



Department of Planning & Zoning

Land Disturbance Plan Preparation (LDP) Checklist

Development Name:
Design Professional: Applicant:
Date:
Zoning District:
Principal <u>Use</u> within Zoning (Refer to Zoning Ordinance Section 1300 – 1317; examples include “single-family dwelling”, “convenience food stores”, “law office”, etc.): _____ Special Use Permit Required by Zoning Ordinance, Yes or No _____.
Are there any associated zoning conditions, variances, or special use conditions for this project, Yes or No? _____ If yes, they are required to be shown on the cover sheet of the submittal set of plans (or additional plan sheets if necessary)
Is the project located in the Mall of Georgia Overlay District (Section 1315) or under the Special Architectural Design and Landscaping Requirements (Section 1316) of the Zoning Ordinance? If yes, specify the Section: _____

City Engineer / Plan Review: Keck & Wood, Inc.  
3090 Premiere Pkwy Suite 200  
Duluth, GA 30097  
Phone: 678-417-4000  
Email: kwplanreviews@keckwood.com

It is the owner’s/developer’s responsibility to be in compliance with applicable National Pollution Discharge Elimination System (NPDES) Permit and Clean Water Act requirements. The applicant should be made aware that the review does not constitute a waiver of City Ordinance requirements or assumption of responsibility for full review of City Ordinance requirements. Deviations from Ordinance requirements may be noted at any time during the review, permitting or construction processes. Re-submittals should include a narrative indicating how and where the review comments were addressed. Any resubmittal that does not provide a response or narrative on how the comments were addressed may be rejected and not reviewed.

Note that any re-submittals exceeding one year from the previous submittal will be charged the original review fee upon its submission.

**Abbreviations:**

- CBSD: City of Buford Standard Drawings
- DNR: Department of Natural Resources
- DR: Development Regulations
- FEMA: Federal Emergency Management Act
- GCSMM: Gwinnett County Stormwater Management Manual
- GSWCC: Georgia Soil & Water Conservation Commission
- MESC: Manual for Erosion and Sediment Control in Georgia (latest ed.)
- TPO: Tree Protection Ordinance
- WSSS: Water and Sewer Standard Specifications (City of Buford)
- WWAO: Wastewater Allocation Ordinance
- ZO: Zoning Ordinance



**A check mark ✓ indicates the plan has adequately met the requirement. An “X” indicates the plan has not adequately met the requirement. An “NA” response indicates the requirement is not applicable.**

**PLANNING AND ZONING**

Review Status	Item Description	Applicant Verified	Sheet #
	1. Prior to LDP approval, applicant will need to submit an electronic copy of the plans (Flash drive or Email only). If public structures are included for water, sewer, or storm then the CAD file will be required as well.		
	2. Provide complete, closed boundary survey to meet GA Plat Act, Sealed by PLS, closure statement, or final plat reference, date of survey, north arrow		
	3. Show property lines with metes and bounds on site plan.		
	4. Provide North Arrow and Graphic Scale. Not less than 1"=100'. For legibility, nonresidential or commercial and industrial projects not less than 1"=60'.		
	5. Show emergency 24-hour project contact name and telephone number		
	6. Provide property owner’s name, address, email, and phone number on cover sheet.		
	7. Provide Design Professional name, address, email, phone number and contact person on the Cover Sheet.		
	8. Provide Design Professional seal, date, and signature on all drawings.		
	9. Provide Vicinity Map and FEMA Map on plans.		
	10. Provide a complete sheet index on the cover sheet.		
	11. Full site development plans shall include, at a minimum, the following: Cover Sheet, Site Plan, Grading Plan, Erosion Control Plan, Erosion Control Notes and Details, Utility Plan (Water & Sewer), Stormwater Piping Plan and Profiles, Roadway Plan and Profile (Residential or Road Dedication), and Standard Construction Details		
	12. All applicable Variances, Zoning Modifications, or Special Use Permit Numbers and the associated Conditions should be shown on the Cover Sheet for reference. If there are none, applicant to state “N/A” under applicant verified.		
	13. Show zoning of all adjacent properties (Refer to City Zoning Map). The zoning for adjacent parcels in Hall or Gwinnett County shall also be shown.		
	14. Confirm Use is permitted in the site’s current zoning district (Refer to ZO).		
	15. Show site building setback linework on plans with associated labels.		
	16. Show buffer yards or landscape buffer linework and associated labels on plan sheets.		
	17. In a square or rectangular block on the cover sheet, show the following site data: <ul style="list-style-type: none"> <li>a. Current or Proposed Zoning Use</li> <li>b. Front, Rear and Side Building Setbacks (ZO, Section 1401, pg. 14.2)</li> <li>c. Buffers (Section 1401), Dissimilar Buffers (pg. 6.3) or Landscape Yards</li> <li>d. Lot Area, Total Acreage, Disturbed Acreage (ZO, Section 1400)</li> <li>e. Existing and Proposed Impervious Acreage</li> <li>f. Building Square Footage</li> <li>g. Parking Data (ZO, Article X, Section 1002)</li> <li>h. Maximum Building Height (Refer to ZO 1400 and 1401, pg. 14.1 and 14.2)</li> </ul>		



18.	Property shall meet minimum property frontage (40 ft.) and minimum lot dimensional requirements (Refer to ZO, Section 1400, pg. 14.1). Note that lot width is measured at the front building setback.		
19.	Delineate dissimilar zoning buffer strips on the plans, if applicable (Refer to ZO 605, pg. 6.3 – “Minimum Buffer Strip Requirements” Table)		
20.	All buffer strips shall be natural undisturbed areas or where substantially devoid of existing trees or shrubbery shall consist of landscaped open space or screening (Refer to ZO 606.2).		
21.	Screening shall be established within any landscaped open space that is required along side and rear lot lines. The screening shall be of such nature and density to screen activities and uses on the lot from view from the normal level of a first story window on an abutting lot land shall extend the entire length of the landscaped open space area (Refer to ZO 606.2).		
22.	Additional screening and/or landscaped open space areas outside required landscaped areas may be required for purposes of obscuring features such as dumpsters, rear entrances, utility and maintenance structures, loading facilities, swimming pools and recreational areas (Refer to ZO 606.3).		
23.	For subdivision, provide copy of Concept Plan or Preliminary Plan drawn to scale for approval.		
24.	Identify common area/conservation space and area on the plan, if applicable.		
25.	Label adjoining street names and whether they are public or private.		
26.	A copy of Gwinnett County or Hall County Fire Department approval is provided to the City for record.		
27.	Plans shall contain the applicable City of Buford Standard Construction Details (refer to the City’s website)		
28.	Retaining walls must be separately submitted & approved prior to their construction. Any retaining walls within the front yard will require a variance. (ZO 700.2). Provide note on plans: “All retaining walls shall be permitted separately and are not part of the land disturbance permit from the City of Buford”		
29.	Provide note on plans: “No Certificate of Occupancy will be issued until all site improvements have been completed”		
30.	Provide note on plans: “Signs, location, number, and size are not approved under this permit. A separate permit is required for each sign”		
31.	Provide note on plans: “All construction shall comply with City of Buford standards and specifications”		
32.	The utility provider for water, sewer, natural gas and electric shall be shown on the cover sheet of the plans.		
33.	The following note is included on the cover sheet: “Any utility improvements (water, sanitary sewer, natural gas, and /or storm drainage) to be dedicated to the City and become City responsibility must be installed by a Contractor on the City’s Approved Contractor List, or obtain approval by the City to be added to the list prior to the beginning of installation.”		
34.	If state waters are present, delineate and label the following buffers on the plans. <ul style="list-style-type: none"> <li>a. “25 ft. State Undisturbed Buffer”, an undisturbed natural vegetative buffer as measured from the wretched vegetation and on each side of the stream.</li> <li>b. “50 ft. City Undisturbed Buffer”, an undisturbed natural vegetative buffer as measured from the wretched vegetation and on each side of the stream (or an additional 25 ft. as measured from the 25 ft. State Undisturbed Buffer).</li> <li>c. “75 ft. Impervious Buffer”, an additional setback beyond the undisturbed natural vegetative buffer, in which all impervious cover is</li> </ul>		



	prohibited. This buffer is measured from the wrested vegetation and on each side of the stream (or an additional 25 ft. as measured from the 50 ft. City Undisturbed Buffer).		
	35. Provide easements, approval or other contract agreements for any off-site improvements (grading, access, utilities, site work, etc.) that occur off the property. This also may include any stormwater headwater elevations as part of the stormwater management system.		
	36. Show and provide detail of dumpster per City detail 904 for food service or detail 905 for non-food service.		
	37. If food service dumpster is being provided, a hot water connection shall be shown on the plans per standard detail 904.		
	38. All dumpsters shall be enclosed. Place dumpsters in rear or side yard and 5 ft from any property line or buffer.		
	39. All outside storage will be required to be screened with fencing and landscaping.		
	40. If the proposed development is a car wash, it shall include operational recycled water systems that recycle a minimum of 50% of the water used. This is in accordance with the City's car wash ordinance.		

**MALL OF GEORGIA OVERLAY DISTRICT (ZO Section 1315) - If the property does not lie within this district, please state "N/A" in the "applicant verified" column for item #1 below, as this section will not apply**

Review Status	Item Description	Applicant Verified	Sheet #
	1. This section shall be used for those properties located within the Mall of Georgia Overlay District. Refer to online City of Buford Mall of GA Map to determine this designation.		
	2. Provide note on plans: "Site is located in the Mall of Georgia Overlay District and shall meet overlay requirements per Section 1315"		
	3. Provide inter-parcel vehicle access points between all contiguous commercial, office or industrial tracts (ZO 1315.2.1).		
	4. Provide 5 ft wide sidewalk fronting all roadways and separate sidewalks from the curb or parking area with a landscape strip. Sidewalk connection to be provided from public rights-of-way to the building entrance.		
	5. Provide sidewalks with an additional 2 ft by 8 ft concrete pad approx. every 300 ft outside the right-of-way to accommodate future pedestrian amenities		
	6. Provide pedestrian amenities located at 2 by 8 ft pad that have been reviewed and approved by the City of Buford.		
	7. Provide street lights along all public rights-of-way using decorative light poles and fixtures matching Mall of Georgia standard on any non-residentially zoned property that abuts or fronts SR 20. (ZO 1315.2.1.1E. - Cobra head, fluted green poles, a max of 40 ft in height).		
	8. Stagger street lights 200 ft on center along both sides of roadway.		
	9. Provide street lights throughout all parking areas using decorative light poles and fixtures matching Mall of Georgia standard per Zoning 1315.2.1.1E. (Cobra head, fluted green poles, a max of 40 ft in height).		
	10. Provide lighting through all parking areas utilizing decorative light poles/fixtures. Box head, fluted green pole, max of 50 ft. in heigh. Light shall be metal halide, not exceeding an average of 4.5 foot-candles of light output through parking area. Other than pedestrian light fixtures that will be less than 14 ft. tall, light fixtures shall be hooded. Lighting shall be directed to avoid intrusion on adjacent properties and away from thoroughfares (ZO 1315.2.1.1F).		



11. Subject to Corps of Engineers' approval, provide a direct pedestrian access point to the Mall of Georgia Nature Preserve or Ivy Creek floodplain for all properties or assemblages of parcels abutting the area. Provide min. 4 ft wide access constructed of pervious material. Show location and provide detail

**Parking**

12. For retail developments exceeding 125,000 sq. ft. of gross floor area, provide at least 10 percent of all required parking spaces utilizing parking areas of porous or grass paving systems (i/e "Grasscrete" or "Grasspave"), not to exceed 1,000 parking spaces

13. Provide no more than 25 percent of all required spaces as small vehicle parking for any development.

14. For freestanding buildings or shopping center developments containing 7,500 sq. ft. of gross floor space or less, provide no more than 20% of parking spaces in the front of buildings and no more than one row of double parking spaces in front. Provide no more than 20% of parking spaces to the sides of buildings with the balance of parking located to the rear of the buildings.

15. For developments exceeding 7,500 sq. ft. of gross floor space, place the building close to, and oriented toward, the public street right-of-way with the majority of parking to the sides and rear where possible.

16. Provide bicycle racks for all retail and office developments. Show rack location and rack details on plans

**Landscape**

17. Provide a minimum tree density standard of 20 units per acre for all non-residential development. Type and size must comply with the Tree Protection Ordinance.

18. Street trees required in this Section (Willow Oak trees within the Right of Way) cannot be counted towards meeting the 20 TDU/acre.

19. Provide at least 50% of tree plantings having trees of 3 inches caliper or greater

20. Provide non-ornamental shade trees of the Willow Oak variety at 50 ft on center or grouped at 120 ft on center along right-of-way of Ga Hwy 20 and all streets connected to Ga Hwy 20 (Buford Drive). All trees to be minimum 4" caliper at time of planting. Plant trees at 6 ft from back of curb subject to review and approval of the GA DOT or Buford. These are identified as "Street Trees" in the Zoning Ordinance.

21. Provide landscaped islands throughout all surface parking areas. Show interior landscaped islands of at least 100 sq ft of plantable area and 2 trees per 36 parking spaces.

22. Show linear island width of at least 7 ft wide between back of curbs.

23. Show end islands of minimum 100 sq ft plantable area and 1 large maturing shade tree or 2 small maturing evergreen or flowering trees

24. Island trees shall be minimum 6 ft high at time of planting.

25. Provide a minimum 10 ft wide landscape strip between all road right-of-way and the back of curb of abutting off-street paved parking lots. Plant materials shall consist of at least one (1) tree for every each five (5) parking stalls on the perimeter of the parking lot or vehicular use area. If no parking stalls are proposed, at least one (1) tree for every 50 ft. shall be required for the vehicular use area.

26. Provide a minimum 5 ft wide landscape strip between all road right-of-way and the back of curb of abutting off-street grassed parking lots (where applicable).

27. Plant all landscape strips in accordance with Buford Tree Protection Ordinance. For off-street parking lots, an average of at least one tree shall be furnished for



	each five (5) parking stalls on the perimeter of the parking lot. These may be grouped together if the landscape architect so desires.		
	28. Provide landscaping at back of curb adjacent to parking lot consisting of at least shrubbery, low-growing bushes, etc. to frame the parking lot.		
	29. Sod is required in the front yard of all developments within the Mall of Georgia Overlay District. (ZO 1315)		
	30. Provide screening on all 4 sides for dumpsters seen from adjacent properties or public parking lots. Use screening consisting of 3 solid brick or stucco construction walls at least 6 ft high with 100% solid metal gates.		
	31. Place dumpsters in rear yard and 5 ft from any property line or buffer. Landscape screening is required around dumpster.		
	32. Buildings shall incorporate live plant material growing immediately in front of or on the building (ZO 1315.2.5.A.4 – pg. 13.51)		

**SPECIAL ARCHITECTURAL AND LANDSCAPE AREAS (ZO Section 1316) - *If the property does not lie within this zone, please state "N/A" in the "applicant verified" column for item #1 below, as this section will not apply***

Review Status	Item Description	Applicant Verified	Sheet #
	1. This section shall be used for those properties located within the Special Architectural and Landscape Areas. This designation includes any non-residential zoning districts on Buford/Gainesville Highway, Friendship Road/Lake Lanier Islands Parkway, Hamilton Mill Road, Thompson Mill Road and South Lee Street, excluding those properties zoned M-1.		
	2. Provide note on plans: "Site is located in the Buford/Gainesville Highway, Friendship Road/Lake Lanier Islands Pkwy, Hamilton Mill Road, Thompson Mill Road and South Lee Street, excluding those properties zoned M-1 Overlay District and shall meet overlay requirements per Section 1316"		
	<b>Parking</b>		
	3. For retail developments exceeding 125,000 sq. ft. of gross floor area, provide at least 10 percent of all required parking spaces utilizing parking areas of porous or grass paving systems (i/e "Grasscrete" or "Grasspave"), not to exceed 1,000 parking spaces		
	4. Provide no more than 25 percent of all required spaces as small vehicle parking for any development		
	5. For freestanding buildings or shopping center developments containing 7,500 sq. ft. of gross floor space or less, provide no more than 20% of parking spaces in the front of buildings and no more than one row of double parking spaces in front. No more than 20% of parking spaces may be located to the sides of buildings with the balance of parking located to the rear of the building(s).		
	6. For developments exceeding 7,500 sq. ft. of gross floor space, place the building close to, and oriented toward, the public street right-of-way with the majority of parking to the sides and rear where possible		
	7. Provide bicycle racks for all retail and office developments. Show rack location and rack details on plans		
	<b>Landscape</b>		
	8. Provide a minimum tree density standard of 20 units per acre for all non-residential development. Type and size must comply with the Tree Protection Ordinance.		
	9. Street trees required in this Section (Willow Oak trees within the Right of Way) cannot be counted towards meeting the 20 TDU/acre.		



	10. Provide non-ornamental shade trees of the Willow Oak variety at 50 ft on center or grouped at 120 ft on center along right-of-way of the road or street. All trees to be minimum 4" caliper at time of planting. Plant trees at 6-8 ft from back of curb subject to review and approval of the GA DOT or Buford. These are identified as "Street Trees" in the Zoning Ordinance.		
	11. Provide at least 50% of tree plantings having trees of 3 inches caliper or greater		
	12. Provide landscaped islands throughout all surface parking areas		
	13. Show interior landscaped islands of at least 100 sq ft of plantable area and 2 trees per 36 parking spaces.		
	14. Show linear island width of at least 7 ft wide between back of curbs		
	15. Show end islands of minimum 100 sq ft plantable area and 1 large maturing shade tree or 2 small maturing evergreen or flowering trees		
	16. Island trees shall be minimum 6 ft high at time of planting		
	17. Provide a minimum 10 ft wide landscape strip between all road right-of-way and the back of curb of abutting off-street paved parking lots. Plant materials shall consist of at least one (1) tree for every each five (5) parking stalls on the perimeter of the parking lot or vehicular use area. If no parking stalls are proposed, at least one (1) tree for every 50 ft. shall be required for the vehicular use area.		
	18. Plant all landscape strips in accordance with Buford Tree Protection Ordinance For off-street parking lots, an average of at least one tree shall be furnished for each five (5) parking stalls on the perimeter of the parking lot. These may be grouped together if the landscape architect so desires.		
	19. Provide landscaping at back of curb adjacent to parking lot consisting of at least shrubbery, low-growing bushes, etc. to frame the parking lot		
	20. Show sod required in front yards of all properties. This shall be shown and clearly labeled on the landscape plan as well as on the Erosion Control Final Phase (III) Plan as Ds4.		
	21. Provide screening on all 4 sides for dumpsters seen from adjacent properties or public parking lots. Use screening consisting of 3 solid brick or stucco construction walls at least 6 ft high with 100% solid metal gates		
	22. Place dumpsters in rear yard and 5 ft. from any property line or buffer. Landscape screening is required around dumpster enclosure.		
	23. As this development is in Section 1316, live plant material shall be growing immediately on front of or on the building.		

**PARKING AND DRIVEWAYS**

Review Status	Item Description	Applicant Verified	Sheet #
	1. The basis and calculations for determining the number of parking spaces should be denoted on the plans. (ZO, Section 1002)		
	2. Dimensions: Show driveway widths, curve radii, curb and gutter size, parking space widths and lengths. Show number of parking spaces on the site plan for each row or aisle of parking.		
	3. Provide inter-parcel vehicle access points between all contiguous commercial, office, industrial and attached residential tracts		



4.	Provide minimum 2 parking spaces for each dwelling unit		
5.	Label and show off-street loading/unloading spaces and dimensions. Minimum dimensions shall be 12 ft. x 40 ft. x 14 ft. of overhead clearance. For buildings with floor areas greater than 25,000 sf, refer to the Table for the number of loading spaces to provide (ZO, Section 1004, pg. 10.6).		
6.	Minimum parking space size and driveway widths should comply with the Zoning Ordinance (ZO 1001). Show parking spaces a minimum of 9 ft wide, 19 ft deep. Max. of 1.5 ft of the 19 ft may overhand a grassed area, but not over sidewalk or right-of-way		
7.	Provide minimum interior driveway width of 22 ft for 90-degree parking (measured from edge of pavement). Show minimum interior driveway width of 12 ft for 60-degree parking one way traffic and 22 ft for two-way traffic. Show minimum interior driveway width of 10 ft for one-way and 20 ft for two-way traffic for parallel parking or no parking spaces. Driveway width is measured from the edge of pavement. (ZO, Section 1001)		
8.	Provide handicapped ADA parking space dimensions in accordance with the Standard Building Code adopted by the City		
9.	The parking of any vehicle on other than surface concrete or asphalt to accommodate the vehicle is prohibited. Gravel is prohibited for any drives and/or parking area. (ZO, Section 1001, #6)		
10.	Parking lots, whether public or private, shall be graded to ensure proper drainage, surfaced with concrete or asphalt at least two (2) inches thick installed on an approved base. Provide pavement & GAB section on site or paving plan.		
11.	Parking lots are required to have curb and gutter throughout. Refer to curb and gutter requirements below in Item #6.		
12.	Provide note on the plans: "High intensity lighting facilities shall be so arranged that the source of any light is concealed from public view and from adjacent residential properties and does not interfere with traffic. Lighting to be shielded and/or recessed".		

**STREETS AND ACCESS MANAGEMENT**

Review Status	Item Description	Applicant Verified	Sheet #
	1. Applicant should provide GDOT and/or Gwinnett County approval for work in the ROW as applicable. Applicant should be advised that additional comments below may still apply.		
	2. If traffic signals are proposed as a part of the development, they must comply with Section 6.5 of the City of Buford Development Regulations. Traffic signal shall be of mast arm type and shall be black in color. (DR 6.5.1)		
	3. Street improvements such as curb and gutter, and a sidewalk will be necessary for the entire property frontage along all street frontages if they do not already exist. Provisions to address drainage along the street should also be provided. If the street does not meet current standards for lane width, widening will be required along the property frontage (DR 6.3.4; DR 6.13).		
	4. Sidewalks shall be located 24-inches from back of curb and minimum of five feet wide. All new sidewalks shall provide a smooth transition to any existing sidewalk. Additionally, add note to cover sheet, "Sidewalks shall be concrete, minimum of 5 ft. wide and installed on compacted soil. Concrete shall be Class		



	<p>“A” (GDOT) and have a strength of 3,000 psi at 28 days. The area between the curb and sidewalk shall be sodded”. (DR, 6.13).</p>		
	<p>5. If the abutting substandard street provides the primary means of access to the development the street shall be upgraded to a standard roadway. Refer to DR, 6.3.6. For Road Widening, refer to DR, Article 6.8.1 and 6.8.2 for requirements. Provide City Standard Drawing 401 for road widening section. For road widening due to left turn lanes, see Street Sections below for requirements.</p>		
	<p>6. Driveways provide access primarily to one property and to no more than 2 single-family detached residences. Drive corner sight distance should be shown on the plans and a sight distance statement should be included (DR 9.7.4). Sight distance shall be equal to or exceed 10 times the regulated speed as or required using AASHTO. Refer to AASHTO for object height and eye height.</p>		
	<p>7. Driveway minimum separation from a street intersection shall be 100 ft from centerline of driveway to nearest right-of-way at intersecting street. Greater separation may be required for access on major thoroughfares. (DR, 9.7.5)</p>		
	<p>8. Maximum number of driveways serving a single project: one (1) for each four hundred (400) feet of property frontage along a major thoroughfare. Whenever possible, proposed driveways along one side of a street shall coincide with existing or proposed driveway on the opposite side of such street.</p>		
	<p>9. Clearly label curb and gutter size and location. Curb and gutter is required for all residential, industrial or commercial projects internally and within the public right-of-way (except R-140 or RA-200). Width of curb and gutter is shown below. Provide detail on plan, applicant may use Detail Sheet 607.</p> <ul style="list-style-type: none"> <li>a. Residential <ul style="list-style-type: none"> <li>i. Public right-of-way (DR, 6.11.2): 24” (6” depth)</li> <li>ii. Not in public right-of-way: 24” or 30”</li> </ul> </li> <li>b. Industrial or Commercial <ul style="list-style-type: none"> <li>i. Public right-of-way: 30” (8” depth)</li> <li>ii. Not in public right-of-way: 24” or 30”</li> </ul> </li> </ul>		
	<p>10. A minimum of 3-inches of graded aggregate base is required under all curb and gutter installations (DR 6.11.5.f). Provide note on plan that states, “All curb and gutter shall have at minimum 3” GAB installed under curb and gutter per Article 6.11.6 of the Development Regulations”.</p>		
	<p>11. Note on plan that states, “Concrete curbing shall be Class “A” and have a minimum strength of 3,000 PSI at 28 days”.</p>		
	<p>12. Provide driveway widths and radii. All proposed driveway entrances shall be per the City Standard Detail Nos. 309 through 313, and said detail should be provided on the plans. Driveway Design Standards shall adhere to 9.7.2 of the Development Regulations.</p>		
	<p>13. Deceleration, turn lanes are required and should be 150-feet in length based from turn-in, followed by a 50-foot taper section (DR 9.7.3; DR 6.3.2.c; 6.3.4). Any deceleration lane or road improvements are subject to City Engineer approval; additional information such as trip generation memos or traffic impact analysis may be required.</p>		
	<p>14. Projects may require a left turn lane, subject to City Engineer review. Applicant to provide a trip generation memo for review for significant traffic volumes. Refer to GDOT guidelines for left turn tapers and storage lane lengths.</p>		
	<p>15. A single driveway should be used for safe operation of the facility’s ingress/egress. Minimum separation from a street intersection: 100 ft. from CL of driveway to nearest RW line of intersection street (DR 9.7.5).</p>		
	<p><b>New Streets or Street Widening (DR, Article 6)</b></p>		
	<p>16. Show street intersection angles - no less than 85 degrees (DR, Article 9.6.1)</p>		



	17. Provide minimum intersection sight distance at the entrance road at 10 times regulated speed of intersecting street or minimum distance per AASHTO or GDOT Encroachment Manual (DR, Article 9.6.7)		
	18. Provide intersection radii for the roadway and right-of-way. Adequate ROW shall be provided to maintain a minimum of 11 feet from back of curb. Refer to Table 9-F for street category and roadway (pg. 9-11) a. Local – Residential: 20 ft. (roadway), 9 ft. (ROW) b. Local – Commercial: 25 ft (roadway), 11 ft (ROW) c. Local – Industrial: 40 ft (roadway) 25 ft (ROW)		
	19. Street lighting is required for residential subdivision (DR, Article 6.5.6).		
	20. Right-of-Way Widths for new streets and widenings: For full street categories, refer to Table 6A in the DR (pg. 6-4) and Table 6B (pg. 6-5). Below info. is only for Local Street category. a. Local: i. Non-residential: 60 ft. (60 ft. radius in cul-de-sac) ii. Residential: 50 ft. (50 ft. radius in cul-de-sac) iii. Residential (R-140 or RA-200): 60 ft.		
	21. Pavement Width for new streets and widenings: For full street categories, refer to Table 6A in the DR (pg. 6-4) and Table 6B (pg. 6-5). Dimensions are measured from back of curb to back of curb. A minimum 12 ft. paved travel lane is required. Widths below are only for a “Local” Street category. a. Local: i. Non-residential: 33 ft. ii. Residential: 28 ft. iii. Residential (R-140 or RA-200): 24 ft. (no curb/gutter, measured form edge of pavement)		
	22. Provide paving section on plan. Refer to per Article 6.9 (pg. 6-17) and Table 6-C (pg. 6-19) of the Development Regulations. a. Local Residential Street: 6” GAB / 2” 19mm Superpave / 1.5” Superpave wearing course b. Major Collectors: 10” GAB / 4” 25mm / 2” 19mm Superpave / 1.5” 12.5mm wearing course c. Non-Residential Street: 8” GAB / 2” 19mm Superpave / 1.5” 12mm Superpave wearing course		
	23. A cul-de-sac is required at the termination of any private or public street.		
	24. Vertical Alignment: A street profile indicating vertical street alignment is required on plan. “Local” street Categories shown below for reference only. (DR, 9.5) a. Minimum grade shall be 1.5% b. Maximum grade and design speed shown on Table 9-A • Local: 15% Max Grade, 20 MPH Speed c. Vertical Curves per Table 9-B • Local: Crest = 10 (minimum), Sag = 20 (minimum)		
	25. Horizontal Alignment and Curves: Refer to DR. Table 9-C and Table 9-D for street category for other minimum design requirements (pg. 9-6 and 9-8). a. Curves: Local Street = 120 ft. radius (minimum) b. Tangent or Reverse Horiz. Curve: Local = 60 ft. (minimum)		
	26. Street Intersection Approaches a. Horizontal Alignment: Refer to DR 9.6.3 b. Vertical Alignment: Refer to DR 9.6.4 for design and provide City Standard Drawing 304 on the plans.		
	27. Maximum grade on any cul-de-sac shall be 6%		



	28. No fence, wall, structure, shrubbery or other visual obstruction between heights of 3 ft and 15 ft, except utility poles, light or street sign posts or tree trunks shall be permitted within 20 ft of intersections of right-of-way lines of streets, highways or railroads		
	29. Private street(s) shall be designed and construction to the public street standards. (DR, 6.1.4)		
	30. Left turn lanes: City of Buford follows AASHTO and GDOT for left turn requirements, however the City reserves the right for the Traffic Engineer to use engineering judgement for that determination (A trip generation report or Traffic Impact Analysis may be required – Refer to City). Best practices for left turn lanes and road widening follow GDOT or AASHTO requirements (Refer to Table 4-9 of the Driveway & Encroachment Control Manual)		

**TREE PROTECTION AND LANDSCAPE**

Review Status	Item Description	Applicant Verified	Sheet #
	1. Tree Protection Ordinance requirements should be included with the submittal and show 15 TDU/acre. Provide summary table indicating planting quantities and caliper size. (Refer to TPO) <b>If the site is in a 1315 or 1316 district, the 20 TDU/acre will apply in lieu of the 15 TDU requirement.</b>		
	2. "Sampling methods" are not permitted in receiving credit for existing trees retained on site. All existing trees counted towards meeting the TDU/acre requirement must be shown on the plans (type and size) and/or in a Tree Protection Area (grouped by diameter and shown in summary table).		
	3. For Clearing/Grubbing Permits or Grading Only Permits, a Tree Protection Bond must be submitted prior to an issuance of a permit. Cost will be provided by applicant in the amount of 100% of the cost of completing all the required work to meet the Ordinance (TPO, Section 3)		
	4. Trees required to be planted in zoning buffers or dissimilar buffers, will not be counted towards meeting the TDU requirements. These areas may be excluded, or subtracted, from the total parcel area. Provide calculations on the plan for clarity (TPO, Section 7)		
	5. Tree save areas are shown on the plans, including a construction detail and description of the protective tree fencing to be installed.		
	6. Plant materials shall consist of at least one (1) tree for each twenty-five (25) linear feet of buffer (dissimilar buffer or zoning buffer). For purposes of this section, such tree may be any woody plant native to this region that has a single trunk and which will reach at least twenty (20) feet in height at maturity and which, when planted, is a minimum height of six (6) feet; or such tree may be a flowering tree with a minimum height of six (6) feet. (ZO, Article X, Section 1001, 3.f)		
	7. Off-Street Parking Landscaping: An average of at least one tree, as defined in Item 6 above, occupying a space of at least sixty-four (64) square feet each shall be furnished for each ten (10) cars on the interior and for each five (5) cars on the perimeter of the parking lot. Note that trees required around the perimeter of the parking or vehicular use area (5 per car or 1 tree per 50 feet of vehicular use area) are not required to be in a landscape island. (ZO, Article X, Section 1001, 3.h)		
	8. Leyland cypress trees are not allowed in the landscape plan.		



9.	Provide City standard drawing details (Series 800 of the Standard Drawings)		
10.	Provide note on the plan: "The Design Professional has prepared these plans in accordance with the City of Buford Tree Protection Ordinance."		
11.	Provide note on the plan: "All protective tree fencing, staking or continuous ribbon and all erosion control barriers must be installed prior to and maintained throughout the land disturbance and construction process, and should not be removed until final landscaping is installed."		
12.	Upon final installation of new trees planted under the requirements of the Tree Protection Ordinance, and following acceptance by the Development Department, the owner shall warrant the new trees and provide for the replacement of those which did not survive for a period of no less than one (1) year.		
13.	Landscape screening is required around dumpster enclosure		

**STORMWATER MANAGEMENT**

Review Status	Item Description	Applicant Verified	Sheet #
	1. All projects shall provide a Storm Water Management Report. (DR, Article 8.2.1 and 9.8.1).		
	2. All projects are evaluated under the Gwinnett County Stormwater Management Manual, latest edition. For additional requirements, refer to Development Regulations, Article "9.10. Post-Construction Stormwater Management for New Development and Redevelopment".  Provide the following note on the plans: "The Design Professional certifies that the Stormwater Management System for this project was prepared in accordance with the City of Buford Development Regulations and the Gwinnett County Stormwater Management Manual".		
	3. Residential subdivisions of five (5) or fewer lots where no street is being proposed is exempt from stormwater requirements.		
	4. The site plans should include the Public Drainage Notices as a note. Refer to Development Regulations, Article 10.6.8 (notes a, b, c)		
	5. Projects that create, add, or replace 5,000 square feet or greater of new impervious area or that involves land disturbing activity of 1 acre or more are required to meet the Post-Construction Stormwater Management Ordinance. (DR Article 9.10).		
	6. At a minimum, a stormwater management plan and report shall provide the items listed in 9.10.8 of the Development Regulations. For redevelopment, provide previous approved hydrology report, survey, as-built drawings and a qualified professional or Design Professional's inspection of existing stormwater management structures with any deficiencies noted. (DR 8.2.1.e)		
	7. In accordance with Section 8.2.1.e of the Development Regulations, when a Development uses an existing facility where the last approved certification and record drawing of the facility was over eighteen (18) months prior to the new development's submittal, the engineer shall provide one of the following: 1. A new survey, drawing and certification showing that the outlet structure is constructed as approved and flood storage and water		



- quality volume of the facility is equal to or greater than the volume required when the facility was approved.
- 2. Construction plans and calculations showing that the outlet structure will function as designed and the flood storage and water quality volume of the facility will be equal to or greater than the volume required when the facility was approved once the proposed maintenance has been performed.
- 3. A new record survey, drawing, study and certification showing that the facility meets the development requirements when the facility was approved.

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8. The development site includes an area identified as a stream or state waters and includes buffers. Before the City's decision can be rendered, it is recommended that the petitioner requesting the determination and their environmental consultant use the field guide (including the NC SAM assessment form and photographs of the feature) and prepare a report based on the field examination recently conducted on the evidence at the site. The method used to determine that buffers are necessary based on information defined by the EPD publication *The Field Guide for Determining the Presence of State Waters that Require a Buffer* (including the presence of base flow) is provided in the report and a copy of the report submitted to the City.

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9. A copy of the Acknowledgement and Certification Form for Section 404 permitting should be completed and returned to the City for record.

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**Hydrology Report Requirements**

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10. Narrative providing clear rationale and methodology for the study.

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11. Summary table showing pre-development and post-development flows for 2, 5, 10, 25, 50 and 100-year storms. Post developed flows must be less than or equal to predevelopment flows.

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12. Time of concentration (Tc) calculations and flow path must be shown on drainage map exhibit. Minimum Tc shall be 5 minutes.

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13. Pre-development Drainage Map and Post-development Drainage Map. Show all on-site drainage areas, off-site drainage areas, all BMP or pond bypass areas. Label basins, drainage acreage, CN, and Tc.

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14. Provide outlet control structure (OCS) detail. Detail must be consistent with detention pond grading elevations and construction drawings.

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15. Provide hydraulic model input. Input shall be consistent with outlet control structure details.

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16. Provide pond report and stage-storage volume.

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17. The stormwater BMP has the appropriate sized forebay for pretreatment.

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18. Provide Runoff Reduction calculations and/or Water Quality calculations.

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19. Provide Channel Protection calculations.

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20. All projects should provide 1.5 ft of freeboard – measured from the 100 yr. storm ponding elevation.

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21. Provide a cross section of detention facility embankment showing emergency spillway. Provide compliance to Emergency Overflow Requirements (DR, Article 9.8.4). Show capacity equal to the routed 100-yr peak flow out of the detention facility assuming the principal spillway is blocked. (DR, 9.8.4.e)

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22. The pond's outlet pipe (principal spillway), shall be reinforced concrete pipe.

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23. Parking lots may serve as detention facilities. If they are used, refer to DR, Article 9.8.5. Max ponding depth shall be 6-inches for 10-yr storm and 9-inches for 100-yr storm.

24. Provide details and sections of BMP's used in the stormwater design.

25. Show downstream study point for pre-development and post-development on a Drainage Basin Map. The map shall include the study point(s) at the property line and at the 10% downstream point(s).

26. Ten-Percent Rule: Provide a 10% downstream analysis and provide flows in a summary table. Analyze downstream watercourses and receiving conveyance to ensure there is no adverse effects downstream. Show hydrograph comparisons for the 2, 5, 10, 25, 50 and 100-year storm for the both the downstream property line study point and the point where the drainage basin equals 10 times the project area. (GCSMM, Section 3.1.9.2)

27. Provide the Site Development Review Tool in accordance with GCSMM showing that Runoff Reduction and/or Water Quality has been met.

28. Provide a BMP Drainage Area Map that delineates the drainage basin areas used in the Stormwater Quality Site Development Review Tool. Each BMP shall show its contributing drainage area and must match the data in the Review Tool. This information may be combined with the Post-Developed Basin Map.

29. Applicant is made aware that the "Stormwater Pond" BMP in the Site Development Tool assumes the pond has a wet permanent pool of water at least 3-4 ft. deep along the entire bottom of the proposed pond or micro-pool.

30. Use the NOAA 24-hr precipitation estimate and provide the runoff rates used.

**General Hydrology Requirements**

31. The stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site using runoff reduction methods, to the maximum extent practicable. Provide a soil report indicating infiltration rates per the GCSMM. It is recommended that soils have an infiltration rate of at least 0.50 inches per hour to accommodate runoff reduction.

32. Provisions to address the Post Development Storm Water Management procedures (such as the storm water management inspection and maintenance agreement, performance maintenance bond and fees, and the estimate of the plan annual maintenance costs and the basis used for determining the costs) should be provided so bond amounts to be posted can accurately be verified. The maintenance agreement must be signed and executed. (DR 9.10)

33. Runoff Reduction is not allowed under paved areas when combined with an underground detention per GCSMM. Another BMP or BMP treatment train shall be selected. Underground detention is not allowed in residential subdivisions (GCSMM, Article 4.28.4)

34. Proprietary Systems are allowed given that the following are provided: an independent third-party scientific verification of the ability of the system to meet water quality treatment, a proven record of longevity in the field, and the proven ability to function in Georgia conditions. An example of a proprietary system evaluation guideline, the Metro North GA Water Planning District has developed the "Post-Construction Stormwater Technology Assessment Protocol" which may be used. Applicant may also contact the City Engineer for acceptance of specific proprietary systems.

35. If runoff reduction is being provided for "new development", the runoff curve number (CN) shall be determined using the natural undisturbed condition.

If runoff reduction is being provided for "redevelopment", then the predevelopment hydrology may take into account the existing conditions, or



	predevelopment, defining the runoff curve number (CN) unless the existing development causes a negative impact on downstream property. (DR 9.10)		
36.	If runoff reduction is NOT being provided for new development or existing development, the curve number (CN) used for predevelopment hydrology shall not exceed 60. (DR 9.8.1.d)		
37.	To the extent Runoff Reduction has been determined to be infeasible during the site analysis, applicant must submit the City of Buford’s Runoff Reduction Infeasibility Form for review and approval. If approved by the City, then Water Quality shall apply for the remaining runoff from a 1.2-inch rainfall event and must be treated to remove at least 80% of the total suspended solids (TSS) per GCSMM. Refer to the City’s website for the Infeasibility Form and the Runoff Reduction Practicability Policy. Applicant must show a hardship or proof that no other runoff reduction practices would function on the site. An underdrain or engineered soils may work in some instances to achieve partial RR (DR Article 9.10.7.d)		
38.	All conservation areas shown in the Site Review Tool shall be shown and clearly labeled on the construction plans that they are to be protected and undisturbed during construction. Once established, natural conservation areas must be protected indefinitely and managed by a responsible party able to maintain the areas in a natural state in perpetuity. The conservation area must be shown on a Plat and recorded in a permanent protected conservation easement. Applicant to provide a copy of the plat and easement for review and approval prior to recordation.		
39.	Stormwater facilities are required and shall be provided, unless the items in Article 8.2.2.b have been met (DR, Article 8.2.2.b, pg. 8-7)		
	<b>Stormwater Drainage Requirements</b>		
40.	Design Storm: Minimum 25-yr frequency storm. Provide storm drainage profiles that include: <ul style="list-style-type: none"> <li>a. 25-yr and 100-yr HGL’s</li> <li>b. all utility and storm crossings</li> <li>c. structure type and identification labels</li> <li>d. structure top and invert elevations</li> <li>e. pipe size, length, material</li> <li>f. slope</li> </ul>		
41.	The minimum allowable pipe diameter is 15 inches (DR, Article 8.3.5d)		
42.	Provide a Drainage Inlet and Pipe Chart Summary on the plans showing (DR, 8.3.5): <ul style="list-style-type: none"> <li>a. Drainage Areas (acreage)</li> <li>b. Runoff Coefficient</li> <li>c. Flow (cfs)</li> <li>d. Velocities (fps)</li> <li>e. Pipe Diameter (in)</li> <li>f. Pipe material</li> <li>g. Gutter spread (ft), where applicable (10-yr storm, 8 ft. max spread)</li> <li>h. 25-yr headwater elevation for drop inlets or pedestal top inlets located in yards, landscape areas and parking lots</li> </ul>		
43.	The maximum velocity in a piped system shall not exceed 15 fps (DR, Article 9.9.2.a). Velocities over 10 fps are considered a special design with attention to pipe or structure invert protection (such as changing it RCP). Anchor collars may be required for slopes in excess of 10 %. (DR, 9.9.2.c)		
44.	For storm pipes or culverts, the minimum allowable slope shall be that which produces a 2-yr flow velocity of 2.5 fps. (DR, 9.9.1.c)		



	45. No permanent concrete flumes are allowed for stormwater control or drainage. Stormwater shall be captured in an inlet/pipe and conveyed with an underground pipe system to the maximum extent practicable.		
	46. Culverts (structures designed to convey water from one side of ROW to the other) shall be designed to pass the peak flow for a 100-yr storm with at least 1 ft. of freeboard between the ponding elevation and the top of the roadway shoulder, without rising the 100-yr elevation on upstream properties. (DR, Article 8.3.4.a)		
	47. All storm pipes within the right-of-way are required to be RCP.		
	48. Provide pipe installation notes, unless provided otherwise by pipe manufacturer, as shown in the Development Regulation, 8.3.9.		
	49. Provide minimum pipe and pipe coating notes per Development Regulations. Specific notes relating to the pipe proposed shall be added to the grading or drainage plan.		
	50. The City requires all storm drainage piped throughout the project to the maximum extent practical. This includes any stormwater piping associated with curb and gutter drainage along existing or proposed streets. An open pipe culvert under a driveway is not adequate stormwater management. All channels/swales proposed shall be approved by the City Engineer.		
	51. A 25-ft. wide access easement for the detention facility or BMP should be delineated on the plans, from the public street. The access easement shall be graded so that it can utilized by rubber-tired construction vehicles. (DR, Article 8.25)		
	52. The minimum drive width within the access easement shall be 15 ft. The maximum slope shall be 20%. (DR, Article 8.2.5.b)		
	53. A drainage easement fully enclosing the detention facility or BMP should be delineated on the plans and shall extend at least 10 ft. beyond the 100-yr flooding limits. No building of structure is to be located within 10 ft. of an underground system (DR, Article 8.2.5.c)		
	54. If a developer desires to place a fence around detention facility, it shall be a minimum 4 ft. high fence of durable material with 12 ft. wide access gate (DR, Article 8.2.7.d)		
	55. Drainage Easements: Delineate and label 20 ft. wide drainage easement on plans for surface water flow, swales or channels. For storm drainage pipe easements, refer to Table 7-A, in the DR, Article 7.4.2. Applicant is made aware that easement widths increase as pipe size or bury depth increases.		
	56. The 100-yr ponding limits of a detention facility shall not encroach upon a public right-of-way (DR, Article 8.2.4.d)		
	57. A drive to the bottom of the detention pond shall be provided when the facility is over 10 ft. deep from the bench elevation of the facility is wider than 50 ft.		
	58. If a residential subdivision is provided with an on-site detention facility, a mandatory property owner’s associate shall be established for its ownership and maintenance (DR, Article 8.2.5.g).		
	59. In a residential subdivision, all detention of water quality facilities shall be located on its own lot of record, unless part of a recreation area. Provide the following note: “All stormwater pipes not within the right-of-way and detention facilities are owned and shall be maintained by the property owners’ association”.		
	60. A non-residential subdivision is not required to locate an on-site detention or other BMP on a separate lot. Provide the following note: “All stormwater and detention facilities are owned and shall be maintained by the property owner”		
	61. In residential subdivision, the peak flow rate associated with a 2-yr storm shall exceed 1 cfs along any property line between lots within 50 ft. of the building setback line for either lot, unless contained within a piped drainage system (DR, Article 9.9.5)		



62. The discharge of concentrated flows of stormwater into public roadways shall be avoided. In no case shall flows exceed the peak flow rates in Table 9-H (DR, Article 9.9.5). Local – 2 cfs; Minor Collector – 1 cfs		
<b>Grading Requirements (DR, Article 8.1)</b>		
63. The maximum slopes for cut or fill shall be 2H:1V		
64. Grading plans shall show and label existing and proposed contour lines at an interval of no more than 2 ft.		
65. Provide note on grading plans: “Embankments shall be placed in uniform layers not to exceed a compacted thickness of six (6) inches per layer and shall be compacted to a density of ninety-five (95) percent of the maximum laboratory dry weight per cubic foot as determined by AASHTO Method T-99 in all areas where structures, parking lots and drives, streets, and utilities are to be placed. All other embankments are to be compacted to at least eighty-five (85) percent”.		
66. Additional comment:		

**EROSION AND SEDIMENTATION CONTROL**

Review Status	Item Description	Applicant Verified	Sheet #
	1. If disturbed area is greater than one (1) acre or within 200 feet of the bank of any state waters, a three-phased erosion control plan shall be provided.		
	2. If disturbed area is greater than one (1) acre or within 200 feet of the bank of any state waters, provide the appropriate GSWCC erosion checklist on the plans completed with plan numbers.		
	3. Provide the Erosion, Sedimentation & Pollution Control Plan Checklist Item Number next to each item or note in the construction plans that addresses the checklist. For example, for item #6 in the checklist, provide a notation similar to “Item #6” on the plans next to the note showing the total and disturbed acreage of the project.		
	4. A copy of the EPD online GEOS NOI submittal receipt and copy of the NOI should be provided to the City for their records.		
	5. Limits of disturbance shall be no greater than 50 acres at any time without prior written authorization from the GAEPD District Office. If GAEPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist and the GAEPD approval letter. (A copy of the written approval by GAEPD must be attached to the plan for the Plan to be reviewed.)		
	6. The initial Erosion Phase (Phase I) shall only show erosion perimeter controls, construction exit and any sediment basins (Sd3 or Sd4); no grading other than what required to install the initial controls is allowed.		
	7. The Intermediate Erosion Phase (Phase II) shall only show stormwater system, grading and associated erosion control measures (Ds1, Ds2, etc); no impervious surfaces are to be shown as constructed in this phase.		
	8. Clarify if the point of discharge is located within one (1) mile of the portion of an impaired stream listed on EPA’s Impaired Stream Segment List. If so, the petitioner should address the Erosion Control Plan Checklist items regarding TMDL Implementation Plan. Petitioner to clarify the 4 additional BMPs per Part III C of the NPDES General Permit as required for discharge into an impaired stream. <a href="https://gaswcc.georgia.gov/news-events/gis-mapping">https://gaswcc.georgia.gov/news-events/gis-mapping</a>		
	9. A skimmer (Sk) is required for all sediment ponds discharging within 1-mile of an impaired stream.		



	10. Per GSWCC, 2016 Edition, temporary diversions (Di) for commercial sites shall be designed for the 10 yr. storm frequency (Table 6-17-1). Provide cross section of channel or detail and demonstrate the channel is sized to meet 0.3 ft. freeboard and minimum 4 ft. top width.		
	11. Provide all sediment calculations (67 cy/acre) for the disturbed area and provide summary in a table.		
	12. Provide sediment calculations for Sd2 inlets per page 6-155 of the ESC Manual (2016 edition).		
	13. Provide sediment calculations for Sd3 per page 6-179 of the ESC Manual (2016 edition). Provide temporary sediment basin design sheet and completed Figures 6-29.7 and 6-29.8 on the construction plans (pg. 6-162).		
	14. Provide sediment calculations for Sd4 per page 6-185 of the ESC Manual (2016 edition). Max. pond depth shall be 4 ft. and drainage shall be less than 5 acres.		
	15. The entire drainage basins area should be used for an Sd3 computation, rather than the disturbed area alone, to help ensure adequate trapping efficiency. Refer to ESC Manual for guidance.		
	16. All fill slopes shall have silt fence placed at the toe of slope. Double row silt fence (Sd1-S) shall be placed when along or near state waters.		
	17. Provide limits of disturbance on each phase of construction.		
	18. Show sod (Ds4) in front yard.		

**SANITARY SEWER**

Review Status	Item Description	Applicant Verified	Sheet #
	1. Provide the sanitary sewer service provider on cover sheet of plan and utility plan. Refer to City Sewer Map or Gwinnett County GIS for location of sanitary sewer and service area.		
	2. If the sanitary sewer provider is Gwinnett County, a copy of Gwinnett County approval of the proposed sanitary sewer system should be provided to the City prior to the issuance of a land disturbance permit by the City.		
	3. Provide the proposed sanitary sewer usage of the project on the utility plan. Applicant may refer to Gwinnett County pump station standards for estimated sewer flows based on use. Provide calculations on plans.		
	4. The development will need to be evaluated under the Wastewater Allocation Ordinance. Upon submittal of the projected peak and average sanitary sewer usage, a separate memo may be issued addressing additional fees associated with usage over the original allocation. Sewer allocation exceeding the Wastewater Allocation Ordinance shall be reviewed by the City Planning Director and or Administrator. Parcel Zoning to determine allocation rates is based on the <b>Future Land Use Map of 2012</b> . Refer to Section 3 of the Sewer Allocation Ordinance, that shows allowable daily wastewater generation: <ul style="list-style-type: none"> <li>a. Commercial: 400 gal/ac</li> <li>b. Industrial: 750 gal/acre</li> <li>c. Low Density Residential (RA200, R140, R-100): 400 gal/acre</li> <li>d. Medium Density Res (Rm6, RMD): 1,200 gal/acre</li> <li>e. High Density Res (RM8 or greater): 1,600 gal/acre</li> </ul>		
	5. Clarify if buildings are to remain under single ownership or multiple ownership. If more than one owner, the sanitary sewer is required to have an easement per Article 7.4 of the Development Regulations should be provided and indicated on the plans.		



6.	An easement for all sanitary sewer to be dedicated to the City should be provided and indicated on the plans and of a width in agreement with Table 7A. (DR 7.4)		
7.	A minimum of 10-feet of spacing should be provided between sanitary sewers and water mains.		
8.	Open cut trenches of existing City Streets for utility construction is not permitted, unless connection is within the roadway.		
9.	For aerial stream crossings, the impact of flood waters and debris should be considered; the bottom of the pipe should be placed no lower than the elevation of the 50-year flood. The plans should provide the verification that this has been provided.		
10.	Sanitary sewer alignment shall satisfy the stream crossing criteria (25-degree of perpendicular to the stream) per the Buffer Variance Procedures and Criteria of OCGA 391-3-7.05.		
11.	Sanitary sewer profiles shall be shown for any proposed sewer main (profiles are not required for service laterals).		
12.	Sanitary service laterals should be no less than 4"-dia DIP and have a minimum slope of 1.0%.		
13.	Provide note on the Cover Sheet and Utility Plan if sewer provider is the City of Buford: "All sanitary sewer systems, are designed and shall be installed in accordance with the City's Development Regulations and Water and Sewer Standard Specifications"		
14.	All residential lots shall be provided with a sanitary service lateral and cleanout provided at the right-of-way.		
15.	All proposed sanitary sewer main on commercial or industrial properties to be dedicated to the City must be ductile iron pipe, PVC pipe is not allowed.		
16.	For non-residential properties, provide 6" service lateral for each building and designate a test manhole. Test manhole only required for buildings with food service. Test manholes should not be placed on a lateral carrying lavatory wastewater. Provide details per City Standard Drawings.		
17.	PVC Gravity Sewer Pipe may be used for sewer services of 6-inch size and sewer mains of 8-inch to 15- inch size where depth of cover above pipe is greater than 7 feet under paved surfaces, greater than 4 feet under unpaved surfaces, less than 16 feet total cover, <b>and the installation is within residential zoned properties.</b>		
18.	Provide grease traps if food preparation is anticipated. Refer to City of Buford Standard Details for 1,500 gallon size.		
19.	For City of Buford sewer, City of Buford Standard Construction Details are provided in the plans (See Series 1000 of the Standard Drawings)		
20.	Manhole drop connections meet Detail 1001 for inside or outside drop connections.		
21.	Any sanitary sewer to be dedicated to the City of Buford as a public sewer main shall meet the City's Standard Water and Sewer Specifications. The City will make the determination whether the sewer will be dedicated and take ownership. Minimum requirements are as follows: <ul style="list-style-type: none"> <li>a. Minimum slope: 1.0% (less than 1% will need City Engineer approval)</li> <li>b. Pipe Material: DIP</li> <li>c. Invert Slope through Manhole: 0.1 ft. minimum drop</li> <li>d. Pipe Size: TBD by City Engineer or Public Works Director</li> <li>e. Casing Pipe Size (Refer to WSSS, Section 330523-04 for casing sizes)</li> </ul>		
22.	No septic tanks shall be allowed if public sewer is available. Owner shall connect to public sewer if property line is within 2,000 feet of the nearest public sewer connection.		
23.	Stream buffers shall not apply to land-disturbing activities if the following applies; the sewer crossing occurs at an angle, measured from the point of crossing, within 25 degrees of perpendicular to the stream; causes a width of		



disturbance of no more than 50 feet within the buffer; and adequate erosion control measures are implemented.

**WATER DISTRIBUTION SYSTEM**

Review Status	Item Description	Applicant Verified	Sheet #
	1. Provide the water service provider on cover sheet of plan and utility plan. Refer to City Water Map or Gwinnett County GIS for location of water mains and service area.		
	2. If the water provider is Gwinnett County or City of Gainesville, a copy of their approval of the proposed water services should be provided to the City prior to the issuance of a land disturbance permit by the City.		
	3. Show proposed domestic water meter and size on plans.		
	4. Show proposed water service line locations, size, backflow prevention on plans.		
	5. Show fire service vault per Buford standard detail 1108, where applicable.		
	6. Show current fire hydrant flow test results on plans. Show existing and proposed fire hydrants for the project. Fire hydrant spacing will be determined by Gwinnett County or Hall County; provide a copy of Fire Prevention approval.		
	7. Show existing water main size and location. Design Professional to refer to City Water Map for approximate location and have water main located by surveyor or utility locators.		
	8. The minimum diameter size for water mains that are dedicated to the City shall be 8-inches.		
	9. The utility plan shall show how the proposed water system improvements will be tied onto the existing water system; show tapping sleeve and valve sizes at connection to existing pipe.		
	10. Water meters are to be set at the right-of-way.		
	11. Each individual dwelling unit shall be metered in such a way that all water used by said dwelling unit can be recorded and billed. The City requires a master meter for all residential multi-unit buildings with each unit having a separate water meter. (Submeter Ordinance)		
	12. For City of Buford water, City of Buford Standard Construction Details are provided in the plans (See Series 1100 of the Standard Drawings)		
	13. Show water service line for hose bibb in dumpster per Detail 904 (food only).		
	14. Open cut trenches of existing City Streets for utility construction is not permitted, unless connection is within the roadway.		
	15. Provide note on the Cover Sheet and Utility Plan if water provider is the City of Buford: note shall be placed on the Cover Sheet and Sewer Plan Sheet that states, "All water mains, connections and other appurtenances are designed and shall be installed in accordance with the City's Development Regulations and Water and Sewer Standard Specifications"		