**EXHIBIT**

*Drainage and Detention*

*Summary Tables*

Last Revised on August 27, 2024

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| **TEMPLATE - Drainage & Detention Summary Tables** | | | | |
|  |  |  |  |  |
| **A.** | **Pre-Development  (Existing)** | **Areas  (acres)** | **Areas  (%)** |  |
|  | Total Project Tract Site |  |  |  |
|  | Impervious |  |  |  |
|  | Pervious |  |  |  |
|  | **Total** | **0** | **0%** |  |
|  |  |  |  |  |
| **B.** | **Post-Development  (Assumed Ultimate)** | **Areas  (acres)** | **Areas  (%)** |  |
|  | Building |  |  |  |
|  | Parking Area |  |  |  |
|  | Water acreage (i.e., detention ponds (dry or wet), lakes, channels, and roadside ditches (use the area within the top of bank)  Shall to be considered Impervious |  |  |  |
|  | Other Impervious (assumed) |  |  |  |
|  | Pervious |  |  |  |
|  | **Total** |  | **0%** |  |
|  |  |  |  |  |
| **C.** | **DRAINAGE AREAS** | **Pre-Development (Existing)** | **Post-Development (Proposed)** |  |
|  | 5-yr (acres) |  |  |  |
|  | A. 100-yr (acres) |  |  |  |
|  | B. 100-yr OFF-SITE\* (acres) \*All OFF-SITE sheet flow from adjacent properties and/or areas beyond the tract must be identified, properly accounted for, and mitigated as part of the project. |  |  |  |
|  | Total 100-yr (acres) [A + B] |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **D.** | **Storm Frequencies**(includes Off-site Areas) | | | | | | **5-yr (20%)** | **25-yr (4%)** | | **100-yr (1%)** |
| Total Peak Flow Rate (cfs) | **Pre-Development (Existing)** Max. Allowable Outflow | | | | | |  |  | |  |
| **Post-Development (Proposed)** BEFORE Detention/Restrictor | | | | | |  |  | |  |
| **Post-Development (Proposed)** WITH Detention/Restrictor (from detention basin) | | | | | |  |  | |  |
| **Flow Results** | | | | | | **Post < Pre OK** | **Post < Pre OK** | | **Post < Pre OK** |
| Elevation  (1988 NGVD, 2001 Adj.) | Lowest Natural or Finished Ground Elevation Estimate | | | | | |  | | | |
| Lowest Finish Floor Elevation (FFE) of Existing/Proposed building(s) | | | | | |  | | | |
| Maximum Allowable Water Surface Elevation  Based on: | | | | | |  | | | |
| Design Water Surface Elevation | | | | | |  |  | |  |
| Water Surface Elevation Calculated | | | | | |  |  | |  |
| Detention Basin Storage | \*100-yr Detention Basin Storage **Required** (ac-ft) | | | | | |  |  | |  |
| 100-yr Detention Basin Storage **Provided** (ac-ft) | | | | | |  |  | |  |
| 100-yr Detention Basin Storage Rate **Provided** (acre-feet/acre) | | | | | |  |  | |  |
| *\*Provide calculations in Drainage Report and Plans* | | | | | |  |  | |  |
| Outflow Structure | If applicable - Restrictor Size (ft or ft2) | | | | | |  | | | |
| Outflow Pipe Size (ft or ft2) | | | | | |  | | | |
| Outflow Velocity (ft/second) | | | | | |  |  | |  |
| Gravity Outfall Rate Provided (cfs) | | | | | |  |  | |  |
| Explain tail water/HGL used from roadside ditch for 5 & 100-yr to calculate your discharge rate | | | | | |  | | | |
| The existing channel/ roadside ditch's full bank capacity (open channel hydraulics) | | | | | |  |  | |  |
| Outflow Velocity into existing channel/roadside ditches (ft/ second) | | | | | |  |  | |  |
| If applicable - % Pumped discharge volume (ac-ft) | | | | | |  |  | |  |
| If applicable - Weir Description  (type, size, elevation, etc.) | | | | | |  | | | |
| Drain Time 100-yr only (hours) | | | | | |  |  | |  |
| Emergency Overflow  (type, size, elevation, etc.) | | | | | |  | | | |
| **E.** | | **Detention Stage/Storage – Summary Table \*If using a pump - add Stage/Discharge** | | | | | | | | | |
| **Elevation** | | **Area (SF)** | **Incremental Storage Volume in cubic ft** | **Cumulative Storage in cubic ft** | **Converted Cumulative Storage to ac-ft** | **Critical Elevations/ Note** | | | **Gravity or Pumped** | | |
| 42 | |  |  |  |  |  | | | Pumped | | |
| 42.17 | |  |  |  |  | Typical Pool  (for wet ponds) | | | Pumped | | |
| 43 | |  |  |  |  |  | | | Pumped | | |
| 44 | |  |  |  |  |  | | | Pumped | | |
| 44.45 | |  |  |  |  |  | | | Gravity | | |
| 45 | |  |  |  |  | 5-yr WSE | | | Gravity | | |
| 45.51 | |  |  |  |  |  | | | Gravity | | |
| 46 | |  |  |  |  | 25-yr WSE | | | Gravity | | |
| 47 | |  |  |  |  | 100-yr WSE | | | Gravity | | |
| 47.6 | |  |  |  |  | Emergency spillway/ overflow weir | | | Gravity | | |
| 48 | |  |  |  |  | Pond Top (1-ft freeboard from 100-yr WSE) | | |  | | |

if proposing **multiple detention ponds**, please include the summary table below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Detention Storage Provided For Project Area** | | | |
| **Project Name** | **Pond Name** | **Section One Proposed Detention  (acre-ft)** | **Ultimate Condition Proposed Detention  (acre-ft)** |
| **Project "XXX"** |  |  |  |
|  |  |  |
|  |  |  |
|  | **TOTAL** | **140.682** |  |

If proposing **multiple projects**, please include the summary table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Applied Detention Summary** | | | | |
| **Project Name** | **Acreage (acres)** | **Impervious Cover (acres)** | **Applied Detention  (acre-ft)** | **Remaining Detention  (acre-ft)** |
| **Project "A"** |  |  |  |  |
| **Project "B"** |  |  |  |  |
| **Project "C"** |  |  |  |  |