



Land Disturbance Permit Application and Checklist Package

Land Disturbance Permit Application Overview

Type of Project: Description of proposed development (check all that apply)		
<input type="checkbox"/> Single Family Development	<input type="checkbox"/> Stream Buffers	<input type="checkbox"/> Demolition
<input type="checkbox"/> Multi-Family Development	<input type="checkbox"/> Land Disturbance greater 5,000 sf	<input type="checkbox"/> Pool
<input type="checkbox"/> Commercial Development	<input type="checkbox"/> Impervious greater 5,000 sf	<input type="checkbox"/> Retaining Wall over 4'
<input type="checkbox"/> Mixed – Use	<input type="checkbox"/> Other	<input type="checkbox"/> Fence

Project Information:		Zoning Case No:
Name of Project or Subdivision: (note name of former Subdivision, if any)		# of Lots
Property Address:		Zip Code:
Property ID/Pin		
Total Acreage:	Disturbed Acreage:	
Owner of Record (company/Individual)		
Owner Address:		Zip Code:

Applicant:		
Company:		
Mailing Address:		Zip Code:
Phone:	Cell:	Fax (if applicable)
Email		

Terms & Conditions:	
<p>The undersigned, upon oath, states that the above information is true and correct, understands that the Permit issued is only for work as stated. This permit is granted on the express condition that the said construction shall, in all respects, conform to the ordinances of this jurisdiction including the zoning ordinance, regulating the construction and use of the building, and may be revoked at any time upon violation of any provisions of said ordinances. Construction will begin no later than six months from the issue date of the permit. If any information is found to be false or misrepresented, the permit will be deemed invalid. I agree to indemnify and hold the city harmless from all damages, demands or expenses of every character which may in any manner be caused by construction and/or the structure.</p>	
Applicants Signature (Property Owner or Owner's Agent):	Date:



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Overview

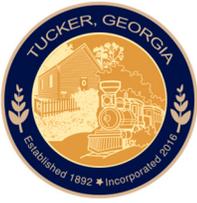
This packet contains the information required to prepare and submit plans for a City of Tucker Land Disturbance Permit for residential and non-residential projects. The LDP application should be submitted after rezoning or variance approval, if applicable. Projects impacting the County Sewer System (i.e. high density, high use) should submit a Sewer Capacity Evaluation Request for DeKalb County. This request takes 60 days for evaluation and may require the developer to implement additional improvements. Submittal deadline is Tuesday by 11:00 to receive plan review comments/approval by Wednesday of the following week. Additional approvals are typically required from DeKalb County Fire, Watershed Management, and GIS (Addressing). All design and construction for water, sewer, fire lines, and backflow prevention must comply with DeKalb County Department of Watershed Management Design Standards. The city will send you a route sheet to initiate the DeKalb County reviews within a few days of your city submittal. Other agency approvals may be needed from GDOT, GSWCC, ACOE and EPD. The City of Tucker will not issue the LDP until all applicable approval are obtained and copies are submitted to the city.

Packet Contents

1. Application
2. Land Disturbance Permit Minimum Submittal Checklist
3. Zoning Checklist
4. Tree Protection Checklist
5. Stormwater, Drainage, and Grading Checklist
6. Erosion and Sediment Control Checklist
7. Floodplain Management Checklist
8. Publis Works Checklist
9. Pre-construction Meeting Information

CONTACTS

City of Tucker	678-597-9040
DeKalb County Watershed Management	404-687-7150
DeKalb County GIS Department	404-687-3545
DeKalb County Fire Marshal	404-371-9256
City of Tucker Community and Economic Director	John McHenry



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2. LAND DISTURBANCE PERMIT MINIMUM SUBMITTAL CHECKLIST			
Reviewed By:		Phone:	Accepted/Denied
Applicant Checkoff	City Checkoff	Please check each item only if complete and included	
		Completed Land Disturbance Permit Application. Fees are \$300 + \$50/disturbed acre + \$40.00/disturbed acre (NPDES Fee – only applies to projects greater 1 disturbed acre) and will be collected prior to permit issuance.	
		Provide six (6) sets of plans, stamped by design professional’s seal and signature. Maximum sheet size is 36” x 42” (no larger) Plan drawings will include:	
	1	Cover sheet	
	2	Zoning and/or Variance conditions and all applicable private agreements	
	3	Survey, existing conditions, & demolition plan, if required	
	4	Site Plan & preliminary plat, if applicable	
	5	Drainage & grading (with storm pipe profiles and chart)	
	6	Utility plan (with sanitary sewer profiles) including all existing and proposed	
	7	Phased erosion control (initial, intermediate & final)	
	8	Standard details	
	9	Landscape and tree protection plan	
		Per GESA requirement, provide GSWCC Level II Design Professional seal and number on the Cover Sheet and on the Phased Erosion Control Sheets. Provide the most current GSWCC checklist if projects are greater or equal to 1 disturbed acre	
		Provide project name/address; owner’s name/address/phone; design firm name/address/phone/email; 24-hour contact name/local phone/email on cover and all ESPCP sheets.	
		North arrow, State Plane GA West (on all sheets), total & disturbed acreage, and location map. Indicate scale (no less than 1” = 10’ or greater than 1”= 100’, graphic scale.	
		Engineer’s Stormwater Management Report/Hydrology Report (1 copy) and/or Hydrology statement on plans	
		FEMA flood map (most current) shown on plans & Flood Study (2 copies if applicable)	
		For permit revisions only; provide a revision note on the cover sheet and a letter with a detailed, specific revision description. Also, update the revision block on all sheets and provide cloud around all revised items.	
		If installing a new irrigation system, provide location and detail of rain sensor shut-off switch.	



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4. ZONING CHECKLIST																				
Reviewed By:	Phone:	Accepted/Denied																		
Applicant Checkoff	City Checkoff	Please check each item only if complete and included																		
		Provide the zoning or variance case number and all conditions and current zoning district of site and of adjacent properties. Submit a copy of any zoning and variance approvals, if applicable.																		
		Provide the following table and relevant data on the plan:																		
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Front Setback</td><td style="width: 20%; text-align: right;">feet</td></tr> <tr><td>Rear Setback</td><td style="text-align: right;">feet</td></tr> <tr><td>Side Interior Setback</td><td style="text-align: right;">feet</td></tr> <tr><td>Side Corner Setback</td><td style="text-align: right;">feet</td></tr> <tr><td>Minimum Heated Floor Area</td><td style="text-align: right;">feet</td></tr> <tr><td>Parking Space(s) Dwelling Unit</td><td style="text-align: right;">spaces</td></tr> <tr><td>Minimum required Lot Area</td><td style="text-align: right;">Square feet</td></tr> <tr><td>Minimum required Lot Frontage</td><td style="text-align: right;">feet</td></tr> <tr><td>Minimum required Lot Width at Building Line</td><td style="text-align: right;">feet</td></tr> </table>	Front Setback	feet	Rear Setback	feet	Side Interior Setback	feet	Side Corner Setback	feet	Minimum Heated Floor Area	feet	Parking Space(s) Dwelling Unit	spaces	Minimum required Lot Area	Square feet	Minimum required Lot Frontage	feet	Minimum required Lot Width at Building Line	feet
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Minimum required Lot Area	Square feet																			
Minimum required Lot Frontage	feet																			
Minimum required Lot Width at Building Line	feet																			
		Provide existing and proposed impervious surface area breakdown by structures, e.g., buildings, paved areas, and provide impervious %																		
		Provide and label applicable zoning buffers and landscape strips, existing and proposed building footprints, elevations, easements, streams, stream buffers, points of wretched vegetation, impervious setbacks, sidewalk location, existing and proposed rights of way, and all applicable setbacks.																		
		Show and label height of any retaining walls																		
		Provide in the <u>cover sheet notes</u> the total and disturbed acreage of the site and the total number of lots or units.																		
		Provide on the plan view, the lot numbers, addresses and the lot or parcel area in square feet.																		
		Show compliance with all applicable overlay district requirements.																		



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5. TREE PROTECTION CHECKLIST		
Reviewed By:	Phone:	Accepted/Denied
<p>The tree survey, tree protection and/or tree replacement plan may be combined on a single sheet in a set of site development drawings submitted for review by the City. However, if the size of the proposed development site is large and an extensive amount of information needs to be conveyed, the tree plans may be submitted as separate drawings along with the Site Development Plans. Specific Tree Protection details can be found in the City of Tucker Land Disturbance Code, Chapter 14, Section 14-39.</p>		
<p>All tree plan(s) submitted for review shall include the items listed below, as applicable. The City of Tucker reserves the right to revise this checklist periodically as needed. A copy of this annotated checklist must be presented along with submittal of final tree plans for permitting. Additional information may be requested by City staff as required on a case-by-case basis. Additional review/comment may be necessary upon receipt of the information as indicated below.</p>		
<p>Pre-application conference. Prior to submission of an application for any land disturbing development in the City, the applicant is required to contact the City to determine if a pre-application conference is warranted as it relates to the applicant's property. The purpose of the pre-application conference is to clarify the provisions and procedures of the tree protection ordinance and review applicable standards and guidelines for the submittal of documents and required tree protection, replacement and maintenance measures.</p>		
<p>Tree which are planted shall be maintained for two (2) growing seasons after the date of final inspection. The property owner shall maintain required tree density. The Permittee will be responsible for identifying newly planted trees to the homebuyer and to inform the homebuyer as to their proper maintenance. Should any tree begin failure within the 2-year period, a replanting of new replacement trees shall be completed. An agreement between the Permittee and homebuyer to determine who will cover replacement costs at time of tree death to be submitted prior to Certificate of Occupancy. If there is no homebuyer at the time of Certificate of Occupancy the Permittee is responsible for tree replacement.</p>		

Applicant Checkoff	City Checkoff	General Requirements Please check each item only if complete and included			
<table style="width: 100%; border: none;"> <tr> <td style="width: 45%; padding: 5px;">Reviewed By:</td> <td style="width: 25%; padding: 5px;">Phone:</td> <td style="width: 30%; padding: 5px;">Accepted/Denied</td> </tr> </table>			Reviewed By:	Phone:	Accepted/Denied
Reviewed By:	Phone:	Accepted/Denied			
		Tree Survey, and Tree Protection Plans prepared, stamped and signed by a Georgia registered Land Surveyor or Landscape Architect and an ISA Certified Arborist (If they do not have a stamp then place the certification number on the plan and sign and date beneath it).			
		Site area, plan scale, and magnetic north arrow			
		Boundary survey/Property lines with topographic information, building setbacks, street/road rights of way, all applicable utility locations, and easements.			
		Name, address, and phone numbers of the owner/developer of the land, land surveyor, landscape architect, arborist, and/or civil engineer.			
		24-hour emergency contact name and phone number.			
		Title block showing project Land Lot(s) and District locations.			
		Site location map			
		Show limits of proposed land disturbance on tree plans – show tree protection fence along with limits of disturbance (must match engineer's limits of disturbance)			



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		<p>Provide calculations showing compliance with the Site Density Factor (SDF) of 120" per acre or 25% canopy coverage using the following formula:</p> <p>For inches per acres: Acreage x 120 inches = Site Density Factor</p> <p>For 25% canopy coverage per lot: Average canopy diameter x 3.14 = total square foot of canopy / by total lost square = canopy coverage percentage of lot.</p> <p>Arborist may also use an appropriately sized dot grid that can be placed over the top of an aerial photograph or map of a property to determine total tree canopy cover percent for a lot. All dots that fall on top of tree crowns are counted and divided by the total number of dots that cover the entire lot to arrive at an estimate of tree canopy cover percent or other methodologies approved by the city.</p> <p>The minimum required inches or canopy coverage shall be calculated and established pursuant to the formulas as shown above and shall be presented in a prominent location on the Tree Protection and Replacement Plan. All existing healthy trees greater than 8 inches DBH, with the exception of invasive and non-native, shall be eligible for tree canopy cover.</p> <p>The 25% of tree canopy cover on a site shall be measured in percent of the lot area that is covered by tree canopy, including canopy that projects over buildings and impervious surfaces. The canopy projected over and onto the applicant's property by a tree growing on a neighboring property or on the boundary between properties or on public property may be included in the measurement of tree canopy cover on a site.</p>
		Reference the zoning case number and date, and compliance with zoning stipulations/conditions as on the tree plan. Stipulations related to tree plan must be listed on the plan.
		Show the locations of any state waters on tree plan – with associated buffers and the limits of any proposed disturbance in water quality buffer zones.

Applicant Checkoff	City Checkoff	Tree Survey & Tree Preservation Plan: Please check each item only if complete and included			
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Reviewed By:</td> <td style="width: 30%;">Phone:</td> <td style="width: 30%;">Accepted/Denied</td> </tr> </table>	Reviewed By:	Phone:	Accepted/Denied
Reviewed By:	Phone:	Accepted/Denied			
		Locations of all specimen-sized trees and their critical root zones (CRZ) labeled; inventoried by size and species; and numbered on chart to correspond to tree numbers shown on plan. This includes those specimen trees that are to be preserved, those proposed for removal, show chart on plan. Any Specimen Tree saved with less than 25% critical root zone impaction within the buildable area of the lot, shall be worth 15. X DBH inches. A Certified Arborist prescription for treatment must be approved by the City prior to plan approval.			
		Plan must show all existing tree 8" DBH or greater that are to be counted toward meeting density requirements; inventoried by size and species. Show the boundary tree portion of root plates can be determined from the vantage point of the property to be developed. This provision shall not authorize the trespass on other private property abutting the site.			



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		The permittee shall provide a boundary tree agreement between the tree owner and applicant created by the two parties. For Example: Both parties might agree that the tree should be removed, or that disturbance will be kept to below 33% with an arborist prescription for treatments, or the boundary tree owner may request for a tree escrow account to be established, which may be an irrevocable letter of credit in favor of the City of Tucker from the permittee in the amount agreed to by both parties or may be cash deposit in trust with the City of Tucker in that amount, or the permittee must submit an agreement contract concerning the proposed boundary tree disturbance signed and by both parties, it should be notarized or have witness signature, prior to permit issuance. A copy of that agreement shall be submitted to the City of Tucker to be placed in the building permit file.
		Locations of all specimen trees or stands of trees, and an indication whether they are to be removed or preserved. Specimen trees are: 30 inch DBH – Hardwood/Softwood trees of the following Genus: Oak, Beech, Ash, Blackgum, Sycamore, Hickory, Maple, Pecan, Walnut, Persimmon, Sourwood Cedar, Cypress, Redwood, Poplars. 30 inch DBH – Large softwood trees of the following Genus: Pines, Evergreens or similar species 10 inch DBH – Understory trees such as but not limited to: American Holly, Dogwood, Redbud, etc.
		Critical root zones (CRZs) of specimen trees are to be represented on the plan by a dashed circle corresponding to the size of the CRZ, with a radius equal to 1 foot per caliper inch as measured at 4.5 feet DBH.
		No construction activity within the CRZs of preserved trees. CRZ must be free of any cut, fill, impervious cover or trenching activity. Up to 20% of encroachment can be allowed with City approval. For up to 33% provide a certified arborist prescription.
		Show all tree protection chain link fence or hay bale and orange fence locations. Silt fence and other erosion control devices should not be located within tree save areas. A sign shall be place on the fencing stating “KEEP OUT”
		Show tree protection chain link fence or hay bale detail.
		The locations of existing and proposed improvements on commercial sites that may affect tree preservation zones including, but not limited to, structures, driveways, paving, cut and fill areas, detention/Stormwater quality ponds, buffers, utility lines/easements (underground an overhead), and easements (storm drainage and sanitary sewer).
		Specimen tree report prepared by Certified Arborist. Report must include and/or accompany a site plan with locations of specimen trees, accurate sizes and species, description of tree’s condition including what type of untreatable and /or fast spreading disease or hazardous condition with photographs to illustrate defects. (Digital format acceptable).

Applicant Checkoff	City Checkoff	Separate Tree Replacement Plan: Must be stamped and signed by a GA Registered Landscape Architect and signed by a Certified Arborist. Please check each item only if complete and included
Reviewed By:		Phone:
		Accepted/Denied
		Include chart for specimen-sized trees not in specimen condition that are removed with no recompense requirement. Tree numbered on chart must correspond to trees numbered in field



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		Include chart for specimen-sized trees in specimen condition that are removed. Trees numbered on chart must correspond to trees numbered in field. Recompense is required – use 2, 3 or 4” caliper trees of comparable species at 1.5 x the inches DBH of the specimen tree removed.
		Show calculations for total inches of recompense including maximum specimen recompense formula if applicable.
		Locations of all trees to be planted on site to meet density requirements.
		Locations of all tree protection areas and tree protection fencing.
		Replacement trees must be ecologically compatible with site. Replacement trees shall be of same or similar species as those trees removed when practical.
		Tree proposed for replanting should be a species selected from the recommended tree species list shown in the City of Tucker’s Land Disturbance Code, Chapter 14. Use of species not shown on list is subject to approval by City staff.
		Plant schedule /list showing the type of tree/plant material (common and botanical name), size, inches, quantities, for each and total inches, percent genus (not Species), and any special planting notes.
		Replacement tree planting within utility, storm drainage, sanitary sewer, or other types of easements is not acceptable. (Unless it is a species acceptable to the utility i.e. under power lines.)
		Locations of all required undisturbed buffers, landscape strips, and landscape buffers. Permanent structures are not permitted in landscape strips/buffers (i.e. storm drainage structures, light fixtures, monuments signs, etc.). Tree Replacement Standards are outlined in the City of Tucker’s \Land Disturbance Code, Chapter 14, Section 14-39.
		Show genus cap percentage on planting schedule.
		Position parking lot trees to achieve maximum shading effect.
		Show parking lot trees to achieve maximum shading effect.
		Parking areas – Provide calculation (minimum on one (1) Overstory Tree for every eight (8) parking spaces included in the required landscaped area) No parking space shall be more than 50 feet from a tree.
		Trees are to be planted in parking lot islands and interior islands. They shall be a minimum of 150 sf of planting area and must include one canopy tree.
		Parking lot trees must be minimum 2” caliper and minimum 10’ height at planting.
		Parking lot lighting/light pole locations/underground electric lines should not be in conflict with tree planting areas. Light poles are not permitted in parking peninsulas, islands and medians where parking lot trees are proposed. Show light pole locations on plans.
		Minimum 75% of total replacement unties must be deciduous hardwood trees.
		Show planting and staking details.
		Note type of irrigation to be used. If hand-watering, show locations of hose bibs, water faucets, or quick couplers that will be used for this purpose. If an automatic irrigations system is proposed, provide note on plans



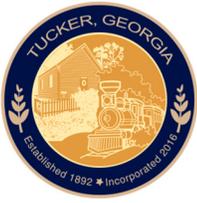
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Applicant Checkoff	City Checkoff	Tree Preservation & Replacement Plan Notes Please check each item only if complete and included
Reviewed By:		Phone:
		Accepted/Denied
		The density requirements shown on the Tree Preservation and/or Replacement Plan(s) must be verified prior to the issuance of the Certificate of Occupancy. Contact the City of Tucker at 678-597-9040 for Site Inspection.
		Required tree canopy cover lost over time due to natural causes, disease, or pests shall be replaced during the first planting season after the loss occurs with the same mature canopy size potential 2.5-inch caliper tree.
		Tree canopy cover preserved or planted to meet the requirements of tree density shall be conserved on the site for the following time period: a. Commercial properties in perpetuity. b. Residential properties for 2 years then shall comply with Section 14-39.
		All tree Protection Devices including a 2" layer of mulch and an application of Mycorrhizal product on all saved trees must be installed and inspected prior to start of Land Disturbing activity and shall be maintained until final landscaping is installed and Certificate of Occupancy is issued. Contact the City of Tucker at 678-597-9040 for an inspection.
		The site contractor shall coordinate service routing of all gas, telephone, and electrical lines with the appropriate utility company. All construction must comply with each utility's standards and specifications and not interfere with tree planting sites or existing trees to be preserved.
		For any boundary tree that has its critical root zone impacted and/or encroached into more than 20% without a previously approved Certified Arborist prescription, the permittee shall either deposit into an escrow account, or cause to be issued in favor of the City of Tucker, an irrevocable letter of credit, in an amount totaling the estimated cost of removal of the boundary tree plus the cost to replace the boundary tree with a minimum 3-inch caliper tree.
		Trees which are planted shall be maintained for two (2) growing seasons after the date of the final inspection. The property owner shall maintain required tree density. The Permittee will be responsible for identifying newly planted trees to the homebuyer and to inform the homebuyer as to their proper maintenance. Should any tree begin failure within the 2-year period, a replanting of new replacement trees shall be completed. An agreement between the Permittee and homebuyer to determine who will cover replacement costs at time of tree death to be submitted prior to Certificate of Occupancy. If there is no homebuyer at the time of Certificate of Occupancy the Permittee is responsible for tree replacement.
		Trees and shrubs should not be dug or moved with a tree spade during the active growing period (Mid March to Early October).



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6. Stormwater Management Report Checklist		
		<p>Stormwater Management Report Checklist</p> <p>Please check each item only if complete and included</p>
Applicant Checkoff	City Checkoff	
Reviewed By:		Phone:
		Accepted/Denied
Existing Conditions Analysis		
		A. - Provide topographic map of existing conditions. Show the following on the map:
		<ol style="list-style-type: none"> 1. Delineate drainage boundaries (including offsite areas draining onto site) 2. Indicate acreage of each delineated drainage area. 3. Indicate CN for each delineated drainage area. 4. Indicate Tc for each delineated drainage area. 5. Indicate runoff travel path and correlate to calculations determining Tc for each drainage area. 6. Indicate land cover condition for each drainage area 7. Indicate all state waters and other surface water features. 8. Indicate existing Stormwater conveyances and structural control facilities.
		B. – Provide a summary table of peak rates of runoff and velocities from each delineated drainage area for 1, 25, and 100-year storm events. Include in summary table for each drainage area the following data: Label/name of drainage area, acreage, CN, Tc, gross rainfall amount for each storm event, and peak flow rate for each storm event (sfs). If channel protection requirements are waived also provide the peak rates of runoff for the 2, 5 and 10-year storm events.
		C. – Provide time of concentration determination calculations for each drainage area.
		D. – Provide Soil Classifications
Post Development Conditions Analysis		
		A. - Provide topographic map of developed conditions. Show the following on the map:
		<ol style="list-style-type: none"> 1. Delineate drainage boundaries (including offsite areas draining onto site) and label/name each drainage area the same as each basin is labeled/named in calculations and tabulations appearing elsewhere in the report. 2. Indicate acreage of each delineated drainage area. 3. Indicate CN for each delineated drainage area. 4. Indicate Tc for each delineated drainage area. 5. Indicate runoff travel path and correlate to calculations determining Tc for each drainage area. 6. Indicate land cover condition for each drainage area. 7. Delineate and label/name each Stormwater management facility. 8. Indicate all outflow locations for each Stormwater management facility. 9. Indicate the location of any site design credits that are being utilized. 10. Indicate the location of conservation areas. Conservation areas must be identified on the final plat and must be dedicated and recorded.



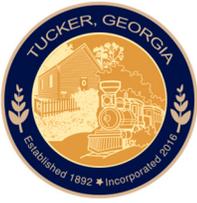
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		B. – Provide a summary table of peak rates of runoff and velocities from each delineated drainage area for 1, 25, and 100-year storm events. Include in summary table for each storm event, and peak flow rate for each storm event (cfs). If channel protection requirements are waived also provide the peak rates of runoff for the 2, 5, 10-year storm events.
		C. – Provide a summary table of developed peak rates of runoff vs. existing peak rates of runoff for each drainage area. Demonstrate no increase in peak rates of runoff for 1, 25, 100 year events for each drainage area. If channel protection requirements are waived also provide the peak rates of runoff for the 1, 5, 10-year storm events.
		D. - Provide tabular hydrograph output for drainage area(s) draining to each Stormwater management facility for the 1, 25, and 100-year events.
		E. – Provide calculations for the channel protection volume and demonstrate a minimum extended detention time of 24 hours for the 1-year storm event.
		F. – Provide water quality enhancements designed to provide treatment for the runoff from 1.2 inches of rainfall. Water quality facilities shall be designed to the standards provided in the Georgia Stormwater Management Manual, a copy of which is available at http://www.georgiastormwater.com .
		G. – Provide details of all water quality facilities. Provide planting plans when applicable.
		H. – Provide a copy of the Stormwater Quality Site Development Review Tool. Download the Stormwater Quality Site Development Review Tool . Also available from www.northgeorgiawater.com .
		I – Provide tabular hydrograph output for outflow (routing) of each Stormwater management facility outflow hydrograph, provide the tabular hydrograph output for the bypass area for the 1, 25, and 100 year events. Provide the tabular hydrograph output for each combines hydrograph. If channel protection requirements are waived also provide the peak rates of runoff for the 2, 5, and 10-year storm events.
		J. For any bypass area hydrograph that is combined with a Stormwater management facility outflow hydrograph, provide the tabular hydrograph output for the bypass area for the 1, 25, 100-year events. Provide the tabular hydrograph output for the bypass area for the 1, 25, and 10 – year storm events.
		K. – Provide time of concentration determination calculation for each drainage area.
		L. – For each Stormwater management facility provide Stage/Storage/Outflow tabulation and outlet configuration data used for routing for each Stormwater management facility.
		M. – Provide details for outlet control structures/devices for each Stormwater management facility o plans and in Stormwater management report. Ensure details on plans agree with details in report. Label structures so plans and details in report and on plan can be easily correlated.
		N. – Provide details for trash racks or anti-clogging devices. Openings on trash racks should be a maximum of 50% of the size of the smallest opening to be protected.
		O. – When Natural Area Conservation Easements are proposed provide easement documentation and clearly delineate on the plans and exhibits contained in the hydrology study.



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Post Development Downstream Analysis	
	A. Provide analysis of downstream conditions at each point or area along project boundary at which runoff will exit the property. Direct discharge of Stormwater to an acceptable watercourse, (e.g. existing creek, swale, ditch, drainage system, etc....) Provide calculation to show the adequacy of receiving waters immediately downstream of the project site.
	B. Extend analysis of downstream conditions to include all portions of the downstream conveyances between the site and the point where the site and the point where the site area is 10 percent of the total basin area.
	C. Compare capacity vs. designed flows for each downstream conveyance between site and 10% point. The analysis should include the timing of all flows at each confluence point.
	D. Provide a downstream sediment assessment for existing conditions. Assessment may be in the form of survey data or photographs provided the photographs show an accurate determination of existing sediment levels downstream.
Minimum Hydrology Design Parameters	
	A. Existing condition, pervious vegetated areas maximum CN = 55.
	B. Existing condition time of concentration determination shall be in accordance with Section 2.1.5.6 in the Georgia Stormwater Management Manual (GSMM). Sheet/Overland flow lengths less than 100 feet used in GSMM equation 2.1.9 shall be justified in Stormwater management report. Use of existing time of concentrations greater than calculated in accordance with GSMM 2.1.5.6 is acceptable.
	C. Minimum freeboard for above ground earthen Stormwater management facility dams is 2 feet.
	D. Minimum freeboard for concrete Stormwater management containment facility is 1 foot.
Hydrology and Drainage Items	
	A. <u>Show</u> a 20ft, graded (max 33% slope & max 10% cross-slope) and stabilized access easement to all Stormwater management facilities from a location of public vehicle access. Adequate access should be extended to all portions of the facility, e.g. pipe outlets, forebays, outlet structures, etc.... No facility shall be completely walled without providing adequate access to the bottom of the facility.
	B. Provide a 10 ft. access easement starting at the 100yr elevation, around <u>all</u> surface ponds and a 10 ft. access easement around the extents of all underground ponds.
	C. If side slopes for the Stormwater facility are steeper than 4:1 show a six-foot-high security fence with a 10 ft. access gate outside of the ten-foot access easement around each detention pond. Show the location of the access gate.
	D. Provide Standard 908 Detail for Earth Fill for Detention Ponds or other detail that meets the minimum standards inherent in Standard 908.
	E. State the Water Quality Volume, the Channel Protection Volume, the 25-year volume, and the 100-year volume on the plans. State the Water Quality elevation, the Channel Protection elevation, the 25-year elevation and the 100 year elevation on the plans in accordance with GA Stormwater Management manual.
	F. Eliminate proposed concentrated discharge from site where existing condition is sheet flow.



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		G. Lowest floor elevation adjacent to a Stormwater management facility shall be a minimum of 3 feet above the 100-year flood elevation within the facility.
		H. Provide design engineer's professional seal, signature and date on plans and report. Signature and date shall be handwritten as required by the Georgia Board of Professional Engineers 180-12.02 (3) and (5).

7. Drainage Review Checklist

Applicant Checkoff	City Checkoff	Drainage Review Checklist Please check each item only if complete and included
Reviewed By:		Phone: Accepted/Denied
		A. Minimum culvert size shall be 18" and maximum velocity shall 12 ft. /sec.
		B. Locate catch basins with 600 feet maximum spacing, designed for 10-year storm with a maximum gutter spread of 8 feet.
		C. Show nearest existing catch basin and/or drop inlets that receive water from this development.
		D. Provide design calculations for all storm drainage pipes. Storm drainage pipes shall be designed for 25-year storm frequency.
		E. Culverts beneath roads shall be designed to convey the 100-year storm. Show analysis/effects of 100-year storm.
		F. Provide design calculations for all ditches and channels. Ditches and channels shall be designed for 25-year storm frequency.
		G. Provide back-water effect due to constriction of pipes in ditches or swales. Limit backwater to within the property.

		H. Storm Drainage Plan
		1. Show existing and proposed contours, clearly distinguishable.
		2. Identify drainage structures as existing or proposed.
		3. Show drainage easements drawn with width dimensions specific. Typical D. E. width is 15 ft. minimum.
		4. Delineate and label any flood zone within the site.
		5. Label roadway highpoints on the center line of the roadway.
		6. Show the limits of proposed construction to be permitted.
		7. Clearly note this statement on plans:
		8. Profile all existing/proposed storm pipes above which land disturbance will occur.
		9. Reference all storm drainage structure (i.e., catch basins, drop inlets, headwalls, etc.) to the City of Tucker , DeKalb County , or GDOT standard , or provide complete detail(s) if not a public standard.
		10. Storm drainage structure are not allowed within the radius of a curb.
		11. Provide outlet velocity at outlet structures (i.e. storm drainage profile).
		12. Storm drainage structures shall discharge into natural draws or drainage channels/swales.
		13. For all permit revision, submit a letter stating the proposed changes. These changes should be highlighted on all sheets affected.



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Storm Drainage Pipe Design			
Applicant Checkoff	City Checkoff	Storm Drainage Pipe Checklist Please check each item only if complete and included	
Reviewed By:		Phone:	Accepted/Denied
		A. 30: maximum cross drain pipe draining through GDOT standard catch basins or drop inlets. When larger diameter is required, provide design and detail of all structures.	
		B. Storm drain cross section:	
		1. Minimum pipe cover	
		a. Storm drains: 18 inches outside roadway, 36 inches within roadway.	
		2. Minimum pipe slope:	
		a. Concrete or smooth walled HDPE 0.5%	
		b. CMP 1.0%	
		C. All storm crossings under public roadways shall be reinforced concrete pipe (RCP)	
		D. Storm pipe material type, class or gauge, percent slope, and length of all pipes.	
		E. Show size, material type, class or gauge, percent slope, and length of all pipes.	
		F. Provide invert elevations and top elevations of drainage structures.	
		G. Anchor collars are required on storm pipes when the slope is greater than 30%	
		H. Cite GDOT Standard for storm sewer pipes (CMP pipe shall be half-coated with a paved invert.)	
Ditches and Swales			
		A. All proposed swales and ditches shall have cross sections, centerline profiles, flow rates, and velocities show on plans.	
		B. If velocity in ditch is greater than 2 ft. /sec., ditch invert shall have a non-erodible material.	
Storm Drain Structures			
		A. Show drainage area, Q25 and headwater elevation at the inlet of all storm drain structures (include accumulative areas and Q's, and longitudinal system).	
		B. Indicate the type and GDOT standard number for inlet and outlet structures of all pipes.	
		C. All pre-cast manholes shall be provided with a minimum of 9 inches clearance on each side of connecting pipe between all cut-outs or penetrations.	
		D. Use online catch basins except for cul-de-sac applications in which one-foot offset is required.	
		E. Show concrete spillway at the end of curb and gutter (ref. GDOT Standard 1120)	
		F. Use concrete flared end sections at driveway crossings within the right-of-way and other applications adjacent to vehicular traffic (Ref. GDOT Standard 1120)	
		G. Engineer's seal and signature required on all plans and reports.	



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8. City of Tucker Erosion Control Checklist			
Applicant Checkoff	City Checkoff	Erosion Control Checklist Please check each item only if complete and included	
Reviewed By:		Phone:	Accepted/Denied
A. Clearly state the following notes on the plans.:			
		1. Prior to any other construction, a stabilized construction entrance shall be constructed at each entry to or exit from the site.	
		2. The construction exits shall be maintained in a condition which will prevent tracking or flow of mud on to public right of way. This may require periodic top dressing with stone, as conditions demands, and repair and/or clean-out of any structures used to trap sediment. All material spilled, dropped, washed, or tracked from vehicle onto public- roadway or into storm drain must be removed.	
		3. Provide GPS coordinates at construction exit as required on the Notice Intent under the NPDES Application.	
		4. Prior to commencing land disturbance activity, the limits of land disturbance shall be clearly and accurately demarcated with stakes, ribbons, or other appropriate mean. The location and extent of all authorized land disturbance shall occur within the approved limits	
		5. Immediately after the establishment of construction entrances/exits, all perimeter erosion control devices and storm water management devices shall be installed prior to any other construction.	
		6. Owner agrees to provide and maintain off-street parking on the subject property during the entire construction period.	
		7. The contractor shall furnish and maintain all necessary barricades while roadway frontage improvements are being made.	
		8. The construction of the site will initiate with the installation of erosion control measures sufficient to control sediment deposits and erosion. All sediment control will be maintained until all up stream ground within the construction area has been completely stabilized with permanent vegetation and all roads/driveway have been paved.	
		9. Failure to install, operate or maintain all erosion control measures will result in all construction being stopped on the job site until such measures are corrected consistent with the City of Tucker Land Disturbance Code, Chapter 14.	
		10. A copy of the approved land disturbance plan and permit shall be present on the site whenever land disturbance activity is in progress.	
		11. All sewer easements disturbed must be dressed and grassed to control erosion.	
B. Delineate a 50-foot undisturbed natural vegetative buffer, measured horizontally,			
C. Delineate a 25-foot impervious setback, measured horizontally, beyond the 50 foot undisturbed natural vegetative buffer, in which all impervious cover is prohibited. Grading, filling, and earthmoving shall be minimized within the setback. (Ref: City of Tucker Land Disturbance Code, Chapter 14.) No septic facilities permitted within the setback.			



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		D. Provide statement of the plans stating whether State Waters are, or are not, onsite or within 200 feet of the site. If State Waters are within 200 feet of the site, depict location of State Waters.
		E. Engineer's seal and signature required on all plans and reports.

9. Floodplain Management Checklist		
Applicant Checkoff	City Checkoff	Floodplain Management Checklist Please check each item only if complete and included
Reviewed By:		Phone:
		Accepted/Denied
General – All Projects		
		A. Provide FEMA Flood Insurance Rate Map (FIRM) excerpt on the cover sheet for the subject site development plans on which the site is delineated.
		B. Provide statement below FEMA FIRM excerpt on cover sheet of plans: "This site [is/is not] located within a zone [A, AE, shaded zone X] as defined by FIRM Community Panel Number 13089Cxxxxx for unincorporated DeKalb County, Georgia. (use most current map)
If Flood Zone AE, Zone A and/or shaded Zone X within site:		
		A. Clearly delineate flood zone extents and both the existing and proposed 100-year flood elevations on plans.
		B. Provide project benchmark with elevation, based on N.A.V.D. 1988.
		C. If the proposed work encroaches within Zone AE, A or X. The following is required:
		1. Professional Engineer's certification that the proposed work will not:
		a. Rise the base flood elevation outside of the property limits.
		b. Reduce the flood storage capacity in the flood plain (fill placed within floodplain must be compensated and all cut areas must gravity drain to watercourse);
		c. Impede the movement of flood water;
		d. Change the flow characteristics of the flood waters; and
		e. Create hazardous or erosion-producing velocities.
		2. Flood study, prepared and certified by Professional Engineer, which determines both the existing and proposed extents and elevations of the flood zone.
		3. At the request of Tucker, provide application to FEMA for a conditional FIRM revision to be submitted to FEMA.
		D. Locate all flood study sections on the plans and state the existing and proposed flood elevations at each section.
General		
		A. Ste the "lowest floor elevation" including basement and attached garage for each lot affected by the floodplain. Note: lowest flood elevation shall be a minimum of 3 ft. above the 100-year storm elevation.



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		B. Per Floodplain Ordinance, certify and submit calculated areas to demonstrate that no lot area has less than 50% of the minimum lot area (as established by the applicable zoning district regulations) above the base flood elevation, and/or no less than 70% of the buildable land area of any lot lies above the base flood elevation by a minimum of one foot.
		C. Clearly state the following notes on the cover sheet and construction plans:
		1. The flood zone(s) _____ DeKalb County Community Panels (FIRM) [Numbers/Numbers] 13089C_____
		2. The base flood (IRF) elevations, shown hereon are based on the flood elevation study by _____, (signature, seal, date of design professional.);
		3. All construction including grading and filling within the floodplain shown hereon shall be in conformance with the City of Tucker Land Disturbance Code, Chapter 14.
		4. All cut and fill within the floodplain shall be field verified and certified by a Professional Engineer.
		5. All intermediate regional floodplain shall be field located and staked prior to encroachment within them. Such location shall be maintained clear and visible through construction and final approval.
		6. When utility (storm drains, sewer, etc.) construction is within a floodplain:
		a. The contractor shall restore the floodplain to the original condition and grade immediately upon completion.
		b. Upon completion of restoration, a Professional Engineer shall certify in writing to the Community Development Director that all work is complete and the floodplain restored.
		7. When any construction borders a floodplain:
		a. The contractor shall restore the floodplain to the original condition and grade immediately upon completion.
		b. Upon completion of restoration, a Professional Engineer shall certify in writing to the Community Development Director that all work is complete and the floodplain restored.
		8. The lowest flood elevation includes basement and attached garage and shall be a minimum of 3 ft. above the 100-year storm elevation.
		D. Show the limits of construction and the quantities of cut/fill proposed within the floodplain on the construction plans. Show a grading plan with quantities and proposed contours for the area where the compensating cut is to be made. When fill or cut is proposed within a floodplain, a plan and profile based on field run cross sections shall be submitted as part of the land disturbance permit. The horizontal and vertical scales shall be such that the contractor can clearly determine the extent and amount of work and such as to facilitate the engineer in submitting the required certification.
		E. Variance required for disturbance of the 75-foot Tucker Stream Buffer unless grandfathered or exempted. See the City of Tucker Land Disturbance Code, Chapter 14 for the minimum requirements for requesting a variance.
		F. Disturbance of the 25-foot State of Georgia buffer requires a variance from the GA DNR-Environmental Protection Division.



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10. Public Works Checklist		
Applicant Checkoff	City Checkoff	<p>Public Works Checklist</p> <p>Please check each item only if complete and included</p>
Reviewed By:		Phone:
		Accepted/Denied
		<p>A. GDOT Driveway Permit Number – This development accesses on a road maintained by GDOT and/or a City road with a currently programmed state improvement project. For any project which abuts a road maintained by GDOT, provide GDOT driveway permit number and approval. No Land Disturbance Permit will be issued showing roadway improvements until GDOT plans and approval are presented to the City of Tucker.</p>
		<p>B. GDOT right-of-way (R.O.W.) Dedication and Reservation – Plans must show GDOT mandated R.O.W. dedication and reservations for all projects adjacent to any road maintained GDOT and/or any City road with a currently programmed state improvement project.</p>
Manual of Uniform Traffic Control Devices (MUTCD) Traffic Control Plan		
		<p>A separate sheet dedicated to a Traffic Control Plan should be submitted with the Land Disturbance Permit approval drawings if the improvements associated with the development will create the need for supplemental road improvement, signing, or striping of a City road which will either be accessed on or dedicated by the development. The plan should be at a scale of between 1" = 20' and 1" = 60', contain a location map and north arrow. It must include all warning devices, barricades, signage, and operational changes to all affected roads, including any necessary detour routes. All work zone signage and marking must conform to the MUTCD.</p>
American Association of State Highway Transportation Officials (AASHTO) Compliance		
		<p>All road designs shall conform to AASHTO and these checklist items as a minimum. Revise plans to conform to AASHTO requirements noted in the review.</p>
Curb Cuts		
		<p>A. Show all existing and proposed curb cuts which are within 300 feet of proposed driveway(s) along property frontage.</p>
		<p>B. Dimension distance from centerline of project curb cuts to existing and/or proposed curb cuts.</p>
		<p>C. Show angle of incidence of centerline of driveway and entrance, with centerline of road.</p>
		<p>D. Show width of driveway entrance from back of curb to back of curb. Driveway widths must conform to GDOT Standard Details.</p>
		<p>E. Show concrete apron per GDOT Standard Details. For private residential street entrances and commercial and industrial entrances; add this detail to your plans.</p>
		<p>F. Show right-in/right-out only curb cut design per GDOT Standard Details; add this detail to your plans.</p>
		<p>G. Show any proposed walls and/or fences along the property frontage. No portion of the fence or wall may be closer than 3' to the R.O.W. line. If the fence is located within the R.O.W. reservation, an agreement must be filed, before LDP issuance, that the fence will be removed at no cost to the City at any future time that the City may purchase the reservation. Such agreement must be filed with the City Clerk and tied to the property deed.</p>



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		H. Show separate dimensioned entrance detail for all gated entrances.
Roadway Construction Drainage		
		A. Show proposed improvement(s) on City roads dimensioned from legal centerline of road. Include deceleration, left turn lanes, road widening, and other improvements as required GDOT. All improvements must conform to GDOT Standard Details.
		B. Show how the proposed road improvement(s) will be tied into the City road existing conditions at the limits of the property frontage with the adjacent parcel(s).
		C. Show roadway widening per GDOT Standard Details, if required; add the appropriate detail to your plans.
		D. Show Class B concrete construction detail when roadway widening is less than four feet, per GDOT Standard Detail.
		E. Show curb and gutter improvements on all frontage, per GDOT Standard Details; add the appropriate detail to your plans.
		F. Show sidewalks as required per GDOT Stand Details: add this detail to your plans.
		G. Show drainage flow lines, minimum slopes, high points and low points with spot grades along your road frontage.
		H. Show internal roadway cross-sections and widths per GDOT Standard Details; add the appropriate detail to you plans.
Signing/Striping		
		A. Show legal centerline of all existing and proposed City roads. Show speed limits for all roads (existing and proposed); locate any adjacent speed limit signs; label proposed as future public or private.
		B. Show deceleration lane(s) striping and signage, if required. Show signing and striping on the plans per GDOT Standard Details and the MUTCD.
		C. Show left turn lane(s) striping and signage, if required. Show signing and striping on the plans per GDOT Standard Details and the MUTCD.
		D. Show striping plan for frontage resurfacing. Show signing and striping on the plans per GDOT Standard Details and the MUTCD.
Intersection Sign Distance Profile		
		Show intersection sight distance (not to be confused with stopping sight distance) of each proposed intersection entrance, street or driveway. Intersection sight distance is determined with an assumed height of driver's eye of 3.5 feet and an assumed height of object of 3.5 feet when measuring in the vertical plane. When measuring in the horizontal plane, the intersection sight distance is determined with an assumed driver's eye location from a point 4; offset from the centerline and 15' from the edge of closest travel lane to a point along the centerline of the closest oncoming travel lane. When measuring in either plane, the line of sight must remain in the proposed stand dedicated R.O.W. and may not be obstructed by monuments, wall, fences, trees, hedges or other visual impediments/obstructions.
Right of Way Utilities		
		A. Show proposed R.O.W. dedication and reservation, dimension from centerline.
		B. Show a 10.5 foot R.O.W. shoulder dimensioned from the back of curb of all road improvements, if the road improvement plus 10.5 feet will be greater than the proposed R.O.W. dedication.
		C. Show R.O.W. miter at external street intersections of at least 20 feet radius. Ensure intersection site distance, free of obstructions, is provided.



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		D. All utility locations must conform to GDOT Standard Detail; add this detail to your plans.
		E. Show R.O.W. widths for all proposed streets and cul-de-sacs per City of Tucker and GDOT Standard Details .
		F. Provide a note that a Right of Way Encroachment Permit is required for any disturbance with the right of way.
Vertical Alignment (for internal streets)		
		A. Minor street (5044' R.O.W.) = 14% maximum grade. All grades exceeding 12% shall not exceed a length of 250 feet.
		B. Show minimum centerline profile and longitudinal gutter slopes with grade of at least 0.5 percent when used as a tangent.
		C. Show minimum Vertical curve lengths, per GDOT regulations.
		D. Show compliance with GDOT for leveling course design at approaches to an intersection.
Horizontal Alignment (for internal streets)		
		A. Show minimum horizontal centerline curve radius, per City of Tucker Regulation
		B. Show minimum tangent lengths between reverse horizontal curves of 50 or 100 feet, per City of Tucker Regulations .
		C. Show desired ninety-degree angle of incidence between intersections.
NOTES Clearly state the following notes on the plans prior to approval:		
		A. New pavement/surfacing is required across all property frontage to existing centerline, to be installed per GDOT Standard Detail.
		B. All traffic control and warning devices must be shown and placed per MUTCD.
		C. Temporary traffic control and warning devices shall be placed prior to the commencement of any road improvement work on City roads and shall remain in place until the conclusion of all signing and striping work.
		D. All signs shall conform to the MUTCD Standards and Tucker for color, size, reflectivity, height, and placement.
		E. Striping (white and yellow) and arrow marking shall be applied using GDOT standards for thermoplastic striping.
		F. Clearly note this statement on plans: CALL BEFORE YOUR DIG: 800-282-7411
Signal Permit		
		Include separate signal plans if a signal is required for this development. Signal plans must be submitted to and approved by DeKalb County Public Works prior to the sign-off for LDP.



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10. PRE-CONSTRUCTION MEETING INFORMATION

ALL Land Disturbance Permittees need to schedule a pre-construction meeting with the City of Tucker prior to any major site activity. The pre-construction meetings provide an opportunity to meet the Tucker site inspectors, discuss city regulations, enforcement protocol, project expectations, and identify critical areas that may require special attention during development.

The pre-construction meeting will be held prior to any land disturbance activity or after the initial perimeter sediment controls are installed. If possible, the developer/owner, design engineer, and site contractors should be present. The Land Disturbance Permit (LDP) will be presented after the meeting.

Items that will be discussed during the meeting include:

- Initial erosion & sediment controls (E & SC), tree save, development sequencing.
- State waters, buffers, floodplain, easements and wetlands delineation.
- Construction exit (Co) and LDP/site plan location.
- Temporary vegetation (14-day rule) and dust control (Du).
- Conditions of Zoning.
- Required site inspections and enforcement procedures.
- Public Works issues, such as; site distance, and rights of way disturbance, curbing.
- Final plat or plan requirements and end of development procedures.
- Copy of the NPDES General Construction Permit Notice of Intent (NOI)
- Site contact information.

Please contact the City of Tucker to schedule a pre-construction meeting.

4119 Adrian Street, Tucker, GA 30084 678-597-9040