, that offset some of the original CFRP wetland impacts.
- **Section 15-419 (in part)** – Mitigation proposals shall be reviewed pursuant to subsection (1) below. The degree of impact to wetland functions, whether the impact to these functions can be mitigated, and the feasibility of cost-effective design alternatives which could avoid impact are all factors in determining whether a proposed mitigation measure will be acceptable. In addition, an evaluation of the anticipated post-development viability and function performance will be considered utilizing accepted scientific methods which may include, but not be limited to, the habitat evaluation procedure (USFWS).
 - Staff Analysis – The proposed impact to wetland functions within the development area is significant. There appear to be alternatives that exist (for example, a multifamily residence/apartment or a small office building project that utilizes the uplands in the southwest portion of the parcel) that would result in less direct wetland impacts. The wetlands onsite have already been preserved by a conservation easement dedicated to SJRWMD for use as mitigation and preserved via the plat with development rights dedicated to Orange County. The proposed project seeks to remove that preservation. The applicant has not indicated that they will provide additional mitigation to offset the loss of the original mitigation areas, which appear to be on the development site, that offset some of the original CFRP wetland impacts.

Additional Staff Analysis

- Insufficient details have been provided regarding several aspects of the project, including but not limited to, the proposed conveyance pipe under the adjacent parcel via directional drilling and the proposed 'Flood Storage and Drainage By-Pass', which could result in potential hydrologic impacts to adjacent wetlands.

- EPD staff has compiled several historical permitting documents that appear to demonstrate that some or all of the wetlands proposed for impact were used as mitigation for Orange County's approval of the original CFRP Section IV development. EPD informed the applicant team of this in the first and second RAIs. EPD provided some of these documents for the applicant's team review in the third RAI and asked the applicant team to provide a mitigation plan to offset the loss of the original mitigation areas. This issue was not addressed in the response received on October 19, 2023. The response from March 7, 2024 stated that no documentation had been found which confirmed EPD staff's position. The response from February 25, 2025 stated that the historical permitting documents provided by EPD staff did not provide a conclusive functional value that the on-site wetlands may have provided. To date, EPD has not received any formal indication that mitigation will be provided to offset the loss of the original mitigation areas.
- The wetlands on the subject parcel are currently encumbered by a conservation easement (CE) dedicated to the SJRWMD (BK 4372, PG 2674). EPD does not support projects which will impact areas under CE dedicated to other agencies unless the applicant can provide documentation that the CE has been released by that agency. The response received March 7, 2024 indicated the applicant would not pursue a release of the CE unless and until approval by Orange County was received.
- The wetlands on site are platted as a conservation area (BK 28, PG 65) and the development rights are currently dedicated to the County. As previously communicated in an RAI, a replat may be required to revise the development restrictions and to reflect any changes to the conservation areas if the project is ultimately approved.

Mitigation for the impacts currently includes the purchase of mitigation credits from the TM-Econ Mitigation Bank, Phase IV. Based on the currently proposed impacts, it appears 12.21 UMAM credits will be required. EPD has not received documentation that the required credits have been reserved.

Based on the site plan and justifications for the proposed impacts provided by the applicant, EPD has determined that the development does not constitute an overriding public benefit or constitute a reasonable use of the land, and that minimization and elimination of wetland impacts has not been fully demonstrated.

Notification of the public hearing was sent to the applicant and authorized agent. Notification of the adjacent property owners is not required.

Pursuant to Orange County Code, Chapter 15, Article X, EPD has evaluated the proposed CAI permit application and required documents and has made a finding that the request

is inconsistent with Sections 15-362(5) and 15-419, and several policies in the Orange County Comprehensive Plan.

Staff Recommendation

Denial of the Conservation Area Impact Permit for Luminar Technologies, Inc. (CAI-23-07-034).

Should the Board not accept staff's recommendation of denial and decide to approve the CAI Permit Application, the approval shall be subject to the following conditions:

Specific Conditions

1. This permit shall become final and effective upon expiration of the 30-calendar day period following the date of rendition of the Board's decision approving the permit unless a petition for writ of certiorari or other legal challenge has been filed within this timeframe. Any timely filed petition or other challenge shall stay the effective date of this permit until the petition or other challenge is resolved in favor of the Board's decision.
2. The operational phase of this permit is effective upon the completion of construction and continues in perpetuity.
3. Prior to beginning construction, the permittee must demarcate the limits of construction with orange safety fencing. Initial clearing shall include a path along the limit of construction to facilitate a visual limit of clearing for the installation of the orange safety fence and erosion control devices. After the initial clearing adjacent to the conservation areas is complete, a silt fence and orange safety fence must be installed along the limits of construction next to the conservation area boundaries and maintained throughout construction.
4. Prior to construction plan approval and beginning construction, the existing conservation easement dedicated to the St. Johns River Water Management District (SJRWMD) (OR 4372, PG 2674) within the development site must be released by SJRWMD and documentation of the release provided to EPD. If the conservation easement cannot be released, this permit shall become null and void.
5. Prior to construction plan approval and beginning construction, a replat of the wetlands with development rights currently dedicated to Orange County (PB 28, PG 65) must be approved to revise the development restrictions and to reflect any changes to the conservation areas.

6. Prior to initiating any construction within wetlands or upland buffers authorized for impact, EPD shall receive documentation from the TM-Econ Mitigation Bank, Phase IV indicating that the purchase of 12.21 mitigation credits has been completed. If the mitigation plan changes in any way for any reason, the permittee must notify EPD immediately and submit the new mitigation plan to EPD for review. A CAI Permit Modification may also be required to authorize any changes to the approved mitigation plan. The revised mitigation plan and CAI Permit Modification may require approval by the Board of County Commissioners. No construction within wetlands, surface waters, or upland buffers that require mitigation may begin unless the mitigation plan has been reviewed and approved by EPD.
7. If the permittee does not successfully complete the transaction to obtain the requisite 12.21 credits from the TM Econ Mitigation Bank Phase IV, the permittee shall obtain a permit modification from the Environmental Protection Officer to provide alternative mitigation for the wetland impacts prior to the commencement of any construction activities.
8. Prior to construction plan approval and beginning construction, the permittee must submit a mitigation plan to EPD for review and approval which fully offsets the loss of the existing lands used as mitigation for previous Orange County approvals of Central Florida Research Park Section IV.
9. The wetland impacts must be completed in accordance with the site plan prepared by Madden Civil Engineers, received by EPD on February 25, 2025. Construction shall be completed within five years from issuance of this permit unless extended in writing. Requests for permit extension must be submitted to EPD prior to the expiration date.
10. Conservation areas shall be clearly marked with signage that identifies the remaining wetland and upland buffer. These signs shall be installed every 150 feet along the landward edge of the remaining wetland and upland buffer boundary. The signs shall be installed prior to the Certificate of Completion.
11. The permittee shall submit detailed plans for the 'Flood Storage and Drainage By-Pass', the proposed amount of compensating storage, and the stormwater management system to EPD and other County Divisions including but not limited to Stormwater Management and Development Engineering for review prior to construction plan approval. A CAI Permit Modification and Board of County Commissioners approval may be required for any changes to the site plans as a result of flood plain compensation, stormwater management system, or hydrologic conveyances.

12. If it is determined at any time that the development has created adverse hydrologic impacts (i.e., drawdown or impeded hydrologic connection) to remaining and adjacent wetlands not authorized for impact, the permittee shall provide EPD with a restoration or mitigation plan to address the unauthorized impacts, to EPD's satisfaction. A CAI permit modification and Board of County Commissioners approval may be required.
13. Prior to construction plan approval, the permittee shall provide EPD a copy of any applicable wildlife permits from the Florida Fish and Wildlife Conservation Commission (FWC) or U.S. Fish and Wildlife Service (FWS) for any listed species that may be affected. If it is determined that adverse effects will occur to listed species as a result of the development, the permittee may be required to take additional measures to offset the effects.
14. The permittee shall obtain appropriate zoning and land use approval, as applicable, prior to construction plan approval.
15. Prior to any filling within the 100-year flood zone a Flood Plain Permit may be required from the Orange County Stormwater Management Division authorizing the fill.
16. The permittee shall notify EPD, in writing, within 30 days of any sale, conveyance, or other transfer of ownership or control of the real property subject to this permit. The permittee shall remain liable for all permit conditions and corrective actions that may be required because of any permit violations which occur prior to the transfer of the permit by Orange County to a subsequent owner. If applicable, no permit shall be transferred unless and until adequate financial assurance has been provided and approved by Orange County.
17. For projects which disturb one acre or more of land, or which are less than one acre but are part of a larger common plan of development of sale that is greater than one acre, coverage under a National Pollutant Discharge Elimination System (NPDES) Construction Generic Permit (CGP) is required. Prior to the start of land disturbing activities, which includes demolition, earthwork and/or construction, the operator shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and submit to the Florida Department of Environmental Protection (FDEP) a Notice of Intent (NOI) to obtain coverage under the NPDES CGP pursuant to the requirements of 62-621.300(4)(a) Florida Administrative Code (F.A.C.). As the Operator of the MS4, a copy of the NOI shall also be submitted to the Orange County NPDES Environmental Program Supervisor prior to the start of activities. Copies of the SWPPP, NOI, and FDEP Acknowledgement Letter are to be kept on the project site and made available upon request. Upon completion of all land disturbing activities and after final stabilization of the site is complete, the developer/contractor shall submit to FDEP a Notice of Termination (NOT) to end their coverage under the CGP and provide a copy of the

NOT to the Operator(s) of the MS4. A copy of the CGP, NOI and additional information can be found on the FDEP website: <http://dep.state.fl.us/water/stormwater/npdes/construction3.htm>.

18. Turbidity and sediment shall be controlled to prevent off-site, unpermitted impacts and violations of water quality standards pursuant to Rules 62-302.500, 62-302.530(70) and 62-4.242 F.A.C. Best Management Practices (BMPs), as specified in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (2013, or most current version), shall be installed, and maintained at all locations where there is the possibility of transferring sediment, turbidity, or other pollutants, into wetlands and/or surface waters due to the permitted activities. BMPs are performance based, if selected BMPs are ineffective or if site-specific conditions require additional measures, then the permittee shall implement additional or alternative measures as necessary to prevent adverse impacts to wetlands and/or surface waters. Turbidity discharging from a site must not exceed 29 NTU over background for Class III waters and their tributaries or 0 NTU over background for those surface waters and tributaries designated as Outstanding Florida Waters (OFW). A copy of the Designer and Reviewer Manual can be found at the following website: <https://www.flrules.org/Gateway/reference.asp?No=Ref-04227>.
19. Discharge of groundwater from dewatering operations requires approval from FDEP and the applicable Water Management District. The operator/contractor shall obtain an FDEP Generic Permit for the Discharge of Ground Water from Dewatering Operations pursuant to the requirements of 62-621.300(2)(a) and 62-620 F.A.C. and Chapter 403, Florida Statutes (FS). Discharges directed to the County's MS4 require an Orange County Right-of-Way Utilization Permit for Dewatering prior to the start of any discharges.

General Conditions

20. A copy of this permit, along with EPD stamped and approved drawings, should be provided to the Orange County Zoning Division (OCZD) at 201 South Rosalind Avenue for review prior to applying for a Building Permit. For further information, please contact the OCZD at (407) 836-5525.
21. After approval by OCZD, the certified site plans will need to be reviewed by the Orange County Building Safety Division (OCBSD) in order to obtain a Building Permit. For further information, please contact the OCBSD at (407) 836-5550.
22. The permittee shall require the contractor to maintain a copy of this permit, complete with all approved drawings, plans, conditions, attachments, exhibits, and modifications in good condition at the construction site. The permittee shall require the contractor to review the permit prior to commencement of the activity authorized

by this permit. The complete permit shall be available upon request by Orange County staff.

23. Subject to the terms and conditions herein, the permittee is hereby authorized to perform or cause to be performed, the impacts shown on the application and approved drawings, plans, and other documents attached hereto or on file with EPD. The permittee binds themselves and any successors to comply with the provisions and conditions of this permit. If EPD determines at any time that activities are not in accordance with the conditions of the permit, work shall cease, and the permit may be revoked immediately by the Environmental Protection Officer. Notice of the revocation shall be provided to the permit holder promptly thereafter.
24. Issuance of this permit does not warrant in any way that the permittee has riparian or property rights to construct any structure permitted herein and any such construction is done at the sole risk of the permittee. In the event that any part of the structure permitted herein is determined by a final adjudication issued by a court of competent jurisdiction to encroach on or interfere with adjacent property owners' riparian or other property rights, the permittee agrees to either obtain written consent or to remove the offending structure or encroachment within 60 days from the date of the adjudication. Failure to comply shall constitute a material breach of this permit and shall be grounds for its immediate revocation.
25. This permit does not release the permittee from complying with all other federal, state, and local laws, ordinances, rules and regulations. Specifically, this permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities upon property which is not owned or controlled by the permittee or convey any rights or privileges other than those specified in the permit and Chapter 15, Article X of the Orange County Code. If these permit conditions conflict with those of any other regulatory agency, the permittee shall comply with the most stringent conditions. The permittee shall immediately notify EPD of any conflict between the conditions of this permit and any other permit or approval.
26. The permittee is hereby advised that Section 253.77 FS, states that a person may not commence any excavation, construction, or other activity involving the use of sovereignty or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

27. Should any other regulatory agency require changes to the property or permitted activities, the permittee shall provide written notification to EPD of the change prior to implementation so that a determination can be made whether a permit modification is required.
28. EPD shall have final construction plan approval to ensure that no modification has been made during the construction plan process.
29. The permittee shall immediately notify EPD in writing of any previously submitted information that is later discovered to be inaccurate. EPD may revoke the permit upon discovery of information that may cause pollution to water bodies.
30. EPD staff, with proper identification, shall have permission to enter the site at any reasonable time to ensure conformity with the plans and specifications approved by the permit.
31. The permittee shall hold and save the County harmless from any and all damages, claims or liabilities, which may arise by reason of the activities authorized by the permit.
32. All costs, including attorney's fees, incurred by the County in enforcing the terms and conditions of this permit shall be required to be paid by the permittee.
33. The permittee agrees that any dispute arising from matters relating to this permit shall be governed by the laws of Florida and initiated only in Orange County.
34. Pursuant to Section 125.022 FS, issuance of this permit by the County does not in any way create any rights on the part of the applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the County for issuance of the permit if the applicant fails to obtain the requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law.
35. Pursuant to Section 125.022 FS, the applicant shall obtain all other applicable state or federal permits before commencement of construction.

BUDGET: N/A