November 3, 2020

Jennifer Lindo
Administrative Assistant, Land Use
Town of East Lyme
108 Pennsylvania Avenue
PO Box 519
Niantic, CT 06357

RE: North Bride Brook Multi-Family Development
East Lyme, CT

Dear Ms. Lindo,

Enclosed please find four (4) copies of the following revised and/or supplemental documents related to the above referenced application:

1) Fire Marshal Comment Response Summary
2) Water and Sewer Comment Response Summary
3) Town Engineer Comment Response Summary
   a) Supplemental Hydrology Studio Report related to comment 5
   b) Lighting Plan and Specifications related to comment 10
   c) Erosion and Sedimentation Control Bond Estimate related to comment 16
4) Site Plan Set, revised through 10/30/20 in response to Town Comments

Should you have any questions or need additional information, please don't hesitate to contact me at (860) 367-7264 or via email brandon@yrc-ne.com.

Sincerely,

Brandon Handfield, PE
Civil Engineer

Enc.

Cc: Pazz & Construction LLC
Heller, Heller & McCoy

YANTIC RIVER CONSULTANTS, LLC

COMMENT RESPONSE SUMMARY

FROM: John J. Way, Fire Marshal, Town of East Lyme
DATE: September 16, 2020
RE: North Bride Brook Multi-Family Development

1. Flanders Fire Chief William Rix Jr. has provided width information for their Towner Ladder Fire Apparatus 35.56 curb to curb.

   Response. The proposed driveway configuration allows for emergency fire apparatus to circulate through the main access driveway and enter the secondary access roads without excess turning movements.

2. An Emergency Access Road should be a maintainable travel surface for all seasons and be able to support Emergency Apparatus and Public Works Vehicles.

   Response. **The proposed Utility Maintenance and Emergency Access Driveway will be paved and constructed to the same standards (section) as the main access driveway.**

3. We have attached information for the installation for Fire Sprinklers.

   Response. Noted.

YANTIC RIVER CONSULTANTS, LLC

COMMENT RESPONSE SUMMARY

FROM: Ben North, East Lyme Water and Sewer
DATE: September 24, 2020
RE: North Bride Brook Multi-Family Development

1. Water and Sewer previously approved a capacity allotment of 35,400 gallons per day for this development. Since there have been changes made to the layout, we would like a new calculation be performed to confirm or correct the daily flows requested.

   Response. A Unit Summary table has been added to Sheet 1 with the updated daily sewer flows.

2. We ask the developer to confirm whether these units are intended to be apartments or condominiums. It appears from the proposed utilities plan that these are ultimately intended to have the flexibility to become individually-owned properties.

   Response. The units will be rental apartments. There is no intent to convert the units to individually-owned condos at this time.

3. We will need a note on the plan that the developer understands that there is to be no irrigation to be supplied by the Town's water system. If irrigation is intended, it will need to be provided by an onsite irrigation well.

   Response. A potential location for an on-site irrigation well has been added to the plans along with Water Main Note #6, which states that irrigation shall not be supplied by the Town of East Lyme public water system.

4. We would like more detail on how water services will feed each unit. In keeping with the assumption that these will be individual units, we would like to see the plan updated to show this while maintaining proper separation distances from sewer structures.

   Response. Individual water services are shown to each townhouse unit with a minimum 10' horizontal separation to sanitary sewer structures and piping.

5. There are difficulties in the proposed fire hydrant layout to allow for proper flushing of dead end mains in the plan. We would like all dead-end mains to have a fire hydrant at the end to allow for proper maintenance, please see attached parked up drawing. We would also like a detail of the proposed location of water valves, while keeping in mind that 3-way valve clusters at each intersection of main is preferable to allow for isolation in the event of a water main break.

   Response. The hydrant configuration has been revised as follows:

   a. **One placed to the northeast of Building D, which coincides with the anticipated dead end of the water main serving phase 1.**
   b. **One placed to the northeast of Building E to allow for a water main extension serving Buildings D and F under a partial phase 2 completion.**
   c. **Northwest of Building H, which coincides with the anticipated dead-end of the water main serving the remainder of phase 2.**

d. West of Building G at the high point in the main.

Response. The dead end mains to the north and south will be 4" diameter maximum. Hydrants cannot be installed on these mains and blow-off assemblies are proposed.

Response. Water valves have been added to the plan and labeled at the water main intersections.

6. All water mains shall be installed with "Field Lok 350" or equivalent gaskets to create a restrained joint at each mechanical joint of water main.

   Response. Water Note #4 added to the plan.

7. We need to see a profile drawing of all water, sewer, and storm mains to ensure there is no conflict between them, and correct separation is maintained.

   Response. Utility plan and profile drawings will be provided to the Town for review as part of the construction document submission following local approvals and completion of final architectural and MEP plans. To confirm adequate separating distances are provided by the current layout, separating distances are called out for each water, sewer and drainage pipe crossing.

8. We ask the developer to evaluate the need for pressure reducing devices for service connections as the water pressure in this area may warrant it.

   Response. Water Note #5 revised to install pressure reducing valves as required. This requirement will be determined during the construction design phase.

9. We would like to further discuss ownership of water and sewer systems in the development.

   Response. It is the intent of this plan for the utilities to be privately owned, installed, and maintained.

YANTIC RIVER CONSULTANTS, LLC

COMMENT RESPONSE SUMMARY

FROM: Victor Benni, P.E., Town Engineer
DATE: October 30, 2020
RE: North Bride Brook Multi-Family Development, Wetlands Application Review

1. Provide appropriate signage and line striping on the Detailed Layout Plan (Sheet 2 of 8) to accommodate unimpeded traffic flow throughout the development.

   Response. Double yellow centerline, stop bars and stop signs have been added to Sheet 2 to depict the traffic flow through the site. Stop bar and stop sign details are included on Sheet 6.

2. The Utility & Emergency Access Drive shall be paved within the Town Right of Way.

   Response. **The full length of the emergency access drive is now shown as paved.**

3. Provide note on Grading & Drainage Plan (Sheet 3 of 8) indicating 4' deep sumps at proposed catch basin #'s 101, 102, 206 & 215; update Standard Catch Basin detail (Sheet 7 of 8)

   Response. The labels for catch basins 101, 206 and 215 have been revised to require 4' sumps. Outlet control structure 102 has not been revised. I recommend a minimal sump in the outlet control structure for ease of inspection and maintenance without a 4' deep pool of water.

4. The bottom of the infiltration practices (Stormtech System & Detention Basin) should be elevated 3' above the seasonally high-water table; refer to Section 11-P3-3 of the 2004 Connecticut Stormwater Quality Manual by CT DEEP.

   Response. The results of the soil testing are provided on Sheet 3 of the revised plan set. The first round of testing performed on 7/25/19 consisted of test pits excavated to a depth of 7'-8' below existing grade. Groundwater or ledge was not witnessed. Soils below the water quality-detention basin consisted of fine sandy loam (trace silt) over medium to coarse sands and gravels. Falling head permeability tests were conducted on the sands & gravels with an average calculated permeability in excess of 50 ft/day. The calculated values exceed the NRCS published rate of 24 ft/day for the Haven silt loam soils.

   On 1/14/20, 2 additional pits were excavated to a depth of 9'-10'. Groundwater was witnessed at a depth of 114" in TP7, which is approximate elevation 33, with apparent mottling (seasonal high water) at 108" or elevation 34. Neither groundwater nor seasonally high groundwater was witnessed in TP8 to a depth of 108", or approximate elevation 32. The bottom of the Stormtech chambers are at elevation 36.5. The bottom of the detention basin is at 35.

   Given the depth to witnessed groundwater, it is our opinion that sufficient separation has been provided between the bottom of infiltration system and seasonally high groundwater.

5. The Stormwater Management Report shall include information verifying the drain down time in the Detention Basin following a rain event and the field measured infiltration rate in the area

of the Detention Basin. The Detention Basin should completely dewater between storms and a practical lower infiltration limit of 0.3 inches per hour is recommended; refer to Section 11-P3-8 of the 2004 Connecticut Stormwater Quality Manual by CT DEEP.

Response. **NRCS soil mapping depicts Haven silt loam in the vicinity of the infiltration and detention areas, which are typically well drained soils with silt and sandy loam over stratified gravelly sand. Our deep observation test pits generally confirmed these soil characteristics. NRCS estimates a saturated hydraulic conductivity of 24 ft/day (12 inches per hour) for Haven silt loam.**

The hydraulic conductivity tests performed of the receiving sands and gravels yielded permeability rates exceeding 50 ft/day (25 inches per hour), greater than that report by NRCS. Given the witnessed clean sands and gravel subsoils, the higher rates are not a surprise. The test report prepared by Materials Testing, Inc. is enclosed.

It is our opinion that the exfiltration rates used in the original analysis are appropriate. As a conservative measure, the detention pond (stage 2) was run with an exfiltration rate of 0.3 inches per hour to confirm the drain time should surficial soil conditions restrict exfiltration. Under these conditions, the pond will drain in less than 36 hours and it should be noted that the system will still result in zero net increase in peak flow rates.

6. Provide Rain Garden installation notes, detail & short/long-term maintenance schedule.

   Response. **A filter bed / rain garden section detail has been added to Sheet 7 and installation and maintenance notes have been added to Sheet 3.**

7. Provide location(s) and separate detail for dumpster pad(s); detail should include haunch and enclosure type.

   Response. **One dumpster pad enclosure is shown between Building B and C. The detail on Sheet 6 has been updated to include a haunch and enclosure type. It should dbe noted that the proposed method for handling trash and recycling will likely be through a contract with a private contractor for curb-side pickup at each unit.**

8. The multiple references to 4" topsoil depth in the Drawing Set should be changed to 6" topsoil depth.

   Response. **The references on Sheet 2, 5, 6, 7 & 8 have been changed to 6" min.**

9. Additional consideration to buffer plantings may be required along the southern edge of the development; adjacent to Buildings E, F & H and the Infiltration and Detention Areas.

   Response. **Additional buffer plantings have been added along the southern property line as recommended.**

10. A Lighting/Lumens Plan should be provided and should include a Specifications sheet for the pole mounted light and the type & style of building mounted lights (if any).

Response. Lighting specifications, luminaire schedule and isometric overlay are enclosed to supplement the area light locations shown on Sheet 2 and the detail included on Sheet 8. Building mounted lights are not included in the evaluation.

11. The Site Traffic Assessment was only reviewed for the Sight Line Evaluation. A sight line evaluation should be completed using the layout on the current Site Plan.

    Response. Please refer to separate response from Bubaris Traffic Associates. An intersection sight line plan and profile was prepared for the proposed main access driveway location. Sight lines of 400' to 500' are available to and from the south and north, which are satisfactory for the prevailing speeds on North Bride Brook Road.

12. A Long-Term Pollution Prevention Plan and Operations & Maintenance Plan shall be completed and must act as a stand-alone document; ultimately to be submitted to the property owner and property management company. At a minimum, this document shall include spill control measures, storm water management components, snow removal, salt/sand use, and site maintenance. A sample O&M Plan has been included as an Enclosure.

    Response. The project will be registered with the CT DEEP for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. As part of the registration, a Stormwater Pollution Control Plan (SWPCP) will be prepared and implemented through the construction period. A Long-Term Pollution Prevention Plan and Operations and Maintenance Plan will be added to the SWPCP document as required and submitted to the Town of East Lyme for review prior to the commencement of construction.

13. The Erosion & Sedimentation Control Plan (Sheet 5 of 8) and the Details (sheet 6 & 7 of 8) provide compliance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. The Sequence of Construction and E&S Narrative notes propose the project to be completed in multiple phases; Inspection and Maintenance notes along with Temporary Sediment Trap sizing and detail have also been included.

    Response. Noted.

14. The Stormwater Management Report verifies that subsurface treatment, secondary treatment, and detention have been proposed to attenuate the increase in peak flow rates and volumes as compared to the pre-developed conditions, resulting in a zero-net increase in runoff from the development.

    Response. Noted.

15. The Applicant should provide the Zoning Department with an As-built drawing upon the completion of construction. The As-built should include the site improvements associated with the proposed development and the location of the underground utilities.

    Response. Noted.

16. The Applicant should provide an itemized Bond Estimate for the installation of the erosion & sedimentation controls for all phases of the proposed development.

    Response. Erosion & Sedimentation Control bond estimate is enclosed for review.

Hydrograph by Return Period

Project Name:

10-30-2020

Hydrology Studio v 3.0.0.16

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	NRCS Runoff	EX-01	0.317	1.062		3.069	5.329	8.999	12.05	15.56
2	NRCS Runoff	PR-01	4.883	7.297		11.60	15.45	20.92	25.09	29.62
3	Pond Route	INF-01	0.000	0.257		0.703	2.585	4.294	7.417	9.883
4	Pond Route	POND-01 Stage 2	0.000	0.004		0.253	0.426	2.211	3.111	3.991
5	NRCS Runoff	EX-02	0.479	1.606		4.641	8.061	13.63	18.25	23.58
6	NRCS Runoff	PR-02	0.479	1.606		4.641	8.061	13.63	18.25	23.58

Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.16

10-30-2020

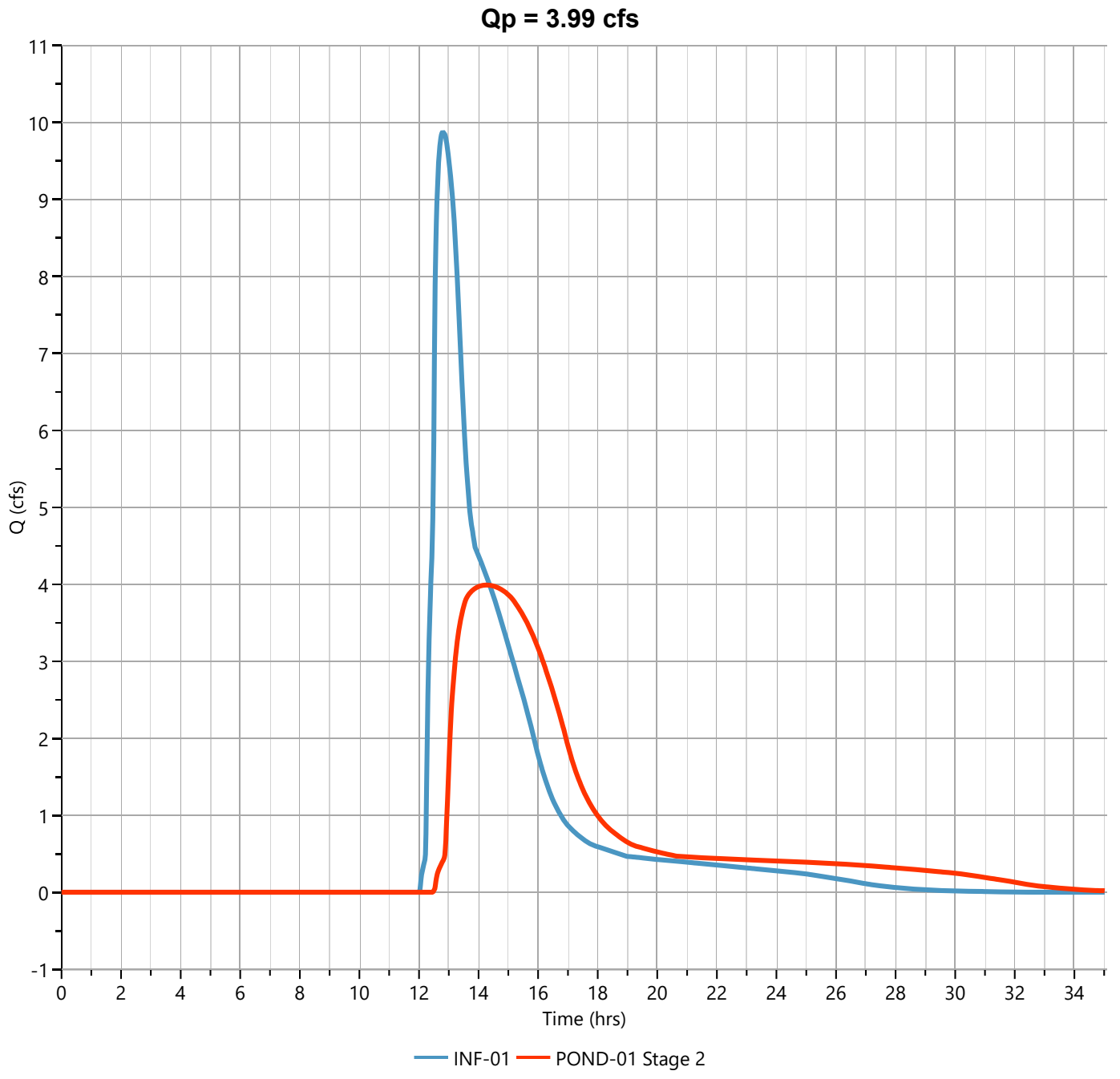
POND-01 Stage 2

Hyd. No. 4

Hydrograph Type	= Pond Route	Peak Flow	= 3.991 cfs
Storm Frequency	= 100-yr	Time to Peak	= 14.28 hrs
Time Interval	= 1 min	Hydrograph Volume	= 75,393 cuft
Inflow Hydrograph	= 3 - INF-01	Max. Elevation	= 38.10 ft
Pond Name	= POND-01A Stage 2	Max. Storage	= 30,278 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 2.51 hrs



Hydrograph Discharge Table

POND-01 Stage 2

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
12.53	0.046	13.13	2.636	13.73	3.901	14.33	3.991	14.93	3.885
12.55	0.087	13.15	2.721	13.75	3.908	14.35	3.990	14.95	3.880
12.57	0.137	13.17	2.799	13.77	3.914	14.37	3.990	14.97	3.874
12.58	0.178	13.18	2.874	13.78	3.920	14.38	3.989	14.98	3.868
12.60	0.213	13.20	2.948	13.80	3.926	14.40	3.988	15.00	3.862
12.62	0.243	13.22	3.014	13.82	3.931	14.42	3.987	15.02	3.856
12.63	0.260	13.23	3.077	13.83	3.936	14.43	3.986	15.03	3.850
12.65	0.278	13.25	3.137	13.85	3.940	14.45	3.985	15.05	3.844
12.67	0.294	13.27	3.196	13.87	3.945	14.47	3.983	15.07	3.837
12.68	0.310	13.28	3.248	13.88	3.948	14.48	3.982	15.08	3.831
12.70	0.325	13.30	3.298	13.90	3.952	14.50	3.980	15.10	3.824
12.72	0.339	13.32	3.346	13.92	3.955	14.52	3.978	15.12	3.817
12.73	0.353	13.33	3.391	13.93	3.958	14.53	3.976	15.13	3.810
12.75	0.367	13.35	3.434	13.95	3.961	14.55	3.974	15.15	3.803
12.77	0.380	13.37	3.473	13.97	3.964	14.57	3.972	15.17	3.794
12.78	0.392	13.38	3.510	13.98	3.967	14.58	3.970	15.18	3.785
12.80	0.404	13.40	3.546	14.00	3.970	14.60	3.967	15.20	3.776
12.82	0.416	13.42	3.579	14.02	3.972	14.62	3.964	15.22	3.767
12.83	0.428	13.43	3.611	14.03	3.975	14.63	3.961	15.23	3.758
12.85	0.450	13.45	3.640	14.05	3.977	14.65	3.958	15.25	3.749
12.87	0.485	13.47	3.666	14.07	3.979	14.67	3.955	15.27	3.740
12.88	0.569	13.48	3.691	14.08	3.981	14.68	3.952	15.28	3.730
12.90	0.673	13.50	3.715	14.10	3.982	14.70	3.948	15.30	3.720
12.92	0.814	13.52	3.737	14.12	3.984	14.72	3.945	15.32	3.711
12.93	0.964	13.53	3.758	14.13	3.985	14.73	3.941	15.33	3.701
12.95	1.125	13.55	3.777	14.15	3.986	14.75	3.937	15.35	3.691
12.97	1.285	13.57	3.795	14.17	3.988	14.77	3.933	15.37	3.681
12.98	1.453	13.58	3.811	14.18	3.989	14.78	3.929	15.38	3.670
13.00	1.617	13.60	3.824	14.20	3.989	14.80	3.925	15.40	3.660
13.02	1.782	13.62	3.836	14.22	3.990	14.82	3.920	15.42	3.650
13.03	1.944	13.63	3.848	14.23	3.990	14.83	3.916	15.43	3.639
13.05	2.100	13.65	3.859	14.25	3.991	14.85	3.911	15.45	3.628
13.07	2.224	13.67	3.869	14.27	3.991	14.87	3.906	15.47	3.617
13.08	2.344	13.68	3.878	**14.28**	**3.991**	14.88	3.901	15.48	3.606
13.10	2.457	13.70	3.886	14.30	3.991	14.90	3.896	15.50	3.594
13.12	2.547	13.72	3.894	14.32	3.991	14.92	3.891	15.52	3.582

Printed values > 1% of Qpeak. nth-point print interval = 1

Hydrograph Discharge Table, cont'd — *POND-01 Stage 2*

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
15.53	3.570	16.13	3.030	16.73	2.288	17.33	1.495	17.93	1.031
15.55	3.558	16.15	3.012	16.75	2.265	17.35	1.478	17.95	1.022
15.57	3.546	16.17	2.995	16.77	2.241	17.37	1.461	17.97	1.013
15.58	3.534	16.18	2.977	16.78	2.218	17.38	1.445	17.98	1.003
15.60	3.522	16.20	2.958	16.80	2.195	17.40	1.428	18.00	0.994
15.62	3.509	16.22	2.938	16.82	2.173	17.42	1.412	18.02	0.985
15.63	3.497	16.23	2.918	16.83	2.150	17.43	1.396	18.03	0.977
15.65	3.484	16.25	2.898	16.85	2.128	17.45	1.381	18.05	0.968
15.67	3.471	16.27	2.879	16.87	2.106	17.47	1.365	18.07	0.959
15.68	3.458	16.28	2.859	16.88	2.082	17.48	1.350	18.08	0.951
15.70	3.445	16.30	2.839	16.90	2.055	17.50	1.335	18.10	0.943
15.72	3.431	16.32	2.820	16.92	2.029	17.52	1.320	18.12	0.934
15.73	3.418	16.33	2.800	16.93	2.003	17.53	1.306	18.13	0.926
15.75	3.404	16.35	2.780	16.95	1.978	17.55	1.292	18.15	0.918
15.77	3.389	16.37	2.761	16.97	1.953	17.57	1.277	18.17	0.910
15.78	3.375	16.38	2.741	16.98	1.928	17.58	1.263	18.18	0.903
15.80	3.360	16.40	2.721	17.00	1.904	17.60	1.251	18.20	0.895
15.82	3.345	16.42	2.701	17.02	1.880	17.62	1.239	18.22	0.888
15.83	3.330	16.43	2.680	17.03	1.856	17.63	1.226	18.23	0.882
15.85	3.315	16.45	2.659	17.05	1.833	17.65	1.214	18.25	0.876
15.87	3.300	16.47	2.638	17.07	1.810	17.67	1.202	18.27	0.870
15.88	3.285	16.48	2.617	17.08	1.787	17.68	1.191	18.28	0.864
15.90	3.269	16.50	2.597	17.10	1.765	17.70	1.179	18.30	0.858
15.92	3.254	16.52	2.576	17.12	1.743	17.72	1.167	18.32	0.852
15.93	3.238	16.53	2.556	17.13	1.722	17.73	1.156	18.33	0.846
15.95	3.222	16.55	2.535	17.15	1.701	17.75	1.145	18.35	0.840
15.97	3.206	16.57	2.515	17.17	1.680	17.77	1.134	18.37	0.834
15.98	3.189	16.58	2.495	17.18	1.660	17.78	1.123	18.38	0.828
16.00	3.172	16.60	2.475	17.20	1.640	17.80	1.112	18.40	0.823
16.02	3.155	16.62	2.455	17.22	1.621	17.82	1.101	18.42	0.817
16.03	3.137	16.63	2.434	17.23	1.602	17.83	1.091	18.43	0.811
16.05	3.119	16.65	2.409	17.25	1.584	17.85	1.081	18.45	0.806
16.07	3.102	16.67	2.384	17.27	1.566	17.87	1.071	18.47	0.800
16.08	3.084	16.68	2.360	17.28	1.548	17.88	1.060	18.48	0.795
16.10	3.066	16.70	2.336	17.30	1.530	17.90	1.051	18.50	0.790
16.12	3.048	16.72	2.312	17.32	1.512	17.92	1.041	18.52	0.784

Printed values > 1% of Qpeak. nth-point print interval = 1

Hydrograph Discharge Table, cont'd — *POND-01 Stage 2*

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
18.53	0.779	19.13	0.620	19.73	0.551	20.33	0.495	20.93	0.462
18.55	0.774	19.15	0.618	19.75	0.550	20.35	0.494	20.95	0.461
18.57	0.769	19.17	0.616	19.77	0.548	20.37	0.492	20.97	0.461
18.58	0.764	19.18	0.614	19.78	0.546	20.38	0.491	20.98	0.461
18.60	0.759	19.20	0.611	19.80	0.544	20.40	0.490	21.00	0.460
18.62	0.754	19.22	0.609	19.82	0.543	20.42	0.488	21.02	0.460
18.63	0.749	19.23	0.607	19.83	0.541	20.43	0.487	21.03	0.460
18.65	0.744	19.25	0.605	19.85	0.539	20.45	0.485	21.05	0.459
18.67	0.739	19.27	0.603	19.87	0.538	20.47	0.484	21.07	0.459
18.68	0.734	19.28	0.601	19.88	0.536	20.48	0.483	21.08	0.459
18.70	0.729	19.30	0.599	19.90	0.534	20.50	0.481	21.10	0.458
18.72	0.724	19.32	0.597	19.92	0.533	20.52	0.480	21.12	0.458
18.73	0.720	19.33	0.595	19.93	0.531	20.53	0.479	21.13	0.458
18.75	0.715	19.35	0.593	19.95	0.530	20.55	0.477	21.15	0.457
18.77	0.710	19.37	0.591	19.97	0.528	20.57	0.476	21.17	0.457
18.78	0.706	19.38	0.589	19.98	0.526	20.58	0.475	21.18	0.457
18.80	0.701	19.40	0.588	20.00	0.525	20.60	0.474	21.20	0.456
18.82	0.697	19.42	0.586	20.02	0.523	20.62	0.472	21.22	0.456
18.83	0.692	19.43	0.584	20.03	0.522	20.63	0.471	21.23	0.456
18.85	0.688	19.45	0.582	20.05	0.520	20.65	0.470	21.25	0.455
18.87	0.683	19.47	0.580	20.07	0.519	20.67	0.468	21.27	0.455
18.88	0.679	19.48	0.578	20.08	0.517	20.68	0.467	21.28	0.455
18.90	0.675	19.50	0.576	20.10	0.516	20.70	0.466	21.30	0.454
18.92	0.670	19.52	0.574	20.12	0.514	20.72	0.466	21.32	0.454
18.93	0.666	19.53	0.573	20.13	0.513	20.73	0.466	21.33	0.454
18.95	0.662	19.55	0.571	20.15	0.511	20.75	0.465	21.35	0.453
18.97	0.658	19.57	0.569	20.17	0.510	20.77	0.465	21.37	0.453
18.98	0.653	19.58	0.567	20.18	0.508	20.78	0.465	21.38	0.453
19.00	0.649	19.60	0.565	20.20	0.507	20.80	0.464	21.40	0.452
19.02	0.645	19.62	0.564	20.22	0.505	20.82	0.464	21.42	0.452
19.03	0.641	19.63	0.562	20.23	0.504	20.83	0.464	21.43	0.452
19.05	0.637	19.65	0.560	20.25	0.502	20.85	0.463	21.45	0.451
19.07	0.633	19.67	0.558	20.27	0.501	20.87	0.463	21.47	0.451
19.08	0.629	19.68	0.556	20.28	0.499	20.88	0.463	21.48	0.451
19.10	0.626	19.70	0.555	20.30	0.498	20.90	0.462	21.50	0.450
19.12	0.622	19.72	0.553	20.32	0.496	20.92	0.462	21.52	0.450

Printed values > 1% of Qpeak. nth-point print interval = 1

Hydrograph Discharge Table, cont'd — *POND-01 Stage 2*

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
21.53	0.450	22.13	0.437	22.73	0.425	23.33	0.417	23.93	0.408
21.55	0.449	22.15	0.436	22.75	0.425	23.35	0.417	23.95	0.408
21.57	0.449	22.17	0.436	22.77	0.424	23.37	0.416	23.97	0.408
21.58	0.448	22.18	0.435	22.78	0.424	23.38	0.416	23.98	0.408
21.60	0.448	22.20	0.435	22.80	0.424	23.40	0.416	24.00	0.407
21.62	0.448	22.22	0.435	22.82	0.424	23.42	0.416	24.02	0.407
21.63	0.447	22.23	0.434	22.83	0.424	23.43	0.416	24.03	0.407
21.65	0.447	22.25	0.434	22.85	0.423	23.45	0.415	24.05	0.407
21.67	0.447	22.27	0.434	22.87	0.423	23.47	0.415	24.07	0.406
21.68	0.446	22.28	0.433	22.88	0.423	23.48	0.415	24.08	0.406
21.70	0.446	22.30	0.433	22.90	0.423	23.50	0.415	24.10	0.406
21.72	0.446	22.32	0.432	22.92	0.422	23.52	0.414	24.12	0.406
21.73	0.445	22.33	0.432	22.93	0.422	23.53	0.414	24.13	0.405
21.75	0.445	22.35	0.432	22.95	0.422	23.55	0.414	24.15	0.405
21.77	0.445	22.37	0.431	22.97	0.422	23.57	0.414	24.17	0.405
21.78	0.444	22.38	0.431	22.98	0.422	23.58	0.413	24.18	0.404
21.80	0.444	22.40	0.431	23.00	0.421	23.60	0.413	24.20	0.404
21.82	0.444	22.42	0.430	23.02	0.421	23.62	0.413	24.22	0.404
21.83	0.443	22.43	0.430	23.03	0.421	23.63	0.413	24.23	0.404
21.85	0.443	22.45	0.429	23.05	0.421	23.65	0.412	24.25	0.403
21.87	0.442	22.47	0.429	23.07	0.420	23.67	0.412	24.27	0.403
21.88	0.442	22.48	0.429	23.08	0.420	23.68	0.412	24.28	0.403
21.90	0.442	22.50	0.428	23.10	0.420	23.70	0.412	24.30	0.403
21.92	0.441	22.52	0.428	23.12	0.420	23.72	0.411	24.32	0.402
21.93	0.441	22.53	0.428	23.13	0.420	23.73	0.411	24.33	0.402
21.95	0.441	22.55	0.427	23.15	0.419	23.75	0.411	24.35	0.402
21.97	0.440	22.57	0.427	23.17	0.419	23.77	0.411	24.37	0.402
21.98	0.440	22.58	0.427	23.18	0.419	23.78	0.411	24.38	0.401
22.00	0.440	22.60	0.427	23.20	0.419	23.80	0.410	24.40	0.401
22.02	0.439	22.62	0.426	23.22	0.418	23.82	0.410	24.42	0.401
22.03	0.439	22.63	0.426	23.23	0.418	23.83	0.410	24.43	0.400
22.05	0.438	22.65	0.426	23.25	0.418	23.85	0.410	24.45	0.400
22.07	0.438	22.67	0.426	23.27	0.418	23.87	0.409	24.47	0.400
22.08	0.438	22.68	0.425	23.28	0.418	23.88	0.409	24.48	0.400
22.10	0.437	22.70	0.425	23.30	0.417	23.90	0.409	24.50	0.399
22.12	0.437	22.72	0.425	23.32	0.417	23.92	0.409	24.52	0.399

Printed values > 1% of Qpeak. nth-point print interval = 1

Hydrograph Discharge Table, cont'd — *POND-01 Stage 2*

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
24.53	0.399	25.13	0.388	25.73	0.377	26.33	0.363	26.93	0.348
24.55	0.398	25.15	0.388	25.75	0.376	26.35	0.363	26.95	0.348
24.57	0.398	25.17	0.388	25.77	0.376	26.37	0.363	26.97	0.347
24.58	0.398	25.18	0.388	25.78	0.376	26.38	0.362	26.98	0.347
24.60	0.398	25.20	0.387	25.80	0.375	26.40	0.362	27.00	0.346
24.62	0.397	25.22	0.387	25.82	0.375	26.42	0.362	27.02	0.346
24.63	0.397	25.23	0.387	25.83	0.375	26.43	0.361	27.03	0.346
24.65	0.397	25.25	0.386	25.85	0.374	26.45	0.361	27.05	0.345
24.67	0.397	25.27	0.386	25.87	0.374	26.47	0.360	27.07	0.345
24.68	0.396	25.28	0.386	25.88	0.373	26.48	0.360	27.08	0.344
24.70	0.396	25.30	0.385	25.90	0.373	26.50	0.360	27.10	0.344
24.72	0.396	25.32	0.385	25.92	0.373	26.52	0.359	27.12	0.343
24.73	0.395	25.33	0.385	25.93	0.372	26.53	0.359	27.13	0.343
24.75	0.395	25.35	0.384	25.95	0.372	26.55	0.358	27.15	0.342
24.77	0.395	25.37	0.384	25.97	0.372	26.57	0.358	27.17	0.342
24.78	0.395	25.38	0.384	25.98	0.371	26.58	0.357	27.18	0.341
24.80	0.394	25.40	0.384	26.00	0.371	26.60	0.357	27.20	0.341
24.82	0.394	25.42	0.383	26.02	0.371	26.62	0.357	27.22	0.340
24.83	0.394	25.43	0.383	26.03	0.370	26.63	0.356	27.23	0.340
24.85	0.393	25.45	0.383	26.05	0.370	26.65	0.356	27.25	0.340
24.87	0.393	25.47	0.382	26.07	0.369	26.67	0.355	27.27	0.339
24.88	0.393	25.48	0.382	26.08	0.369	26.68	0.355	27.28	0.339
24.90	0.393	25.50	0.382	26.10	0.369	26.70	0.354	27.30	0.338
24.92	0.392	25.52	0.381	26.12	0.368	26.72	0.354	27.32	0.338
24.93	0.392	25.53	0.381	26.13	0.368	26.73	0.354	27.33	0.337
24.95	0.392	25.55	0.380	26.15	0.368	26.75	0.353	27.35	0.337
24.97	0.391	25.57	0.380	26.17	0.367	26.77	0.353	27.37	0.336
24.98	0.391	25.58	0.380	26.18	0.367	26.78	0.352	27.38	0.336
25.00	0.391	25.60	0.379	26.20	0.366	26.80	0.352	27.40	0.335
25.02	0.391	25.62	0.379	26.22	0.366	26.82	0.351	27.42	0.335
25.03	0.390	25.63	0.379	26.23	0.366	26.83	0.351	27.43	0.334
25.05	0.390	25.65	0.378	26.25	0.365	26.85	0.350	27.45	0.334
25.07	0.390	25.67	0.378	26.27	0.365	26.87	0.350	27.47	0.333
25.08	0.389	25.68	0.378	26.28	0.365	26.88	0.350	27.48	0.333
25.10	0.389	25.70	0.377	26.30	0.364	26.90	0.349	27.50	0.332
25.12	0.389	25.72	0.377	26.32	0.364	26.92	0.349	27.52	0.332

Printed values > 1% of Qpeak. nth-point print interval = 1

Hydrograph Discharge Table, cont'd — *POND-01 Stage 2*

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
27.53	0.331	28.13	0.313	28.73	0.293	29.33	0.272	29.93	0.250
27.55	0.331	28.15	0.312	28.75	0.292	29.35	0.271	29.95	0.249
27.57	0.330	28.17	0.312	28.77	0.292	29.37	0.271	29.97	0.249
27.58	0.330	28.18	0.311	28.78	0.291	29.38	0.270	29.98	0.248
27.60	0.329	28.20	0.311	28.80	0.290	29.40	0.269	30.00	0.248
27.62	0.329	28.22	0.310	28.82	0.290	29.42	0.269	30.02	0.247
27.63	0.328	28.23	0.310	28.83	0.289	29.43	0.268	30.03	0.247
27.65	0.328	28.25	0.309	28.85	0.289	29.45	0.268	30.05	0.246
27.67	0.327	28.27	0.309	28.87	0.288	29.47	0.267	30.07	0.245
27.68	0.327	28.28	0.308	28.88	0.288	29.48	0.266	30.08	0.245
27.70	0.326	28.30	0.308	28.90	0.287	29.50	0.266	30.10	0.244
27.72	0.326	28.32	0.307	28.92	0.287	29.52	0.265	30.12	0.244
27.73	0.325	28.33	0.306	28.93	0.286	29.53	0.265	30.13	0.243
27.75	0.325	28.35	0.306	28.95	0.285	29.55	0.264	30.15	0.242
27.77	0.324	28.37	0.305	28.97	0.285	29.57	0.263	30.17	0.241
27.78	0.324	28.38	0.305	28.98	0.284	29.58	0.263	30.18	0.240
27.80	0.323	28.40	0.304	29.00	0.284	29.60	0.262	30.20	0.239
27.82	0.323	28.42	0.304	29.02	0.283	29.62	0.261	30.22	0.238
27.83	0.322	28.43	0.303	29.03	0.283	29.63	0.261	30.23	0.237
27.85	0.322	28.45	0.302	29.05	0.282	29.65	0.260	30.25	0.236
27.87	0.321	28.47	0.302	29.07	0.281	29.67	0.260	30.27	0.235
27.88	0.320	28.48	0.301	29.08	0.281	29.68	0.259	30.28	0.234
27.90	0.320	28.50	0.301	29.10	0.280	29.70	0.258	30.30	0.233
27.92	0.319	28.52	0.300	29.12	0.280	29.72	0.258	30.32	0.232
27.93	0.319	28.53	0.300	29.13	0.279	29.73	0.257	30.33	0.231
27.95	0.318	28.55	0.299	29.15	0.279	29.75	0.257	30.35	0.230
27.97	0.318	28.57	0.298	29.17	0.278	29.77	0.256	30.37	0.229
27.98	0.317	28.58	0.298	29.18	0.278	29.78	0.255	30.38	0.228
28.00	0.317	28.60	0.297	29.20	0.277	29.80	0.255	30.40	0.227
28.02	0.316	28.62	0.297	29.22	0.276	29.82	0.254	30.42	0.226
28.03	0.316	28.63	0.296	29.23	0.276	29.83	0.254	30.43	0.225
28.05	0.315	28.65	0.296	29.25	0.275	29.85	0.253	30.45	0.224
28.07	0.315	28.67	0.295	29.27	0.274	29.87	0.252	30.47	0.224
28.08	0.314	28.68	0.294	29.28	0.274	29.88	0.252	30.48	0.223
28.10	0.314	28.70	0.294	29.30	0.273	29.90	0.251	30.50	0.222
28.12	0.313	28.72	0.293	29.32	0.273	29.92	0.251	30.52	0.221

Printed values > 1% of Qpeak. nth-point print interval = 1

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
30.53	0.220	31.13	0.184	31.73	0.149	32.33	0.107	32.93	0.076
30.55	0.219	31.15	0.183	31.75	0.147	32.35	0.106	32.95	0.075
30.57	0.218	31.17	0.182	31.77	0.146	32.37	0.105	32.97	0.075
30.58	0.217	31.18	0.181	31.78	0.145	32.38	0.104	32.98	0.074
30.60	0.216	31.20	0.180	31.80	0.144	32.40	0.103	33.00	0.073
30.62	0.215	31.22	0.179	31.82	0.142	32.42	0.102	33.02	0.073
30.63	0.214	31.23	0.178	31.83	0.141	32.43	0.101	33.03	0.072
30.65	0.213	31.25	0.177	31.85	0.140	32.45	0.100	33.05	0.071
30.67	0.212	31.27	0.176	31.87	0.139	32.47	0.099	33.07	0.071
30.68	0.211	31.28	0.176	31.88	0.138	32.48	0.098	33.08	0.070
30.70	0.210	31.30	0.175	31.90	0.136	32.50	0.097	33.10	0.069
30.72	0.209	31.32	0.174	31.92	0.135	32.52	0.097	33.12	0.069
30.73	0.209	31.33	0.173	31.93	0.134	32.53	0.096	33.13	0.068
30.75	0.208	31.35	0.172	31.95	0.133	32.55	0.095	33.15	0.067
30.77	0.207	31.37	0.171	31.97	0.132	32.57	0.094	33.17	0.067
30.78	0.206	31.38	0.170	31.98	0.130	32.58	0.093	33.18	0.066
30.80	0.205	31.40	0.169	32.00	0.129	32.60	0.092	33.20	0.065
30.82	0.204	31.42	0.168	32.02	0.128	32.62	0.091	33.22	0.065
30.83	0.203	31.43	0.167	32.03	0.127	32.63	0.090	33.23	0.064
30.85	0.202	31.45	0.166	32.05	0.126	32.65	0.089	33.25	0.064
30.87	0.201	31.47	0.165	32.07	0.125	32.67	0.088	33.27	0.063
30.88	0.200	31.48	0.164	32.08	0.124	32.68	0.087	33.28	0.062
30.90	0.199	31.50	0.163	32.10	0.122	32.70	0.086	33.30	0.062
30.92	0.198	31.52	0.162	32.12	0.121	32.72	0.085	33.32	0.061
30.93	0.197	31.53	0.161	32.13	0.120	32.73	0.085	33.33	0.060
30.95	0.196	31.55	0.160	32.15	0.119	32.75	0.084	33.35	0.060
30.97	0.195	31.57	0.160	32.17	0.118	32.77	0.083	33.37	0.059
30.98	0.194	31.58	0.159	32.18	0.117	32.78	0.082	33.38	0.059
31.00	0.193	31.60	0.158	32.20	0.116	32.80	0.082	33.40	0.058
31.02	0.192	31.62	0.157	32.22	0.115	32.82	0.081	33.42	0.058
31.03	0.191	31.63	0.156	32.23	0.114	32.83	0.080	33.43	0.057
31.05	0.189	31.65	0.155	32.25	0.113	32.85	0.079	33.45	0.056
31.07	0.188	31.67	0.154	32.27	0.112	32.87	0.079	33.47	0.056
31.08	0.187	31.68	0.153	32.28	0.111	32.88	0.078	33.48	0.055
31.10	0.186	31.70	0.151	32.30	0.110	32.90	0.077	33.50	0.055
31.12	0.185	31.72	0.150	32.32	0.108	32.92	0.077	33.52	0.054

Printed values > 1% of Qpeak. nth-point print interval = 1

Hydrograph Discharge Table, cont'd

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
33.53	0.054								
33.55	0.053								
33.57	0.052								
33.58	0.052								
33.60	0.051								
33.62	0.051								
33.63	0.050								
33.65	0.050								
33.67	0.049								
33.68	0.049								
33.70	0.048								
33.72	0.048								
33.73	0.047								
33.75	0.047								
33.77	0.046								
33.78	0.045								
33.80	0.045								
33.82	0.044								
33.83	0.044								
33.85	0.043								
33.87	0.043								
33.88	0.042								
33.90	0.042								
33.92	0.041								
33.93	0.041								
33.95	0.040								
33.97	0.040								
33.98	0.039								
...end	*...end*								

Printed values > 1% of Qpeak. nth-point print interval = 1

Pond Report

Project Name:

Hydrology Studio v 3.0.0.16

10-30-2020

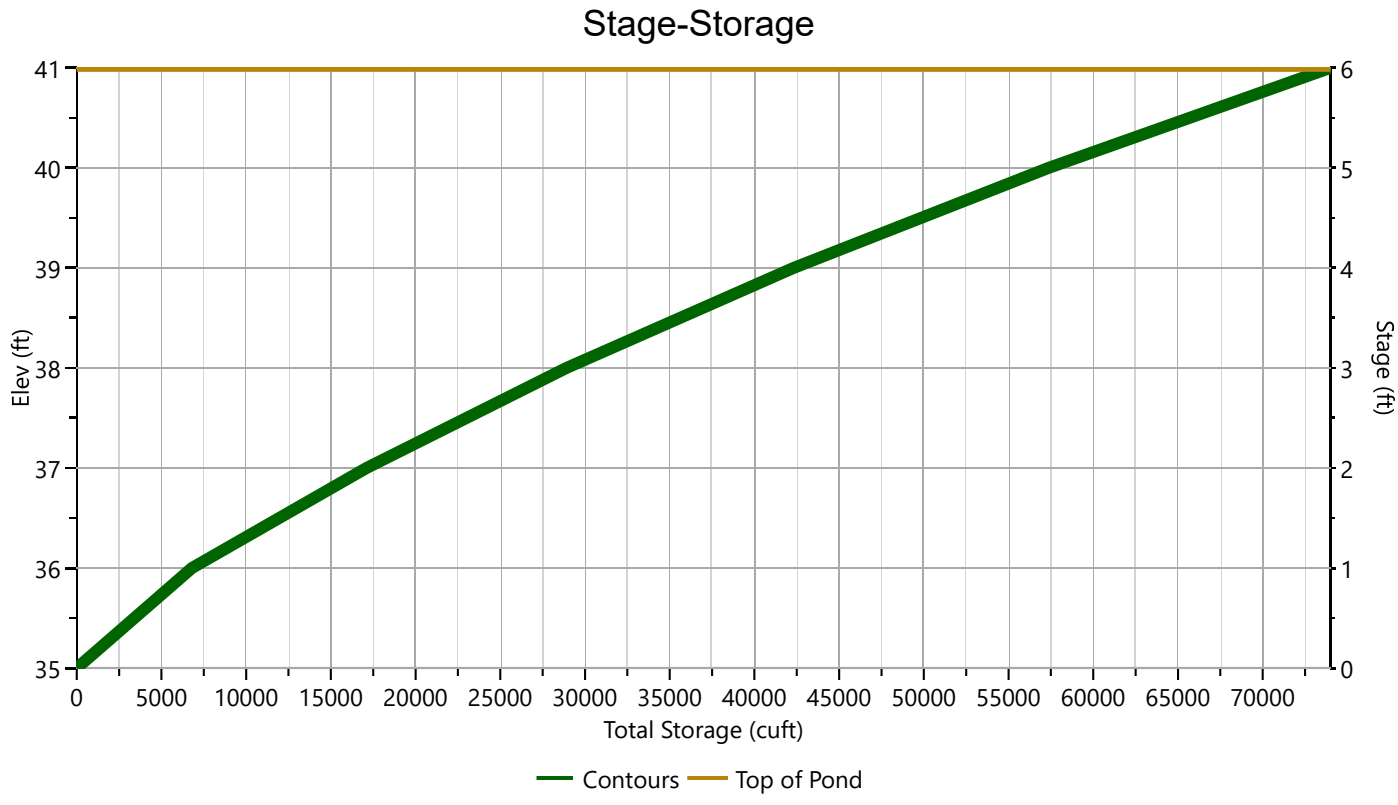
POND-01A Stage 2

Stage-Storage

User Defined Contours	
Description	**Input**
Bottom Elevation, ft	35.00
Voids (%)	100.00
Volume Calc	None

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	35.00	4,000	0.000	0.000
1.00	36.00	9,600	6,800	6,800
2.00	37.00	11,000	10,300	17,100
3.00	38.00	12,600	11,800	28,900
4.00	39.00	14,200	13,400	42,300
5.00	40.00	15,900	15,050	57,350
6.00	41.00	17,400	16,650	74,000



Pond Report

Project Name:

Hydrology Studio v 3.0.0.16

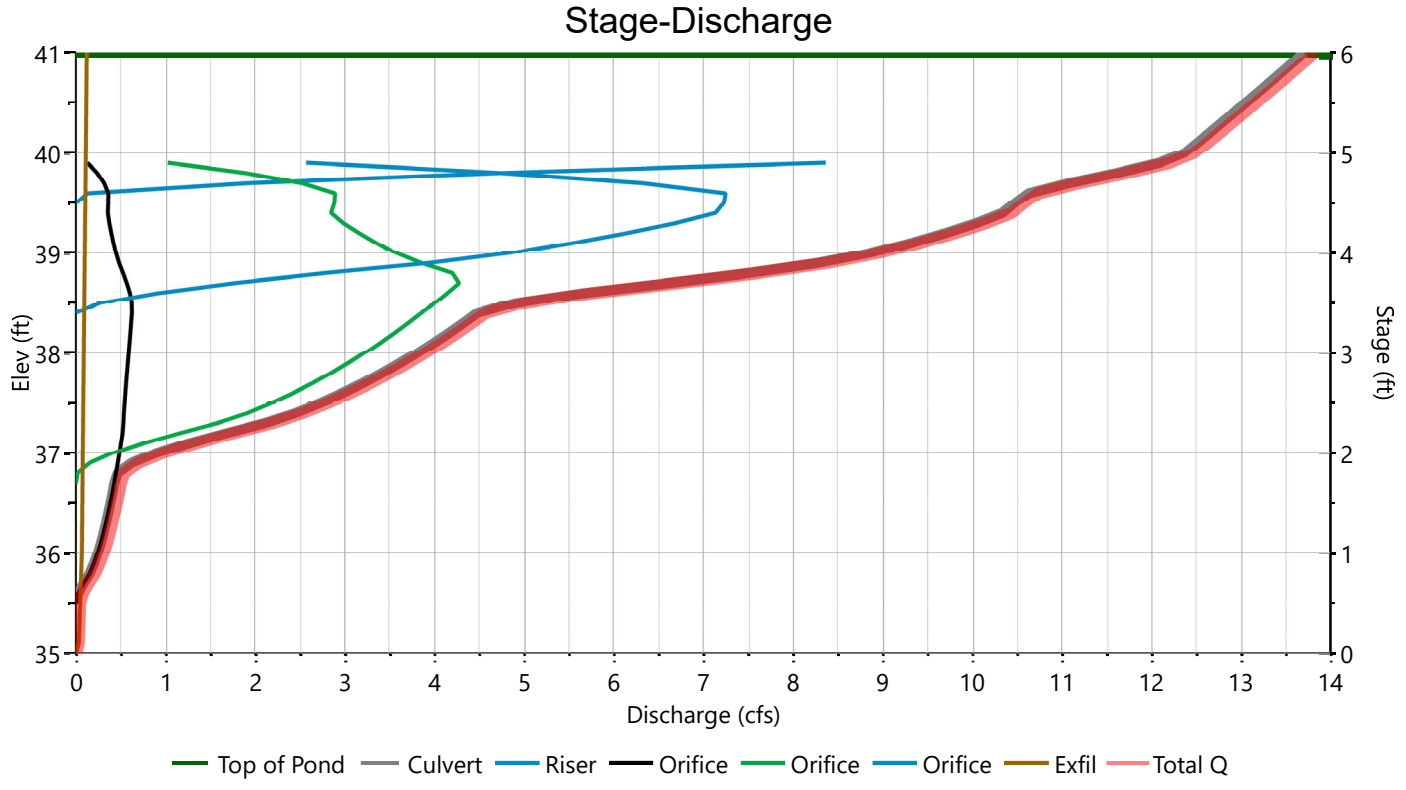
10-30-2020

POND-01A Stage 2

Stage-Discharge

Culvert / Orifices	Culvert	Orifices			Orifice Plate	
		1*	2*	3*		
Rise, in	15	4	8	6	Orifice Dia, in	
Span, in	15	4	8	42	No. Orifices	
No. Barrels	1	1	2	1	Invert Elevation, ft	
Invert Elevation, ft	35.00	35.50	36.75	38.42	Height, ft	
Orifice Coefficient, Co	0.60	0.60	0.60	0.60	Orifice Coefficient, Co	
Length, ft	73					
Barrel Slope, %	2					
N-Value, n	0.013					
Weirs	**Riser***	**Weirs**			**Ancillary**	
		1	2	3		
Shape / Type	Box				Exfiltration, in/hr	0.30**
Crest Elevation, ft	39.58					
Crest Length, ft	14					
Angle, deg						
Weir Coefficient, Cw	3.3					

*Routes through Culvert. **Exfiltration extracted from outflow hydrograph. Rate applied to contours.



Pond Report

Project Name:

Hydrology Studio v 3.0.0.16

10-30-2020

POND-01A Stage 2

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	35.00	0.000	0.000	0.000	0.000	0.000	0.000					0.000		0.000
1.00	36.00	6,800	0.243 ic	0.243	0.000	0.000	0.000					0.067		0.309
2.00	37.00	17,100	0.893 ic	0.485	0.408	0.000	0.000					0.076		0.970
3.00	38.00	28,900	3.806 ic	0.588	3.218	0.000	0.000					0.088		3.894
4.00	39.00	42,300	8.856 ic	0.446	3.570	4.841	0.000					0.099		8.955
5.00	40.00	57,350	12.36 ic	0.000	0.000	0.000	0.000					0.110		12.47
6.00	41.00	74,000	13.70 ic	0.000	0.000	0.000	0.000					0.121		13.82

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond Report

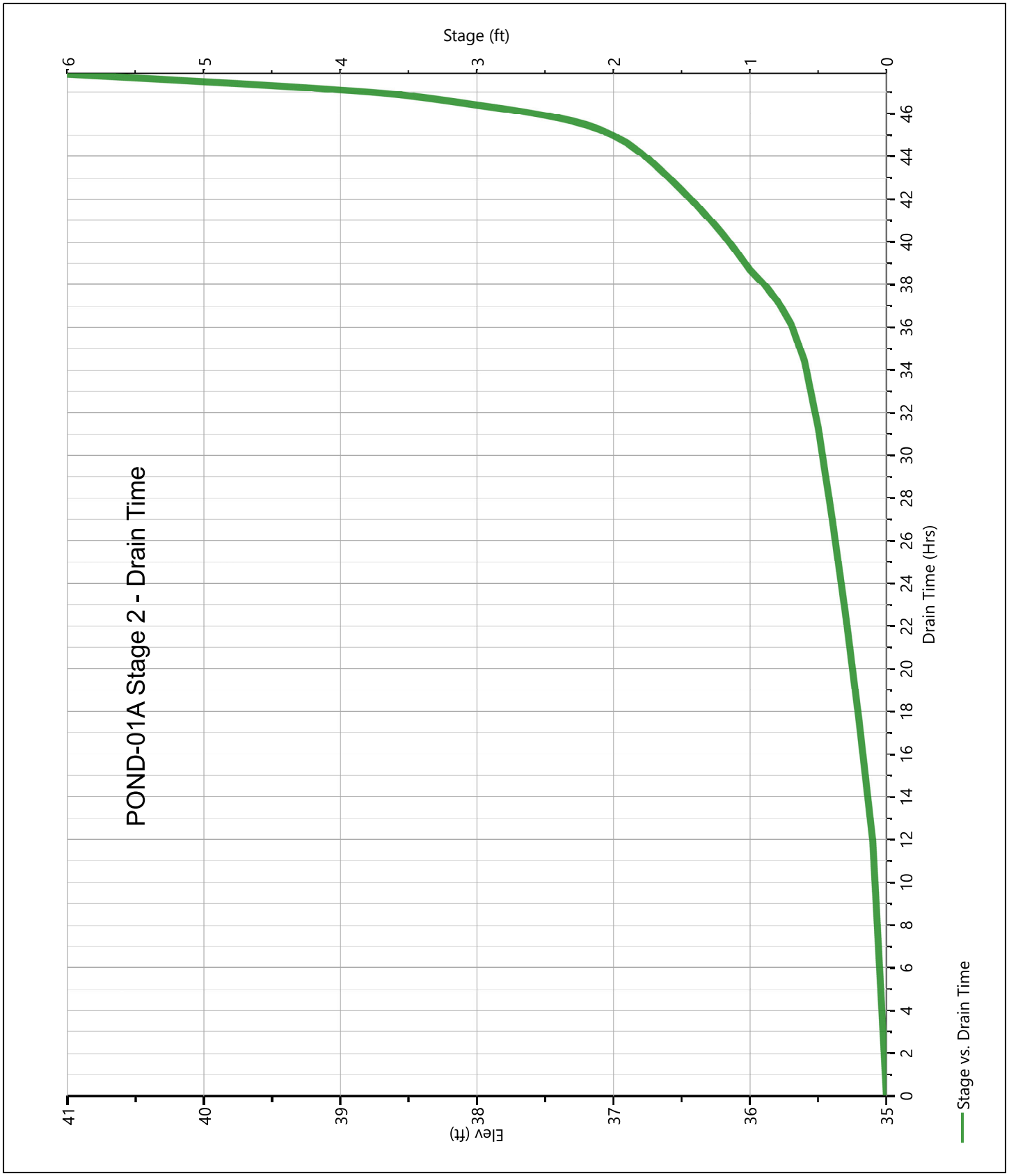
Project Name:

Hydrology Studio v 3.0.0.16

10-30-2020

POND-01A Stage 2

Pond Drawdown



RAB LIGHTING

Date : 31 Oct 2020

Title : North Bride Brook Road Multi-Family Dev.

Desc : Multi-Family Townhouse Development

For : Pazz & Construction LLC

By : Yantic River Consultants, LLC

Luminaire

IES Filename : rab02147mod40.ies

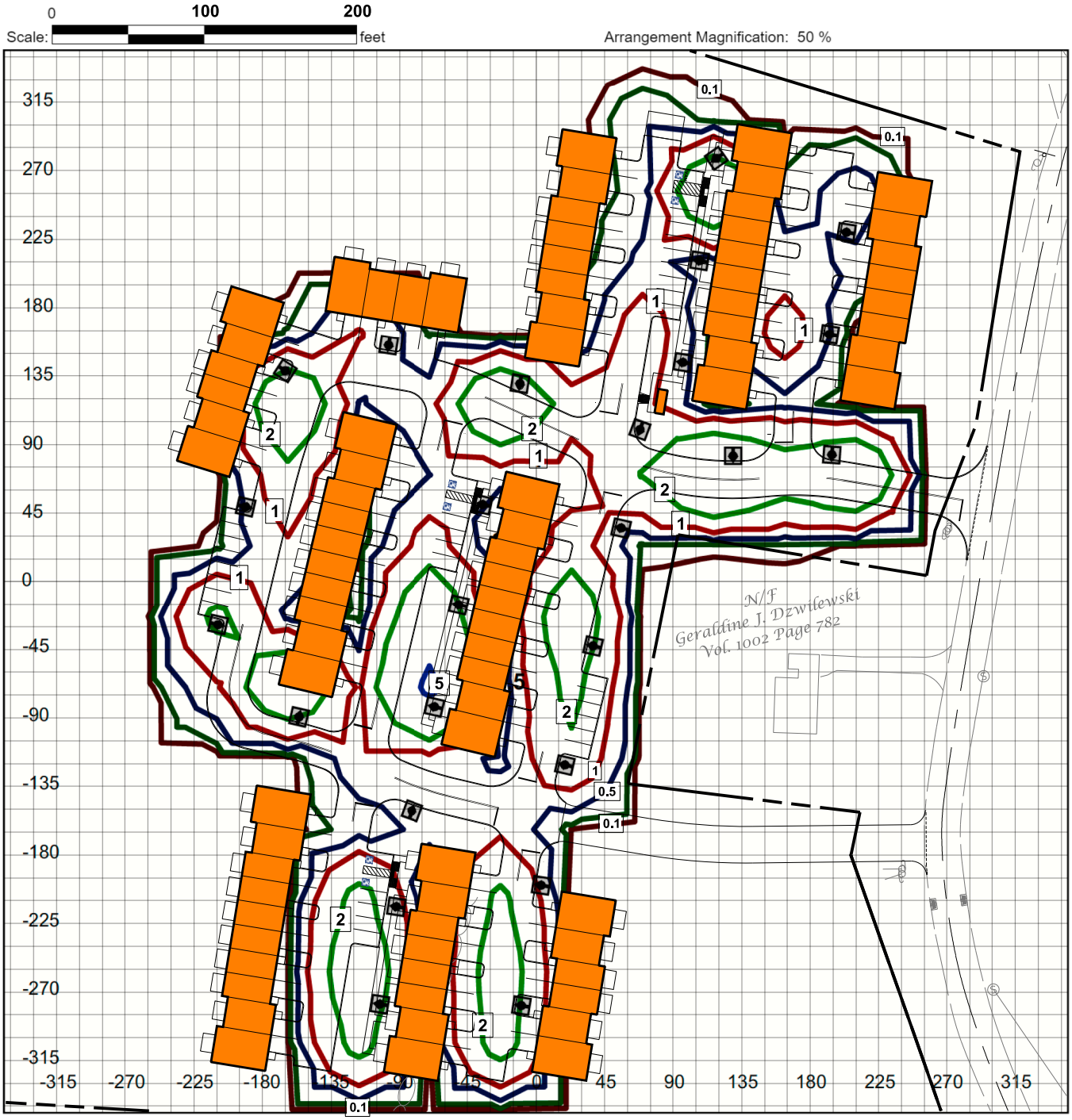
Description : ALED3T78N - RWLED3T78N - RWLED3T78SFN - WPLED3T78N (TYPE III)
CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1

Light Loss Factor : 1.00

Number of Lamps : 6

Lamp Lumens : -1 lms

Luminaire Watts : 78 W



RAB LIGHTING

Arrangement

Varies

Arm : Varies ft

Offset : Varies ft

Layout

	Cols (X)	Rows (Y)	
Layout :	Varies	Varies	
Spacing :	Varies	Varies	ft
Mounting Height :	15		ft
Orient :	Varies		deg
Tilt :	0		deg

Statistical Analysis

Illuminance Values

Average :	0.36	fc
Maximum :	5.59	fc
Minimum :	0.00	fc
Avg/Min Ratio :	N.A.	fc
Max/Min Ratio :	N.A.	fc
Max/Avg Ratio :	15.62	fc

Lighting Power Density

LPD :	0.004	W/ft^2
LPD Area :	490000	ft^2
LPD Watts :	1950	W
Total Watts :	1950	W

Luminaire Location Summary

N	Arrangement	Lum #	X	Y	Z	Orient	Tilt	Tilt Factor
1	Single		-92.1	-214.0	15.0	171	0	
		1	-92.1	-214.0	15.0	171	0	1.000
2	Single		-156.0	-89.3	15.0	77	0	
		1	-156.0	-89.3	15.0	77	0	1.000
3	Single		-209.0	-28.7	15.0	347	0	
		1	-209.0	-28.7	15.0	347	0	1.000
4	Single		-191.0	49.1	15.0	347	0	
		1	-191.0	49.1	15.0	347	0	1.000
5	Single		-165.0	138.4	15.0	327	0	
		1	-165.0	138.4	15.0	327	0	1.000
6	Single		-97.2	155.3	15.0	261	0	
		1	-97.2	155.3	15.0	261	0	1.000
7	Single		-103.0	-278.0	15.0	171	0	
		1	-103.0	-278.0	15.0	171	0	1.000
8	Single		37.5	-42.7	15.0	167	0	
		1	37.5	-42.7	15.0	167	0	1.000
9	Single		-50.6	-15.5	15.0	167	0	
		1	-50.6	-15.5	15.0	167	0	1.000
10	Single		55.9	35.2	15.0	167	0	
		1	55.9	35.2	15.0	167	0	1.000
11	Single		-35.0	50.6	15.0	167	0	
		1	-35.0	50.6	15.0	167	0	1.000
12	Single		-10.5	129.9	15.0	261	0	
		1	-10.5	129.9	15.0	261	0	1.000
13	Single		3.5	-200.0	15.0	171	0	
		1	3.5	-200.0	15.0	171	0	1.000
14	Single		-66.6	-82.7	15.0	167	0	
		1	-66.6	-82.7	15.0	167	0	1.000
15	Single		68.3	99.8	15.0	250	0	
		1	68.3	99.8	15.0	250	0	1.000
16	Single		129.4	82.5	15.0	270	0	
		1	129.4	82.5	15.0	270	0	1.000
17	Single		107.5	210.9	15.0	171	0	
		1	107.5	210.9	15.0	171	0	1.000
18	Single		118.5	278.0	15.0	215	0	
		1	118.5	278.0	15.0	215	0	1.000
19	Single		-9.5	-279.0	15.0	171	0	
		1	-9.5	-279.0	15.0	171	0	1.000
20	Single		19.0	-121.0	15.0	167	0	
		1	19.0	-121.0	15.0	167	0	1.000
21	Single		96.5	143.8	15.0	171	0	
		1	96.5	143.8	15.0	171	0	1.000
22	Single		194.3	83.3	15.0	266	0	
		1	194.3	83.3	15.0	266	0	1.000
23	Single		192.8	162.4	15.0	171	0	
		1	192.8	162.4	15.0	171	0	1.000
24	Single		203.8	229.5	15.0	171	0	
		1	203.8	229.5	15.0	171	0	1.000
25	Single		-81.7	-151.0	15.0	70	0	
		1	-81.7	-151.0	15.0	70	0	1.000

ALED3T78NW

Color: White

Weight: 33.4 lbs

Project:	**Type:**
Prepared By:	**Date:**

Driver Info

Type	Constant Current
120V	0.66A
208V	0.41A
240V	0.35A
277V	0.30A
Input Watts	75.90W

LED Info

Watts	78W
Color Temp	4000K (Neutral)
Color Accuracy	72 CRI
L70 Lifespan	100,000 Hours
Lumens	8,941
Efficacy	117.8 lm/W

Technical Specifications

Listings

UL Listed:

Suitable for wet locations as a downlight

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. DLC Product Code: P0000179U

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Dark Sky Conformance:

Conforms to (allows for conformance to) the IDA's fully shielding requirement, emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole).

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type III distribution is ideal for roadway, general parking, and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management:

Superior heat sinking with external Air-Flow fins

Effective Projected Area:

EPA = 0.75

Lens:

Tempered glass lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

IP Rating:

Ingress Protection rating of IP66 for dust and water

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Technical Specifications (continued)

Construction

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Six (6) multi-chip, 13W, high-output, long-life LEDs

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz, 1.1A, Power Factor 99%

THD:

5.2% at 120V, 13.6% at 277V

Power Factor:

99.5% at 120V, 93.7% at 277V

Surge Protection:

4kV

Other

Patents:

The ALED design is protected by patents in the U.S. Pat. 668,370, Canada Pat. 144956, China ZL201230100154.X, and Mexico Pat. 38423. Pending patents in Taiwan.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Equivalency:

Equivalent to 250W Metal Halide

Buy American Act Compliance:

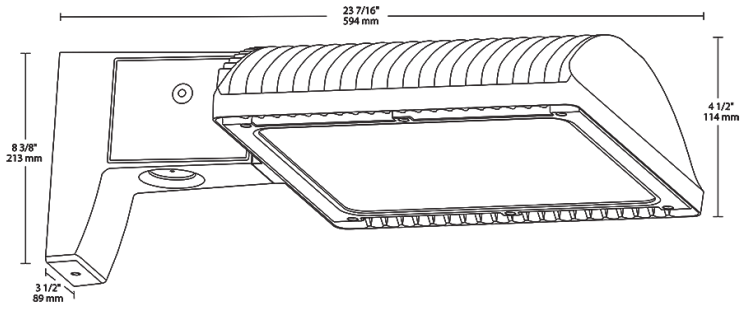
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:

B1 U0 G2

Dimensions



Features

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- 5-Year, No-Compromise Warranty

ALED3T78NW

RAB

Ordering Matrix

Family	Optics	Wattage	Mounting	Color Temp	Finish	Driver Options	Options	Other Options
ALED	3T	78		N	W			
	4T = Type IV **3T =** Type III **2T =** Type II	**50 =** 50W **78 =** 78W **105 =** 105W **125 =** 125W **150 =** 150W	**Blank =** Pole mount **SF =** Slipfitter	**Blank =** 5000K (Cool) **N =** 4000K (Neutral) **Y =** 3000K (Warm)	**Blank =** Bronze **RG =** Roadway Gray **W =** White **K =** Black	**Blank =** 120-277V **/480 =** 480V **/BL =** Bi-Level **/D10 =** 0-10V Dimming	**Blank =** No Option **/LC =** Lightcloud® Controller **/PCS =** 120V Swivel Photocell **/PCS2 =** 277V Swivel Photocell **/PCT =** 120-277V Twistlock Photocell **/PCS4 =** 480V Swivel Photocell **/PCT4 =** 480V Twistlock Photocell **/WS =** Multi-Level Motion Sensor **/WS2 =** Multi-Level Motion Sensor 20 ft. **/WS4 =** Multi-Level Motion Sensor 40 ft.	**Blank =** Standard **USA =** BAA Compliant

BOND QUANTITIES FORM

Date: 10/30/2020
Project: N. BRIDE BROOK MULTI-FAMILY DEV.
Address: N. BRIDE BROOK ROAD, EAST LYME
Bond: $109,420.00
Project No.: 00057-00001
Bond Type: EROSION & SEDIMENTATION CONTROL

Owner/Developer: PAZZ & CONSTRUCTION LLC
Address: 297 BOSTON POST ROAD
EAST LYME, CT 06333
Phone # (860) 739-0863

PHASE 1

ITEM NO.	ITEM DESCRIPTION	QUAN.	UNIT	UNIT PRICE	AMOUNT
1	Clearing and Grubbing	6.70	AC	$2,000.00	$13,400
2	Anti-Tracking Pad	1.00	EA	$1,500.00	$1,500
3	Sedimentation Control System	1,400.00	LF	$5.00	$7,000
4	Sedimentation Control at Catch Basin	9.00	EA	$100.00	$900
5	Temporary Siltation Trap	1.00	EA	$1,000.00	$1,000
6	Diversion Swale	300.00	LF	$5.00	$1,500
7	Erosion Control Blanket	6,000.00	SF	$1.50	$9,000
8	Riprap	48.00	CY	$15.00	$720
9	Restoration of Detention Area	2,000.00	SY	$5.00	$10,000
10	Restoration of Lawn Areas	8,700.00	SY	$3.00	$26,100
				SUBTOTAL	$71,120.00

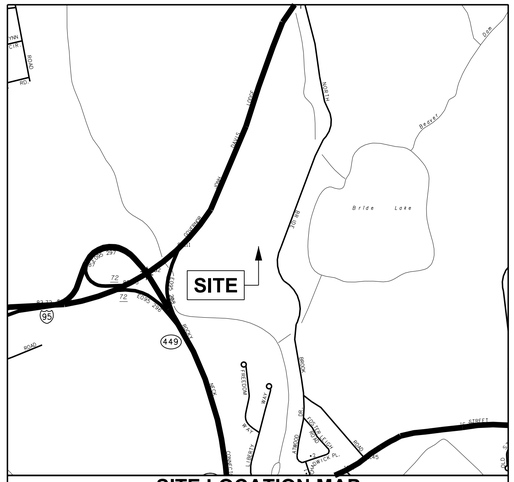
PHASE 2

ITEM NO.	ITEM DESCRIPTION	QUAN.	UNIT	UNIT PRICE	AMOUNT
1	Clearing and Grubbing	0.00	AC	$2,000.00	$0
2	Anti-Tracking Pad	1.00	EA	$1,500.00	$1,500
3	Sedimentation Control System	800.00	LF	$5.00	$4,000
4	Sedimentation Control at Catch Basin	6.00	EA	$100.00	$600
5	Temporary Siltation Trap	1.00	EA	$1,000.00	$1,000
6	Diversion Swale	600.00	LF	$5.00	$3,000
7	Erosion Control Blanket	0.00	SF	$1.50	$0
8	Riprap	0.00	CY	$15.00	$0
9	Restoration of Detention Area	0.00	SY	$5.00	$0
10	Restoration of Lawn Areas	3,500.00	SY	$3.00	$10,500
				SUBTOTAL	$20,600.00

PHASE 3

ITEM NO.	ITEM DESCRIPTION	QUAN.	UNIT	UNIT PRICE	AMOUNT
1	Clearing and Grubbing	0.00	AC	$2,000.00	$0
2	Anti-Tracking Pad	1.00	EA	$1,500.00	$1,500
3	Sedimentation Control System	400.00	LF	$5.00	$2,000
4	Sedimentation Control at Catch Basin	2.00	EA	$100.00	$200
5	Temporary Siltation Trap	1.00	EA	$1,000.00	$1,000
6	Diversion Swale	200.00	LF	$5.00	$1,000
7	Erosion Control Blanket	3,000.00	SF	$1.50	$4,500
8	Riprap	0.00	CY	$15.00	$0
9	Restoration of Detention Area	0.00	SY	$5.00	$0
10	Restoration of Lawn Areas	2,500.00	SY	$3.00	$7,500
				SUBTOTAL	$17,700.00

TOTAL $109,420.00



SITE LOCATION MAP
SCALE: 1" = 1000'

GENERAL NOTES

1. REFERENCE IS MADE TO THE FOLLOWING MAPS AND PLANS
   A. "PROPERTY SURVEY LAND OF PAZZ & CONSTRUCTION LLC, LOCATION: NORTH BRIDE BROOK ROAD, EAST LYME, CONNECTICUT", SHEET NUMBER 1 OF 1, SCALE 1" = 60', DATED JANUARY 31, 2019 AS REVISED THROUGH 6-8-20, PREPARED BY ROBERT C. SIMONI LICENSED LAND SURVEYOR.
   B. "SEWER SHED DISTRICT: 2014 UPDATE SELECTED EXTENT" TOWN OF EAST LYME DEPARTMENT OF PLANNING, DATED MARCH 2014.
   C. NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY AREA: STATE OF CONNECTICUT, SURVEY AREA DATA: VERSION 18, DEC. 6, 2018.
2. THE SUBJECT PROPERTY IS LOCATED ENTIRELY WITHIN FLOOD ZONE X (AREAS OF MINIMAL FLOOD HAZARD) AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP FOR NEW LONDON COUNTY, PANEL 0901C0478J, EFFECTIVE 8/5/13.
3. INLAND WETLANDS AND WATERCOURSES DEPICTED HEREON ARE BASED UPON A DELINEATION BY JAMES SIPPERLY, CERTIFIED SOIL SCIENTIST PERFORMED ON JUNE 29, 2019 WITH ADDITIONAL DELINEATION ON MAY 21, 2020 ON THE EAST SIDE OF NORTH BRIDE BROOK ROAD. DELINEATION FIELD LOCATED BY ROBERT C. SIMONI, LICENSED LAND SURVEYOR. THE UPDATED DELINEATION GENERALLY CONFIRMS THE ORIGINAL DELINEATION BY MICHAEL SCHAEFER, CERTIFIED SOIL SCIENTIST.

PROJECT PHASING

1. THE DEVELOPMENT WILL BE GENERALLY BE CONSTRUCTED IN PHASES AS DEPICTED ON THE PLAN TO LIMIT THE AREA OF CONTINUOUS LAND DISTURBANCE ACTIVITIES AND ALLOW INDIVIDUAL BUILDINGS AND ASSOCIATED SITE IMPROVEMENTS TO BE COMPLETED AND OCCUPIED IN SEQUENCE. THE FOLLOWING SHALL BE COMPLETED AS PART OF PHASE 1:
   A. CONSTRUCTION OF MAIN ACCESS DRIVEWAY INTERSECTION WITH NORTH BRIDE BROOK ROAD & CONSTRUCTION OF UTILITY MAINTENANCE & EMERGENCY ACCESS DRIVEWAY.
   B. ALL DRAINAGE & UTILITY CONNECTIONS WITH PUBLIC R.O.W.
   C. INSTALLATION OF UNDERGROUND TREATMENT & INFILTRATION SYSTEM, DETENTION AREA, OUTLET STRUCTURE AND OUTLET CONNECTION TO CATCH BASIN.
   D. STORMWATER COLLECTION SYSTEM WITHIN AREA OF DEVELOPMENT AND DISCHARGE TO TREATMENT, INFILTRATION & DETENTION AREA.

REGULATED AREA TABLE

DESCRIPTION	TOTAL AREA	DISTURBANCE
INLAND WETLAND / WATERCOURSE	48,970 SF (1.12 AC.)	0 SF
100' UPLAND REVIEW AREA	198,730 SF (4.56 AC)	0 SF

NRCS SOILS

MAP UNIT SYMBOL	MAP UNIT NAME
34B	MERRIMAC FINE SANDY LOAM, 3-8%
38C	HINCKLEY LOAMY SAND, 3-15%
38E	HINCKLEY LOAMY SAND, 15-45%
73C	CHARLTON-CHATFIELD COMPLEX, 0-15%
73E	CHARLTON-CHATFIELD COMPLEX, 15-45%
703A	HAVEN SILT LOAM, 0-3%

UNIT SUMMARY

BUILDING	UNIT COUNT TYPE A (3-BD)	TYPE B (2-EX BD)	TYPE C (2-BD)	TOTAL UNITS	TOTAL BR	SEWER FLOW (GDP)
BUILDING A	2	2	4	8	18	2700
BUILDING B	2	2	6	10	22	3300
BUILDING C	2	2	4	8	18	2700
BUILDING D	2	2	6	10	22	3300
BUILDING E	2	2	4	8	18	2700
BUILDING F	2	2	2	6	14	2100
BUILDING G	2	2	6	10	22	3300
BUILDING H	2	2	6	10	22	3300
BUILDING I	2	2	0	4	10	1500
BUILDING J	2	2	2	6	14	2100
TOTAL	20 TYPE A	20 TYPE B	40 TYPE C	80 UNITS	180 BR	27000 GPD

SCALE: 1" = 60'
60 0 60 120 180

PROJECT NUMBER:
00057 - 00001

YRC YANTIC RIVER CONSULTANTS, LLC

CONTACT INFORMATION
YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249
Phone: (860) 367-7264
Email:yanticriver@gmail.com
Web: www.yanticriverconsultants.com

PROFESSIONAL SEAL
STATE OF CONNECTICUT · BRANDON J. HANFIELD · No. 24664 · LICENSED PROFESSIONAL ENGINEER

NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT

PREPARED FOR
PAZZ & CONSTRUCTION, LLC

OVERALL LAYOUT PLAN

N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT

REVISION SUMMARY

DATE	DESCRIPTION
1/15/20	PER TOWN COMMENTS & UPDATED SURVEY MAPPING
7/10/20	REVISED DEVELOPMENT LAYOUT

SHEET 1 OF 8
DATE 9/25/19
REVISED 7/10/20

GENERAL SITE NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDSPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION FORM 817 AS APPLICABLE.
2. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT, FACE OF CURBS, OUTSIDE FACE OF THE BUILDING OR OTHER LIMITS AS DEPICTED ON THE PLAN.
3. THE PROPOSED PARKING FACILITIES ARE GENERALLY PERPENDICULAR TO OR PARALLEL WITH THE PROPOSED BUILDING(S), DRIVEWAYS, OR AS DEPICTED ON THE PLAN.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS TO THE OWNER.
5. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
6. ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AFTER FINISH GRADING IS COMPLETED UNLESS OTHERWISE NOTED, ALL NEW SEEDED OR SODDED AREAS SHALL HAVE A TOPSOIL LAYER OF 6" MINIMUM OR AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. TOP OF TOPSOIL LAYER SHALL BE PLACED 1" BELOW TOPS OF CURBS, WALKS, OR PAVEMENT ELEVATIONS WHERE TOPSOIL ABUTS THOSE AREAS.
7. CONTRACTOR SHALL SUPPLY AND PLACE STRAW MULCH WHEREVER GRASS SEED HAS BEEN PLACED. SEED SHALL BE APPLIED AT THE MINIMUM RATE RECOMMENDED BY THE MANUFACTURER OR THE PROJECT LANDSCAPE ARCHITECT.
8. CONTRACTOR SHALL SEAL THE EDGE OF EXISTING ASPHALT PAVEMENT WITH TACK COAT IN ACCORDANCE WITH FORM 817 OR THE TOWN OF EAST LYME STANDARDS WHERE NEW ASPHALT JOINS EXISTING ASPHALT.
9. CONTRACTOR SHALL REPAIR, RESURFACE, RECONSTRUCT OR REFURBISH ANY AREAS DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, HIS SUBCONTRACTORS OR SUPPLIERS AT NO ADDITIONAL COST TO THE OWNER.
10. CONTRACTOR SHALL COMPLETELY FILL ALL TRENCHES WITHIN 5 FEET OF PAVEMENT EDGES WITH GRANULAR BACKFILL. REFER TO GEOTECHNICAL REPORT FOR TYPE OF FILL TO ACHIEVE DESIRED COMPACTION.
11. ALL PAINT STRIPING SHALL BE 4" TRAFFIC PAINT IN ACCORDANCE WITH FORM 817 AND SHALL BE WHITE OR YELLOW AS DEPICTED ON THE PLANS.
12. CONTRACTOR TO CONFIRM WITH LOCAL CODES AND BUILDING INSPECTOR FOR SPECIFIC HANDICAPPED ACCESSIBLE PARKING SPACE DIMENSIONS, STRIPING AND SIGNAGE REQUIREMENTS.

UTILITY STATEMENT

UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTED UTILITY COMPANIES OR GOVERNMENT AGENCIES, PAROLE TESTIMONY, FIELD SURVEY AND OTHER SOURCES. THE SURVEYOR AND THIS PLAN SET MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY "CALL BEFORE YOU DIG" AT 1-800-922 -4455, IN ACCORDANCE WITH CBYD NOTIFICATION PROCEDURES PRIOR TO COMMENCING WORK.

LANDSCAPE PLANTING NOTES

1. PROPOSED LANDSCAPING WILL GENERALLY CONFORM TO THE PLAN AND CONSIST OF THE FOLLOWING. THE DESIGN IS AN APPROXIMATE DEPICTION BASED ON SPECIES AND CULTIVARS AVAILABLE AT TIME OF INSTALLATION. ADDITIONAL PLANTINGS, PERENNIAL GRASSES, AND SHRUBS WILL BE LOCATED TO SCREEN UTILITY STRUCTURES AND FOUNDATIONS AS NECESSARY.

   A. MIXTURE OF SHADE AND FLOWERING TREES ALONG THE MAIN & SECONDARY ACCESS DRIVEWAYS
   B. CEDAR PLANTING BEDS ADJACENT TO PARKING AREAS
   C. CEDAR PLANTING BEDS AROUND FOUNDATION PERIMETER
   D. SCREENING TREES AROUND PERIMETER OF DEVELOPMENT AS SHOWN
2. PLANT GROUPINGS WILL BE ADDED TO REDUCE VEHICLE LIGHTS THAT SHINE IN THE DIRECTION OF RESIDENTIAL UNITS.
3. ALL PLANT MATERIALS TO BE APPROVED BY THE OWNER BEFORE THEY ARE INSTALLED. ANY SUBSTITUTIONS MUST BE APPROVED PRIOR TO PLANTING. ALL PLANT MATERIAL SHALL CARRY A WARRANTY FOR A PERIOD OF NOT LESS THAN 1-YEAR AFTER ACCEPTANCE OF THE PROJECT BY THE OWNER. WARRANTY SHALL BE A ONE-TIME REPLACEMENT INCLUDING MATERIAL AND LABOR.
4. ALL PLANTING AND LAWN AREAS TO HAVE 6" MINIMUM TOPSOIL. SUPPLY AND SPREAD TOPSOIL, AS NEEDED, TO MAKE A 6" DEPTH. TOPSOIL SHALL CONFORM TO STATE OF CONNECTICUT D.O.T. FORM 817, SECTION M13.01.
5. ALL TREES, SHRUBS AND GROUNDCOVER PLANTS SHALL BE FERTILIZED WITH LOW-NITROGEN ORGANIC FERTILIZER. ADD PEAT MOSS TO PLANTING SOIL, SO THAT 1/4 OF PLANTING SOIL IS PEAT MOSS.
6. ALL PLANTINGS TO BE MULCHED WITH 3" DEPTH OF CEDAR MULCH. SUBMIT SAMPLES FOR APPROVAL BY OWNER PRIOR TO INSTALLATION.
7. PROTECT EXISTING TREES DURING CONSTRUCTION BY ERECTING A BARRIER AT THE TREE'S DRIPLINE. DO NOT FILL OR EXCAVATE BENEATH THE DRIPLINE OF EXISTING TREES, UNLESS SHOWN ON THE GRADING PLAN.
8. SEED ALL DISTURBED AREAS OF SITE. WATER DAILY DURING FIRST SEASON OF ESTABLISHMENT FROM APRIL 1 TO NOVEMBER 1.
9. ALL PLANTINGS IN THE VICINITY OF DRIVEWAYS AND PARKING AREAS ARE SALT-TOLERANT.

CEDAR MULCH BED PLANTING NOTES

1. FOR CLARITY, BUILDING AND FOUNDATION CEDAR MULCH BEDS & PLANTINGS ARE NOT DEPICTED. THESE AREAS SHALL BE LANDSCAPED WITH ANNUAL & PERENNIAL FLOWERS, BULBS/TUBERS, AND GRASSES SUCH AS THE FOLLOWING:

   ANNUALS: MARIGOLDS, GERANIUMS, IMPATIENS, ZINNIAS, PETUNIAS, SUNFLOWERS, BEGONIAS, CLEOME, COSMOS & GAZANIA.

   PERENNIALS: ASTER, DAYLILY, HOSTAS, ROSES, PURPLE BEAUTYBERRY, SEDUM, BUTTERFLY BUSH, WILD GERANIUM, PHLOX, YELLOW & RED BARBERRY, ASTILBES, GOAT'S BLEND, ANDROMEDA, SOLOMON SEAL, SAGE IRIS, BEE-BALM, ORIENTAL POPPY & TICKSEED.

   BULBS/TUBERS: DAFFODILS & TULIPS

   GRASSES: DWARF FOUNTAIN GRASS, MISCANTHUS VAR,

LIGHTING NOTES

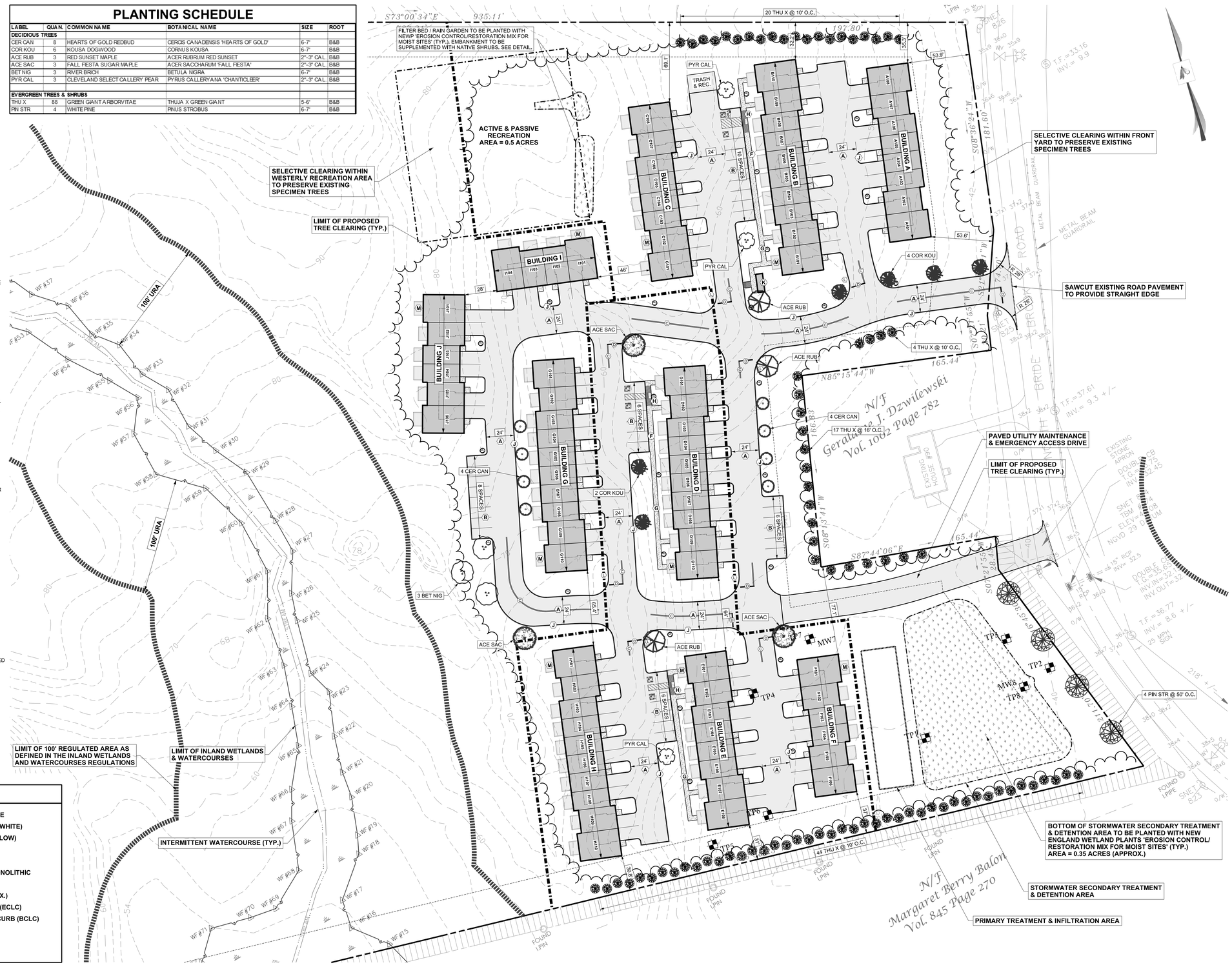
1. THIS PLAN DEPICTS THE GENERAL LOCATION AND TYPE OF POLE-MOUNTED AREA LIGHTS FOR THE DEVELOPMENT. A LIGHTING PLAN PREPARED BY A LIGHT DESIGN PROFESSIONAL WITH PHOTOMETRIC INFORMATION SHALL BE SUBMITTED TO THE TOWN FOR REVIEW AND APPROVAL PRIOR TO FILING.
2. ALL SITE LIGHTING SHALL BE FULL SHIELDED TYPE TO PREVENT UPWARD DISTRIBUTION OF LIGHT AND GLARE ON ADJACENT PROPERTIES.
2. POLE MOUNTED FIXTURES TO BE VISIONAIRE SRL-1 SANTA ROSA HID WITH VISIONAIRE DECORATIVE BASE DCB AND 14' VISIONAIRE POLE OR APPROVED EQUAL.

PLANTING SCHEDULE

LABEL	QUAN.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT
DECIDIOUS TREES					
CER CAN	8	HEARTS OF GOLD REDBUD	CERCIS CANADENSIS 'HEARTS OF GOLD'	6-7'	B&B
COR KOU	6	KOUSA DOGWOOD	CORNUS KOUSA	6-7'	B&B
ACE RUB	3	RED SUNSET MAPLE	ACER RUBRUM RED SUNSET	2"-3" CAL	B&B
ACE SAC	3	FALL FIESTA SUGAR MAPLE	ACER SACCHARUM 'FALL FIESTA'	2"-3" CAL	B&B
BET NIG	3	RIVER BRICH	BETULA NIGRA	6-7'	B&B
PYR CAL	3	CLEVELAND SELECT CALLERY PEAR	PYRUS CALLERYANA 'CHANTICLEER'	2"-3" CAL	B&B
EVERGREEN TREES & SHRUBS					
THU X	88	GREEN GIANT ARBORVITAE	THUJA X GREEN GIANT	5-6'	B&B
PIN STR	4	WHITE PINE	PINUS STROBUS	6-7'	B&B

LEGEND

- EDGE OF PAVEMENT W/ CURB
- SAWCUT PAVEMENT
- CONCRETE WALK
- DRAINAGE PIPE
- RD — ROOF LEADER
- CD — CURTAIN/SLOPE/WALL DRAIN
- S — SANITARY SEWER
- W — WATER
- G — GAS SERVICE
- E — ELECTRIC
- T — TELECOMMUNICATIONS
- SILT FENCE
- HAYBALE
- LP — POLE MOUNTED LIGHT FIXTURE
- BOLLARD LIGHT FIXTURE
- HANDICAP PARKING MARKING
- (A) BITUMINOUS CONCRETE DRIVE
- (B) PARKING PAINT STRIPING (4" WHITE)
- (C) DOUBLE CENTERLINE (4" YELLOW)
- (D) STOP BAR (12" WHITE)
- (E) CROSS-WALK (12" WHITE)
- (F) CONCRETE CURB & WALK MONOLITHIC
- (G) CONCRETE SIDEWALK
- (H) HANDICAP RAMP (12'H:1'V MAX.)
- (I) EXTRUDED CONCRETE CURB (ECLC)
- (J) BITUMINOUS CONCRETE LIP CURB (BCLC)
- (K) MAIL PAD
- (L) STOP SIGN
- (M) DECK



SCALE: 1" = 40' (40 0 40 80 120)	CONTACT INFORMATION YANTIC RIVER CONSULTANTS, LLC 191 NORWICH AVENUE LEBANON, CONN 06249 Phone: (860) 367-7264 Email:yanticriver@gmail.com Web: www.yanticriverconsultants.com	PROFESSIONAL SEAL	NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT PREPARED FOR PAZZ & CONSTRUCTION, LLC DETAILED LAYOUT PLAN N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT	REVISION SUMMARY DATE DESCRIPTION 1/15/20 PER TOWN COMMENTS & UPDATED SURVEY MAPPING 7/10/20 REVISED DEVELOPMENT LAYOUT 10/30/20 PER TOWN COMMENTS
PROJECT NUMBER: 00057 - 00001				SHEET 2 OF 8 DATE 9/25/19 REVISED 10/30/20

UTILITY STATEMENT

UNDERGROUND UTILITY STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTED UTILITY COMPANIES OR GOVERNMENT AGENCIES, PAROLE TESTIMONY, FIELD SURVEY AND OTHER SOURCES. THE SURVEYOR AND THIS PLAN SET MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELDDETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY "CALL BEFORE YOU DIG" AT 1-800-922-4455, IN ACCORDANCE WITH CBYD NOTIFICATION PROCEDURES PRIOR TO COMMENCING WORK.

GENERAL GRADING NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CTDOT STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION FORM 817 AS APPLICABLE. WORK WITHIN THE ROAD RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF EAST LYME STANDARDS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES BETWEEN THE PLANS & FIELD CONDITIONS TO THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY.
3. THE EXCAVATING CONTRACTOR SHALL TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
4. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, OR AS REQUIRED BY GOVERNING UTILITY COMPANY. TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IN, AROUND OR OVER UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE IS PRESENT TO INSTRUCT AND OBSERVE.
5. TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH ENGINEERED GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
6. AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF UNSUITABLE MATERIAL. THE NECESSITY FOR DRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED BUILDING OR PARKING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
7. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING. CONTRACTOR TO TEST FOR, AND CORRECT IF ANY, "BIRD BATH" CONDITIONS.
8. ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE.
9. SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE INDICATED ON THE PLANS.
10. EXTRACTION, GRADING, FILLING AND/OR PROCESSING SHALL NOT INVOLVE THE REMOVAL OR DEPOSITION OF MORE MATERIAL(S) THAN NECESSARY TO ACHIEVE THE PROPOSED DEVELOPMENT WHILE MAINTAINING STABILITY WITH NO ADVERSE IMPACT ON ABUTTING PROPERTIES, THE PUBLIC RIGHT OF WAY, PUBLIC SAFETY, OR NATURAL RESOURCES.

STORMWATER O & M NOTES

THE FOLLOWING OPERATION & MAINTENANCE PLAN SHALL BE IMPLEMENTED TO ENSURE THAT STORMWATER MANAGEMENT SYSTEMS FUNCTION AS DESIGNED.

1. PARTY RESPONSIBLE FOR O & M: PAZZ & CONSTRUCTION LLC
2. THE FOLLOWING MAINTENANCE SHALL BE PERFORMED.
   - A. INSPECT EACH CATCH BASIN ANNUALLY IN THE SPRING FOLLOWING THE WINTER SEASON. REMOVE ALL COLLECTED SEDIMENT AND DEBRIS AND DISPOSE OF IN AN APPROVED MANNER.
   - B. INSPECT EACH VEGETATED/LANDSCAPED AREA TWICE ANNUALLY, ONCE IN THE FALL AS PART OF FOLIAGE CLEANUP AND A SECOND TIME DURING SPRING CLEANUP. ALL DEBRIS THAT OBSTRUCTS OR DIVERTS FLOW SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
   - C. INSPECT THE STORMTECH MC-3500 SUBSURFACE STORMWATER DETENTION & TREATMENT SYSTEM PER THE MANUFACTURER'S RECOMMENDATIONS.
   - D. INSPECT THE DETENTION POND TWICE ANNUALLY IN THE SPRING AND FALL TO ENSURE THE INLET AND OUTLETS ARE FUNCTIONING PROPERLY. VEGETATION SHOULD BE MOWED AT LEAST ONCE EVERY TWO YEARS DURING A DRY PERIOD TO MINIMIZE OVERGROWTH.
   - E. ACCESS DRIVES, PARKING AREAS AND SIDEWALKS SHALL BE SWEPT ANNUALLY EACH SPRING TO REMOVE SAND, SALT AND OTHER DEBRIS FROM THE WINTER SEASON.

ISOLATOR ROW INSPECTION & MAINTENANCE

THE STORMTECH MC3500 ISOLATOR ROW SHALL BE INSPECTED AS FOLLOWS EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. INSPECTION INTERVALS SHALL BE ADJUSTED BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT AND DEBRIS ACCUMULATIONS AND HIGH WATER ELEVATIONS. JETTING AND VACTORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING STEPS ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (CATCH BASIN GRATES OR MANHOLE COVERS)
  - A.1. REMOVE/OPEN GRATE/LID ON DRAINAGE STRUCTURE
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED (NOT APPLICABLE)
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE GRATE/LID FROM STRUCTURE AT UPSTREAM EACH END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

DRAINAGE NOTES

1. STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT WILL BE COLLECTED THROUGH A SERIES OF ROOF LEADERS, SWALES, YARD DRAINS, CATCH BASINS & DRAINAGE PIPING AND DISCHARGED TO THE PROPOSED STORMWATER TREATMENT & DETENTION SYSTEM PRIOR TO DISCHARGING TO THE TOWN ROW.
2. THE INFILTRATION & DETENTION SYSTEM CONSISTS OF A SUBSURFACE SYSTEM BACKFILLED WITH WASHED STONE AND A GRADED DEPRESSION SIZED TO ATTENUATE PEAK FLOW RATES AS COMPARED TO PRE- DEVELOPMENT (EXISTING) CONDITIONS FOR THE 2, 5, 10, 25, 50 AND 100-YEAR STORM EVENTS. THERE WILL BE NO INCREASE IN PEAK FLOW RATES DISCHARGING TO THE NORTH BRIDE BROOK ROAD ROW, INLAND WETLANDS ON SITE, OR ADJACENT PROPERTIES.
3. STORMWATER RUNOFF FROM IMPERVIOUS SURFACES WILL BE TREATED AS FOLLOWS. FINAL TREATMENT DESIGN IN ACCORDANCE WITH THE 2004 DEEP WATER QUALITY MANUAL SHALL BE SUBMITTED TO THE TOWN FOR APPROVAL.
   - A. ALL CATCH BASINS SHALL HAVE 2' DEEP SUMPS EXCEPT WHERE LABELED AS 4' SUMPS ON THE PLAN.
   - B. FLOWS FROM THE COLLECTION SYSTEM WILL BE DIVERTED THROUGH AN ISOLATOR ROW WITHIN THE STORMTECH SYSTEM. THE ISOLATOR ROW WILL CAPTURE TOTAL SUSPENDED SOLIDS (TSS) AND DEBRIS WITHIN AN ACCESSIBLE ROW OF LINED MC-3500 CHAMBERS TO ALLOW FOR INSPECTION AND MAINTENANCE BEFORE FLOWING INTO ADJACENT UNITS. THE SYSTEM WILL FULLY RETAIN AND INFILTRATE THE WATER QUALITY VOLUME AND TREAT WATER QUALITY FLOW.
   - C. STORMWATER WATER THAT IS NOT INFILTRATED WILL DISCHARGE TO THE DETENTION BASIN WHICH HAS BEEN GRADED WITH A FLAT BOTTOM AND THE INITIAL 4'Ø DISCHARGE ORIFICE IS 6" ABOVE THE BOTTOM GRADE TO PROMOTE INFILTRATION INTO THE WITNESSED SAND & GRAVEL SUBSOILS.
4. THE DESIGN ENGINEER SHALL OVERSEE THE INSTALLATION OF THE PROPOSED SUBSURFACE STORMWATER TREATMENT & INFILTRATION SYSTEM AND CERTIFY THAT IT WAS CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH THE PLAN. CONTRACTOR SHALL PROVIDE MATERIAL SUBMITTALS TO THE DESIGN ENGINEER PRIOR TO INSTALLATION AND SHALL SEQUENCE CONSTRUCTION TO ENSURE THE FOLLOWING COMPONENTS ARE INSPECTED BY THE DESIGN ENGINEER PRIOR TO BACKFILL OR CONCEALMENT:
   - A. EXCAVATION LIMITS AND SURROUNDING UNDISTURBED SOILS
   - B. PLACEMENT OF GEOTEXTILE WRAP AND BASE STONE
   - C. PLACEMENT OF GEOTEXTILE BASE LATER FOR ISOLATOR ROW
   - D. PLACEMENT OF MC-3500 UNITS AND MANIFOLDS
   - E. INSTALLATION OF OUTLET STRUCTURES AND PIPE CONNECTIONS
   - F. PLACEMENT OF GEOTEXTILE WRAP FOR ISOLATOR ROW
   - G. PLACEMENT OF STONE BACKFILL
   - H. CLOSURE OF GEOTEXTILE WRAP AND PLACEMENT OF BACKFILL
5. THE DESIGN ENGINEER SHALL OVERSEE THE INSTALLATION OF THE PROPOSED STORMWATER DETENTION & TREATMENT SYSTEM AND CONFIRM THAT IT WAS CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH THE PLAN. CONTRACTOR SHALL PROVIDE MATERIAL SUBMITTALS TO THE DESIGN ENGINEER PRIOR TO INSTALLATION AND SHALL SEQUENCE CONSTRUCTION TO ENSURE THE FOLLOWING COMPONENTS ARE INSPECTED PRIOR TO CONCEALMENT:
   - A. EXCAVATION LIMITS AND SURROUNDING UNDISTURBED SOILS
   - B. INSTALLATION OUTLET STRUCTURE AND PIPE CONNECTIONS

FILTER BED / RAIN GARDEN NOTES

THE FOLLOWING INSTALLATION & MAINTENANCE SHALL BE IMPLEMENTED TO ENSURE THAT FILTER BED / RAIN GARDENS FUNCTION AS INTENDED.

1. INSTALL BED IN ACCORDANCE WITH PLAN & SECTION.
2. THE FOLLOWING MAINTENANCE SHALL BE PERFORMED.
   - A. SHORT-TERM MAINTENANCE SHALL INCLUDE WATERING, FERTILIZING, INSPECTING FOR EROSION & REMOVAL OF INVASIVE OR WEED GROWTH UNTIL VEGETATION IS ESTABLISHED.
   - B. LONG-TERM MAINTENANCE SHALL BE PREFORMED ANNUALLY AND INCLUDE:
     - i. REMOVAL OF DEAD VEGETATION, REPLANT & OVERSEED AS REQUIRED.
     - ii. PRUNING & TRIMMING OF TREES/SHRUBS & MOWING OF GROUNDCOVER
     - iii. REMOVAL OF WEEDS & INVASIVE SPECIES
     - iv. CLEAR YARD DRAIN GRATES AND REMOVE SEDIMENT FROM SUMPS

TEST PIT DATA

TEST PIT	1	TEST PIT	2	TEST PIT	3	TEST PIT	4
DATE	7/25/19	DATE	7/25/19	DATE	7/25/19	DATE	7/25/19
PERF. BY	BJH	PERF. BY	BJH	PERF. BY	BJH	PERF. BY	BJH
DEPTH	CHARACTERISTICS	DEPTH	CHARACTERISTICS	DEPTH	CHARACTERISTICS	DEPTH	CHARACTERISTICS
0 - 10	Topsoil	0 - 12	Topsoil	0 - 12	Topsoil	0 - 14	Topsoil
10 - 36	Brown FSL	12 - 27	Brown FSL Trace Silt	12 - 36	Red/Brown FSL Trace Silt	14 - 32	Brown Fine Silty Loam
36 - 56	Coarse Sand & Gravel	27 - 56	Coarse S&G Loose to Mod.	36 - 62	Coarse Sand & Gravel	32 - 84	Medium Sand
56 - 68	Med-Coarse Sand	56 - 62	Coarse Sand & Gravel Compact.	62 - 72	Med-Coarse Sand	84 - 88	Damp Medium Sand
68 - 84	Coarse Sand & Gravel	62 - 70	Gray/Tan Medium Sand	72 - 80	Sand & Gravel Compact		
		70 - 80	Sand & Gravel Compact				
ROOTS	32"	ROOTS	27"	ROOTS	36"	ROOTS	32"
WATER	None	WATER	None	WATER	None	WATER	None
LEDGE	None	LEDGE	None	LEDGE	Ledge or Boulder @ 80"	LEDGE	None
MOTT. / REST.	Possible @ 68" (monitoring req'd)	MOTT. / REST.	Possible @ 62" (monitoring req'd)	MOTT. / REST.	None	MOTT. / REST.	Possible @ 84" (monitoring req'd)
TEST PIT	5	TEST PIT	6	TEST PIT	7 (MW7)	TEST PIT	8 (MW8)
DATE	7/25/19	DATE	7/25/19	DATE	1/14/20	DATE	1/14/20
PERF. BY	BJH	PERF. BY	BJH	PERF. BY	BJH	PERF. BY	BJH
DEPTH	CHARACTERISTICS	DEPTH	CHARACTERISTICS	DEPTH	CHARACTERISTICS	DEPTH	CHARACTERISTICS
- -	Performed to delineate change in	- -	Performed to delineate change in	- -	Performed to witness groundwater	- -	Performed to witness groundwater
- -	soil characteristics. Not suitable	- -	soil characteristics. Similar to	- -	and install monitoring pipe. Pit	- -	and install monitoring pipe. Pit
- -	for Subsurface Drainage	- -	TP 4 (sandy).	- -	similar to TP 4 (sandy).	- -	similar to TP 2 (sands & gravels).
ROOTS		ROOTS		ROOTS	Not recorded	ROOTS	Not recorded
WATER		WATER		WATER	114" (Pipe installed)	WATER	None (Pipe installed @ 108")
LEDGE		LEDGE		LEDGE	None	LEDGE	None
MOTT. / REST.		MOTT. / REST.		MOTT. / REST.	Possible @ 102" (monitoring req'd)	MOTT. / REST.	None (monitoring req'd)

SCALE: 1" = 40'

40 0 40 80 120

PROJECT NUMBER:

00057 - 00001

YRC YANTIC RIVER CONSULTANTS, LLC

CONTACT INFORMATION

YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249

Phone; (860) 367-7264
Email:yanticriver@gmail.com
Web: www.yanticriverconsultants.com

PROFESSIONAL SEAL

NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT

PREPARED FOR
PAZZ & CONSTRUCTION, LLC

GRADING & DRAINAGE PLAN

N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT

REVISION SUMMARY

DATE	DESCRIPTION
1/15/20	PER TOWN COMMENTS & UPDATED SURVEY MAPPING
7/10/20	REVISED DEVELOPMENT LAYOUT
10/30/20	PER TOWN COMMENTS

SHEET 3 OF 8

DATE 9/25/19

REVISED 10/30/20

UTILITY STATEMENT

UNDERGROUND UTILITY STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTED UTILITY COMPANIES OR GOVERNMENT AGENCIES, PAROLE TESTIMONY, FIELD SURVEY AND OTHER SOURCES. THE SURVEYOR AND THIS PLAN SET MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE, ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CONSTRUCTION, CONTRACTOR TO NOTIFY "CALL BEFORE YOU DIG" AT 1-800-922-4455, IN ACCORDANCE WITH CBYD NOTIFICATION PROCEDURES PRIOR TO COMMENCING WORK.

GENERAL UTILITY NOTES

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE GENERAL SYSTEM OF UTILITIES TO SERVE THE PROPOSED RESIDENTIAL MULTI-FAMILY DEVELOPMENT ONLY. DETAILED DESIGN PLANS AND DETAILS SHALL BE PREPARED FOR REVIEW AND APPROVAL BY THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION.
2. ALL UNDERGROUND UTILITIES MUST BE INSTALLED IN ACCORDANCE WITH THE STANDARDS, SPECIFICATIONS AND DETAILS OF THE APPROPRIATE PUBLIC UTILITY COMPANY
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND ORDER ALL NEW SERVICES, LOCATE AND MAINTAIN IN SERVICE ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ANY PIPING WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR, AT HIS EXPENSE WITH THE PERMISSION OF THE OWNER.
3. BEFORE WORKING WITH OR AROUND EXISTING UTILITIES, THE APPROPRIATE UTILITY COMPANY SHALL BE CONTACTED BY THE CONTRACTOR.
4. WHEN CONNECTIONS ARE TO BE MADE TO EXISTING PIPING AND STRUCTURE OR WHERE CONSTRUCTION IS IN THE VICINITY OF EXISTING PIPING, THE LOCATION AND ELEVATION OF THE EXISTING PIPING SHALL BE FIELD VERIFIED. NOTIFICATION SHALL BE GIVEN TO THE OWNER IF THE FIELD VERIFICATION DIFFERS FROM THE INFORMATION ON THE DRAWINGS.
5. FOR CLARITY PIPES MAY NOT BE DRAWN TO SCALE OR EXACTLY LOCATED.

WATER

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE EAST LYME WATER AND SEWER COMMISSION.
2. AN 8"Ø CLDIP (CLASS 54) PRIVATE WATER MAIN SHALL BE INSTALLED FROM THE EXISTING WATER MAIN IN NORTH BRIDE BROOK ROAD TO PROVIDE DOMESTIC AND FIRE SUPPRESSION WATER SUPPLY TO SITE. EACH BUILDING AND NEW FIRE HYDRANTS AS SHOWN ON THE PLAN. INSTALLATION, OPERATION, MAINTENANCE, AND REPAIR OF THE PRIVATE WATER MAIN IS THE SOLE RESPONSIBILITY OF THE DEVELOPER AND/OR PROPERTY OWNER.
3. 4"Ø CLDIP (SIZE AND TYPE TO BE CONFIRMED BY MEP) PRIVATE WATER MAIN SHALL BE INSTALLED FROM THE PRIVATE MAIN TO BUILDING SERVICE CONNECTIONS AS SHOWN ON THE PLAN.
4. FIELD LOK 350 OR EQUIVALENT GASKETS SHALL BE INSTALLED AT ALL MECHANICAL JOINTS WHERE RESTRIAINED JOINTS ARE REQUIRED.
5. COPPER (TYPE K) DOMESTIC WATER SERVICE PIPES SHALL BE INSTALLED FROM THE NEW PRIVATE MAIN TO A METER WITHIN EACH INDIVIDUAL UNIT. THE SERVICE AND METER SIZES SHALL BE CONFIRMED BY THE PROJECT ARCHITECT OR MEP FOLLOWING A HYDRANT FLOW TEST. PRESSURE REDUCING VALVES SHALL BE INSTALLED AS REQUIRED.
6. IRRIGATION SHALL NOT BE SUPPLIED BY TOWN OF EAST LYME PUBLIC WATER SYSTEM. IF IRRIGATION IS INTENDED, AN ONSITE IRRIGATION WELL SHALL BE INSTALLED WITH SEPARATE PUMP, STORAGE, & PIPING UTILITIES.

SANITARY

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE EAST LYME WATER AND SEWER COMMISSION.
2. AN 8" PVC (SDR-35) PRIVATE SEWER COLLECTION MAIN SHALL BE INSTALLED AS SHOWN ON THE PLANS AND SHALL CONNECT TO THE EXISTING SANITARY MANHOLE TO THE SOUTH OF NORTH BRIDE BROOK ROAD WITH AN INSIDE DROP INLET.
3. A MINIMUM CLEARANCE OF 10' HORIZONTAL AND 18" VERTICAL SHALL BE PROVIDED BETWEEN WATER AND SANITARY SEWER LINES. IF THE MINIMUM CLEARANCE IS NOT PROVIDED, THEN THE SEWER LINE SHALL BE CONSTRUCTED OF C-900 PVC OR DUCTILE IRON PIPE.
4. EACH INDIVIDUAL UNIT SHALL BE SERVED BY A SEPARATE 6" SANITARY LATERAL AS SHOWN ON THE PLAN WITH A CLEANOUT. LATERALS SHALL BE PVC (SDR-35) OR OTHER MATERIAL ON THE APPROVED MATERIALS LIST AND SHALL HAVE A MINIMUM SLOPE OF 2% AND MAXIMUM SLOPE OF 10%.

ELECTRIC & TELECOMMUNICATIONS

1. ELECTRIC SERVICE SHALL BE PROVIDED TO THE DEVELOPMENT IN ACCORDANCE WITH THE STANDARDS OF NORTHEAST UTILITIES SERVICE COMPANY (EVERSOURCE ENERGY). LAYOUT AND DETAILS NOT SHOWN AT THIS TIME.
2. FINAL CONNECTION LOCATION, SIZE & TYPE OF CONDUIT, TRANSFORMERS, METERS & OTHER ELEMENTS TO SERVE THE BUILDINGS SHALL BE COORDINATED BETWEEN EVERSOURCE ENERGY, OWNER, MEP AND ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. SITE AREA LIGHTING NOT SHOWN. POLE MOUNTED AREA LIGHTS, BUILDING MOUNTED LIGHTS AND SIGN SPOT LIGHTS SHALL BE SERVED BY A COMMON OWNER'S PANEL WITH APPROPRIATE CONTROLS TO ENSURE PARKING AREAS, SIDEWALKS AND DRIVEWAYS ARE ADEQUATELY LIGHTED WILL BE PROVIDED PRIOR TO CONSTRUCTION. PANEL & CONDUIT SIZE AND LOCATION TO BE DETERMINED BY OWNER.

SCALE: 1" = 40'

40 0 40 80 120

PROJECT NUMBER:

00057 - 00001

YANTIC RIVER CONSULTANTS, LLC

CONTACT INFORMATION

YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249

Phone: (860) 367-7264
Email:yanticriver@gmail.com
Web: www.yanticriverconsultants.com

PROFESSIONAL SEAL

NORTH BRIDE BROOK MULTI-FAMILY DEVELOPMENT

PREPARED FOR
PAZZ & CONSTRUCTION, LLC

UTILITY PLAN

N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT

REVISION SUMMARY	
DATE	DESCRIPTION
1/15/20	PER TOWN COMMENTS & UPDATED SURVEY MAPPING
7/10/20	REVISED DEVELOPMENT LAYOUT
10/30/20	PER TOWN COMMENTS

SHEET 4 OF 8

DATE 9/25/19

REVISED 10/30/20

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE WORK TO BE PERFORMED.
2. THE CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS OF ALL LOCAL AGENCIES OF THE TOWN OF EAST LYME AND THE STATE OF CONNECTICUT.

SEQUENCE OF CONSTRUCTION:

1. COORDINATE AND COMPLETE A MEETING WITH TOWN AND OWNER, RESPONSIBLE PARTIES TO BE IDENTIFIED AND EMERGENCY PHONE NUMBERS PROVIDED.
2. INSTALL EROSION CONTROL MEASURES AT THE LOCATIONS SHOWN ON THE PLANS OR AS REQUIRED FOR FIELD CONDITIONS.

PHASE 1;
3. CLEAR AND GRUB AREAS AS REQUIRED.
4. EXCAVATE / PLACE FILL AND ROUGH GRADE SITE.
5. INSTALL FOUNDATIONS & ERECT BUILDINGS.
6. INSTALL UTILITIES AND STORM DRAINAGE.
7. CONSTRUCT ACCESS DRIVES AND PARKING AREAS.
8. INSTALL CONCRETE SIDEWALKS AND PADS.
9. INSTALL BITUMINOUS CONCRETE BINDER COURSE.
10. INSTALL CURBING AND BITUMINOUS CONCRETE FINISH COURSE
11. FINISH GRADE, SPREAD TOPSOIL, SEED, AND COMPLETE PLANTING.
12. REMOVE EROSION AND SEDIMENTATION CONTROLS WHEN PERMANENT VEGETATIVE COVER IS ESTABLISHED. CONTACT TOWN PRIOR TO REMOVAL.

PHASE 2 THROUGH 3:
13. SEE 3 THROUGH 12 ABOVE.

E & S CONTROL NARRATIVE:

THE PROPOSED PROJECT CONSISTS OF A MULTI-FAMILY RESIDENTIAL APARTMENT DEVELOPMENT, CONSISTING OF 108 TOWNHOUSE UNITS WITHIN 13 SEPARATE BUILDINGS. THE GENERAL SCOPE OF SITE WORK IS DESCRIBED ABOVE IN THE CONSTRUCTION SEQUENCE.

APPROXIMATELY 6.75 ACRES OF THE 20.24-ACRE SITE (33%) WILL BE DISTURBED AS PART OF THE DEVELOPMENT. TO MINIMIZE THE AREA AND LIMIT THE TIME SOILS ARE EXPOSED TO RAIN AND WIND AND SUBJECT TO EROSION & SEDIMENTATION, THE PROJECT WILL BE COMPLETED IN MULTIPLE PHASES AS DESCRIBED BELOW:

PHASE 1: MAIN ACCESS ROAD, BUILDINGS A, B & C, MAIL PAD, INFILTRATION & DETENTION
PHASE 2: SECONDARY ACCESS ROAD, BUILDINGS D, E, F & H
PHASE 3: SECONDARY ACCESS ROAD, BUILDING G, I, J

THE EROSION & SEDIMENTATION CONTROL NOTES, INSPECTION REQUIREMENTS, PLANS & DETAILS DEPICTED ON THIS SHEET SHALL BE FOLLOWED. IN ADDITION THE FOLLOWING SITE SPECIFIC E&S CONTROL CONCERNS & ISSUES SHALL BE NOTED:

1. PER USDA NRCS SOIL MAPPING, THE SITE MAINLY CONSISTS OF CHARLTON-CHATFIELD ROCKY SOILS, WHICH HAVE A MODERATE SUSCEPTIBILITY TO SHEET AND RILL EROSION AND A MODERATE TO HIGH SUSCEPTIBILITY TO WIND-BLOWN EROSION. LONG-TERM EXPOSURE OF THESE SOILS SHALL BE AVOIDED. DUST-CONTROL MEASURES SHALL BE EMPLOYED AS REQUIRED, SUCH AS COVERING STOCKPILES OR APPLYING WATER.
2. THE TOPOGRAPHY CONSISTS OF MODERATE TO STEEP TERRAIN, WITH SLOPES RANGING FROM 5% TO 20% WITHIN THE DEVELOPMENT AREA. THE CONTRACTOR SHALL TAKE CARE TO PRESERVE NATURAL VEGETATION ALONG THE TOP OF CUT SLOPES AND BOTTOM OF FILL SLOPES, MINIMIZE SOIL DISTURBANCE, AND MAINTAIN E&S CONTROLS FOR THE DURATION OF CONSTRUCTION UNTIL DISTURBED AREAS ARE STABILIZED.

E & S CONTROL PLAN:

1. OWNER & PARTY RESPONSIBLE FOR E&S CONTROL PLAN: PAZZ & CONSTRUCTION LLC EMERGENCY CONTACT: TO BE PROVIDED PRIOR TO ISSUANCE OF BUILDING PERMIT.
2. ALL EROSION AND CONTROL MEASURES SHALL BE INSTALLED AT THE PROJECT SITE PRIOR TO CONSTRUCTION WHERE POSSIBLE. E&S MEASURES SHALL BE MOVED AND/OR ADDED TO ACCOMODATE THE PROGRESSION OF PHASES.
3. AN ANTI-TRACKING APRON SHALL BE INSTALLED AT ALL ENTRANCES TO THE SITE IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENTS OFF THE CONSTRUCTION SITE BY TRUCK AND CONSTRUCTION EQUIPMENT TRAFFIC. THE SURROUNDING ROAD SURFACES SHALL BE SWEPT AS REQUIRED.
4. ALL CATCH BASINS WITHIN THE PROJECT AREA, INCLUDING WITHIN NORTH BRIDE BROOK ROAD, WILL BE PROTECTED WITH INLET CONTROL FILTER/SILT SACKS AS SHOWN ON THE PLAN THROUGHOUT THE CONSTRUCTION PERIOD. IF REQUIRED, NEW CATCH BASINS ON SITE SHALL BE PROTECTED WITH STRAW WADDLES OR BALES.
5. AN EROSION CONTROL SYSTEM SHALL BE INSTALLED AROUND STOCKPILES OF SOIL.
6. DUST CONTROL MEASURES SHALL BE APPLIED DURING CONSTRUCTION AS REQUIRED.
7. TEMPORARY SILTATION TRAPS (TST) AND DIVERSION SWALES SHALL BE INSTALLED AS NECESSARY DURING SITE CONSTRUCTION. ALL DEWATERING DISCHARGE AND CONSTRUCTION RUNOFF SHALL BE DIRECTED TO THE TST'S. CONSTRUCTION WASTE-WATERS SHALL NOT BE DIRECTLY DISCHARGED TO STORM DRAINAGE, THE ROAD, OR WETLANDS AND WATERCOURSES. AT ALL TIMES DURING CONSTRUCTION, THE TST'S AND SWALES SHALL BE MAINTAINED TO CONTROL RUNOFF AND PREVENT SEDIMENT DISCHARGE TO ADJACENT WETLANDS.

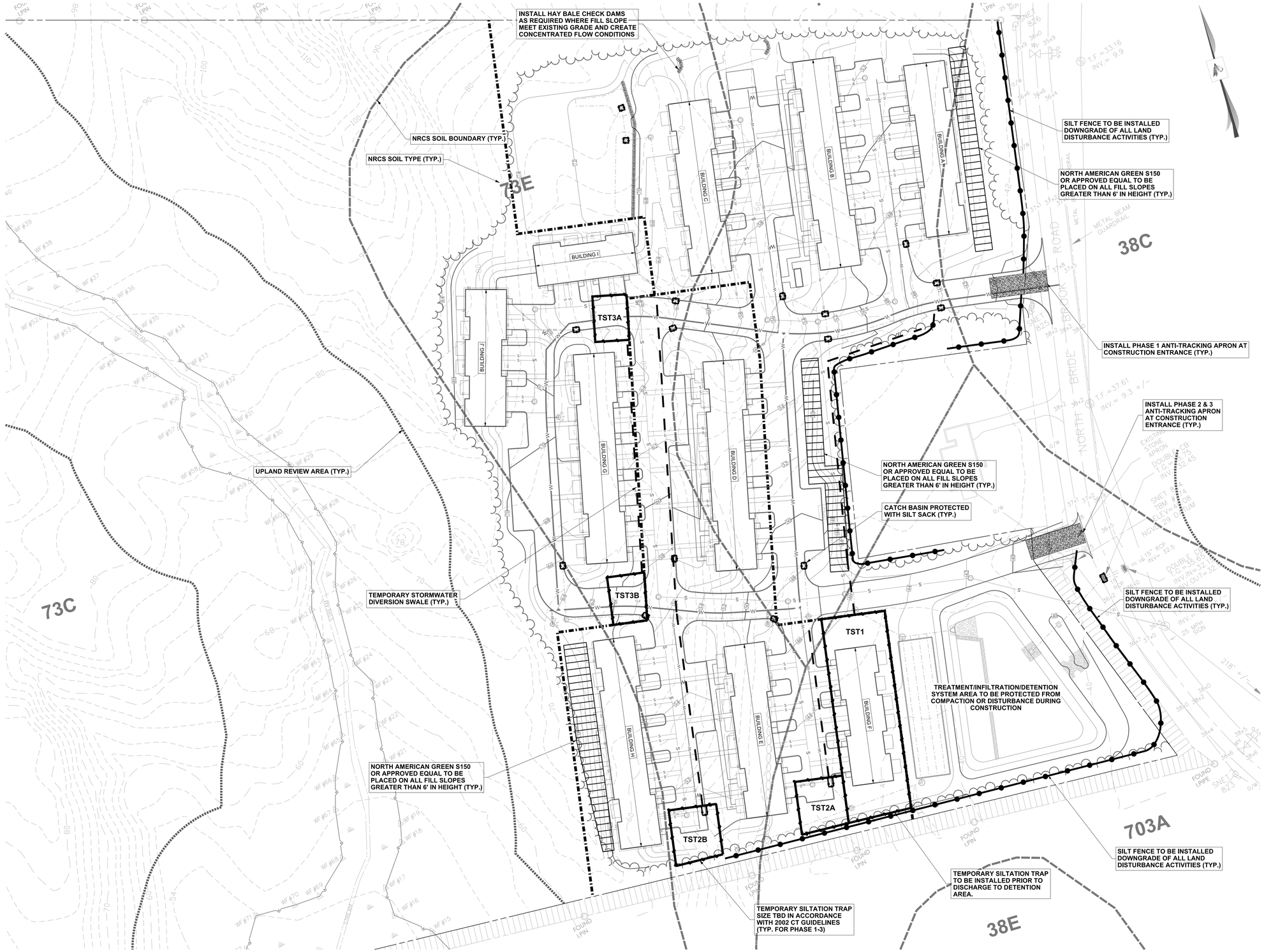
E & S CONTROL NOTES:

1. CONSTRUCTION WILL COMMENCE IN THE SPRING 2021 AND BE COMPLETED IN 2025, WEATHER PERMITTING.
2. E&S CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE TOWN.
3. ALL E&S CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", DATED 2002, AS AMENDED AND THE TOWN OF EAST LYME REGULATIONS.
4. EROSION CONTROL DEVICES SHALL BE MAINTAINED, REPLACED AND/OR ADDED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD AS NECESSARY OR AS REQUIRED BY THE ENGINEER OR THE TOWN.
5. SEDIMENT REMOVED FROM ANY CONTROL STRUCTURES SHALL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING ALL E&S CONTROL DEVICES AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER OR TOWN.
7. ALL DISTURBED AREAS ARE TO BE RAKED, SEEDED AND FERTILIZED PER "TURF ESTABLISHMENT" SPEC. IN CTDOT FORM 817.
8. AREAS OUTSIDE OF IMPERVIOUS AREAS TO RECEIVE A MINIMUM 6" OF TOPSOIL.
9. THE FOLLOWING DATES FOR SEEDING SHALL BE USED;
   SPRING: APRIL 15 TO JUNE 15, FALL: AUGUST 15 TO SEPTEMBER 15
10. GRASS SEED MIXTURES SHALL BE APPLIED AT A RATE NO LESS THAN 100LBS PER ACRE OR AS RECOMMENDED BY MANUFACTURER.
11. TEMPORARY GRASS SEEDING, IF NECESSARY, SHALL BE PERENNIAL RYE GRASS APPLIED AT A RATE OF 100 LBS. PER ACRE.

INSPECTION AND MAINTENANCE:

REGULAR INSPECTION AND MAINTENANCE IS CRITICAL FOR THE EFFECTIVENESS OF E&S CONTROLS. THE RESPONSIBLE PARTY SHALL IMPLEMENT THE FOLLOWING THROUGHOUT THE CONSTRUCTION PERIOD UNTIL THE SITE IS STABILIZED.

1. PRIOR TO A MAJOR STORM IN WHICH THE NOAA ISSUES WARNINGS OF FLOODING, SEVERE WEATHER CONDITIONS OR EFFECTS, ALL E&S CONTROLS SHALL BE INSPECTED, MAINTAINED, REPAIRED AND/OR CLEANED TO ENSURE THEY ARE IN PROPER WORKING ORDER.
2. ALL E&S CONTROLS SHALL BE INSPECTED, REPAIRED, AND CLEANED WITHIN 24 HOURS AFTER RAINFALL EVENTS GREATER THAN 0.1 INCHES
3. ALL STORMWATER STRUCTURES SHALL BE INSPECTED WITHIN 24 HOURS AFTER RAINFALL EVENTS GREATER THAN 0.1 INCHES AND CLEANED AS FOLLOWS:
   A. CATCH BASINS - REMOVE COLLECTED SEDIMENT @ ½ DEPTH OF SUMP
   B. SWALES - REMOVE COLLECTED SEDIMENT @ ¼ DEPTH
   C. DEWATERING BASINS - REMOVE COLLECTED SEDIMENT @ ½ CAPACITY
4. ROUTINE INSPECTION AND MAINTENANCE SCHEDULE:
   A. INSPECT ROAD DAILY AND SWEEP/REMOVE TRACKED MATERIALS AS REQUIRED
   B. TEMPORARY CONTROLS SHALL BE INSPECTED WEEKLY AND CLEANED:
      i. ANTI-TRACKING APRON - REPLENISH OR REPLACE STONE SA REQUIRED
      ii. SILT FENCE - REMOVE COLLECTED SEDIMENT @ ½ THE HEIGHT (MAX.)
      iii. SILT SACKS - CLEAN PER MANUFACTURER'S RECOMMENDATIONS
      iv. STRAW BALES - REMOVE COLLECTED SEDIMENT @ ½ THE HEIGHT (MAX.)
5. ALL STORMWATER STRUCTURES SHALL BE CLEANED AFTER REMOVAL OF E&S CONTROLS.



PROJECT NUMBER:
00057 - 00001

YANTIC RIVER CONSULTANTS, LLC

CONTACT INFORMATION
YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249
Phone: (860) 367-7264
Email:yanticriver@gmail.com
Web: www.yanticriverconsultants.com

PROFESSIONAL SEAL

NORTH BRIDE BROOK
MULTI-FAMILY DEVELOPMENT

PREPARED FOR
PAZZ & CONSTRUCTION, LLC

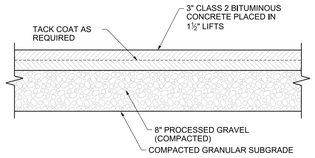
EROSION & SEDIMENTATION CONTROL PLAN

N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT

REVISION SUMMARY

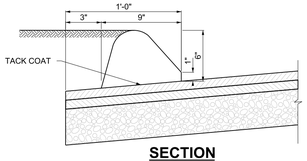
DATE	DESCRIPTION
1/15/20	PER TOWN COMMENTS & UPDATED SURVEY MAPPING
7/10/20	REVISED DEVELOPMENT LAYOUT
10/30/20	PER TOWN COMMENTS

SHEET 5 OF 8
DATE 9/25/19
REVISED 10/30/20



BITUMINOUS PAVEMENT

NOT TO SCALE



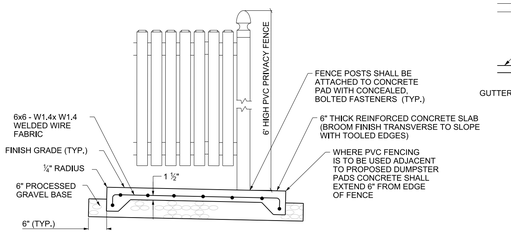
SECTION

NOTES:

1. CURBING SHALL BE MACHINE EXTRUDED.

BITUMINOUS CONCRETE CURB (BCLC)

NOT TO SCALE

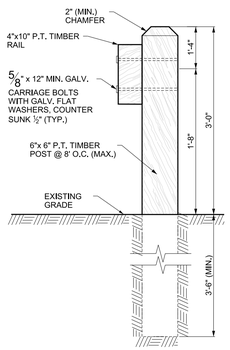


NOTES:

1. WHERE PVC FENCING IS TO BE USED ADJACENT TO PROPOSED DUMPSTER PAD THE DUMPSTER SHALL NOT BE HIGHER THAN THE FENCE.
2. PROPOSED GATES AT DUMPSTER PADS SHALL BE PVC, DOUBLE OUTSWING AND SHALL BE KEPT CLOSED AT ALL TIMES EXCEPT DURING ACCESS TO DUMPSTER.

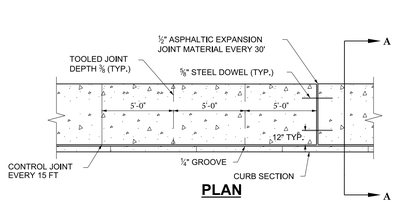
DUMPSTER PAD & PVC FENCE

NOT TO SCALE

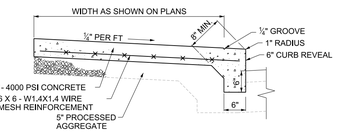


TIMBER GUIDE RAIL

NOT TO SCALE



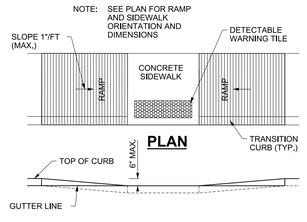
PLAN



SECTION A-A

CONCRETE SIDEWALK AND CURB MONOLITHIC

NOT TO SCALE

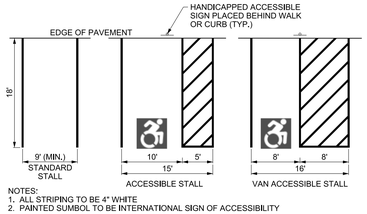


PLAN

ELEVATION

SIDEWALK RAMP

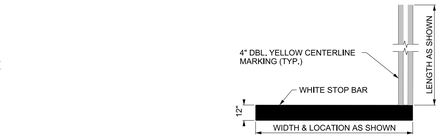
NOT TO SCALE



NOTES:
1. ALL STRIPING TO BE 4" WHITE
2. PAINTED SUMBOL TO BE INTERNATIONAL SIGN OF ACCESSIBILITY

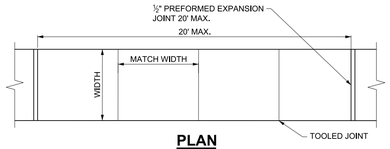
PARKING STALL DETAILS

NOT TO SCALE

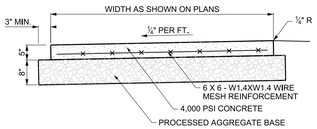


STOP BAR

NOT TO SCALE



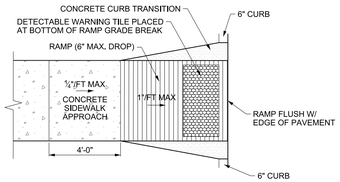
PLAN



PROFILE

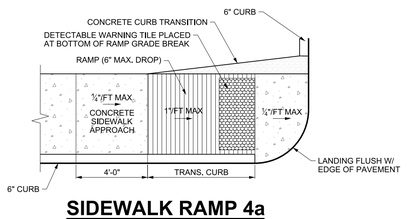
CONCRETE SIDEWALK

NOT TO SCALE



SIDEWALK RAMP 4e

NOT TO SCALE



SIDEWALK RAMP 4a

NOT TO SCALE

NOTES:
1. "VAN ACCESSIBLE" SIGN ONLY INSTALLED AT VAN ACCESSIBLE DESIGNATED PARKING STALL(S).

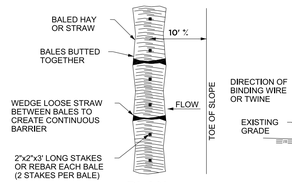
HANDICAPPED PARKING

NOT TO SCALE

NOTES:
1. 30" SIGN TO BE INSTALLED PER CONNDOT STANDARDS SIGN #31-0552
2. SECURE TO (1) TYPE A GALVANIZED STEEL POST WITH BREAKAWAY

STOP SIGN

NOT TO SCALE

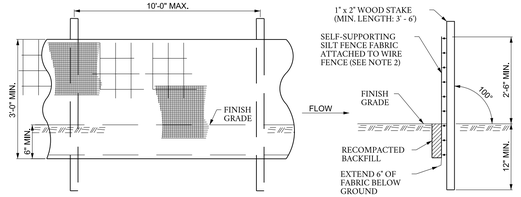


PLAN

SECTION

HAY BALES AT TOE OF SLOPE

NOT TO SCALE



ELEVATION

SECTION

NOTES:
1. INSTALL SILT FENCE & WOOD STAKES AS RECOMMENDED BY MANUFACTURER.
2. SILT FENCE SUBJECT TO HEAVY LOADS SHALL BE REINFORCED WITH FARM FENCING & STEEL POSTS (0.5 # STEEL/L.F.). THE MINIMUM POST LENGTH SHALL BE 5'-0".
3. SILT FENCE FABRIC SHALL BE A PERVIOUS SHEET OF WOVEN PROPYLENE, NYLON, POLYESTER OR POLYETHYLENE FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER.

SILT FENCE

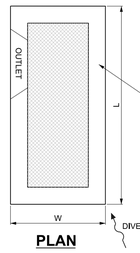
NOT TO SCALE

MAINTENANCE:

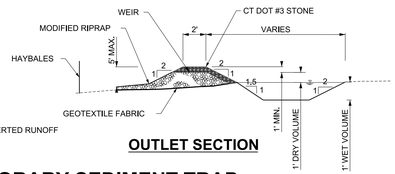
1. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER.
2. DEWATER, REMOVE SEDIMENTS AND RESTORE BASIN TO ORIGINAL DIMENSIONS WHEN SEDIMENTS ACCUMULATED TO ½ WET STORAGE VOLUME.
3. THE TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.
4. ALL PROPOSED SEDIMENT TRAPS SHALL BE CONSTRUCTED ACCORDING TO THE 2002 CT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS.

TEMPORARY SEDIMENT TRAP (TST) SIZING

TST	AREA (AC) (ACRE)	REQUIRED VOL. (CY)	WET VOL. (CY)	DRY VOL. (CY)
1	2.7	365	183	183
2A/B	1.7	230	115	115
3A/B	1.2	162	81	81



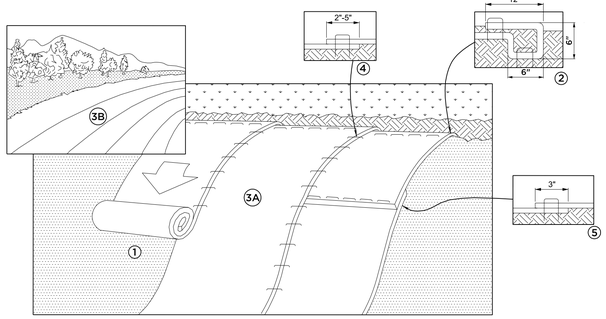
PLAN



OUTLET SECTION

TEMPORARY SEDIMENT TRAP

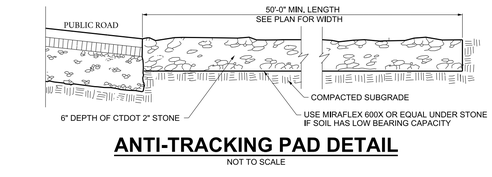
NOT TO SCALE



NOTES:
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING AND NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECO'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKED SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2'-5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROX. 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.

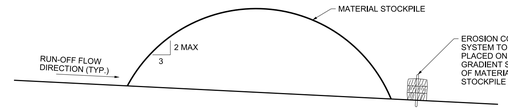
EROSION CONTROL BLANKET SLOPE INSTALLATION

NOT TO SCALE



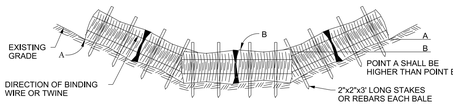
ANTI-TRACKING PAD DETAIL

NOT TO SCALE

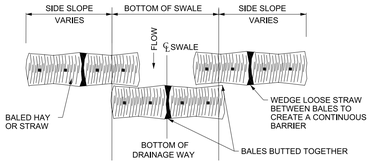


SOIL STOCKPILE DETAIL

NOT TO SCALE



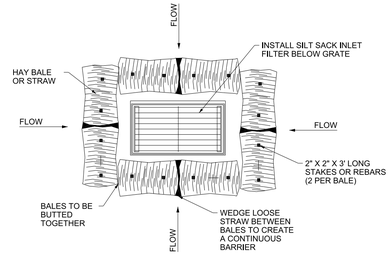
SECTION AT SWALE



PLAN

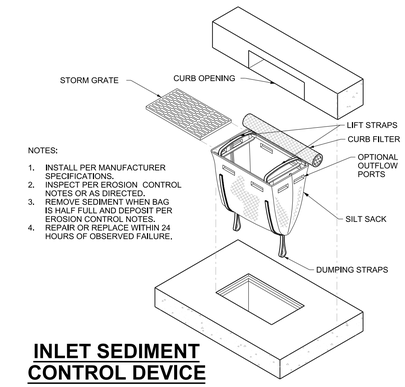
HAY BALES AT SWALE

NOT TO SCALE



HAY BALES AROUND CATCH BASIN

NOT TO SCALE



NOTES:
1. INSTALL PER MANUFACTURER SPECIFICATIONS.
2. INSPECT PER EROSION CONTROL NOTES OR AS DIRECTED.
3. REMOVE SEDIMENT WHEN BAG IS HALF FULL AND DEPOSIT PER EROSION CONTROL NOTES.
4. REPAIR OR REPLACE WITHIN 24 HOURS OF OBSERVED FAILURE.

INLET SEDIMENT CONTROL DEVICE

NOT TO SCALE

SCALE: AS SHOWN
0

PROJECT NUMBER:
00057 - 00001

YRC YANTIC RIVER CONSULTANTS, LLC

CONTACT INFORMATION
YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249
Phone: (860) 367-7264
Email:yanticriver@gmail.com
Web: www.yanticriverconsultants.com

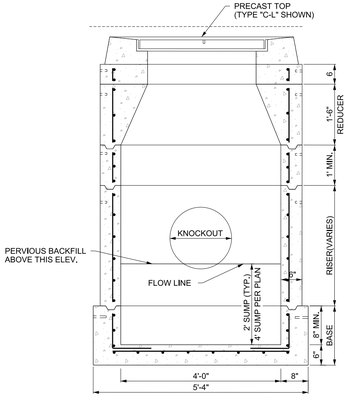
PROFESSIONAL SEAL

NORTH BRIDE BROOK ROAD
MULTI-FAMILY DEVELOPMENT
PREPARED FOR
PAZZ & CONSTRUCTION LLC
SITE / E&S DETAILS
N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT

REVISION SUMMARY

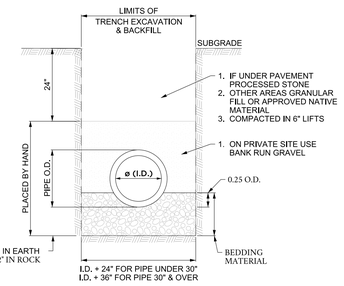
DATE	DESCRIPTION
1/15/20	PER TOWN COMMENTS & UPDATED SURVEY MAPPING
7/10/20	REVISED DEVELOPMENT LAYOUT
10/30/20	PER TOWN COMMENTS

SHEET 6 OF 8
DATE 9/25/19
REVISED 10/30/20



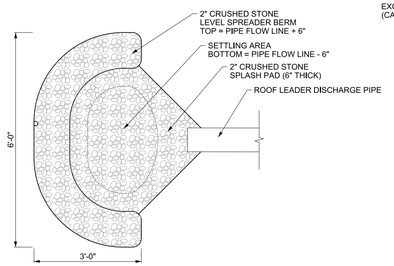
TYPE "C", "CL" OR "CG" STANDARD CATCH BASIN

NOT TO SCALE



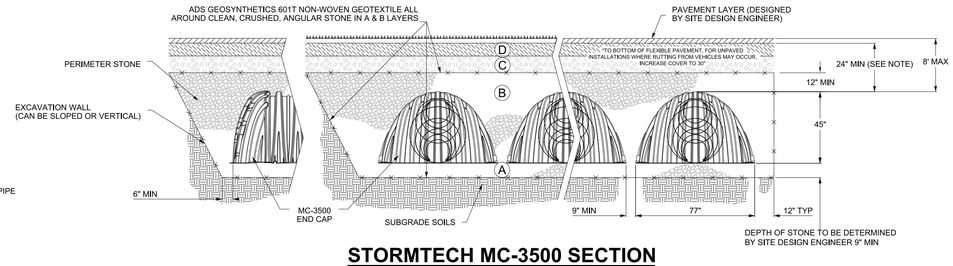
TRENCHING & BACKFILLING

NOT TO SCALE



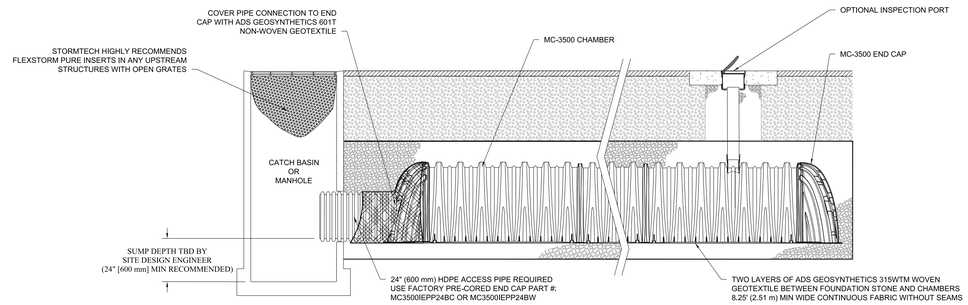
ROOF LEADER SPLASH PAD

NOT TO SCALE



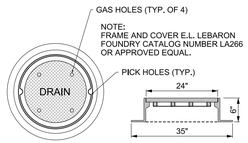
STORMTECH MC-3500 SECTION

NOT TO SCALE



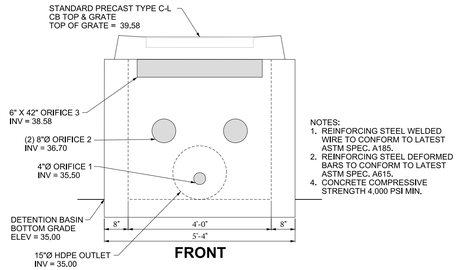
STORMTECH MC-3500 ISOLATOR ROW DETAIL

NOT TO SCALE



FRAME & COVER DETAIL

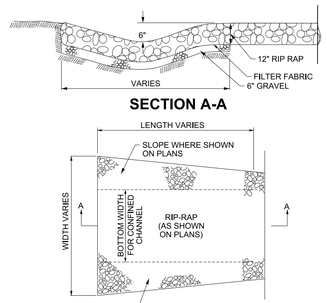
NOT TO SCALE



FRONT

OUTLET STRUCTURE

NOT TO SCALE

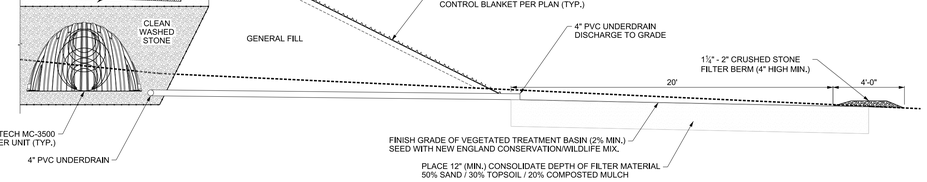


SECTION A-A

PLAN

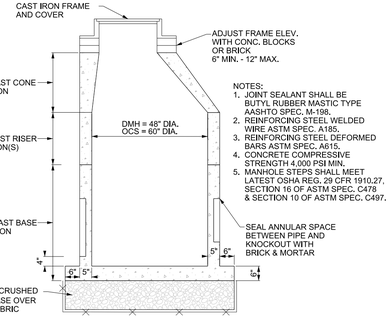
RIPRAP SPLASH PAD

NOT TO SCALE



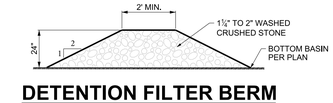
VEGETATED BASIN (SECONDARY TREATMENT) SECTION

NOT TO SCALE



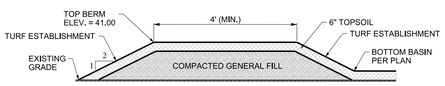
PRECAST STORM DRAIN MANHOLE

NOT TO SCALE



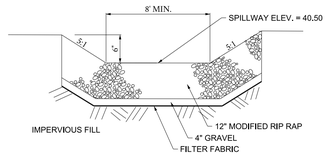
DETENTION FILTER BERM

NOT TO SCALE



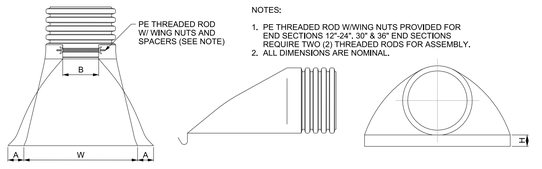
DETENTION BASIN BERM

NOT TO SCALE



EMERGENCY SPILLWAY DETAIL

NOT TO SCALE

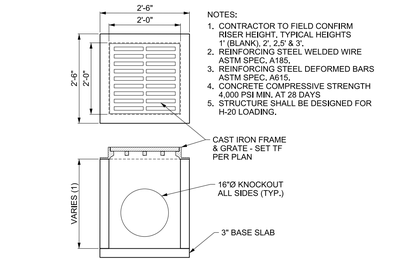


TOP VIEW RIGHT SIDE VIEW FRONT VIEW

PART #	PIPE SIZE	A	B (MAX.)	H	L	W
1210NP	12" (300 mm)	6.5" (165 mm)	10.00" (254 mm)	6.5" (165 mm)	25.00" (635 mm)	29.00" (737 mm)
1510NP	15" (375 mm)	6.5" (165 mm)	10.00" (254 mm)	6.5" (165 mm)	25.00" (635 mm)	29.00" (737 mm)
1810NP	18" (450 mm)	7.5" (191 mm)	15.00" (381 mm)	6.5" (165 mm)	32.00" (813 mm)	35.00" (889 mm)
2410NP	24" (600 mm)	7.5" (191 mm)	18.00" (450 mm)	6.5" (165 mm)	36.00" (914 mm)	45.00" (1143 mm)
3015NP	30" (750 mm)	7.5" (191 mm)	12.00" (305 mm)	8.6" (218 mm)	58.00" (1473 mm)	63.00" (1600 mm)
3615NP	36" (900 mm)	7.5" (191 mm)	25.00" (635 mm)	8.6" (218 mm)	58.00" (1473 mm)	63.00" (1600 mm)

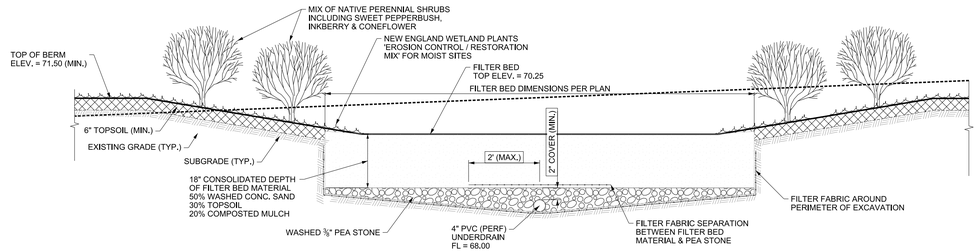
FLARED END DETAIL

NOT TO SCALE



YARD DRAIN

NOT TO SCALE



FILTER BED / RAIN GARDEN SECTION

NOT TO SCALE

SCALE: AS SHOWN

0

PROJECT NUMBER:

00057 - 00001

YRC
YANTIC RIVER CONSULTANTS, LLC

CONTACT INFORMATION

YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249

Phone: (860) 367-7264
Email:yanticriver@gmail.com
Web: www.yanticriverconsultants.com

PROFESSIONAL SEAL

NORTH BRIDE BROOK ROAD MULTI-FAMILY DEVELOPMENT

PREPARED FOR
PAZZ & CONSTRUCTION LLC

DRAINAGE DETAILS

N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT

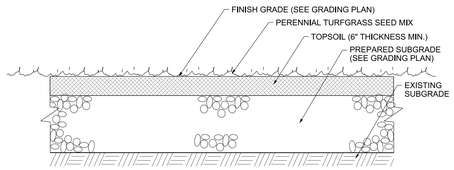
REVISION SUMMARY

DATE	DESCRIPTION
1/15/20	PER TOWN COMMENTS & UPDATED SURVEY MAPPING
7/10/20	REVISED DEVELOPMENT LAYOUT
10/30/20	PER TOWN COMMENTS

SHEET 7 OF 8

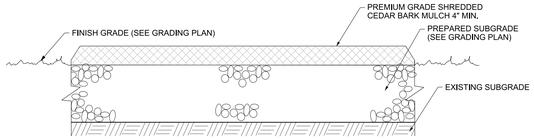
DATE 9/25/19

REVISED 10/30/20



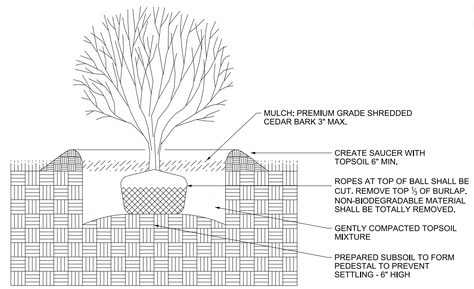
TURF ESTABLISHMENT

NOT TO SCALE



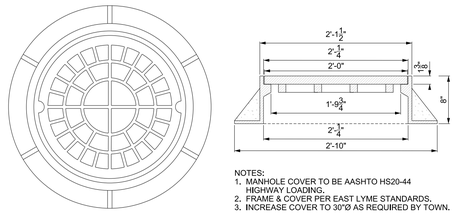
MULCH SURFACE TREATMENT

NOT TO SCALE



SHRUB PLANTING

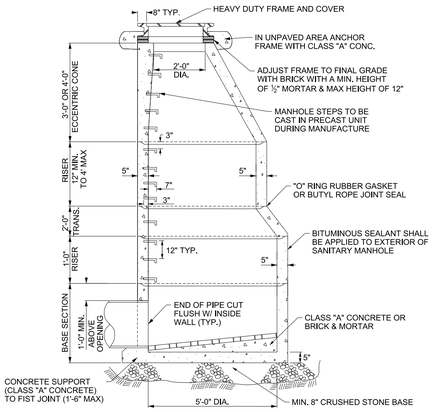
NOT TO SCALE



NOTES:
1. MANHOLE COVER TO BE AASHTO HS20-44 HIGHWAY LOADING.
2. FRAME & COVER PER EAST LYME STANDARDS.
3. INCREASE COVER TO 30"Ø AS REQUIRED BY TOWN.

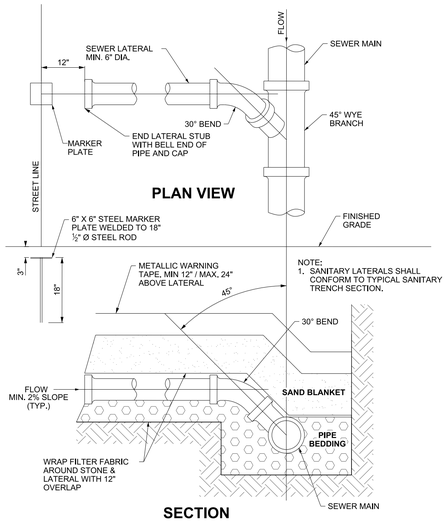
SEWER FRAME & COVER DETAIL

NOT TO SCALE



PRECAST SANITARY MANHOLE

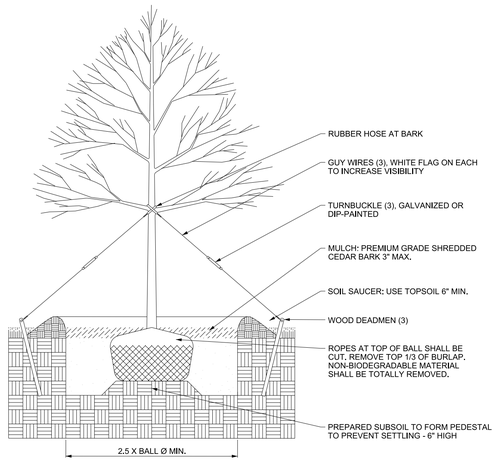
NOT TO SCALE



SECTION

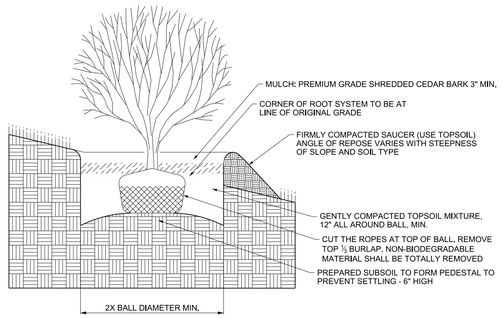
LATERAL CONNECTION

NOT TO SCALE



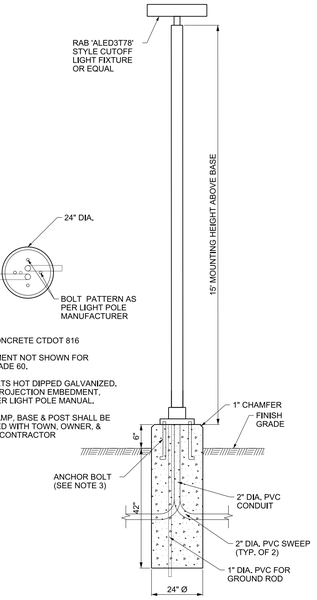
TREE PLANTING

NOT TO SCALE



SHRUB PLANTED ON SLOPE

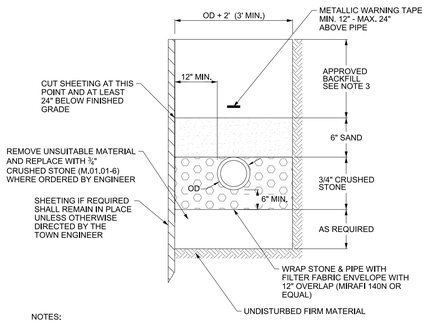
NOT TO SCALE



NOTES:
1. CLASS "F" CONCRETE CTDOT 816
2. REINFORCEMENT NOT SHOWN FOR CLARITY, GRADE 60.
3. ANCHOR BOLTS HOT DIPPED GALVANIZED, DIAMETER, PROJECTION EMBEDMENT, LOCATION PER LIGHT POLE MANUAL.
4. EXTERIOR LAMP, BASE & POST SHALL BE COORDINATED WITH TOWN, OWNER, & ELECTRICAL CONTRACTOR

LIGHT POLE & BASE

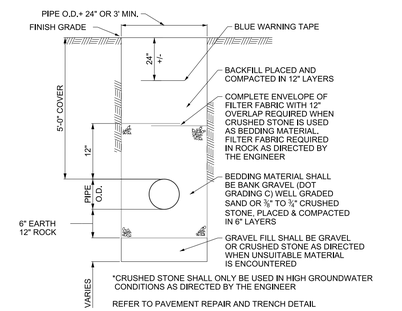
NOT TO SCALE



NOTES:
1. PROVIDE SINGLE LAYER OF FILTER FABRIC BETWEEN STONE AND SAND BLANKET WHEN INSTALLING PIPE UNDER UNPAVED AREAS.
2. ALL MATERIALS ARE TO MEET CONN. DOT SPECIFICATIONS FORM 817 AS AMENDED.
3. BACKFILL SHALL BE SUITABLE NATIVE MATERIAL UNLESS DETERMINED TO BE UNSUITABLE BY THE TOWN ENGINEER OR GRANULAR FILL M.02.01 PLACED AND COMPACTED IN 12" LOOSE LIFTS.
4. UNDER PAVED AREAS COMPACT BACKFILL TO 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY A STANDARD PROCTOR TEST. UNDER UNPAVED AREAS COMPACT TO 90%.

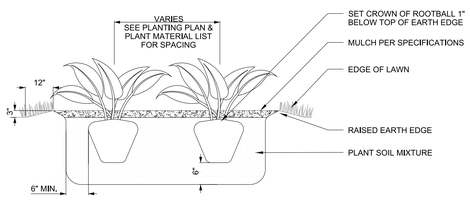
SANITARY TRENCH SECTION (PRIVATE)

NOT TO SCALE



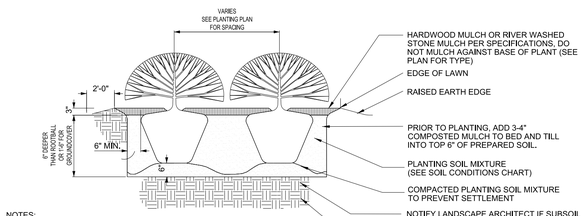
TYPICAL TRENCH DETAIL (WATER)

NOT TO SCALE



PERENNIAL PLANTING

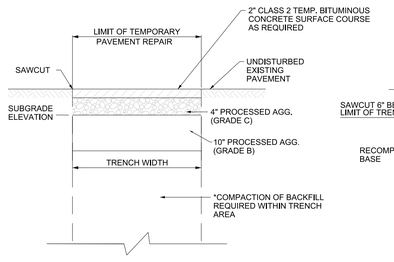
NOT TO SCALE



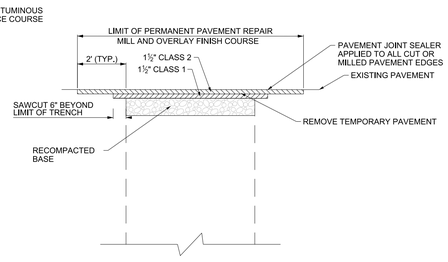
NOTES:
1. FOR CONTAINER GROWN SHRUBS, GENTLY PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF CONTAINER.
2. FOR B&B SHRUBS, FOLD BURLAP FROM TOP OF ROOT BALL DOWN TO GROUND.
3. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZA SPORES IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATES SPECIFIED BY THE MANUFACTURER.
4. CONFIRM THAT WATER DRAINS OUT OF THE SOIL DURING THE DESIGN PHASE, DESIGN ALTERNATIVE DRAINAGE SYSTEMS, AS REQUIRED.

SHRUB PLANTING BED

NOT TO SCALE



TEMPORARY REPAIR

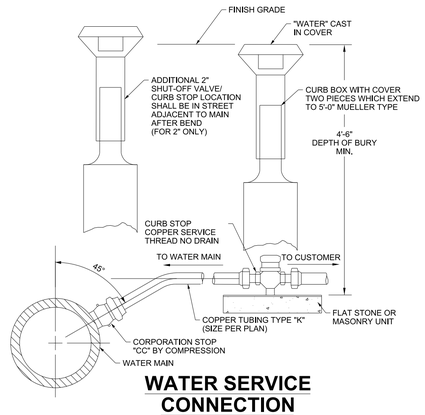


PERMANENT REPAIR

NOTES:
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH TOWN OF WATERFORD STANDARDS OR AS OTHERWISE DETERMINED IN THE FIELD BY THE ENGINEER.

PAVEMENT RESTORATION OVER TRENCH

NOT TO SCALE



WATER SERVICE CONNECTION

NOT TO SCALE

SCALE: AS SHOWN

0

PROJECT NUMBER:

00057 - 00001

YANTIC RIVER CONSULTANTS, LLC

CONTACT INFORMATION

YANTIC RIVER CONSULTANTS, LLC
191 NORWICH AVENUE
LEBANON, CONN 06249

Phone: (860) 367-7264
Email:yanticriver@gmail.com
Web: www.yanticriverconsultants.com

PROFESSIONAL SEAL

NORTH BRIDE BROOK ROAD MULTI-FAMILY DEVELOPMENT

PREPARED FOR
PAZZ & CONSTRUCTION LLC

LANDSCAPE & UTILITY DETAILS

N. BRIDE BROOK ROAD (ASSESSOR'S MAP 9, LOT 37-2) EAST LYME, CT

REVISION SUMMARY

DATE	DESCRIPTION
10/30/20	PER TOWN COMMENTS

SHEET 8 OF 8

DATE 7/10/20

REVISED 10/30/20