BERKELEY COUNTY

ENGINEERING

ROADS & DRAINAGE

REVIEW CHECKLIST

SEPTEMBER 2015

REVIEW COMMENTS

1. General

Project	Details
Project Name: *(w/Section # and Phase #)*	
Project TMS #:	
Project Developer: *(w/name, address, email & phone #)*	
Engineer of Record: *(w/name, address, email & phone #)*	

Project Reviews	Conceptual		Preliminary		Final 1st		Final 2nd	
Reviews By (initials):								
Review Dates:								
Comments Provided to applicant:	**Yes** ☐	**No** ☐	**Yes** ☐	**No** ☐	**Yes** ☐	**No** ☐	**Yes** ☐	**No** ☐

General Review Notes

6. CONSTRUCTION PLANS

The construction plans shall be prepared by a certified professional engineer and be submitted as part of the Preliminary Plan application package in accordance with the Land Development & Subdivision Regulations Ordinance and shall include, but not be limited to, the following:

Construction Plans Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
Title/Cover Sheet								
• *Provide Vicinity Map or Location Map with north arrow and applicable scale.*			☐	☐	☐	☐	☐	☐
• *Provide Site Map with north arrow and applicable scale.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Provide Tract Name, TMS No., and Block No. as applicable.*			☐	☐	☐	☐	☐	☐
• *.Clearly indicate project phase lines.*			☐	☐	☐	☐	☐	☐
• *Show name, address and phone No. of Engineer of Record.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Show name, address and phone No. of Applicant/Developer.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Provide name and Seal of a South Carolina Registered Professional Engineer, Surveyor, Architect or Landscape Architect and Firm's Certificate of Authorization responsible of developing the plans on every sheet.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Show location of proposed land development boundaries, public roads, adjacent zoning districts, etc.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Provide date of drawings and any revisions.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Provide project team contact and phone numbers.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Statement of the project roadway length, including incidental construction.*			☐	☐	☐	☐	☐	☐
• *Verify that sheet indices, descriptions and numbers, are correct and consistent with the rest of the sheets.*			☐	☐	☐	☐	☐	☐
• *Provide a brief description of the project highlighting the most pertinent work.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Provide one-call utility location contact information and logo.*	☐	☐	☐	☐	☐	☐	☐	☐
Comments:								

Construction Plans Preliminary/Final Plat Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
•*Provide a copy of the recorded plat or a current survey of the property.*	☐	☐	☐	☐	☐	☐	☐	☐
•*Show date of survey, lot and block numbers, names of adjoining landowners, highways, streets, etc.*			☐	☐	☐	☐	☐	☐
•*Show North arrow, scale and location map.*			☐	☐	☐	☐	☐	☐
•*Show property line with accurate property description, property markers, and bench marks.*			☐	☐	☐	☐	☐	☐
•*Provide TMS and tract numbers.*			☐	☐	☐	☐	☐	☐
•*Show public and private easements properly identified including lengths and widths deemed necessary to clearly show its purpose.*	☐	☐	☐	☐	☐	☐	☐	☐
•*Show natural drainage patterns and water resources, including rivers, streams, drainage swales, ponds, lakes, wetlands, etc.*	☐	☐	☐	☐	☐	☐	☐	☐
•*Include USACE jurisdictional determination reference number for wetland areas*	☐	☐	☐	☐	☐	☐	☐	☐
•*Provide Surveyors Certificate and Seal conforming to the "Standards of Practice Manual for Surveying in South Carolina" as adopted in June 26, 2009.*			☐	☐	☐	☐	☐	☐
Comments:								

Construction Plans Project Notes and Legend Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
•*Provide title block including project name, title sheet and number.*			☐	☐	☐	☐	☐	☐
•*Show general and project specific notes.*			☐	☐	☐	☐	☐	☐
•*Show project legend for existing and proposed conditions.*			☐	☐	☐	☐	☐	☐
•*Show floodplain information, including FEMA flood hazard zone designation.*	☐	☐	☐	☐	☐	☐	☐	☐
Comments:								

BERKELEY COUNTY ROADS & DRAINAGE
REVIEW CHECKLIST

Construction Plans Existing Conditions Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• Provide title block including project name, title sheet and number.			☐	☐	☐	☐	☐	☐
• Provide plan at the scale indicated and accurate north arrow.	☐	☐	☐	☐	☐	☐	☐	☐
• Clearly show all property lines and easements with bearing and distance (indicate source of survey), adjacent landowner's names and land use conditions.	☐	☐	☐	☐	☐	☐	☐	☐
• Show benchmark location, elevation and datum.	☐	☐	☐	☐	☐	☐	☐	☐
• Name, location and widths of all public rights-of-way (including curb/handicapped ramps), private streets and drainage ways.			☐	☐	☐	☐	☐	☐
• Provide zoning information (TMS #'s of project site and adjacent parcels).	☐	☐	☐	☐	☐	☐	☐	☐
• Outline activity location and indicate existing project phase lines (if applicable)	☐	☐	☐	☐	☐	☐	☐	☐
• Show existing topography (minimum 1' interval contours) and note source of topographic data.			☐	☐	☐	☐	☐	☐
• Show soil types.	☐	☐	☐	☐	☐	☐	☐	☐
• Show 100 year flood plain data (fringe line, elevation, floodway, and FEMA panel number)	☐	☐	☐	☐	☐	☐	☐	☐
• Delineate natural drainage patterns, overland flow paths and water resources, including rivers, streams, drainage swales, ponds, lakes, wetlands. Show existing stormwater discharge locations.	☐	☐	☐	☐	☐	☐	☐	☐
• Show delineated wetlands (label as jurisdictional or non-jurisdictional)	☐	☐	☐	☐	☐	☐	☐	☐
• Show number of lots, if any, and area of each.	☐	☐	☐	☐	☐	☐	☐	☐
• Show location and of existing structures including signs on site.			☐	☐	☐	☐	☐	☐
• Show and label existing infrastructure, including, but not limited to storm drainage, water and sewer facilities, and other utilities such as electrical power, fiber optic cable, telephone, etc. on the plan. Make sure that data such as size, material, rim and invert elevations are shown as applicable.			☐	☐	☐	☐	☐	☐

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Construction Plans Existing Conditions Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• Delineate location and size of parking spaces and sidewalks.			☐	☐	☐	☐	☐	☐
• Show existing traffic circulation and parking conditions.	☐	☐	☐	☐	☐	☐	☐	☐
• Show location of existing main entrance(s) and the location accessible route(s) from the accessible parking spaces.			☐	☐	☐	☐	☐	☐
• Provide tree survey.			☐	☐	☐	☐	☐	☐
• Show significant physical features within the tract and 200 ft. adjacent peripheral strip, including contours, tree masses and notable trees not part of the tree masses.	☐	☐	☐	☐	☐	☐	☐	☐
• Show location of all above grade utility boxes (transformer, switch gear, etc.).	☐	☐	☐	☐	☐	☐	☐	☐
• Provide percent of lot occupied by buildings (lot occupancy).			☐	☐	☐	☐	☐	☐
• Provide and label required building setbacks based on zone district and speed limit on adjacent street if applicable.			☐	☐	☐	☐	☐	☐
Comments:								

Construction Plans Survey Control Plan Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• Provide title block including project name, title sheet and number.			☐	☐	☐	☐	☐	☐
• Verify that the Boundary Survey has been prepared in accordance with the "Standards of Practice Manual for Surveying in South Carolina" as adopted in June 26, 2009.			☐	☐	☐	☐	☐	☐
• Date of survey and references.			☐	☐	☐	☐	☐	☐
• Surveyor's certification and seal.			☐	☐	☐	☐	☐	☐
• North arrow and reference (magnetic, state plane).			☐	☐	☐	☐	☐	☐
• Scale and graphical scale.			☐	☐	☐	☐	☐	☐
• Tax map, block and lot numbers.			☐	☐	☐	☐	☐	☐
• Adjacent lot numbers and owners names.			☐	☐	☐	☐	☐	☐
• Bearings and distances of boundary.			☐	☐	☐	☐	☐	☐
• Existing property markers.			☐	☐	☐	☐	☐	☐

Construction Plans Survey Control Plan Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
• *Existing features; structures, buildings, fences, wall, hedges, trees, wooden areas, marshes, ditches, lakes, etc.*			☐	☐	☐	☐	☐	☐
• *Show existing utilities, lighting and power poles, manholes, inlets, valves and meter boxes.*			☐	☐	☐	☐	☐	☐
• *Encroachments over with dimensions.*			☐	☐	☐	☐	☐	☐
• *Easements (type, size and ownership).*			☐	☐	☐	☐	☐	☐
• *Flood hazard zone, base flood elevation and reference to FEMA Map number.*			☐	☐	☐	☐	☐	☐
• *Show wetlands and critical areas including buffers.*			☐	☐	☐	☐	☐	☐
• *Show existing contours at 1' intervals with spot shots at critical locations.*			☐	☐	☐	☐	☐	☐
• *Show that the topographic survey shows elevations at one-foot (1') intervals based on the North American Vertical Datum of 1988 (NAVD88).*	☐	☐	☐	☐	☐	☐	☐	☐
Comments:								

Construction Plans Demolition Plan Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	**No**	**Yes**	**No**	**Yes**	**No**
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐
• *Delineate buildings, utility mains and services to be cut and capped, abandoned and/or demolished.*	☐	☐	☐	☐	☐	☐
• *Indicate what structures/ buildings to be retained.*	☐	☐	☐	☐	☐	☐
• *Show any existing structures, utilities, curbing, pavement, etc. required to be removed are clearly shown to be demolished (i.e. hatched, location of saw cut) and removed.*	☐	☐	☐	☐	☐	☐
• *If required demolition of existing infrastructure appears to present a hazard to the public, a chain link fence and gate should be installed around the perimeter of the site to deter said public from entering the site. A detail should be provided.*	☐	☐	☐	☐	☐	☐
• *Show tree protection fencing around all trees to be saved and indicate with an "**X**" over the trees to be removed.*	☐	☐	☐	☐	☐	☐
• *Provide a dewatering plan if applicable.*	☐	☐	☐	☐	☐	☐
Comments:						

Construction Plans Erosion Prevention & Sediment Control Plan Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
Phased EPSC Plans are required when land-disturbance is 5 acres or more:						
- For land-disturbance between 5 and 10 acres, a two-phased stormwater management and sediment and erosion control plan is required for all non-linear projects. Each phase must be shown on a separate plan sheet. Plans should address the transition between phases. ➢ Phase 1 – Initial Land Disturbance – Must include perimeter sediment and erosion control BMPs required prior to initial/ mass clearing and other appropriate BMPs needed to maintain compliance with the permit. On some sites, this may include appropriate BMPs for demolition of existing structures ➢ Phase 2 – Stabilization - Sediment and erosion control BMPs required during the remainder of grading and construction. Must also include appropriate BMPs for stabilization – grassing, inlet protection, etc.						
- For land-disturbance greater than 10 acres, a three-phased stormwater management and sediment and erosion control plan is required for all non-linear projects. Each phase must be shown on a separate plan sheet. Plans should address the transition between phases. ➢ Phase 1 – Initial Land Disturbance – Must include perimeter sediment and erosion control BMPs required prior to initial/ mass clearing and other appropriate BMPs needed to maintain compliance with the permit. On some sites, this may include appropriate BMPs for demolition of existing structures. ➢ Phase 2 – Construction - Sediment and erosion control BMPs required during the majority of grading and construction activities. ➢ Phase 3 – Stabilization - Sediment and erosion control BMPs required near the completion of the construction project. Must also include appropriate BMPs for stabilization – grassing, inlet protection, etc.						
• Provide title block including project name, title sheet and number.	☐	☐	☐	☐	☐	☐
• Provide plan at the scale indicated and accurate north arrow.	☐	☐	☐	☐	☐	☐
• Review and ensure standard construction and erosion control notes per SCDHEC SWPPP Review Checklist are provided	☐	☐	☐	☐	☐	☐
• Legend showing what each measure, line types represent (verify consistency with plan view)	☐	☐	☐	☐	☐	☐
• Construction schedule with timeline for each activity shall be included and must show at what point the sediment and/or erosion control measures will be implemented on site.	☐	☐	☐	☐	☐	☐
• Provide seeding specifications and schedule per SCDOT specifications.	☐	☐	☐	☐	☐	☐
• Verify maintenance responsibilities and agreement of BMP's as applicable.	☐	☐	☐	☐	☐	☐
• Show outline of activity location and indicate existing project phase lines (if applicable).	☐	☐	☐	☐	☐	☐
• Show property lines and easements with bearing and distance (indicate source of survey), adjacent landowner's names and land use conditions clearly shown.	☐	☐	☐	☐	☐	☐
• Clearly delineate the limits of disturbance.	☐	☐	☐	☐	☐	☐

Construction Plans Erosion Prevention & Sediment Control Plan Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• Existing and proposed contours for the entire disturbed area showing runoff patterns/overland flow paths.	☐	☐	☐	☐	☐	☐
• Curbing, storm drainage, water and sewer facilities are shown as grayscaled on the plan.	☐	☐	☐	☐	☐	☐
• Nearest labeled water bodies, discharge points, and receiving waters	☐	☐	☐	☐	☐	☐
• Show delineated wetlands, label as jurisdictional or non-jurisdictional.	☐	☐	☐	☐	☐	☐
• If impacts to Receiving Waters, areas of impact shall be outlined and labeled such that no work can begin in this area until all necessary USACE permits and SCDHEC 401 certifications have been obtained	☐	☐	☐	☐	☐	☐
• Double row or reinforced silt fence is required for disturbance within the 30' buffer (45' for sensitive waters) adjacent to all receiving waters that abut the project site.	☐	☐	☐	☐	☐	☐
• Clearly show and label tree preservation areas and associated tree protection fencing	☐	☐	☐	☐	☐	☐
• BMPs shall be properly placed (silt fence, inlet protection, construction entrance, rip-rap at outfalls, check dams etc.)	☐	☐	☐	☐	☐	☐

Comments:

• Erosion Prevention BMPs (section 3.2.6.I of the NPDES CGP)

- All slopes shall be designed and stabilized properly	☐	☐	☐	☐	☐	☐
- All channels and diversion ditches shall be able to accommodate the 10-year storm event with non-erosive velocities during construction and post-construction	☐	☐	☐	☐	☐	☐
- Check dams should be installed to reduce runoff velocities in areas of concentrated flow	☐	☐	☐	☐	☐	☐
- Verify that rip rap is shown at all point-source discharges and areas where storm water is constricted /conveyed in such a way as to produce high velocities	☐	☐	☐	☐	☐	☐
- For all slopes steeper than 1.5:1, stabilization practices shall be identified (e.g., ECB, TRM)	☐	☐	☐	☐	☐	☐
- Would other erosion / velocity control measures be helpful?	☐	☐	☐	☐	☐	☐

Note: Measures, in addition to grassing or hydroseeding, include synthetic or vegetative matting, diversion berms, temporary slope drains, etc.

Note: If retaining walls or fill slopes are to be constructed at the downstream property line, a 10' buffer is required for construction and maintenance.

Comments:

• Sediment Control BMPs (section 3.2.6.II of the NPDES CGP)

Construction Plans Erosion Prevention & Sediment Control Plan Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
- *Silt fencing should be shown adjacent to all wetland areas that abut the project site. Silt fencing should also be shown along property lines downstream of where construction activity is to take place. No silt fencing should be shown along property lines upstream of the project site.*	☐	☐	☐	☐	☐	☐
- *Silt fence shall be used only in areas with drainage areas of less than ¼ acre per 100 LF of fence and shall not be used in areas with concentrated flows.*	☐	☐	☐	☐	☐	☐
- *Temporary sediment traps should be used on relatively steep slopes where other erosion control measures cannot be implemented until such time as the storm drainage collection system is installed. Silt fencing may not be adequate for large areas of disturbance which are steep in nature.*	☐	☐	☐	☐	☐	☐
- *Temporary sediment traps shall be used only for drainage areas of less than 5 acres.*	☐	☐	☐	☐	☐	☐
- *If sediment basins are to be used, ensure design provides for required surface water dewatering with a maximum discharge rate of the 10-yr storm inflow rate under 1 foot of depth over the weir.*	☐	☐	☐	☐	☐	☐
- *Clean-out stake, marked at ½ the designed sediment storage depth, shall be provided in all sediment basins/sediment traps.*	☐	☐	☐	☐	☐	☐
- *Retrofits can be used within ponds at outlet control structures, particularly in cases where water quality calculations (included in the hydrologic report) indicated that the targeted sediment removal efficiency of 80% is not achieved. Check dams can also be used to mitigate such a deficiency.*	☐	☐	☐	☐	☐	☐

Comments:

• ***Stabilized Construction Entrance:***

	Preliminary		Final 1st		Final 2nd	
- *Stabilized construction entrances must be clearly shown on the plan view in any area where construction traffic will be leaving the site and potentially tracking mud onto regularly travelled roadways.*	☐	☐	☐	☐	☐	☐

Comments:

• ***Inlet Protection***

	Preliminary		Final 1st		Final 2nd	
- *Inlet protection must be shown at all inlets (existing and proposed). Straw bales may not be used.*	☐	☐	☐	☐	☐	☐
- *Steel posts and buried wire-reinforced fabric shall be used for filter fabric inlet protection.*	☐	☐	☐	☐	☐	☐
- *Inlet protection details shall be provided for pre-paving and post-paving of roadways.*	☐	☐	☐	☐	☐	☐

Note: Inlets should not have more than one (1) acre draining to them.

Comments:

Construction Plans Erosion Prevention & Sediment Control Plan Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Non-Numeric Effluent Limits Controls (section 3.2.10 of the NPDES CGP)*						
- *Control stormwater volume and velocity within the site during construction to minimize erosion within the site.*	☐	☐	☐	☐	☐	☐
- *Control stormwater rates and volume at outlets during construction to minimize erosion to downstream channels and streambanks.*	☐	☐	☐	☐	☐	☐
- *Implement appropriate erosion prevention and sediment control BMPs for steep slopes (slopes of 3:1 or greater) and stabilize promptly if areas will not be actively worked for 7 days.*	☐	☐	☐	☐	☐	☐
- *Implement soil stabilization measures for portions of the site where earth disturbing activities have ceased and will not resume for a period exceeding 14 days.*	☐	☐	☐	☐	☐	☐
- *Provide dewatering plan as necessary to prevent uncontrolled discharges.*	☐	☐	☐	☐	☐	☐
- *Provide proper treatment of discharges associated with equipment and vehicle washing, wheel wash water and other wash waters.*	☐	☐	☐	☐	☐	☐
- *Minimize exposure of building materials, wastes, fertilizers, pesticides, detergents, sanitary waste to precipitation and stormwater.*	☐	☐	☐	☐	☐	☐
- *Show concrete washout area location and associated detail with installation and maintenance notes.*	☐	☐	☐	☐	☐	☐
Comments:						

Site Development Plan Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Show north arrow and applicable graphic scale.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Show improvements with heavier line weights.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Show proposed use of the site with gross and net square footage of floor space.*			☐	☐	☐	☐	☐	☐
• *Indicate proposed first floor elevation and height of structures.*			☐	☐	☐	☐	☐	☐
• *Provide building code information as applicable.*			☐	☐	☐	☐	☐	☐
• *Sow location and size of parking lot stalls, aisles, islands, and sidewalks dimensioned.*			☐	☐	☐	☐	☐	☐
• *Show existing and proposed right-of-way.*	☐	☐	☐	☐	☐	☐	☐	☐

Site Development Plan Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• Show existing and proposed roadway elements dimensions.			☐	☐	☐	☐	☐	☐
• Temporary cul-de-sacs (and the associated right-of-way) whenever the proposed roadway ends at phase lines.			☐	☐	☐	☐	☐	☐
• Show existing and proposed curb line, label all curb radii.			☐	☐	☐	☐	☐	☐
• Driveway widths and distances to adjacent driveways.			☐	☐	☐	☐	☐	☐
• Show wetlands including critical line buffer. Check for DHEC-OCRM verification.	☐	☐	☐	☐	☐	☐	☐	☐
• Locate main entrance(s) and accessible route from the accessible spaces.			☐	☐	☐	☐	☐	☐
• Locate areas of proposed signs, fences and walls.			☐	☐	☐	☐	☐	☐
• Locate refuse areas and screening detail.			☐	☐	☐	☐	☐	☐
• Location of outdoor storage or display areas.			☐	☐	☐	☐	☐	☐
• Location of lighting facilities and location of all utility connections.			☐	☐	☐	☐	☐	☐
• Proposed road and parking and traffic circulation.			☐	☐	☐	☐	☐	☐
• Parking analysis summary table to include number of ADA accessible spaces.			☐	☐	☐	☐	☐	☐
• Density analysis noting the total acreage of high ground and the total number of residential or commercial dwelling units.	☐	☐	☐	☐	☐	☐	☐	☐
• Show vision clearance triangles at street intersections as required by SCDOT/ARMS manual.			☐	☐	☐	☐	☐	☐
• Provide and label the required building setbacks.	☐	☐	☐	☐	☐	☐	☐	☐
• Provide the percentage of the lot occupied by buildings.	☐	☐	☐	☐	☐	☐	☐	☐
• Proposed new streets with names, including roadway widths, curb lines and right-of-way lines and widths.			☐	☐	☐	☐	☐	☐
• Other numerical information to facilitate the review setbacks and other zoning requirements.			☐	☐	☐	☐	☐	☐
• Number of lots, if any and area of each.	☐	☐	☐	☐	☐	☐	☐	☐

Site Development Plan Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• Existing stormwater and sewer lines, water lines, fire hydrants utility transmissions lines culverts, bridges railroads, etc. as deemed appropriate for proper development of site, including ponds shown as owned and maintain by the HOA.			☐	☐	☐	☐	☐	☐
• Provide location, width of sidewalks and trails in conformance with ADA requirements.			☐	☐	☐	☐	☐	☐
• Provide location, widths and purposes of proposed easements and utility rights-of-way.			☐	☐	☐	☐	☐	☐
• Any disturbances in existing accessible route(s) and indicate plans to provide accessible routes during construction.			☐	☐	☐	☐	☐	☐
• Indicate the accessible ingress and egress route from the public sidewalk.			☐	☐	☐	☐	☐	☐
• Indicate accessible curb ramps.			☐	☐	☐	☐	☐	☐
• Indicate accessible parking in relation to the accessible route.			☐	☐	☐	☐	☐	☐
• Note height of ceiling in covered parking areas and passenger loading zones.			☐	☐	☐	☐	☐	☐
Comments:								

Geometrics and Dimensional Control Plan Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• Provide title block including project name, title sheet and number.	☐	☐	☐	☐	☐	☐
• Roadway geometrics including stationing, lengths of all straight lines, radii and lengths of curves and tangent bearings or each street.	☐	☐	☐	☐	☐	☐
• Locate roads and driveways with widths and curb radiuses indicated.	☐	☐	☐	☐	☐	☐
• Parking details indicated on the plans to include; parking space size (width and length), and aisle width between parking stall lines.	☐	☐	☐	☐	☐	☐
• Plans must show driveway separation distances and the distance to the nearest intersections.	☐	☐	☐	☐	☐	☐
Comments:						

Grading & Drainage Plan Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• Provide title block including project name, title sheet and number.	☐	☐	☐	☐	☐	☐	☐	☐
• Show existing and proposed topography, environmental controls, drainage, and other proposed improvements.	☐	☐	☐	☐	☐	☐	☐	☐
• Limits of clearing and grading.	☐	☐	☐	☐	☐	☐	☐	☐
• Area (square feet) to be disturbed.	☐	☐	☐	☐	☐	☐	☐	☐
• Description of the nature and purpose of land disturbance.	☐	☐	☐	☐	☐	☐	☐	☐
• Proposed buildings and existing buildings to remain.	☐	☐	☐	☐	☐	☐	☐	☐
• Amount of pre- and post-developed impervious area.			☐	☐	☐	☐	☐	☐
• Proposed drainage pattern and flow volumes.	☐	☐	☐	☐	☐	☐	☐	☐
• Provisions for drainage behind the retaining wall area are to be shown on the grading plan.			☐	☐	☐	☐	☐	☐
• Show driveway grades and transition grade from street to driveway.			☐	☐	☐	☐	☐	☐
• Show finished floor elevations.			☐	☐	☐	☐	☐	☐
• Watershed limits.	☐	☐	☐	☐	☐	☐	☐	☐
• Existing and proposed contours at 1' intervals.			☐	☐	☐	☐	☐	☐
• Proposed spot elevations.			☐	☐	☐	☐	☐	☐
• Flow arrows (perpendicular to contours).			☐	☐	☐	☐	☐	☐
• Drainage areas designations.	☐	☐	☐	☐	☐	☐	☐	☐
• Existing storm drain pipes and culverts.	☐	☐	☐	☐	☐	☐	☐	☐
• Proposed storm drain pipes and culverts.	☐	☐	☐	☐	☐	☐	☐	☐
• Storm drain manholes, inlets, and headwalls.			☐	☐	☐	☐	☐	☐
• Existing and proposed open channels, swales and ditches.	☐	☐	☐	☐	☐	☐	☐	☐
• Proposed structural stormwater BMPs per the SDSM and SCDHEC BMP Handbook.			☐	☐	☐	☐	☐	☐
Comments:								

Traffic Control Plan Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• Provide title block including project name, title sheet and number.	☐	☐	☐	☐	☐	☐
• Show permanent signing, pavement markings, delineation and other permanent traffic control devices on this sheet. A separate detail sheet could be used for clarity and ease reference.	☐	☐	☐	☐	☐	☐
• Adhere to guidance on permanent signing and marking that is provided in the MUTCD.	☐	☐	☐	☐	☐	☐
• Indicate locations of "Stop" signs, "Stop" bars, and "Handicapped" signs, other traffic control devices (i.e. – arrows, warning signs, etc.) on a Traffic Control Plan Sheet.	☐	☐	☐	☐	☐	☐
• A Temporary Traffic Control Plan may be required for all projects where existing automobile and/or pedestrian traffic patterns are altered or changed, or where lane and/or shoulder widths are reduced or eliminated.	☐	☐	☐	☐	☐	☐
• The proposed Temporary Traffic Control Plan should graphically portray all temporary traffic controls required to assure safe travel through the project construction zone. Such temporary traffic controls include provisions for pedestrians (including those with disabilities), bicyclists, and motor vehicles.	☐	☐	☐	☐	☐	☐
• The proposed Temporary Traffic Control Plans may range from simple line diagrams for low-volume roads to complex plan sheets detailing every stage of the project work on high-volume roads. Guidance on Temporary Traffic Control Plans is provided in the MUTCD.	☐	☐	☐	☐	☐	☐
Comments:						

Roadway Plan and Profile Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• Provide title block including project name, title sheet and number.	☐	☐	☐	☐	☐	☐
Plan						
• Centerline, stationing (50' intervals), alignment data (bearings, distances, curve data, etc.), intersection /curb return radii, easements, property lines, sidewalks, drainage inlets, manholes, applicable notes, benchmarks, north arrow and scale.	☐	☐	☐	☐	☐	☐
• Inlets, Manholes and Junction Boxes: - Provide structure identification including stationing of structure, - Type of structure. - Top of grate or cover elevation. - In and out invert elevations for each pipe.	☐	☐	☐	☐	☐	☐

Roadway Plan and Profile Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Pipes:* - *Size, type and material (RCP in roadways and along roadways).* - *(O-Ring, Class III RCP for pipes permenantly holding water)).* - *Length in feet.* - *Slope in percent.* - *Check cover and clearance with existing and proposed utility crossings.* - *Match pipe crowns where possible.* - *Pipe roadway crossings should be at 90^0 (perpendicular) where possible.*	☐	☐	☐	☐	☐	☐
Profile						
• *Profile View: Centerline, stationing (50' intervals), original ground and proposed grade along centerline, utility crossings and structures, label vertical curve elements (VPI's, VPC's VPT's), and tangent grades.*	☐	☐	☐	☐	☐	☐
• *Vertical curves should be a minimum of 50' in length and should be checked for sight distance.*	☐	☐	☐	☐	☐	☐
• *Low Points:* - *Check if local residential roadway centerline is above 10-year storm elevations.* - *Check if collector and higher level roadway centerline is above 25-year storm elevation.* - *Check backwater elevations at inlets.* - *Check for overland relief for large storms.* - *Make sure that all low points have adequate drainage.*	☐	☐	☐	☐	☐	☐
• *Show all utilities crossings at roadway centerline. Check cover, clearance and conflicts.*	☐	☐	☐	☐	☐	☐
Comments:						

Typical Road Sections Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐	☐	☐
• *The Typical Section Sheet shows the shape of the finished surface, curbs, shoulders, ditches and sidewalks and represents the appearance of the completed project. It must be specific enough to describe the proposed work, its location and the material needed.*	☐	☐	☐	☐	☐	☐	☐	☐
• *On projects requiring more than one typical section, the limiting stations for each section should show.*			☐	☐	☐	☐	☐	☐

Typical Road Sections Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• Identify all functional elements of the typical section to a relative scale. Show widths in feet and show thickness or depth in inches. Show the thickness of each element in the pavement structure in inches. Trees and lights included.	☐	☐	☐	☐	☐	☐	☐	☐
• Use notes or tables on the typical section to describe varying pavement structure thicknesses.	☐	☐	☐	☐	☐	☐	☐	☐
• For staged construction projects, identify the ultimate typical section. Clearly distinguish the work to be performed under the contract and the future stage construction work.			☐	☐	☐	☐	☐	☐
• Use supplemental typical sections to detail curbs, sidewalks, median treatments, slope protection, channel changes, etc.			☐	☐	☐	☐	☐	☐
• On abbreviated plans, supplemental typical sections may be placed on the plan sheet at the locations where the work is proposed.			☐	☐	☐	☐	☐	☐
Comments:								

Storm Drainage Plan and Profile Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• Provide title block including project name, title sheet and number.	☐	☐	☐	☐	☐	☐
• Storm drainage plan and profiles typically required for all stormwater systems located within public right-of-way.	☐	☐	☐	☐	☐	☐
• For culvert installations, include the following for each culvert location: Size, alignment, length, materials, including class, gauge, and any special coatings, joint gasket treatments, if any, end treatment, cover depth, camber, if any.	☐	☐	☐	☐	☐	☐
• For the location and design of simple riprap outlet protection, include the following for each: dimensions and extent of riprap, gradation, bedding and filter material, grading or slope details, if needed.	☐	☐	☐	☐	☐	☐
• Show location and details of drainage structures which are typically located based on maintenance requirements and at changes to the storm drain alignment or profile.	☐	☐	☐	☐	☐	☐
• Storm drain profiles should be designed as close to the surface as possible, taking minimum cover depths and utility conflicts into consideration.	☐	☐	☐	☐	☐	☐
• Show proposed pipe invert elevations and top of grate elevations for all drainage structures.	☐	☐	☐	☐	☐	☐

Storm Drainage Plan and Profile Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Show computed HGL for design storm event for pipes.*	☐	☐	☐	☐	☐	☐
Comments:						

Details Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number*	☐	☐	☐	☐	☐	☐
• *Standard plans/details shall be in accordance with the SCDOT Standard Drawings, and other regulatory agencies as applicable.*	☐	☐	☐	☐	☐	☐
• *Details include curb, curb and gutter, sidewalk, grade crossings, turnouts, retaining walls, dikes and ponds, stormwater pipes and structures, staged construction plans, permanent striping and signing plans, road approaches and driveways and other work.*	☐	☐	☐	☐	☐	☐
• *Special Details are project specific details necessary to properly describe the work.*	☐	☐	☐	☐	☐	☐
• *Construction details for improvements within the public right-of-way.*	☐	☐	☐	☐	☐	☐
• *Details required for all erosion prevention and sediment control measures specified on the plan in accordance with the most recent SCDHEC BMP details and provide installation and maintenance notes.*	☐	☐	☐	☐	☐	☐
Comments:						

Sewer Plans and Details Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐
• *Wastewater installation details shall be in accordance with the appropriate agency regulations.* • *Sewer manholes to be located out of roadway pavement.*	☐	☐	☐	☐	☐	☐
• *Specifications shall be in accordance with the Berkeley County Water and Sanitation minimum standards or other appropriate agency standards for the design and construction of water and sanitary systems.*	☐	☐	☐	☐	☐	☐
Comments:						

Water Plans and Details Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐
• *Water installation shall be in accordance with the appropriate agency regulations.* • *Valves and valve boxes located out of roadway pavement.* • *Fire Hydrants located at the right-of-way line.*	☐	☐	☐	☐	☐	☐
• *Specifications shall be in accordance with the Berkeley County Water and Sanitation minimum standards or other appropriate agency standards for the design and construction of water and sanitary systems.*	☐	☐	☐	☐	☐	☐
Comments:						

Landscaping Plans Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐
• *Proposed street light locations.*	☐	☐	☐	☐	☐	☐
• *Proposed site light locations.*	☐	☐	☐	☐	☐	☐
• *Provide a landscape plan for ROW plantings. Include plant schedule.* • *Proposed landscaping within ROW's and easements shall be coordinated with Berkeley County Engineering, Berkeley County Roads & Bridges and Berkeley County Water and Sanitation prior to submitting plans.* • *Landscaping within public ROW's and easements shall submit an encroachment permit application along with the landscaping plans.*	☐	☐	☐	☐	☐	☐
• *Provide watering schedule for ROW planting.*	☐	☐	☐	☐	☐	☐
• *Construction details for improvements within the public right-of-way.*	☐	☐	☐	☐	☐	☐
• *Consistency with proposed grading and drainage plan along with proposed stormwater BMPs and access to BMPs.*	☐	☐	☐	☐	☐	☐
Comments:						

Right-of-Way & Utility Plans Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐
• *On occasion, right-of-way plans or utility plans may be too complicated to incorporate on the Plan and Profile Sheets, and may be prepared as a separate plans set with only the pertinent information.*	☐	☐	☐	☐	☐	☐
Comments:						

Architectural Drawings Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
• *Provide title block including project name, title sheet and number.*	☐	☐	☐	☐	☐	☐
• *Building(s) footprint with dimensions and connection details to other civil works.*	☐	☐	☐	☐	☐	☐
• *Building height calculations.*	☐	☐	☐	☐	☐	☐
• *Show finished floor elevations.*	☐	☐	☐	☐	☐	☐
• *Roof downspouts with details redirecting drainage into a drainage structure or permeable surface.*	☐	☐	☐	☐	☐	☐
• *Indicate accessible routes and parking in relation to the building and adjacent sidewalks.*	☐	☐	☐	☐	☐	☐
Comments:						

7. Permits

Item/Description	Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No
Requirements						
• *Encroachment permit(s) from the SCDOT or Berkeley County Roads & Bridges for any work within State or County rights-of-way.*	☐	☐	☐	☐	☐	☐
• *Permit(s) from agencies other than Berkeley County. This may include South Carolina DHEC/OCRM permits and/or U.S. Corps of Engineers permits where applicable.*			☐	☐	☐	☐
• *DHEC/OCRM Construction Permit – Provide copy of NOI application for the DHEC/OCRM Permit for the discharge of stormwater from construction activity.*			☐	☐	☐	☐
Comments:						

8. Traffic and Transportation

Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
Requirements								
• *Verify if a traffic impact study for major developments and some intermediate developments.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Traffic and Street Sign Standards shall comply with MUTCD and SCDOT standards.*			☐	☐	☐	☐	☐	☐
• *Provide details of all signs and sign post and details of installation.*			☐	☐	☐	☐	☐	☐

Item/Description	Conceptual		Preliminary		Final 1st		Final 2nd	
	Yes	No	Yes	No	Yes	No	Yes	No
• *All proposed Stop Sign locations should be indicated and installed 7' from bottom of sign - minimum 30" sign installed on a breakaway post.*	☐	☐	☐	☐	☐	☐	☐	☐
• *All proposed Stop Bar locations should be 24"wide, white thermoplastic paint. Provide details.*			☐	☐	☐	☐	☐	☐
• *Provide location and details of all existing and proposed traffic control devices: All pavement markings, centerlines, arrows; Traffic, parking, and street name signs; Traffic Signals.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Include statement indicating all traffic control devices installed will meet latest edition MUTCD standards.*			☐	☐	☐	☐	☐	☐
• *Include details of general parking and handicap parking space separation lines [type of paint, width, colors.*			☐	☐	☐	☐	☐	☐
• *Include handicap sign locations and details.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Include parking meter locations if applicable.*	☐	☐	☐	☐	☐	☐	☐	☐
• *Include statement on plans indicating that sight distance visibility at all exits and/or intersections will be maintained in accordance with SCDOT Access and Roadside Management Standards (ARMS) Manual.*			☐	☐	☐	☐	☐	☐
• *If required by traffic impact study, provide a separate Traffic Signal Plan designed to meet SCDOT standards. Refer to SCDOT ARMS Manual.*			☐	☐	☐	☐	☐	☐
Comments:								

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