DEPARTMENT OF
PUBLIC UTILITIES

To be completed by WRD
Plan Number: _____
Reviewer: _____
Previously Reviewed: _____

DPU Water Resources Division

Plan Review Checklist

Instructions: This checklist is to be completed during the design or during quality control check by the plan preparer and submitted with the permit application package. All items must be fully addressed and indicated so by checking the box for that item or providing rationale as to why the item has not been addressed. Where applicable, identify plan sheet(s) addressing specific requirements to help facilitate plan review.

Project Information

Project Address:	Project Name:
Total Disturbed Acres:	
Plan Prepared By: Date Checklist Prepared:	Email: Phone:
Parcel Owner:	Email Phone:

Check features applicable to this plan:

Yes	No		Yes	No	
☐	☐	Perennial Stream	☐	☐	Common Plan of Development
☐	☐	Wetland	☐	☐	Subdivision (3+ parcels)
☐	☐	100 Year Floodplain	☐	☐	Combined Sewer Service Area
☐	☐	Chesapeake Bay Preservation Area	☐	☐	Municipal Separate Storm Sewer System (MS4)

Check which areas apply and complete indicated checklist section:

Checklist Section		Regulation/Guidance	Checklist Section		Regulation/Guidance
Section 2	☐	Erosion and Sediment Control [Chapter 14, Article III]	Section 5	☐	Stormwater Management Facilities [Sec. 14-327]
Section 3	☐	Chesapeake Bay Plan [Chapter 14, Article IV]	Section 6	☐	Floodplain [Chapter, 14, Article II]
Section 4	☐	Storm Drain System [Richmond Stormwater Manual]			

Check if additional permits or supporting documentation may apply and are included with application:

YES	NA	
☐	☐	USACE wetland delineation approval/permit
☐	☐	Stream perenniality study with all supporting documentation
☐	☐	City confirmation letter of stream perenniality study (include on appropriate plan sheet)
☐	☐	Nutrient Credit information (include DEQ approval of Bank and recorded approval of sale on appropriate plan sheet)
☐	☐	General permit coverage registration statement
☐	☐	A copy of all Federal permits
☐	☐	A copy of all State permits

Section 1 – General Information

YES	SHEET #	REQUIREMENT	NA
☐		1) Cover Sheet	☐
☐		a) Project name	☐
☐		b) Owner/developer name, address, phone number, and contact person	☐
☐		c) Vicinity map with project outlined	☐
☐		d) List all required permits	☐
☐		e) Sheet index	☐
☐		f) Plan date/revision dates	☐
☐		g) List ESC quantities	☐
☐		h) List storm drainage quantities	☐
☐		i) Provide BMP summary table (example Excel file available for download)	☐
☐		2) Plan Sheets	☐
☐		a) Engineer's, Architect's, Land Surveyor's, or Landscape Architect's stamp signed and dated on all plan sheets	☐
☐		b) All drawings must be to scale	☐
☐		c) Provide a north arrow on every plan sheet	☐
☐		d) Show all existing and proposed contours (2' intervals maximum)	☐
☐		e) Show property lines with metes and bounds and owner information. Include legal description for adjacent properties	☐
☐		f) Provide detail schematic for plans that cover two or more sheets	☐
☐		g) Complete title block	☐
☐		h) Show and label extents of buildable area (setbacks, floodplain limits, RPA, *etc*.)	☐
☐		i) Show limits of construction, limits of disturbance, and limits of grading	☐
☐		3) Existing Conditions; show the following features, were applicable:	☐
☐		a) All 100-year flood plain limits (No land disturbance or structures shall be permitted in the floodplain limits without prior City Approval)	☐
☐		b) Location and boundaries of tidal and non-tidal wetlands, as delineated on the National Wetland Inventory (NWI) Maps prepared by the U.S. Department of the Interior (available from the Program Administrator)	☐
☐		c) Any Chesapeake Bay Preservation Area (RMA and/or RPA) buffer zones	☐
☐		d) Existing/proposed right of way (including improved and unimproved)	☐
☐		e) All existing easements (utilities, streets)	☐
☐		f) Physical features, including streets, alleys, parking areas and existing site improvements to remain, such as structures and their use, parking areas, driveways and all areas of impervious cover	☐
☐		g) Existing utilities including storm sewer, curb and gutter, sewer (including septic drain fields), water, electrical, and gas	☐
☐		h) Existing streams, ponds, culverts, ditches, and other water bodies; including field located perennial streams	☐
☐		i) Soil types	☐
☐		j) Forest cover and other vegetative areas	☐
Provide reasoning for above NA responses in the space below. Attach additional pages if necessary.			

Section 2 – Erosion and Sediment Control Plan

YES	SHEET #	REQUIREMENT	NA
☐		1) ESC Narrative per VAESCH	☐
☐		a) *Project Description* – Describe purpose and scope of land disturbing activity and area (acres) to be disturbed	☐
☐		b) *Existing Site Conditions* – Describe existing topography, vegetation, drainage, *etc.*	☐
☐		c) *Adjacent Site* – Describe neighboring areas, streams, lakes, residential areas, roads, parks, *etc*., which may be affected by the land disturbance	☐
☐		d) *Off-Site areas* – Describe if off-site soil borrow/disposal or off-site grading is planned	☐
☐		e) *Soils* – Provide brief description including, name, mapping unit, erodibility, permeability, depth, texture, and soil structure	☐
☐		f) *Critical areas* – Describe critical areas with potential erosion problems (long/steep slopes, water bodies, wetlands, *etc*.)	☐
☐		g) *Erosion & Sediment Control measures* – Describe methods and measures used	☐
☐		h) *Permanent stabilization* – Describe how the site will be stabilized after construction is complete	☐
☐		i) *Maintenance* – Designate responsible party for maintaining ESC measures	☐
☐		j) *Maintenance, continued* – Provide a description and schedule of regular inspection and repair of ESC measures	☐
☐		k) *Stormwater run-off considerations* – Will site cause increase in peak run off rates?	☐
☐		l) *Calculations* – All channels, basins, diversions, pre- and post-development run-off, MS-19, *etc*.	☐
☐		2) Show limits of disturbance outlined and labeled (all ESC measures must be within the limits of disturbance)	☐
☐		3) Show existing vegetation with any tree protection	☐
☐		4) Show limits of clearing and any undisturbed areas	☐
☐		5) Provide a soils map	☐
☐		6) Provide ESC measures during demolition of the site (this should be stated in the sequence of construction under the first phase)	☐
☐		7) Provide adequate access, staging, and stockpiling areas with appropriate ESC measures	☐
☐		8) List key of ESC measures with quantities	☐
☐		9) Show and label all ESC measures on plan sheet	☐
☐		10) List construction sequence/schedule specific to project and all phases, including any site demolition and removal of ESC measures	☐
☐		11) All detention/retention ESC measures within 20’ of a building's foundations must be evaluated	☐
☐		12) Show existing and proposed drainage patterns with flow arrows, time of concentration flow paths, and c- factors (or curve numbers)	☐
☐		13) Notate any off-site drainage areas (in acres) entering site	☐
☐		14) Sediment traps (Disturbed area with contributing drainage area of < 3 acres):	☐
☐		a) Provide inlet protection and outlet location	☐
☐		b) Maximize flow length from inlet to outlet	☐

YES	SHEET #	REQUIREMENT	NA
☐		c) Provide existing drainage area, proposed drainage area, storage capacity, and all supporting calculations per VAESCH Chapter 3.13	☐
☐		15) Sediment basins (Disturbed area with contributing drainage area of > 3 acres):	☐
☐		a) Provide inlet and outlet protection	☐
☐		b) Maximize flow length from inlet to outlet (add baffles as needed)	☐
☐		c) Provide basin data as follows: Basin type, existing drainage areas, proposed drainage area, storage required, storage provided, weir crest elevation, storage depth, bottom dimensions, cleanout elevation, channel depth of flow, maximum side slopes (specify cut or fill), bottom elevation, embankment elevation, riser dimensions, barrel dimensions. Include Temporary Sediment Basin Design Data Sheet.	☐
☐		d) Show separate dewatering device for pipe outlet traps	☐
☐		e) Provide all supporting calculations per VAESCH Chapter 3.14	☐
☐		16) Temporary storm drain diversions	☐
☐		a) Show profile	☐
☐		b) Give invert elevations of temporary pipe into trap on plan view	☐
☐		c) Provide details	☐
☐		17) Required notes on plans	☐
☐		a) General ESC Notes 1-9 (VAESCH Chapter 6, Table 6-1, pg. VI-15)	☐
☐		b) City of Richmond Standard ESC notes	☐
☐		c) City of Richmond Standard ESC measure maintenance items	☐
☐		d) All 19 Minimum standards (9VAC25-840-40)	☐
☐		18) Provide details for all erosion & sediment control measures proposed per VAESCH Chapter 3	☐
☐		19) Provide temporary seeding schedule per ESC Technical Bulletin #4.	☐
☐		20) Provide permanent seeding schedule per ESC Technical Bulletin #4 (use Table 3.32-D for west of I-95 and Tabled 3.32-E for east of I-95).	☐
☐		21) Off-site grading requires written documentation of permission from adjoining owner. Otherwise, include on current permit or separate land disturbing plan.	☐
☐		22) Subdivision	☐
☐		a) For the MS-19 requirements, an analysis of the outfall of the proposed development shall be done so that the natural channel is extended to the receiving stream.	☐
☐		b) If the drainage analysis fails to meet MS-19, stormwater management shall be required at the road construction plan stage of submission for a central facility.	☐
☐		c) Any lots submitted for a building permit that are part of a subdivision development shall not be considered as separate project, rather the subdivision development, shall be considered as a single project. Therefore, the central stormwater management facility and the overall site grading plan shall govern.	☐

Provide reasoning for above NA responses in the space below. Attach additional pages if necessary.

Section 3 – Chesapeake Bay Plan

Instructions: Applicable requirements of a Chesapeake Bay Plan include: Physical site characteristics, proposed improvements, grading plan, BMPs, landscape plan, narrative, WQIA, hydrology, impacts, wastewater, stream perennial flow determination, USACOE wetland delineation approval, etc.

YES	SHEET #	REQUIREMENT	NA
☐		1) The City of Richmond Chesapeake Bay Preservation Program Public Information Manual has been reviewed by the plan preparer and submitted plan(s) meet all requirements	☐
☐		2) All existing conditions, as specified in Section 1 of this checklist	☐
☐		4) Location of all significant plant material, including all trees on site six inches or greater in diameter at breast height; groupings of trees or significant vegetation may be outlined	☐
☐		5) Areas of proposed impervious surface, including:	☐
☐		a) Streets, alleys, sidewalks, curbs and gutters, driveways, and access, loading and other paved areas	☐
☐		b) Structures, including building footprint, dimensions, and use	☐
☐		6) The location of any sewage disposal system or reserve drain fields	☐
☐		7) Preliminary grading plan and/or cross-section drawings (if necessary to evaluate site drainage and conservation of natural features)	☐
☐		8) If structural Best Management Practice (BMP)/stormwater management facilities are proposed, complete Section 5 of this checklist	☐
☐		9) Additional supporting information shown in a table format	☐
☐		a) Total site area	☐
☐		b) Total ChesBay area	☐
☐		c) Amount of impervious area	☐
☐		d) Amount of impervious area in ChesBay	☐
☐		e) Amount of open/forested space on site	☐
☐		f) Amount of open/forested space in ChesBay	☐
☐		g) Percentage of impervious area for existing and proposed conditions	☐
☐		10) An Erosion and Sediment Control Plan that meets (at a minimum) the requirements in Section 2 of this checklist, and specifically addresses stream crossings, wetland disturbances, and shoreline conditions	☐
☐		11) Landscape plan	☐
☐		a) Major landscaping features, including existing vegetation, to be retained	☐
☐		b) Clear delineation of all trees proposed for removal	☐
☐		c) Description of plant species to be disturbed or removed	☐
☐		d) Treatment of the RPA buffer, indicating proposed landscaping and vegetation to be retained by type and quantity	☐
☐		e) Replanting schedule for trees and other significant vegetation removed for construction, including list of trees and plants to be used	☐
☐		f) Demonstration that the design will preserve, to the greatest extent possible, any significant trees and vegetation on site and provide maximum erosion control and overland flow benefits; provide description in narrative	☐

YES	SHEET #	REQUIREMENT	NA
☐		g) Demonstration that indigenous plants (see the City of Richmond Chesapeake Bay Preservation Program Public Information Manual Plant List, Appendix C) are to be used to the greatest extent possible	☐
☐		h) At the discretion of the Program Administrator, the applicant may be required to provide additional information, particularly in support of significant mitigation requirements for a project that disturbs more than 50,000 square feet of area	☐
☐		12) A Water Quality Impact Assessment (WQIA) is required for all development proposed in an RPA or any other area warranted as determined by the Program Administrator. The WQIA consists of the following elements:	☐
☐		a) Describe existing topography, soils, hydrology and geology of the site and immediately adjacent lands	☐
☐		b) Describe impacts of the proposed development on topography, soils, hydrology and geology on site and adjacent lands	☐
☐		c) Quantify disturbance/destruction of wetlands and provide justification	☐
☐		d) Describe disruption/reduction in supply of water to wetlands, streams, lakes, rivers or other water bodies	☐
☐		e) Describe disruption to existing hydrology, including wetland and stream circulation patterns	☐
☐		f) Provide source, location and description of proposed fill material	☐
☐		g) Characterize dredge material and provide location of dumping area for material	☐
☐		h) Locate and describe impacts on shellfish beds, submerged aquatic vegetation, and fish spawning areas	☐
☐		i) Describe any creation of wetlands to replace those lost	☐
☐		j) Describe efforts to minimize cut and fill	☐
☐		12.a)A Landscape Mitigation Plan is per the Riparian Buffer Mitigation Manual for all RPA encroachments	☐
☐		13) Septic System & Drain Fields	☐
☐		a) Show any existing septic tank and drain field location	☐
☐		b) Include calculations and locations of anticipated changes which affect existing septic drain field or wastewater irrigation areas	☐
☐		c) Provide justification for sewer line locations in environmentally sensitive areas and describe construction techniques and standards	☐
☐		d) New septic tanks are not allowed	☐
Provide reasoning for above NA responses in the space below. Attach additional pages if necessary.			

Section 4 – Storm Drain System

Instructions: All storm drain systems shall be designed according to the COR Stormwater Management Design and Construction Standards Manual. In General, components required for review of a storm drain system include: e*xisting hydrology, proposed hydrology, hydraulics (culvert, storm drain, open channel), profiles, calculation/modeling report with narrative/data/results, etc.*

YES	SHEET #	REQUIREMENT	NA
☐		1) Hydrology	☐
☐		a) Identification of each stormwater outfall, including existing and proposed drainage areas: show size of drainage area, time of concentration flow path, composite break down of the runoff coefficient, and arrows indicating flow directions	☐
☐		b) Clearly define any sub-drainage areas and drainage divide lines	☐
☐		c) Show all existing and proposed hydrology computations	☐
☐		2) Hydraulics	☐
☐		a) Show and label all existing and proposed drainage structures on plan	☐
☐		b) Existing and proposed storm drain pipes should show the length of the pipe, the size of the pipe, and the type of the pipe in plan and profile	☐
☐		c) Any storm drainage within a building footprint shall comply with Chapter 7 in the latest edition of the International Plumbing Code.	☐
☐		d) Storm drainage design requirements:	☐
☐		i. Show all storm drain hydraulic computations on plans	☐
☐		ii. Demonstrate the 10-year design flow less than pipe capacity	☐
☐		iii. Storm sewer slopes meet minimum criteria (0.3%)	☐
☐		iv. All calculations shall be submitted on standard VDOT forms or other acceptable documentation	☐
☐		v. Manhole steps required in structures 4-feet and greater in depth	☐
☐		vi. Provide a minimum cover of 3.5-feet for all storm drain structures, OR, provide protective fill for all storm drainage with less than two feet of cover	☐
☐		vii. Provide storm drain load protection where necessary such as cradle and encasement (provide pipe loading table on plan)	☐
☐		viii. Show and analyze the outfall of the storm drain profile. Submit storm drain computations to support all drainage outfalls	☐
☐		ix. Specify/show on plan/profile a dimensioned outfall channel section with 10-year lining depth, side slopes, bottom width	☐
☐		e) Open channel design requirements:	☐
☐		i. Provide cross-section details for open channel section. Show and label the location of the section on plan. Show the section's depth of flow, velocity, discharge and channel lining 'n' value, *etc*.	☐
☐		ii. Open channel depth of flow less than 3', otherwise flow path shall be piped	☐
☐		iii. Maximum permissible flow velocity of 3.5 fps for grass ditches	☐
☐		iv. Open channel longitudinal slope > minimum slope (0.2%)	☐
☐		v. Show rip-rap channel(s) meet design criteria: >100 ft from front of single family dwellings, unless otherwise approved; >75 ft from rear of single family dwellings	☐

YES	SHEET #	REQUIREMENT	NA
☐		vi. Rip-rap lining thickness meets minimum criteria of 24-inch thickness with geotextile fabric underlayment	☐
☐		vii. Specify paved channels when open channel slopes < 0.75%	☐
☐		viii. Where paved channels are steeper than 15%, anchor lugs are required every 10-feet on center	☐
☐		ix. 9-inch freeboard (vertical wall) is required along outside radius of paved ditches	☐
☐		f) Storm drain/open channel profile requirements:	☐
☐		i. Show existing and proposed storm drain profiles, where applicable	☐
☐		ii. Show existing ground and proposed grade surface elevations along the centerline of the system	☐
☐		iii. Label the percent grade (slope) and length	☐
☐		iv. Label the size and type of material	☐
☐		v. Show and label all existing and proposed storm drain structures to include rim elevations, inverts in and out, *etc*.	☐
☐		vi. Show the hydraulic grade line on storm drain profile (all hydraulic grade lines must be supported with computations shown on plan)	☐
☐		vii. Show and label all existing and proposed utilities that cross the proposed storm drain/open channel and label clearances (minimum clearance is required)	☐
☐		viii. Show all storm drain crossings with the appropriate clearances	☐
Provide reasoning for above NA responses in the space below. Attach additional pages if necessary.			

Section 5 – Stormwater Management Facilities

Instructions: Complete the following checklist to document RSMP, technical criteria, and BMP requirements.

YES	SHEET #	REQUIREMENT	NA
☐		1) Stormwater management plan requirements (9VAC25-870-55)	☐
☐		a) A general description of the proposed stormwater management facilities and the mechanism through which the facilities will be operated and maintained after construction is complete;	☐
☐		b) Documentation and summary of calculations verifying compliance with the water quality and quantity requirements (9VAC25-870-63 and 9VAC25-870-66, respectively); or	☐
☐		c) If an operator intends to meet the quality and quantity requirements using off-site compliance options, where applicable, then a letter of availability from the off-site provider must be included, as well as documentation of the applicant's acquisition of nutrient credits;	☐
☐		d) A map or maps of the site includes:	☐
		i. Existing conditions, as defined in Section 1	
☐		ii. Existing and proposed land use/land cover with tabulation of percentages of surface area for various uses (if not already included with Section 3);	☐
☐		iii. Sufficient information on adjoining parcels to assess the impacts of stormwater from the site on these parcels;	☐
☐		iv. Proposed stormwater management facilities and associated existing and proposed drainage patterns;	☐
☐		e) Stormwater management facility/BMP design calculation summary. (See VA Stormwater Management Handbook or Virginia Stormwater BMP Clearinghouse standards and specifications, as appropriate.) Refer to Item 4 for additional calculation requirements	☐
☐		2) Profile requirements	☐
☐		a) Storm drainage system entering device (refer to Section 4 of this checklist)	☐
☐		b) Low flow channel in basins (Pilot channel)	☐
☐		c) Profiles of all structures	☐
☐		d) Existing ground	☐
☐		e) Proposed grade	☐
☐		f) Pipes and other utilities	☐
☐		g) Water Surface Elevation of 2, 10 and 100-year design storms and Normal Pool	☐
☐		h) Emergency spillway elevation	☐
☐		i) Sub-surface details, if required (i.e., cutoff trench, clay core, clay liner, *etc*.)	☐
☐		3) Additional Stormwater BMP information	☐
☐		a) All BMPs	☐
☐		i. Construction and material specifications	☐
☐		ii. Details and notes	☐
☐		iii. All permanent material to be equal to standard inlet and structure quality and materials	☐
☐		iv. Grades 15% max	☐
☐		v. Side slopes 2:1 max	☐

☐		vi. maintenance access provisions (fence and gate details with location, height, materials, and specifications, if applicable)	☐
☐		b) Infiltration BMPs	☐
☐		i. Soil investigation data	☐
☐		ii. Soil borings locations	☐
☐		iii. Soil classification	☐
☐		iv. Strata profile	☐
☐		v. Water table elevation	☐
☐		vi. Elevations of strata	☐
☐		vii. Location and easements	☐
☐		viii. Phreatic line	☐
☐		c) Attenuation BMPs	☐
☐		i. Design flow inundation areas	☐
☐		4) Design Report	☐
☐		a) Narrative	☐
☐		i. Explanation of method used	☐
☐		ii. Findings of existing conditions	☐
☐		iii. Proposed development	☐
☐		iv. Best management investigation	☐
☐		v. Alternatives considered	☐
☐		vi. Why chosen or abandoned	☐
☐		vii. Water quality benefits of design	☐
☐		viii. Peak management benefits of design	☐
☐		b) Design data	☐
☐		i. Formulas and source of information	☐
☐		ii. HEC-2 or HEC-RAS, or other appropriate computer modeling input/output	☐
☐		iii. Details, nomographs, formulas	☐
☐		1. Existing peak flows for 2- and 10-year storms	☐
☐		2. Proposed peak flows for 2- and 10-year storms	☐
☐		3. Performance curve of device (elevation vs. discharge)	☐
☐		4. Hydrograph plot for proposed conditions 2- and 10-year storms	☐
☐		5. Water quality computations	☐
☐		iv. Clearances – vertical and horizontal	☐
☐		c) Outfall study	☐
☐		i. Existing conditions recommendations and hydraulic analysis	☐
☐		ii. Proposed conditions	☐
☐		1. Statement	☐
☐		2. Proposed flows	☐
☐		5) Maintenance Requirements	☐
☐		a) Provide inspection and maintenance schedules/frequencies on plans	☐
☐		b) Stormwater Utility Maintenance Agreement (SUMA) completed by owner and notarized	☐
☐		c) Stormwater Management Access Exhibit (Attachment A) provided	☐

☐		6) For projects with Limits of Disturbance > 1 acre:	☐
☐		a) Pollution Prevention Plan (PPP, Standard plan sheet available for download), that addresses the following:	☐
☐		i. Wastewater from washout of concrete	☐
☐		ii. Washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials	☐
☐		iii. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance	☐
☐		iv. Soaps or solvents used in vehicle and equipment washing	☐
☐		b) Stormwater Pollution Prevention Plan (SWPPP)	☐
☐		i. Designation forms	☐
☐		ii. See template for a list of requirements	☐
Provide reasoning for above NA responses in the space below. Attach additional pages if necessary.			

Section 6 – Floodplain

Instructions: For Floodplain management review, provide the following: a description of work, other development activities, floodplain determination, building alterations, etc.

Description of work

Activity	Structure Type
☐ New Structure	☐ Residential (1-4 family)
☐ Addition	☐ Residential (>4 family)
☐ Alteration	☐ Non-residential (Floodproofing? ☐ Yes ☐ No)
☐ Relocation	☐ Mixed Use (Residential & Commercial)
☐ Demolition	☐ Manufactured (Mobile) Home (In Manufactured Home Park? ☐ Yes ☐ No)
☐ Replacement	

Nearest intersection: _____

Estimated Cost of Project: $ _____

Other Development Activities
☐ Clearing ☐ Fill ☐ Mining ☐ Drilling ☐ Grading
☐ Excavation (except for structural development checked above)
☐ Watercourse Alteration (including dredging and channel modifications)
☐ Drainage Improvements (including culvert works)
☐ Road, Street or Bridge Construction
☐ Subdivision (☐ New or ☐ Expansion)
☐ Individual Water or Sewer System
☐ Other:

Floodplain Determination

The proposed development is located on:		FIRM Panel #:	Effective Date:
The proposed development is:			
Yes	No		
☐	☐	Partially located in the SFHA, but building/development is NOT	
☐	☐	Located in a Special Flood Hazard Area	
		FIRM Zone designation is: _____	
		100-year flood elevation at the site is _____ ft. NAV88 (MSL) *or* ☐ Unavailable	
☐	☐	Located in the floodway	
☐	☐	Located in the flood fringe	

Additional Information
Change in water elevation ____ ft., meets floodplain ordinance limits.
Top of new compacted fill elevation: _____ ft. NAVD 88 (MSL)
Floodproofing protection level (non-residential):_____ ft. NAVD 88 (MSL)

DPU Water Resources Division

Plan Review Checklist

YES	SHEET #	Requirement	NA
☐		1) Show ultimate condition (as zoned) for the 100-year storm	☐
☐		2) Show existing natural channel grade:	☐
☐		a) Profile along natural line boundary to boundary	☐
☐		b) Average grade line	☐
☐		3) Show required plan information	☐
☐		a) Base Flood Elevation (BFE) at the property limits and work area	☐
☐		b) Limits of Special Flood Hazard Area (SFHA) including floodway where applicable	☐
☐		c) Location and elevation of existing and proposed construction in the SFHA, including, but not limited to: streets, pavement, retaining walls, accessory buildings, swimming pools, parking lots, driveways, trash enclosures, storage tanks, and other onsite features	☐
☐		d) The extent of watercourse relocation and/or landform alterations	☐
☐		e) Compaction requirements for fill areas	☐
☐		f) Locations of existing and proposed underground utilities	☐
☐		g) “100-year” flood elevations, if they are not otherwise available, for subdivision or other development plans (Required if the subdivision or other development exceeds 50 lots or 5 Acres, whichever is the lesser)	☐
☐		4) Show information required if buildings are to be constructed, enlarged, or altered within the floodplain	☐
☐		a) Anchorage of proposed structures, including details for anchoring structures	☐
☐		b) Residential: Basement or lowest floor at least 1 foot above BFE	☐
☐		c) Non-Residential: Lowest floor or flood proofing 1 foot above BFE	☐
☐		d) For floodproofed structures, applicant must attach certification from registered engineer or architect	☐
☐		e) Show types of water-resistant materials used below the first floor	☐
☐		f) Provide details of floodproofing of utilities located below the first floor	☐
		g) Provide details of enclosures below the first floor	
☐		h) Show venting of enclosed areas for pressure equalization	☐
☐		i) Demonstrate that electrical, heating, ventilation, plumbing, air-conditioning, and other service equipment is designed or located to prevent water from entering or accumulating within the components during flooding (above BFE)	☐
☐		j) Show on-site waste disposal systems located to avoid impairment or contamination	☐
Provide reasoning for above NA responses in the space below. Attach additional pages if necessary.			