

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Project Site Details

Chpt. 251 Application Number: N/A

Start Date (if known): TBD

County: Middlesex

Street Address: 4000 Bordentown Ave

Municipality: Sayreville

Block: 14

Lot: 1

NJDEP Anderson Landuse Code (4 digits): 1300

Landuse description: Industrial

Site Centroid Location (NJ State Plane Feet): ¹

Northing: 582,900 Easting: 535,492

Project Contact Details

Applicant: HCI DP LAND ACQUISITION LLC

Address: 7200 Wisconsin Ave, Suite 900, Bethesda, MD 20814

Phone: (240) 503-6522

Email: _____

Post Construction Operation & Maintenance:²

Party Name: TBD

Address: _____

Phone: _____

Email: _____

Party type: _____

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Constructed Wetlands 1A

Basin Centroid (NJ State Plane Feet):⁴

Northing: 582,169 Easting: 536,955

Basin Type: Constructed Wetlands

Construction: ☒ excavated ☐ embankment ☐ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) 8 top width: (ft) 10

Dam Classification: Class IV

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1A	6.15	89	85%	5.0

Basin Outlet Structure(s)⁷ N/A

ID:

End of Pipe Location:⁸ Northing: Easting:

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹

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Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
9.0	0	0
10.31	0.35	2.39
11.80	0.94	3.99
12.23	1.14	6.08
13.02	1.54	9.98
13.72	1.91	12.29
13.81	1.97	12.45
15.09	2.75	13.05
16.44	3.69	16.68

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

² Indicate who will be responsible for permanent operation and maintenance

³ Additional Basin Detail Pages can be used for more than one basin in a project.

⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Constructed Wetlands 1B

Basin Centroid (NJ State Plane Feet):⁴

Northing: 582,995 Easting: 536,332

Basin Type: Constructed Wetlands

Construction: ☒ excavated ☐ embankment ☐ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) 8 top width: (ft) 10

Dam Classification: Class IV

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1B	5.41	95	82%	5.1

Basin Outlet Structure(s)⁷ N/A

ID:

End of Pipe Location:⁸ Northing: Easting:

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
9.0	0	0
10.31	0.42	2.59
11.76	0.99	9.38
12.16	1.17	14.25
12.88	1.50	22.69
13.50	1.81	28.08
13.60	1.85	28.88
14.98	2.60	38.14
16.32	3.40	46.48

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
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Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

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³ Additional Basin Detail Pages can be used for more than one basin in a project.

⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

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Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Constructed Wetlands 1C

Basin Centroid (NJ State Plane Feet):⁴

Northing: 583,148 Easting: 535,991

Basin Type: Constructed Wetlands

Construction: ☒ excavated ☐ embankment ☐ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) 8 top width: (ft) 10

Dam Classification: Class IV

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1C	0.70	39	0%	5.1

Basin Outlet Structure(s)⁷ N/A

ID:

End of Pipe Location:⁸ Northing: Easting:

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
9.0	0	0
10.31	0.08	0.37
11.67	0.23	9.91
12.02	0.28	14.97
12.67	0.39	25.37
13.26	0.50	32.18
13.35	0.52	33.17
14.60	0.80	46.35
15.76	1.11	57.01

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

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⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

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Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Constructed Wetlands 1D

Basin Centroid (NJ State Plane Feet):⁴

Northing: 583,492 Easting: 534,792

Basin Type: Constructed Wetlands

Construction: ☒ excavated ☐ embankment ☐ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) 8 top width: (ft) 10

Dam Classification: Class IV

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1D	8.13	96	89%	5.0

Basin Outlet Structure(s)⁷

ID: OS-CW1

End of Pipe Location:⁸ Northing: 583,630 Easting: 534,714

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient ¹⁰	Equation Used ¹¹
Orifice	3"x5"	9.00	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Orifice	60"x15"	10.73	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Weir	5'	11.87	0.6	$Q = C(Le)H^{(3/2)}$

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Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
9.0	0	0
10.73	0.58	0.64
11.55	0.93	12.78
11.83	1.06	19.25
12.27	1.28	33.23
12.61	1.44	44.25
12.66	1.47	45.93
13.36	1.84	71.38
13.96	2.18	94.65

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

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⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

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Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Infiltration Basin 1

Basin Centroid (NJ State Plane Feet):⁴

Northing: 583,279 Easting: 535,501

Basin Type: Underground Infiltration Basin

Construction: ☐ excavated ☐ embankment ☒ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) N/A top width: (ft) N/A

Dam Classification: N/A

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1K	2.47	98	98%	2.9

Basin Outlet Structure(s)⁷

ID: OS-B1

End of Pipe Location:⁸ Northing: 583,091 Easting: 535,732

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient ¹⁰	Equation Used ¹¹
Orifice	6"	10.20	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Orifice	6"	10.86	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Weir	4'	11.42	0.6	$Q = C(Le)H^{(3/2)}$

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
10.0	0	0
10.20	0.21	0
10.68	0.43	0.46
10.86	0.51	0.60
11.16	0.65	1.03
11.42	0.75	1.46
11.46	0.77	1.60
11.87	0.93	5.88
12.32	1.07	13.02

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

² Indicate who will be responsible for permanent operation and maintenance

³ Additional Basin Detail Pages can be used for more than one basin in a project.

⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Pervious Pavement 1

Basin Centroid (NJ State Plane Feet):⁴

Northing: 581,934 Easting: 536,492

Basin Type: Pervious Pavement

Construction: ☐ excavated ☐ embankment ☒ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) N/A top width: (ft) N/A

Dam Classification: N/A

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1E	0.78	96	97%	4.2

Basin Outlet Structure(s)⁷

ID: OS-PP1

End of Pipe Location:⁸ Northing: 582,126 Easting: 536,690

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹
Orifice	2.5"	15.11	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Orifice	3"	15.71	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Weir	3'	16.18	0.6	$Q = C(Le)H^{(3/2)}$

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Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
14.55	0	0
15.11	0.06	0
15.73	0.14	0.12
15.89	0.16	0.24
16.19	0.19	0.44
16.34	0.21	1.15
16.36	0.21	1.28
16.69	0.25	4.06
16.89	0.27	6.28

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

² Indicate who will be responsible for permanent operation and maintenance

³ Additional Basin Detail Pages can be used for more than one basin in a project.

⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

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Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Pervious Pavement 2

Basin Centroid (NJ State Plane Feet):⁴

Northing: 582,767 Easting: 535,733

Basin Type: Pervious Pavement

Construction: ☐ excavated ☐ embankment ☒ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) N/A top width: (ft) N/A

Dam Classification: N/A

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1F	1.80	97	93%	3.1

Basin Outlet Structure(s)⁷

ID: OS-PP2

End of Pipe Location:⁸ Northing: 582,893 Easting: 535,823

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient ¹⁰	Equation Used ¹¹
Orifice	2.5"	14.23	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Weir	4'	15.27	0.6	$Q = C(Le)H^{(3/2)}$

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Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
13.55	0	0
14.23	0.15	0
15.15	0.34	0.15
15.34	0.38	0.41
15.51	0.42	1.74
15.71	0.46	3.98
15.74	0.47	4.37
16.13	0.55	10.13
16.35	0.60	14.20

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

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⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

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New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Pervious Pavement 3

Basin Centroid (NJ State Plane Feet):⁴

Northing: 583,248 Easting: 535,126

Basin Type: Pervious Pavement

Construction: ☐ excavated ☐ embankment ☒ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) N/A top width: (ft) N/A

Dam Classification: N/A

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1G	0.73	97	96%	4.2

Basin Outlet Structure(s)⁷

ID: OS-PP3

End of Pipe Location:⁸ Northing: 583,202 Easting: 534,976

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹
Orifice	2.5"	16.19	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Orifice	4"	17.03	0.6	$Q = (Cd)(A)(2gh)^{0.5}$
Weir	3'	17.65	0.6	$Q = C(Le)H^{(3/2)}$

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Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
15.55	0	0
16.19	0.06	0
16.88	0.13	0.13
17.13	0.15	0.17
17.45	0.18	0.39
17.73	0.21	0.72
17.75	0.21	0.82
18.11	0.24	3.61
18.36	0.27	6.27

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

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¹ Approximate location of center of site, coordinates in state plane feet

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⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Pervious Pavement 4

Basin Centroid (NJ State Plane Feet):⁴

Northing: 582,676 Easting: 536,346

Basin Type: Pervious Pavement

Construction: ☐ excavated ☐ embankment ☒ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) N/A top width: (ft) N/A

Dam Classification: N/A

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1H	11	97	97%	5.7

Basin Outlet Structure(s)⁷

ID: OS-PP4

End of Pipe Location:⁸ Northing: 582,835 Easting: 536,419

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹
Weir	5'	13.56	0.6	$Q = C(Le)H^{3/2}$

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Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
13.01	0	0
13.56	0.92	0
13.90	1.49	3.26
14.02	1.68	4.99
14.18	1.95	7.81
14.30	2.14	10.03
14.31	2.17	10.34
14.56	2.58	15.70
14.87	3.09	23.15

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

² Indicate who will be responsible for permanent operation and maintenance

³ Additional Basin Detail Pages can be used for more than one basin in a project.

⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Pervious Pavement 5

Basin Centroid (NJ State Plane Feet):⁴

Northing: 583,079 Easting: 535,076

Basin Type: Pervious Pavement

Construction: ☐ excavated ☐ embankment ☒ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) N/A top width: (ft) N/A

Dam Classification: N/A

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1I	0.76	98	98%	1.5

Basin Outlet Structure(s)⁷

ID: OS-PP5

End of Pipe Location:⁸ Northing: 583,267 Easting: 534,863

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹
Weir	4'	16.54	0.6	$Q = C(Le)H^{3/2}$

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
16.25	0	0
16.54	0.06	0
16.70	0.10	0.85
16.76	0.11	1.32
16.83	0.13	2.03
16.88	0.14	2.58
16.89	0.14	2.66
17.00	0.17	3.99
17.11	0.19	5.41

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

² Indicate who will be responsible for permanent operation and maintenance

³ Additional Basin Detail Pages can be used for more than one basin in a project.

⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Details:³ Pervious Pavement 6

Basin Centroid (NJ State Plane Feet):⁴

Northing: 582,061 Easting: 536,057

Basin Type: Pervious Pavement

Construction: ☐ excavated ☐ embankment ☒ sub-surface (check one)

Status phase:⁵ Design ☒ As-built ☐

Dam Height: (ft) N/A top width: (ft) N/A

Dam Classification: N/A

Drainage Area(s) to Basin [note- include any bypass areas]⁶ bypass areas attached

Drainage Area Name	Drainage Area (acres)	Post-Development CN#	Percent Impervious	Time of Concentration (min)
1J	0.89	97	98%	1.5

Basin Outlet Structure(s)⁷

ID: OS-PP6

End of Pipe Location:⁸ Northing: 581,872 Easting: 536,272

Discharge Type ⁹ (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge ¹⁰ Coefficient	Equation Used ¹¹
Weir	4'	16.26	0.6	$Q = C(Le)H^{(3/2)}$

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Basin Outlet Structure(s) N/A

ID:

End of Pipe Location: Northing:

Easting:

Discharge Type (weir, orifice, etc)	Dimensions (diameter, length)	Elevation (USGS)	Discharge Coefficient	Equation Used

Basin Stage-Discharge Rating Table¹²

Elevation (USGS Feet)	Storage (Acre-Ft)	Total Outlet Structure Discharge (cfs)
16.00	0	0
16.26	0.08	0
16.42	0.12	0.84
16.47	0.14	1.27
16.55	0.16	2.03
16.61	0.18	2.62
16.61	0.18	2.71
16.73	0.21	4.11
16.84	0.24	5.61

NJDEP BMP Water Quality Structures¹³

Type (rain garden, green roof, seepage pit etc)	Size	Size Units (cu ft, sq ft etc)	Northing (SPF)	Easting (SPF)

New Jersey Department of Agriculture
Hydrologic Modeling Database – Data Entry Form

Explanatory Notes-

¹ Approximate location of center of site, coordinates in state plane feet

² Indicate who will be responsible for permanent operation and maintenance

³ Additional Basin Detail Pages can be used for more than one basin in a project.

⁴ Approximate location of center of basin, coordinates in state plane feet

⁵ Indicate “design” for basins not yet constructed

⁶ Drainage areas which are modified by construction, but not directed to the basin should still be listed and described

⁷ “Outlet structure” means the control box, outlet headwall, FES etc. This does not refer to an individual control on the structure such as a weir or orifice. There are two tables for more than one outlet structure

⁸ Approximate location of terminal discharge end of basin outfall, coordinates in state plane feet

⁹ Indicate the type of outlet – weir, orifice, hydro brake, etc.

¹⁰ Discharge Coefficient specific to the type of outlet control i.e., 0.6 for circular orifice

¹¹ List the discharge equation for each outlet (weir, orifice etc) used

¹² For basins with dead storage below the primary outlet, indicate 0 cfs discharge until the lowest outlet is reached. Routing table should begin at the lowest basin elevation.

¹³ Describe NJDEP BMP Manual water quality devices such as seepage pits, rain gardens etc. Size is appropriate for device – cubic feet, square feet or linear feet. Location of device using state plane feet coordinates.

Drainage Area Name	Drainage Area	Development CN#	Percent Impervious	Time of Concentration
PDA-1A	6.15	89	85%	5.0
PDA-1B	5.41	95	82%	5.1
PDA-1C	0.7	39	0%	5.1
PDA-1D	8.13	96	89%	5.0
PDA-1E	0.78	96	97%	4.2
PDA-1F	1.8	97	93%	3.1
PDA-1G	0.73	97	96%	4.2
PDA-1H	11	97	97%	5.7
PDA-1I	0.76	98	97%	1.5
PDA-1J	0.89	97	98%	1.5
PDA-1K	2.47	98	98%	2.9
PDA-1L	2.62	64	6%	11.4
PDA-1M	1	79	0%	8.5
PDA-1N	7.6	79	2%	19.4
PDA-2A	0.71	79	0%	14.9
PDA-2B	0.54	77	0%	12.9
PDA-3A	0.95	79	0%	2.9
PDA-3B	6.53	74	4%	19.5
PDA-4	2.25	39	0%	10.9