



PLANNING DEPARTMENT

TOWN OF GRAFTON
GRAFTON MEMORIAL MUNICIPAL CENTER
30 PROVIDENCE ROAD
GRAFTON, MASSACHUSETTS 01519
(508) 839-5335 ext 1120 • FAX (508) 839-4602
planningdept@grafton-ma.gov
www.grafton-ma.gov

COPY
Exhibit 1

APPLICATION FOR SPECIAL PERMIT

Application No. SP 2021-01/SPA

APPLICANT & PROPERTY OWNER INFORMATION

NAME Discern'd Cannabis Purveyors, Inc.

STREET 130 & 134 Worcester Street CITY/TOWN Grafton

STATE MA ZIP 01536 TELEPHONE 774-277-0466

NAME OF PROPERTY OWNER (if different from Applicant) Fawaz El Khoury Zawaf Realty Trust & Worcester St. Realty Trust

Deed recorded in the Worcester District Registry of Deeds Book 22504, 25546 Page 294, 272

SITE INFORMATION:

STREET AND NUMBER 130 & 134 Worcester Street

ZONING DISTRICT Office / Light Industrial (OLI) ASSESSOR'S MAP 36 LOT #(S) 146

LOT SIZE 3.42 acres FRONTAGE 450.35'

CURRENT USE Vacant House

RECEIVED

January 15, 2020

PROJECT/PLAN INFORMATION:

PLAN TITLE Discern'd Cannabis Purveyors, Inc.

Planning Board
Grafton, MA

PREPARED BY (name/address of PE/Architect) WDA Design Group 31 East Main Street Westborough, MA 01581

DATES 12/30/2020

Use for which Special Permit is sought: (refer to § 3.2.3.1 of the Zoning Bylaw - Use Regulation Table):

Section 3.2.3.1 #32 Marijuana Dispensary

Cite all appropriate sections of the Zoning By-Law which pertain to this Application, Use and Site:

Sections 1 (General), 3 (Uses), 5 (Special Regulations), 8 (Traffic Control)

TO THE GRAFTON PLANNING BOARD:

The undersigned, being the APPLICANT named above, hereby applies for a SPECIAL PERMIT to be granted by the Planning Board and certifies that, to the best of APPLICANT'S knowledge and belief, the information contained herein is correct and complete.

Applicant's Signature

Date: Jan 15, 2021

Property Owner's Signature (if not Applicant)

Date: Jan 15, 2021



TOWN OF GRAFTON
 GRAFTON MEMORIAL MUNICIPAL CENTER
 30 PROVIDENCE ROAD
 GRAFTON, MASSACHUSETTS 01519
 (508) 839-5335 ext 1170 • FAX: (508) 839-4602
 www.grafton-ma.gov

TREASURER / COLLECTOR

Certificate of Good Standing

Applicants seeking permits with the Town of Grafton must submit this completed form at the time of application. When all obligations are paid to date, you must attach this "Certificate of Good Standing," with your application. Delinquent bills must be paid in full before the appropriate department accepts your application. Please make arrangements to pay these outstanding bills at the Collector's Office.

Please note: it can take up to three (3) business days to process each request.

Please check all that apply and indicate if permit(s) have been issued.

| | Permit Issued? | | | Permit Issued? | |
|--|----------------|-------|--|----------------|-------|
| | Yes | No | | Yes | No |
| <input checked="" type="checkbox"/> Building - Inspection(s) | _____ | ✓ | <input type="checkbox"/> Septic System | _____ | _____ |
| <input type="checkbox"/> Building - Electric | _____ | _____ | <input checked="" type="checkbox"/> Conservation | _____ | ✓ |
| <input type="checkbox"/> Building - Plumbing | _____ | _____ | <input checked="" type="checkbox"/> Planning | _____ | ✓ |
| <input type="checkbox"/> Board of Health | _____ | _____ | <input type="checkbox"/> Other | _____ | _____ |

Other Permit: _____

Spinney Properties (Assoc)
 Petitioner Name

47 Milford St
 Petitioner Address

Mendon MA 01756
 City, State, Zip

774 277 0446
 Phone

Spinney Properties / Fawaz Elkhwary
 Property Owner / Applicant

130 / 134 Worcester St
 Property Address

Grafton, MA
 City, State, Zip

| Date: | Current | Delinquent | N/A |
|----------------------|---------|------------|-----|
| Real Estate | ✓ | | |
| Personal Property | | | ✓ |
| Motor Vehicle Excise | ✓ | | |
| Disposal | ✓ | | |
| General Billing | | | ✓ |

Ashe Ah _____ 11/13/21 _____
 Treasurer / Collector Signature Date

1/6/2021

130 AND 134 WORCESTER STREET
MAP 36, LOTS 145 AND 146

Sammy Kalinowski

| PARCEL ID | LOCATION | OWNER 1 | OWNER 2 | ADDRESS | CITY | ST | ZIP | BK | PG |
|-------------------|---------------------------|---------------------------------------|-----------------------------------|-----------------------------|--------------|----|-------|-------|-----|
| 036.0-0000-0143.0 | 137 WORCESTER STREET | DOS SANTOS, IVAN | | 137 WORCESTER STREET | N GRAFTON | MA | 01536 | 61428 | 58 |
| 036.0-0000-0145.0 | 134 WORCESTER STREET | FAWAZ EL KHOURY TRUSTEE | WORCESTER STREET REALTY TRUST | 10 ELI WHITNEY STREET | WESTBORO | MA | 01581 | 22504 | 294 |
| 036.0-0000-0146.0 | 130 WORCESTER STREET | FAWAZ EL KHOURY TRUSTEE | ZAWAF REALTY TRUST | 85 CARTER DRIVE | FRAMINGHAM | MA | 01701 | 25546 | 272 |
| 036.0-0101-0144.0 | 135 WORCESTER STREET | DESTEFANO MONICA | | 1518 BURGOS DRIVE | SARASOTA | FL | 34238 | 28882 | 89 |
| 036.0-0102-0144.0 | 135 WORCESTER STREET | CHANG SERENA | | 41 FOREST LANE | S BARRINGTON | IL | 60010 | 31889 | 70 |
| 036.0-0103-0144.0 | 135 WORCESTER STREET | MAGLIARO STEVEN J | | 135 WORCESTER STREET UNIT 3 | N GRAFTON | MA | 01536 | 46749 | 48 |
| 045.0-0000-0008.C | 60 MEADOW LANE | MAGILL ASSOCIATES | | P O BOX 565 | GRAFTON | MA | 01519 | 16976 | 47 |
| 045.0-0000-0026.0 | 125 WORCESTER STREET REAR | HALL JOHN H | HALL CATHY A | 125 WORESTER STREET | N GRAFTON | MA | 01536 | 6982 | 358 |
| 045.0-0000-0030.0 | 127 WORCESTER STREET | ARMENDI LAURIN | | 127 WORCESTER STREET | N GRAFTON | MA | 01536 | 62309 | 136 |
| 045.0-0000-0031.0 | 131 WORCESTER STREET | DUMAS MARGARET M | | 131 WORCESTER STREET | N GRAFTON | MA | 01536 | 63099 | 384 |
| 045.0-0000-0033.0 | 126 WORCESTER STREET | RSO REALTY LLC | | 27A PINELAND AVENUE | WORCESTER | MA | 01604 | 57516 | 321 |
| 045.0-0000-0036.0 | 122 WORCESTER STREET | 122 WORCESTER ST., NORTH GRAFTON, LLC | | 122 WORCESTER STREET | N GRAFTON | MA | 01536 | 60531 | 187 |
| 045.0-0000-0037.0 | 16 MEADOW LANE | RAJAPASKE SUDHEERA | RAJAPASKE JALINI | 16 MEADOW LANE | N GRAFTON | MA | 01536 | 39854 | 361 |
| 045.0-0000-0038.0 | 18 MEADOW LANE | BACKHOLM PHILIP G JR | BACKHOLM JOANNE D | 18 MEADOW LANE | N GRAFTON | MA | 01536 | 18277 | 306 |
| 045.0-0000-0039.0 | 20 MEADOW LANE | THERRIEN CHRISTIAN R | THERRIEN MEGHAN E | 20 MEADOW LANE | N GRAFTON | MA | 01536 | 44992 | 358 |
| 045.0-0000-0040.0 | 22 MEADOW LANE | HOLM JOSEPH L | HOLM ANN C | 22 MEADOW LANE | N GRAFTON | MA | 01536 | 19208 | 96 |
| 045.0-0000-0041.0 | 24 MEADOW LANE | HANNA RAYMOND | HANNA JEMMA | 24 MEADOW LANE | N GRAFTON | MA | 01536 | 17731 | 96 |
| 045.0-0101-0032.0 | 133 WORCESTER STREET | ADCOCK CHRISTOPHER L | ADCOCK ANNA A | 133A WORCESTER STREET | N GRAFTON | MA | 01536 | 55445 | 319 |
| 045.0-0102-0032.0 | 133 WORCESTER STREET | EORI THERESA A | | 133B WORCESTER STREET | N GRAFTON | MA | 01536 | 20735 | 110 |
| 046.0-0000-0024.0 | 116 WORCESTER STREET | T & T LEASING CORP | ATTN AGGREGATE INDUSTRIES NER INC | 6211 ANN ARBOR ROAD | DUNDEE | MI | 48131 | 62 | 82 |
| VARIOUS | VARIOUS | MASS TURNPIKE AUTHORITY | MASS HIGHWAY DEPT | 128 NORTH STREET | BOSTON | MA | 02109 | 0 | 0 |



January 12, 2021

Town of Grafton Municipal Center
30 Providence Road
Grafton, MA 01519

Attention: Christopher McGoldrick, Town Planner
Via email: mcgoldrick@grafton-ma.gov; planningdept@grafton-ma.gov
Via: Hand Delivery

Subject: Submission of Application for Special Permit

Reference: Discern'd Cannabis Purveyors, Inc.
130 & 134 Worcester Street
North Grafton, MA
WDA JN-1368.01

Dear Mr. McGoldrick and Members of the Planning Board:

On behalf of our client, Discern'd Cannabis Purveyors, Inc., we are submitting here within a Special Permit Application and supporting information for a proposed Marijuana Dispensary to be located at 130 & 134 Worcester Street in Grafton, MA.

Please find the following materials enclosed with the application:

1. Application for Special Permit
2. Copy of Deeds associated with the property
3. Certificate of Good Standing
4. Certified Abutters List
5. Project Description / Narrative
6. List of Waiver Requests
7. Check: \$250 Application Fee
8. Check: \$168 Legal Advertising Fee
9. Four Copies of the Site Plan and Conceptual Floor Plan
10. Draft Hydrologic Report

Existing Conditions

The 3.4± acre Property subject to this request is comprised of two building lots #130 and #134 and is located along the easterly side of Worcester Street (Routes 122/140). The Property has one (circa 1964) unoccupied and boarded up building (currently being demolished), located at 130 Worcester Street, as well as a paved drive, parking, lawn and woods. The Property is located in the Office-Light Industrial (OLI) Zoning District and the Water Supply Protection Overlay and has approximately 450' of frontage along Worcester Street.

The Property is bounded to the north by the Massachusetts Turnpike, to the east by the Quinsigamond River, to the west by Worcester Street and single-family properties, and to the south by other office/light industrial properties. A

portion of the rear of the Property adjacent to the Quinsigamond River contains FEMA Special Flood Hazard Area AE ("100-year flood zone"), noted as elevation 308.5-309, and Regulatory Floodway as shown on the Flood Insurance Rate Maps for the Town of Grafton, Map Number 25027C0827E, dated July 4, 2011. No portion of this Property falls within a designated area of priority habitat of rare species, wildlife or vernal pools, according to the Natural Heritage Atlas, valid from October 1, 2017. The majority of the rear (east) and north and south sides of the property are generally wooded with mature trees and shrub understory, while the Property around the existing building foundation and adjacent to Worcester Street has areas of lawn, paved drive and parking, and an asphalt pad. Elevations on the Property range from a high elevation of 350 ± near the street, to a low elevation of 305 ± near the wetlands in the east central part of the site. Elevations refer to NAVD 1988 datum.

Bordering vegetated wetlands and mean annual highwater (MAHW) for a portion of the Quinsigamond River which flows from north to south along the easterly side of the property were delineated by WDA on December 16, 2020 (no snow cover). Flag locations as shown on the attached plans are based upon an on the ground field survey by WDA.

The main wetland boundary begins adjacent to the river at the southerly end of the property and generally runs to the north through the central portion of the site. The river passes through the property from the north, after exiting under the Mass Pike culvert and continues approximately 900' off-site to the south, where it flows under Worcester Street and into Lake Ripple. The boundary of this bordering wetland is delineated with blue flagging labeled WF-1 to WF-23. Although most of this wetland boundary is wooded/shrub, generally along a well-defined toe of slope, some portions are flatter and associated with the edge of the river and fluctuating water levels. The majority of the interior of this wetland north of the delineated boundary is a marsh area.

We also identified a small "seepage" wetland near Worcester Street in the northwest portion of the property, the wetland flags in this location are blue flags labeled WF-A to WF-I. This area appears to be where old road drainage and current runoff and possibly some historic earth disturbance has created a shallow, small wet area that periodically conveys flows down slope via a swale/scour channel.

As mentioned previously, a portion of the Quinsigamond River flows along the easterly side of the property. The river is shown as perennial on the USGS map. We delineated the mean annual high water (MAHW) along the portion of the river, beginning at the southerly property boundary and ending toward the northerly end of the site. These flags are orange with black stripe and labeled MAHW-1 to MAHW-12. They are shown on the attached plans along with the associated 200' Riverfront Area.

Soils on-site are mapped by the SCS/NRCS as predominately Canton fine sandy loam (map unit 420C) and Windsor loamy sand (map unit 255A). The Canton soil is a non-hydric soil and classified as Hydrologic Soils Group (HSG) B, while the Windsor loamy sand is classified as a non-hydric soil with an HSG of A. The front half of the site nearest Worcester Street is subject to historic fill associated with the adjacent historic roadway and residential construction. Previous soils testing close to the road in this area indicated some fill material comprised of brick and bituminous concrete. Recently conducted exploratory soils tests in the area to the west and north of the existing building (in proposed stormwater control areas) indicated areas of a loamy fill mixture (clay loam, silt loam, sandy loam) of approximately 13'-15' in depth.

A small portion of the Massachusetts Turnpike Channel easement is shown crossing over the proposed parking area. We have contacted the Massachusetts Turnpike Authority to inform them of this project.

Proposed Conditions

The 130 and 134 Worcester St. site has been secured via lease allowing full control of the property including the construction of an approximately 3,100 square foot facility. They are proposing to construct a two-story one tenant marijuana dispensary totaling approximately 2,383 interior square feet. The applicant proposes to demolish the existing structure and has just started this work and they will be preserving the existing foundation.

Proposed site work includes improved reconfiguration of the access driveways using the existing locations of two driveway curb cuts, parking, walkways, accessible ramps, fencing, retaining walls, stormwater detention areas, new site lighting, landscape restoration and landscape planting.

Fifty-three parking spaces (fifty standard and three ADA accessible) will be provided in the parking area on the north side and the rear of the building. The parking area will be screened with vegetation, picket fencing and gates. Separate building access / egress walkways are provided for staff, visitors, and delivery. A proposed delivery pull-up and ramp is located within a secure fenced enclosure on the east side of the building. A dumpster location is proposed on the north side of the building. We do not anticipate noise or glare leaving the site other than that of vehicles and their headlights as the property is bordered by vegetation, and screen vegetation will be planted at the street side of the property.

The site will be serviced by municipal sewer and water. A new sewer line is proposed to connect to the sewer stub existing on the property. The owner will install a new water main for a sprinkler system for the building. The proposed sewer and water mains are shown on the attached plans.

Additional site improvements include landscaping and security lighting. All proposed lighting will conform to the requirements of the Grafton Zoning Bylaws and will be designed to minimize glare or pollution spilling over to adjacent properties.

Upon completion of the Special Permit process, the Applicant will file site plans for Site Plan Approval with the Board of Selectmen. Of note, the Notice of Intent application to the Conservation Commission is already in process and will be submitted in the near future.

Architectural plans for the building are being prepared by John Marro Architect and are attached for your review. The building will be designed in such a way as to blend in with the existing residential structures along Worcester Street. The proposed building will not alter the area's existing character.

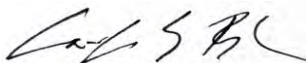
Conclusion

In summary, the proposed project is compatible with other small businesses along this section of Worcester Street and entails the reuse of an existing abandoned structure that will be brought into compliance with your current regulations.

We thank you in advance for your attention to this application for a Special Permit for the proposed Marijuana Dispensary, and we look forward to presenting the plans to you.

Sincerely,

WDA DESIGN GROUP, INC.



Carolyn Burke, RLA
Senior Landscape Architect

Enclosure: Application and supporting materials

CC: Bruce Spinney and Allan Villatoro, Discern'd Cannabis Purveyors, Inc.
Matthew Peloquin, Bennett & Forts, PC

g:\common\1368a\permitting\1368 special permit application materials\1368 archive application materials\1368_lt grafton special permit planning
bd_011221.docx

Project Narrative

Discern'd Cannabis Purveyors, Inc. is a Massachusetts for-profit Corporation incorporated on November 27th, 2020. Discern'd Cannabis Purveyors currently is a retail cannabis dispensary company. As such Discern'd Cannabis Purveyors currently has a completed Provisional application with the Cannabis Control Commission. Discern'd Cannabis Purveyors is a Grafton Owned company comprised of two principles, Bruce Spinney and Allan Villatoro.

Pertaining to the site located at 130 Worcester St. in Grafton, Discern'd Cannabis Purveyors is seeking approval of our Special Permit which would allow us to open an Adult Use Marijuana Retail Storefront. Our full application for the Grafton site has been submitted to the CCC and accepted.

The 130 and 134 Worcester St. site has been secured via lease allowing full control of the property including the construction of an approximately 3100 Sq.Ft. Facility. At this time, the building and property will be used solely to operate a retail marijuana facility. The site is 3 acres in size zoned Office, Light Industrial. The proposed primary use for the facility is Retail/Office.

Discern'd Cannabis Purveyors has been approved to open an Adult Use Marijuana Retail Establishment by the Grafton Select Board and awarded a Host Community Agreement.

Discern'd Cannabis Purveyors proposes to demolish the existing structure and has just started this work and they will be preserving the existing foundation. They are proposing to construct a two-story one tenant marijuana dispensary totaling approximately 2,383 interior square feet. Proposed site work includes improved reconfiguration of the access driveways using the existing locations of two driveway curb cuts, parking, walkways, accessible ramps, fencing, retaining walls, stormwater detention areas, new site lighting, landscape restoration and landscape planting.

Fifty-three parking spaces (fifty standard and three ADA accessible) will be provided in the parking area on the north side and the rear of the building. The parking area will be screened with vegetation, picket fencing and gates. Separate building access / egress walkways are provided for staff, visitors, and delivery. A proposed delivery pull-up and ramp is located within a secure fenced enclosure on the east side of the building. A dumpster location is proposed on the north side of the building. We do not anticipate noise or glare leaving the site other than that of vehicles and their headlights as the property is bordered by vegetation, and screen vegetation will be planted at the street side of the property.

The site will be serviced by municipal sewer and water. A new sewer line is proposed to connect to the sewer stub existing on the property. The owner will install a new water main for a sprinkler system for the building. The proposed sewer and water mains are shown on the attached plans.

Additional site improvements include landscaping and security lighting. All proposed lighting with conform to the requirements of the Grafton Zoning Bylaws, and there will be no glare or pollution spilling over to adjacent properties. Our operational hours proposed will be 10AM to 8PM Monday through Sunday. We expect to employ up to 10-15 employees at the site.

Operational Plan

Qualifications and Training

Discern'd Cannabis Purveyors will ensure that all employees hired to work at a Discern'd Cannabis Purveyors facility will be qualified to work as a marijuana establishment agent and professionally trained to serve in their respective roles in a compliant manner.

Qualifications

In accordance with 935 CMR 500,030, a candidate for employment as a marijuana establishment agent must be 21 years of age or older. In addition, the candidate cannot have been convicted of a criminal offense in the Commonwealth involving the distribution of controlled substances to minors, or a like violation of the laws of another state, the United States, or foreign jurisdiction, or a military, territorial, or Native American tribal authority.

Discern'd Cannabis Purveyors will also ensure that its employees are suitable for registration consistent with the provisions of 935 CMR 500.802. If Discern'd Cannabis Purveyors discovers any of its agents are not suitable for registration as a marijuana establishment agent, the agent's employment will be terminated, and Discern'd Cannabis Purveyors will notify the Commission within one (1) business day that the agent is no longer associated with the establishment.

Training

As required by 935 CMR 500.105(2), and prior to performing job functions, each of Discern'd Cannabis Purveyor's agents will successfully complete a comprehensive training program that is tailored to the roles and responsibilities of the agent's job function. Agent training will at least include the Responsible Vendor Program and eight (8) hours of on-going training annually.

On or after January 1, 2020, Discern'd Cannabis Purveyors managers, and/or employees will have attended and successfully completed a Responsible Vendor Program operated by an education provider accredited by the Commission to provide the annual minimum of two hours of responsible vendor training to marijuana establishment agents. Discern'd Cannabis Purveyors new, non-administrative employees will complete the Responsible Vendor Program within 90 days of the date they are hired. Discern'd Cannabis Purveyors managers and employees will then successfully complete the program once every year thereafter.

Discern'd Cannabis Purveyors will also encourage administrative employees who do not handle or sell marijuana to take the responsible vendor program on a voluntary basis to help ensure compliance. Discern'd Cannabis Purveyors's records of responsible vendor training program compliance will be maintained for at least four (4) years and made available during normal business hours for inspection by the Commission and any other state licensing authority upon request.

As part of the Responsible Vendor program, Discern'd Cannabis Purveyors's agents will receive training on a variety of topics relevant to marijuana establishment operations, including but not limited to the following:

1. Marijuana's effect on the human body, including physical effects based on different types of marijuana products and methods of administration, and recognizing the visible signs of impairment;

2. Best practices for diversion prevention and prevention of sales to minors;
3. Compliance with tracking requirements;
4. Acceptable forms of identification, including verification of valid photo identification and medical marijuana registration and confiscation of fraudulent identifications;
5. Such other areas of training determined by the Commission to be included; and
6. Other significant state laws and rules affecting operators, such as:
 - Local and state licensing and enforcement;
 - Incident and notification requirements;
 - Administrative and criminal liability and license sanctions and court sanctions;
 - Waste disposal and health and safety standards;
 - Patrons prohibited from bringing marijuana onto licensed premises;
 - Permitted hours of sale and conduct of establishment;
 - Permitting inspections by state and local licensing and enforcement authorities;
 - Licensee responsibilities for activities occurring within licensed premises;
 - Maintenance of records and privacy issues; and
 - Prohibited purchases and practices.

General Security Overview

Discern'd Cannabis Purveyors, Inc. ("Discern'd Cannabis Purveyors") will implement policies and procedures to maintain a secure facility and to prevent diversion or other loss of marijuana products in accordance with 935 CMR 500.1 IO as set out by the Commission. These policies are intended to protect the general public, employees, and consumers. Discern'd Cannabis Purveyors will identify each individual seeking entrance into the marijuana establishment to ensure that only individuals who are 21 years or older are allowed access. These policies will also provide for the proper storage and disposal of marijuana products. Discern'd Cannabis Purveyors will ensure that all excess marijuana is disposed of safely and will have in place the necessary storage areas and equipment for proper storage of marijuana, including established limited access areas. This equipment will include but is not limited to locked safes or vaults, keys, alarms, and cameras. In addition to these measures, Discern'd Cannabis Purveyors will ensure that all marijuana products are kept out of plain sight of public places outside of the marijuana establishment. Discern'd Cannabis Purveyors will also implement policies and procedures for situations following inadvertent diversion or loss of marijuana products. In addition, Discern'd Cannabis Purveyors will work cohesively with law enforcement authorities and fire services and will share Discern'd Cannabis Purveyors' security plans, policies, and procedures with those authorities.

Limited Access Areas

Discern'd Cannabis Purveyors will designate limited access areas by posting clearly visible signs, no smaller than 12" x 12" and which state: "Do Not Enter-Limited Access Area-Access Limited to Authorized Personnel Only" in lettering no smaller than one inch in height. Discern'd Cannabis Purveyors will limit individuals allowed access to these areas to employees, agents, law enforcement, and others authorized by the Commission. Discern'd Cannabis Purveyors will require all employees to wear employee identification badges at all times while inside the marijuana establishment. Employees of Discern'd Cannabis Purveyors will escort all visitors, including vendors and contractors, into limited access areas. These visitors will be logged in and out, and Discern'd Cannabis Purveyors will maintain this log and make it available to the Commission for periodic inspection. Discern'd Cannabis Purveyors will ensure that all visitor identification badges are collected before visitors leave the premises.

Security and Alarm Requirements

Discern'd Cannabis Purveyors will implement alarms and other security equipment to prevent and detect potential loss and diversion of marijuana. This equipment will include perimeter alarms at all entrances and exits of Discern'd Cannabis Purveyors' facility, a failure notification system, a panic alarm connected to local law enforcement, video cameras in all areas that contain marijuana, and 24-hour recordings of all video surveillance to be made available to the Commission upon request. Discern'd Cannabis Purveyors will ensure that all video footage has a clear date and time stamp, clear still photos can be produced in color, and that the footage can be exported into standard image formats including .jpg, .gif, and .bmp formats. Discern'd Cannabis Purveyors will store the video footage in a way that precludes loss or alteration of the footage. Discern'd Cannabis Purveyors will have this security equipment inspected monthly. Access to all surveillance areas will be limited to employees who are essential to Discern'd Cannabis Purveyors's security operations, including local law enforcement.

Incident Reporting

Discern'd Cannabis Purveyors will immediately notify law enforcement authorities of any security breach including, but not limited to, discovery of discrepancies identified during inventory, diversion or loss of marijuana products, any loss or unauthorized alteration of records related to marijuana, suspicious actions within the marijuana establishment, failure of an alarm system, activation of an alarm system, or any criminal acts. Discern'd Cannabis Purveyors will provide written notice to the Commission within ten calendar days of any incident that occurs on the premises. Discern'd Cannabis Purveyors will maintain records and documentation of any security incident for at least one year.

Prevention of Diversion

Discern'd Cannabis Purveyors, Inc.'s operating policies and procedures ensure prevention of diversion, theft, and illegal or unauthorized conduct pursuant to the Commission's Adult Use of Marijuana regulations codified in 935 CMR 500. Considerations regarding diversion prevention measures include, but are not limited to, marijuana establishment agent and consumer accountability, and identifying, recording, and reporting diversion, theft, or loss, Marijuana in the process of transport, analysis, or retail sale is to be stored and tracked in a manner that prevents diversion, theft, or loss.

More specifically, diversion measures include policies and procedures requiring that:

- Identification is verified on the premises to ensure that only individuals 21 years or older are permitted in Discern'd Cannabis Purveyors' adult-use marijuana establishment.
- Providing samples or giving away marijuana to consumers is prohibited.
- Employees are made aware of crime prevention techniques pursuant to 935 CMR 500.105(1)(b).
- Any marijuana establishment agent who has diverted marijuana is immediately dismissed, and this is reported to law enforcement and to the Commission pursuant to 935 CMR 500.105(1)(l).
- All employees involved in the handling and sale of marijuana for adult use complete a responsible vendor training program with a curriculum covering diversion prevention and prevention of sales to minors and comply with all other marijuana establishment agent training requirements under 935 CMR 500.105(2).
- Display samples of each product offered for sale are displayed in secure, locked cases, subject to the requirements of 935 CMR 500.110.
- Discern'd Cannabis Purveyors only engages in reasonable marketing, advertising, and branding practices that do not promote the diversion of marijuana and comply with all other marketing and advertising requirements under 935 CMR 500.105(4).
- Warning statements required by the Commission's regulations are affixed to all applicable products, and that Discern'd Cannabis Purveyors' labels comply with all other labeling of marijuana and marijuana products requirements under 935 CMR 500.105(5).
- Tamper or child-resistant packaging is used for applicable marijuana products, and that Discern'd Cannabis Purveyors' products comply with all other packaging of marijuana and marijuana products requirements under 935 CMR 500.105(6).
- Discern'd Cannabis Purveyors maintain real-time inventory, and tracking and tagging all marijuana products, using a seed-to-sale methodology in a form and manner to be approved by the Commission.
- Records are kept for inventory, seed-to-sale tracking for all marijuana products, personnel (including documentation of the completion of required training), and waste disposal, and that Discern'd Cannabis Purveyors comply with all other record keeping requirements under 935 CMR 500.105(9).
- Marijuana that is outdated, damaged, deteriorated, mislabeled, or contaminated, or whose containers or packaging have been opened or breached, is stored in a separate area, until such products are destroyed; and that Discern'd Cannabis Purveyors comply with all other storage requirements under 935 CMR 500.105(11).
- Two or more marijuana establishment agents witness and document how the marijuana waste is disposed or otherwise handled, and that Discern'd Cannabis Purveyors comply with all other waste

disposal requirements under 935 CMR 500.105(12).

- All transported marijuana products that are accepted by the Marijuana Retail facility are linked to the seed-to-sale tracking program, that all vehicles transporting marijuana to the Marijuana Retail facility are staffed with a minimum of two marijuana establishment agents, and that any vehicle accidents, diversions, or other reportable incidents that occur during transport are reported to the Commission and law enforcement within 24 hours, and that Discern'd Cannabis Purveyors only accept transported marijuana product shipments that comply with all other transportation requirements under 935 CMR 500.105(13).

- All security requirements under 935 CMR 500.110 are followed, including:

- o Implementing sufficient safety measures to deter and prevent unauthorized entrance into areas containing marijuana and theft of marijuana at Discern'd Cannabis Purveyors' adult- use marijuana retail location;

- o Adopting procedures to prevent loitering and to ensure that only individuals engaging in activity expressly or by necessary implication permitted by the Commission's regulations and its enabling statute are allowed to remain on the premises;

- o Storing all finished marijuana products in a secure, locked safe or vault in such a manner as to prevent diversion, theft, and loss;

- o Restricting access to employees, agents or volunteers specifically permitted by Discern'd Cannabis Purveyors, agents of the Commission, state and local law enforcement and emergency personnel, and all other limited access areas requirements under 935 CMR 500.110(4);

- o Implementing an adequate security system to prevent and detect diversion, theft or loss of marijuana, notifying law enforcement and the Commission within 24 hours of a diversion, theft or loss of any marijuana product, and all other security and alarm requirements under 935 CMR 500.110(5); and

- o Obtaining, at Discern'd Cannabis Purveyors' own expense, a security system audit by a vendor approved by the Commission, and all other security audits requirements under 935 CMR 500.110(8).

- All other operating requirements for retail sale under 935 CMR 500.140 are followed, including:

- o Limiting sales to one ounce of marijuana or five grams of marijuana concentrate to

a consumer per transaction;

- o Utilization of a point-of-sale (POS) system approved by the Commission, in consultation with the DOR;

- o Providing educational materials to consumers stating that they may not sell marijuana to any other individual and which include information regarding penalties for possession and distribution of marijuana in violation of Massachusetts law.

Storage of Marijuana

Discern'd Cannabis Purveyors, Inc. ("Discern'd Cannabis Purveyors") will ensure that all marijuana and marijuana products are stored in compliance with 935 CMR 500.105(11). Specifically, Discern'd Cannabis Purveyors will ensure the following:

- The facility will have adequate lighting, ventilation, temperature, humidity, space, and equipment, in accordance with applicable provisions of 935 CMR 500.105 and 500.110;
- The facility will have separate areas for storage of marijuana that is outdated, damaged, deteriorated, mislabeled, or contaminated, or whose containers or packaging have been opened or breached, until such products are destroyed, in accordance with applicable provision of 935 CMR 500.105(12);
- All storage areas will be maintained in a clean and orderly condition;
- All storage areas will be free from infestation by insects, rodents, birds, and pests of any kind; and
- All storage areas will be maintained in accordance with the security requirements of 935 CMR 500.110.

Per the requirements of 935 CMR 500.110, all finished marijuana products will be stored in a secure, locked safe or vault in such a manner as to prevent diversion, theft, and loss. Furthermore, all safes, vaults, and any other equipment or areas used for the storage of marijuana products will be securely locked and protected from entry, except for the actual time required to remove or replace marijuana.

The storage of finished products will be under conditions that will protect them against physical, chemical, and microbial contamination as well as against deterioration of finished products or their containers, per the requirements of 935 CMR 500.105(3)(b)(15).

In accordance with 935 CMR 500.105(3)(c), Discern'd Cannabis Purveyors will comply with sanitary requirements. All edible products will be prepared, handled and stored in compliance with the sanitation requirements in 105 CMR 590.000: 1Hini11m Sanitation Standards/or Food Establishments.

Inventory Procedures

Discern'd Cannabis Purveyors, Inc. ("Discern'd Cannabis Purveyors") will maintain real-time inventory in compliance with 935 CMR 500.105(8), including maintaining inventory) of marijuana ready for dispensing; all marijuana products; and all damaged, defective, expired, or contaminated marijuana and marijuana products awaiting disposal. All marijuana plants and marijuana products will be tagged and tracked within Discern'd Cannabis Purveyors' seed-to-sale tracking system.

Discern'd Cannabis Purveyors utilizes a real-time seed-to-sale tracking system, ERP SAP system, which will provide the electronic tracking of individual marijuana plants, including during final sale. Discern'd Cannabis Purveyors' tracking system will utilize unique batch identification numbers to accurately track inventory.

Discern'd Cannabis Purveyors will:

- Establish inventory controls and procedures for the conduct of inventory reviews, and comprehensive inventories of finished and stored marijuana products;
- Conduct a monthly inventory of finished and stored marijuana;
- Conduct a comprehensive annual inventory at least once every year after the date of the previous comprehensive inventory; and
- Promptly transcribe inventories if taken by use of an oral recording device.

The record of each inventory will include, at a minimum, the date of the inventory, a summary of the inventory findings, and the names, signatures, and titles of the individuals who conducted the inventory. All inventory records will be kept in accordance with Discern'd Cannabis Purveyors' record keeping procedures. Discern'd Cannabis Purveyors' agents will document and Discern'd Cannabis Purveyors will report any unusual discrepancy in weight or inventory to the Commission and law enforcement authorities not more than 24 hours after the discovery of such a discrepancy.

Discern'd Cannabis Purveyors will only sell and market inventory that is capable of being tested by Independent Testing Laboratories, except as allowed under 935 CMR 500.000.



TOWN OF GRAFTON
GRAFTON MEMORIAL MUNICIPAL CENTER
30 PROVIDENCE ROAD
GRAFTON, MASSACHUSETTS 01519
(508) 839-5335 ext 1120 • FAX (508) 839-4602
www.grafton-ma.gov

PLANNING BOARD

WAIVER REQUEST FORM

Please select the waivers you are requesting, followed by a brief explanation as to why the waiver is needed:

Site Plan Requirements (Section 1.3.3.3.d.)

A Site Plan prepared by a professional architect or registered professional engineer, at a scale of one inch equals forty feet (1" = 40'), or at such other scale as may be necessary to show all detail clearly and accurately. Sheet sizes shall not exceed twenty-four inches by thirty-six inches (24" x 36"), and shall not be less than eleven inches by seventeen inches (11" x 17"). If multiple sheets are used they shall be accompanied by an index sheet showing the entire parcel at an appropriate scale.

[Click here to enter text.](#)

(1.) Name and address of the person(s) submitting the application;

[Click here to enter text.](#)

(2.) Name and address of the owner(s) of the subject property(ies), if different;

[Click here to enter text.](#)

(3.) Present use(s) of the land and description and use(s) of existing building(s) thereon, if any;

[Click here to enter text.](#)

(4.) Proposed use(s) of the land;

[Click here to enter text.](#)

(5.) Proposed use(s) of existing buildings, if any;

[Click here to enter text.](#)

(6.) Description and proposed use(s) of the proposed building(s), if any;

[Click here to enter text.](#)

(7.) Zoning District(s) in which the parcel is located, including floodplain, if applicable;

[Click here to enter text.](#)

(8.) Locus Map (scale of 1"=1,000') and north arrow;

[Click here to enter text.](#)

(9.) Title Block containing: name of the project; applicant; property owner; property address and Assessor's Map/Lot number; date (with revisions); name, address and phone number, and the signature and seal of the professional architect or engineer preparing the plan;

[Click here to enter text.](#)

(10.) Wetlands, Ponds, Streams, or other water bodies, including all applicable buffer zones;

[Click here to enter text.](#)

(11.) Ownership of all abutting land and approximate location of buildings, driveways, and parking areas thereon within a maximum distance of two hundred feet (200') of the property lines;

[Click here to enter text.](#)

(12.) Existing and proposed topography at two-foot (2') elevation intervals;

[Click here to enter text.](#)

(13.) All property lines of the subject property, and all setbacks of buildings and parking areas from said lines, and existing and proposed easements, if any;

[Click here to enter text.](#)

(14.) Extent and type of all existing and proposed surfaces (pervious and impervious) on the property, including specific materials;

[Click here to enter text.](#)

(15.) Lot coverage calculations showing percentage of buildings, percentage of pavement, and percentage of open space/ landscaped areas;

[Click here to enter text.](#)

(16.) Parking calculations for proposed use(s), including all existing use(s) that will continue to exist on the property, if applicable;

[Click here to enter text.](#)

(17.) Calculations of the volume of earth material to be removed or filled on the property, and delineation of the location(s) of such activity;

[Click here to enter text.](#)

(18.) Driveways and driveway openings/entrances;

[Click here to enter text.](#)

(19.) Parking and loading spaces;

[Click here to enter text.](#)

(20.) Service areas and all facilities for screening;

[Click here to enter text.](#)

(21.) Landscaping;

[Click here to enter text.](#)

(22.) Lighting;

[Click here to enter text.](#)

(23.) Proposed signs (business, traffic, etc.);

[Click here to enter text.](#)

(24.) Sewage, refuse and other waste disposal;

[Click here to enter text.](#)

(25.) Stormwater management facilities (drainage);

[Click here to enter text.](#)

(26.) All structures and buildings associated with the proposed and existing use(s) on the property;

[Click here to enter text.](#)

(27.) Exterior storage areas and fences;

[Click here to enter text.](#)

(28.) Utilities and their exterior appurtenances (e.g., fire connections);

[Click here to enter text.](#)

(29.) Provisions for dust and erosion control;

[Click here to enter text.](#)

(30.) Any existing vegetation;

[Click here to enter text.](#)

Stormwater Management Hydrological Study (Section 1.3.3.3.e.)

A stormwater management hydrological study prepared in accordance with the *Rules and Regulations Governing the Subdivision of Land: Grafton, Massachusetts* (Sections 3.3.3.19 and 4.7.8).

Draft is enclosed.

Earthwork Calculations (Section 1.3.3.3f.)

A report, if applicable, showing calculations of the volume of earth material to be removed from or delivered to the site, including a description of such removal or fill activity. Depending upon the volume of material to be removed or filled, the Planning Board may require the Applicant to submit additional information (if not submitted in the report) regarding, but not limited to, the following: the hours of fill/removal activity; proposed route(s) of transporting materials to and from the site; and measures for dust and erosion control (both on- and off-site) for the proposed activity.

[Click here to enter text.](#)

Written statements from the following:

[Click here to enter text.](#)

(1.) The engineer and/or architect preparing the plans indicating that the building(s) and site have been designed to comply with the performance standards set forth in Section 4.2 of the Zoning By-Law.

[Click here to enter text.](#)

(2.) The applicant(s) and owner(s) of the property indicating that the building(s) and site will be maintained, and the activities on the site will be conducted in accordance with the performance standards set forth in Section 4.1 of the Zoning By-Law.

[Click here to enter text.](#)

Traffic Study (Section 8.2)

A traffic study shall be submitted with each application for a subdivision of greater than 20 units, special permit or special permit with site plan review, or where required by the Planning Board, unless otherwise waived by a four-fifths (4/5) vote of the SPGA.

Traffic study prepared by Ron Muller and Associates is in progress.

DRAFT

TABLE I: EXISTING PEAK RUNOFF

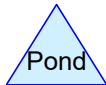
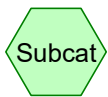
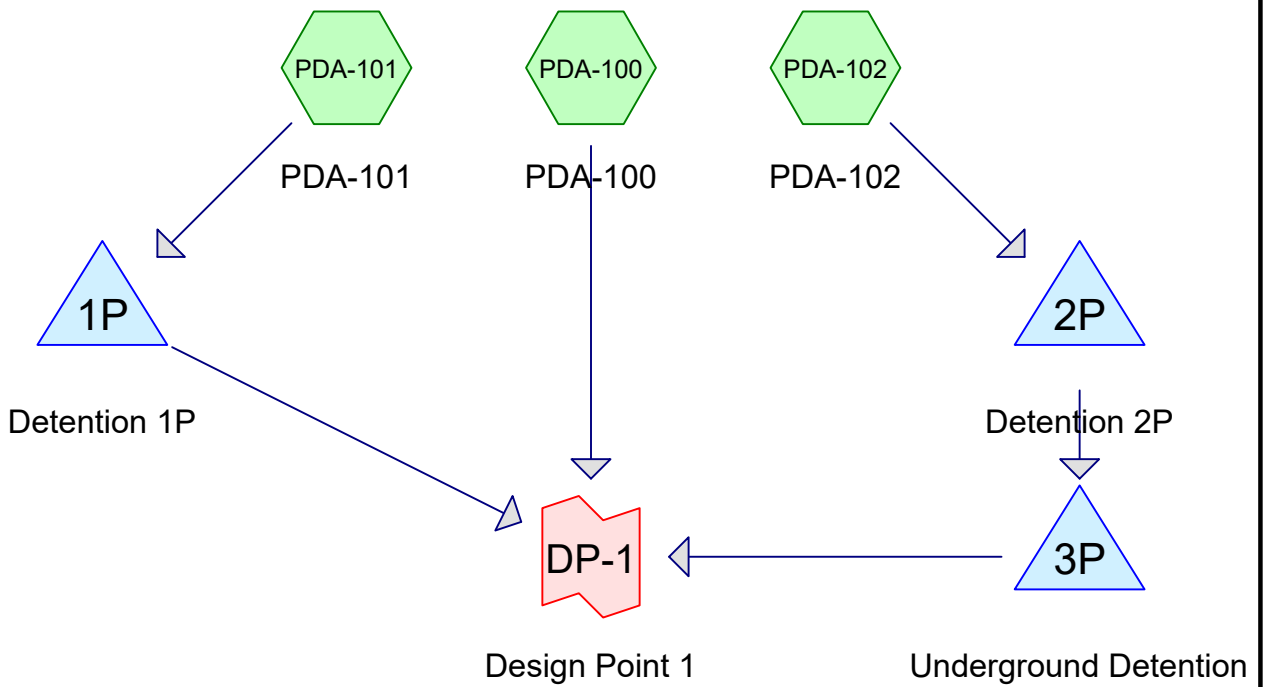
| DRAINAGE AREA | DESIGN STORM EVENT / PEAK RUNOFF (cfs) | | |
|-----------------|---|---------|----------|
| | 2-Year | 10-Year | 100-Year |
| Existing (DP-1) | 0.28 | 2.16 | 10.31 |
| Proposed (DP-1) | 0.23 | 2.08 | 9.53 |

130 & 134 Worcester Street Grafton
Prepared by WDA Design Group 1/6/21

TABLE II: EXISTING RUNOFF VOLUMES

| DRAINAGE AREA | DESIGN STORM EVENT / VOLUME (acre-feet) | | |
|-----------------|--|---------|----------|
| | 2-Year | 10-Year | 100-Year |
| Existing (DP-1) | 0.061 | 0.224 | 0.841 |
| Proposed (DP-1) | 0.038 | 0.196 | 0.781 |

DRAFT



Routing Diagram for 130 & 134 Worcester Street - Proposed Conditions

Prepared by WDA Design Group, Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

130 & 134 Worcester Street - Proposed Conditions

Prepared by WDA Design Group

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

TABLE OF CONTENTS

DRAFT

Project Reports

- 1 Routing Diagram
- 2 Rainfall Events Listing (selected events)

2-year Event

- 3 Subcat PDA-100: PDA-100
- 4 Subcat PDA-101: PDA-101
- 4 Subcat PDA-102: PDA-102
- 5 Pond 1P: Detention 1P
- 6 Pond 2P: Detention 2P
- 6 Pond 3P: Underground Detention
- 7 Link DP-1: Design Point 1

10-year Event

- 7 Subcat PDA-100: PDA-100
- 8 Subcat PDA-101: PDA-101
- 8 Subcat PDA-102: PDA-102
- 9 Pond 1P: Detention 1P
- 10 Pond 2P: Detention 2P
- 10 Pond 3P: Underground Detention
- 11 Link DP-1: Design Point 1

100-year Event

- 11 Subcat PDA-100: PDA-100
- 12 Subcat PDA-101: PDA-101
- 12 Subcat PDA-102: PDA-102
- 13 Pond 1P: Detention 1P
- 14 Pond 2P: Detention 2P
- 14 Pond 3P: Underground Detention
- 15 Link DP-1: Design Point 1

130 & 134 Worcester Street - Proposed Conditions

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 2

Rainfall Events Listing (selected events)

| Event# | Event Name | Storm Type | Curve | Mode | Duration (hours) | B/B | Depth (inches) | AMC |
|--------|------------|----------------|-------|---------|------------------|-----|----------------|-----|
| 1 | 2-year | Type III 24-hr | | Default | 24.00 | 1 | 3.24 | 2 |
| 2 | 10-year | Type III 24-hr | | Default | 24.00 | 1 | 4.89 | 2 |
| 3 | 100-year | Type III 24-hr | | Default | 24.00 | 1 | 8.84 | 2 |

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 2-year Rainfall=3.24"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 3

Summary for Subcatchment PDA-100: PDA-100

Runoff = 0.01 cfs @ 15.25 hrs, Volume= 0.009 af, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.24"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1477 | 39 | >75% Grass cover, Good, HSG A |
| 0.2192 | 61 | >75% Grass cover, Good, HSG B |
| 0.0000 | 98 | Paved parking, HSG B |
| 0.8573 | 30 | Woods, Good, HSG A |
| 0.9970 | 55 | Woods, Good, HSG B |
| 2.2212 | 45 | Weighted Average |
| 2.2211 | | 100.00% Pervious Area |
| 0.0000 | | 0.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Subcatchment PDA-101: PDA-101

Runoff = 0.51 cfs @ 12.10 hrs, Volume= 0.037 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.24"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1855 | 61 | >75% Grass cover, Good, HSG B |
| 0.1282 | 98 | Paved parking, HSG B |
| 0.0295 | 98 | Roofs, HSG B |
| 0.3433 | 78 | Weighted Average |
| 0.1855 | | 54.05% Pervious Area |
| 0.1577 | | 45.95% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Subcatchment PDA-102: PDA-102

Runoff = 1.34 cfs @ 12.09 hrs, Volume= 0.099 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.24"

130 & 134 Worcester Street - Proposed Conditions

Type III 24-hr 2-year Rainfall=3.24"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 4

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1132 | 61 | >75% Grass cover, Good, HSG B |
| 0.3978 | 98 | Paved parking, HSG B |
| 0.0252 | 98 | Roofs, HSG B |
| 0.5362 | 90 | Weighted Average |
| 0.1132 | | 21.11% Pervious Area |
| 0.4230 | | 78.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Pond 1P: Detention 1P

Inflow Area = 0.3433 ac, 45.95% Impervious, Inflow Depth = 1.30" for 2-year event
 Inflow = 0.51 cfs @ 12.10 hrs, Volume= 0.037 af
 Outflow = 0.25 cfs @ 12.30 hrs, Volume= 0.037 af, Atten= 51%, Lag= 11.9 min
 Discarded = 0.01 cfs @ 12.30 hrs, Volume= 0.018 af
 Primary = 0.23 cfs @ 12.30 hrs, Volume= 0.019 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.45' @ 12.30 hrs Surf.Area= 614 sf Storage= 460 cf

Plug-Flow detention time= 196.6 min calculated for 0.037 af (100% of inflow)
 Center-of-Mass det. time= 196.9 min (1,045.4 - 848.5)

| Volume | Invert | Avail.Storage | Storage Description | | |
|------------------|-------------------|---------------|--|------------------------|------------------|
| #1 | 342.00' | 882 cf | Custom Stage Data (Irregular) Listed below (Recalc) | | |
| Elevation (feet) | Surf.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
| 342.00 | 104 | 48.6 | 0 | 0 | 104 |
| 343.00 | 394 | 111.5 | 233 | 233 | 909 |
| 344.00 | 942 | 205.6 | 648 | 882 | 3,289 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 343.15' | 6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #2 | Primary | 343.45' | 6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #3 | Primary | 343.60' | 10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |
| #4 | Discarded | 342.00' | 1.020 in/hr Exfiltration over Surface area |

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 2-year Rainfall=3.24"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 5

Discarded OutFlow Max=0.01 cfs @ 12.30 hrs HW=343.45' (Free Discharge)

↑**4=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.23 cfs @ 12.30 hrs HW=343.45' TW=0.00' (Dynamic Tailwater)

↑**1=Orifice/Grate** (Orifice Controls 0.23 cfs @ 1.88 fps)

↑**2=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.21 fps)

↑**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 2P: Detention 2P

Inflow Area = 0.5362 ac, 78.89% Impervious, Inflow Depth = 2.21" for 2-year event
 Inflow = 1.34 cfs @ 12.09 hrs, Volume= 0.099 af
 Outflow = 1.29 cfs @ 12.11 hrs, Volume= 0.099 af, Atten= 4%, Lag= 1.4 min
 Discarded = 0.02 cfs @ 12.11 hrs, Volume= 0.023 af
 Primary = 1.28 cfs @ 12.11 hrs, Volume= 0.076 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.25' @ 12.11 hrs Surf.Area= 658 sf Storage= 453 cf

Plug-Flow detention time= 82.9 min calculated for 0.099 af (100% of inflow)
 Center-of-Mass det. time= 83.3 min (889.7 - 806.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|---|
| #1 | 342.00' | 1,129 cf | Pond (Irregular) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
|------------------|-------------------|---------------|------------------------|------------------------|------------------|
| 342.00 | 134 | 139.1 | 0 | 0 | 134 |
| 344.00 | 1,164 | 191.3 | 1,129 | 1,129 | 1,546 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 343.00' | 12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #2 | Discarded | 342.00' | 1.020 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.02 cfs @ 12.11 hrs HW=343.24' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=1.24 cfs @ 12.11 hrs HW=343.24' TW=340.05' (Dynamic Tailwater)

↑**1=Orifice/Grate** (Weir Controls 1.24 cfs @ 1.62 fps)

Summary for Pond 3P: Underground Detention

Inflow Area = 0.5362 ac, 78.89% Impervious, Inflow Depth = 1.69" for 2-year event
 Inflow = 1.28 cfs @ 12.11 hrs, Volume= 0.076 af
 Outflow = 0.10 cfs @ 13.14 hrs, Volume= 0.076 af, Atten= 92%, Lag= 61.6 min
 Discarded = 0.03 cfs @ 11.40 hrs, Volume= 0.066 af
 Primary = 0.07 cfs @ 13.14 hrs, Volume= 0.010 af

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 2-year Rainfall=3.24"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 6

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 341.15' @ 13.14 hrs Surf.Area= 1,420 sf Storage= 2,039 cf

Plug-Flow detention time= 518.7 min calculated for 0.076 af (100% of inflow)
 Center-of-Mass det. time= 519.3 min (1,311.5 - 792.2)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 339.00' | 1,895 cf | 44.25'W x 32.10'L x 4.50'H Field A 6,391 cf Overall - 1,654 cf Embedded = 4,737 cf x 40.0% Voids |
| #2A | 339.50' | 1,654 cf | ADS_StormTech SC-740 +Cap x 36 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 36 Chambers in 9 Rows |
| | | 3,549 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 339.00' | 1.020 in/hr Exfiltration over Surface area |
| #2 | Primary | 341.04' | 6.0" Vert. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads |

Discarded OutFlow Max=0.03 cfs @ 11.40 hrs HW=339.05' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.07 cfs @ 13.14 hrs HW=341.15' TW=0.00' (Dynamic Tailwater)

↑**2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 1.12 fps)

Summary for Link DP-1: Design Point 1

Inflow Area = 3.1006 ac, 18.73% Impervious, Inflow Depth = 0.15" for 2-year event
 Inflow = 0.23 cfs @ 12.30 hrs, Volume= 0.038 af
 Primary = 0.23 cfs @ 12.30 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 10-year Rainfall=4.89"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 7

Summary for Subcatchment PDA-100: PDA-100

Runoff = 0.39 cfs @ 12.32 hrs, Volume= 0.075 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.89"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1477 | 39 | >75% Grass cover, Good, HSG A |
| 0.2192 | 61 | >75% Grass cover, Good, HSG B |
| 0.0000 | 98 | Paved parking, HSG B |
| 0.8573 | 30 | Woods, Good, HSG A |
| 0.9970 | 55 | Woods, Good, HSG B |
| 2.2212 | 45 | Weighted Average |
| 2.2211 | | 100.00% Pervious Area |
| 0.0000 | | 0.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Subcatchment PDA-101: PDA-101

Runoff = 1.03 cfs @ 12.09 hrs, Volume= 0.075 af, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.89"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1855 | 61 | >75% Grass cover, Good, HSG B |
| 0.1282 | 98 | Paved parking, HSG B |
| 0.0295 | 98 | Roofs, HSG B |
| 0.3433 | 78 | Weighted Average |
| 0.1855 | | 54.05% Pervious Area |
| 0.1577 | | 45.95% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Subcatchment PDA-102: PDA-102

Runoff = 2.24 cfs @ 12.09 hrs, Volume= 0.168 af, Depth= 3.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.89"

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 10-year Rainfall=4.89"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 8

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1132 | 61 | >75% Grass cover, Good, HSG B |
| 0.3978 | 98 | Paved parking, HSG B |
| 0.0252 | 98 | Roofs, HSG B |
| 0.5362 | 90 | Weighted Average |
| 0.1132 | | 21.11% Pervious Area |
| 0.4230 | | 78.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Pond 1P: Detention 1P

Inflow Area = 0.3433 ac, 45.95% Impervious, Inflow Depth = 2.62" for 10-year event
 Inflow = 1.03 cfs @ 12.09 hrs, Volume= 0.075 af
 Outflow = 1.01 cfs @ 12.12 hrs, Volume= 0.075 af, Atten= 2%, Lag= 1.7 min
 Discarded = 0.02 cfs @ 12.12 hrs, Volume= 0.021 af
 Primary = 0.99 cfs @ 12.12 hrs, Volume= 0.054 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.67' @ 12.12 hrs Surf.Area= 733 sf Storage= 603 cf

Plug-Flow detention time= 112.8 min calculated for 0.075 af (100% of inflow)
 Center-of-Mass det. time= 113.2 min (941.3 - 828.1)

| Volume | Invert | Avail.Storage | Storage Description | | |
|------------------|-------------------|---------------|--|------------------------|------------------|
| #1 | 342.00' | 882 cf | Custom Stage Data (Irregular) Listed below (Recalc) | | |
| Elevation (feet) | Surf.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
| 342.00 | 104 | 48.6 | 0 | 0 | 104 |
| 343.00 | 394 | 111.5 | 233 | 233 | 909 |
| 344.00 | 942 | 205.6 | 648 | 882 | 3,289 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 343.15' | 6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #2 | Primary | 343.45' | 6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #3 | Primary | 343.60' | 10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |
| #4 | Discarded | 342.00' | 1.020 in/hr Exfiltration over Surface area |

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 10-year Rainfall=4.89"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 9

Discarded OutFlow Max=0.02 cfs @ 12.12 hrs HW=343.66' (Free Discharge)

↑**4=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.93 cfs @ 12.12 hrs HW=343.66' TW=0.00' (Dynamic Tailwater)

↑**1=Orifice/Grate** (Orifice Controls 0.48 cfs @ 2.45 fps)

↑**2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 1.55 fps)

↑**3=Broad-Crested Rectangular Weir**(Weir Controls 0.33 cfs @ 0.57 fps)

Summary for Pond 2P: Detention 2P

Inflow Area = 0.5362 ac, 78.89% Impervious, Inflow Depth = 3.77" for 10-year event
 Inflow = 2.24 cfs @ 12.09 hrs, Volume= 0.168 af
 Outflow = 2.17 cfs @ 12.11 hrs, Volume= 0.168 af, Atten= 3%, Lag= 1.3 min
 Discarded = 0.02 cfs @ 12.11 hrs, Volume= 0.025 af
 Primary = 2.16 cfs @ 12.11 hrs, Volume= 0.144 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.35' @ 12.11 hrs Surf.Area= 720 sf Storage= 525 cf

Plug-Flow detention time= 53.6 min calculated for 0.168 af (100% of inflow)
 Center-of-Mass det. time= 54.0 min (845.5 - 791.5)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|---|
| #1 | 342.00' | 1,129 cf | Pond (Irregular) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
|------------------|-------------------|---------------|------------------------|------------------------|------------------|
| 342.00 | 134 | 139.1 | 0 | 0 | 134 |
| 344.00 | 1,164 | 191.3 | 1,129 | 1,129 | 1,546 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 343.00' | 12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #2 | Discarded | 342.00' | 1.020 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.02 cfs @ 12.11 hrs HW=343.35' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=2.11 cfs @ 12.11 hrs HW=343.35' TW=341.09' (Dynamic Tailwater)

↑**1=Orifice/Grate** (Weir Controls 2.11 cfs @ 1.93 fps)

Summary for Pond 3P: Underground Detention

Inflow Area = 0.5362 ac, 78.89% Impervious, Inflow Depth = 3.21" for 10-year event
 Inflow = 2.16 cfs @ 12.11 hrs, Volume= 0.144 af
 Outflow = 1.14 cfs @ 12.27 hrs, Volume= 0.144 af, Atten= 47%, Lag= 9.5 min
 Discarded = 0.03 cfs @ 10.05 hrs, Volume= 0.077 af
 Primary = 1.10 cfs @ 12.27 hrs, Volume= 0.066 af

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 10-year Rainfall=4.89"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 10

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 341.63' @ 12.27 hrs Surf.Area= 1,420 sf Storage= 2,455 cf

Plug-Flow detention time= 335.3 min calculated for 0.144 af (100% of inflow)
 Center-of-Mass det. time= 335.8 min (1,126.6 - 790.8)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 339.00' | 1,895 cf | 44.25'W x 32.10'L x 4.50'H Field A 6,391 cf Overall - 1,654 cf Embedded = 4,737 cf x 40.0% Voids |
| #2A | 339.50' | 1,654 cf | ADS_StormTech SC-740 +Cap x 36 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 36 Chambers in 9 Rows |
| | | 3,549 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 339.00' | 1.020 in/hr Exfiltration over Surface area |
| #2 | Primary | 341.04' | 6.0" Vert. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads |

Discarded OutFlow Max=0.03 cfs @ 10.05 hrs HW=339.05' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=1.09 cfs @ 12.27 hrs HW=341.62' TW=0.00' (Dynamic Tailwater)

↑**2=Orifice/Grate** (Orifice Controls 1.09 cfs @ 2.78 fps)

Summary for Link DP-1: Design Point 1

Inflow Area = 3.1006 ac, 18.73% Impervious, Inflow Depth = 0.76" for 10-year event
 Inflow = 2.08 cfs @ 12.22 hrs, Volume= 0.196 af
 Primary = 2.08 cfs @ 12.22 hrs, Volume= 0.196 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 100-year Rainfall=8.84"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 11

Summary for Subcatchment PDA-100: PDA-100

Runoff = 4.98 cfs @ 12.11 hrs, Volume= 0.407 af, Depth= 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.84"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1477 | 39 | >75% Grass cover, Good, HSG A |
| 0.2192 | 61 | >75% Grass cover, Good, HSG B |
| 0.0000 | 98 | Paved parking, HSG B |
| 0.8573 | 30 | Woods, Good, HSG A |
| 0.9970 | 55 | Woods, Good, HSG B |
| 2.2212 | 45 | Weighted Average |
| 2.2211 | | 100.00% Pervious Area |
| 0.0000 | | 0.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Subcatchment PDA-101: PDA-101

Runoff = 2.39 cfs @ 12.09 hrs, Volume= 0.177 af, Depth= 6.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.84"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1855 | 61 | >75% Grass cover, Good, HSG B |
| 0.1282 | 98 | Paved parking, HSG B |
| 0.0295 | 98 | Roofs, HSG B |
| 0.3433 | 78 | Weighted Average |
| 0.1855 | | 54.05% Pervious Area |
| 0.1577 | | 45.95% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Subcatchment PDA-102: PDA-102

Runoff = 4.35 cfs @ 12.09 hrs, Volume= 0.341 af, Depth= 7.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.84"

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 100-year Rainfall=8.84"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 12

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.1132 | 61 | >75% Grass cover, Good, HSG B |
| 0.3978 | 98 | Paved parking, HSG B |
| 0.0252 | 98 | Roofs, HSG B |
| 0.5362 | 90 | Weighted Average |
| 0.1132 | | 21.11% Pervious Area |
| 0.4230 | | 78.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|----------------------|
| 6.0 | | | | | Direct Entry, |

Summary for Pond 1P: Detention 1P

Inflow Area = 0.3433 ac, 45.95% Impervious, Inflow Depth = 6.17" for 100-year event
 Inflow = 2.39 cfs @ 12.09 hrs, Volume= 0.177 af
 Outflow = 2.37 cfs @ 12.10 hrs, Volume= 0.177 af, Atten= 1%, Lag= 0.9 min
 Discarded = 0.02 cfs @ 12.10 hrs, Volume= 0.024 af
 Primary = 2.36 cfs @ 12.10 hrs, Volume= 0.153 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.76' @ 12.10 hrs Surf.Area= 791 sf Storage= 677 cf

Plug-Flow detention time= 57.8 min calculated for 0.176 af (100% of inflow)
 Center-of-Mass det. time= 58.2 min (861.8 - 803.7)

| Volume | Invert | Avail.Storage | Storage Description | | |
|------------------|-------------------|---------------|--|------------------------|------------------|
| #1 | 342.00' | 882 cf | Custom Stage Data (Irregular) Listed below (Recalc) | | |
| Elevation (feet) | Surf.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
| 342.00 | 104 | 48.6 | 0 | 0 | 104 |
| 343.00 | 394 | 111.5 | 233 | 233 | 909 |
| 344.00 | 942 | 205.6 | 648 | 882 | 3,289 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 343.15' | 6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #2 | Primary | 343.45' | 6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #3 | Primary | 343.60' | 10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |
| #4 | Discarded | 342.00' | 1.020 in/hr Exfiltration over Surface area |

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 100-year Rainfall=8.84"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 13

Discarded OutFlow Max=0.02 cfs @ 12.10 hrs HW=343.76' (Free Discharge)

↑4=Exfiltration (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=2.33 cfs @ 12.10 hrs HW=343.76' TW=0.00' (Dynamic Tailwater)

↑1=Orifice/Grate (Orifice Controls 0.57 cfs @ 2.89 fps)

↑2=Orifice/Grate (Orifice Controls 0.24 cfs @ 1.90 fps)

↑3=Broad-Crested Rectangular Weir (Weir Controls 1.52 cfs @ 0.94 fps)

Summary for Pond 2P: Detention 2P

Inflow Area = 0.5362 ac, 78.89% Impervious, Inflow Depth = 7.63" for 100-year event
 Inflow = 4.35 cfs @ 12.09 hrs, Volume= 0.341 af
 Outflow = 3.51 cfs @ 12.15 hrs, Volume= 0.341 af, Atten= 19%, Lag= 3.7 min
 Discarded = 0.02 cfs @ 12.15 hrs, Volume= 0.028 af
 Primary = 3.49 cfs @ 12.15 hrs, Volume= 0.313 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.85' @ 12.15 hrs Surf.Area= 1,051 sf Storage= 962 cf

Plug-Flow detention time= 31.0 min calculated for 0.341 af (100% of inflow)
 Center-of-Mass det. time= 31.3 min (804.4 - 773.0)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|---|
| #1 | 342.00' | 1,129 cf | Pond (Irregular) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
|------------------|-------------------|---------------|------------------------|------------------------|------------------|
| 342.00 | 134 | 139.1 | 0 | 0 | 134 |
| 344.00 | 1,164 | 191.3 | 1,129 | 1,129 | 1,546 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 343.00' | 12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #2 | Discarded | 342.00' | 1.020 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.02 cfs @ 12.15 hrs HW=343.85' (Free Discharge)

↑2=Exfiltration (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=3.48 cfs @ 12.15 hrs HW=343.85' TW=342.92' (Dynamic Tailwater)

↑1=Orifice/Grate (Orifice Controls 3.48 cfs @ 4.43 fps)

Summary for Pond 3P: Underground Detention

Inflow Area = 0.5362 ac, 78.89% Impervious, Inflow Depth = 7.01" for 100-year event
 Inflow = 3.49 cfs @ 12.15 hrs, Volume= 0.313 af
 Outflow = 2.70 cfs @ 12.25 hrs, Volume= 0.313 af, Atten= 23%, Lag= 5.8 min
 Discarded = 0.03 cfs @ 7.75 hrs, Volume= 0.091 af
 Primary = 2.66 cfs @ 12.25 hrs, Volume= 0.222 af

130 & 134 Worcester Street - Proposed Conditions Type III 24-hr 100-year Rainfall=8.84"

Prepared by WDA Design Group

Printed 1/5/2021

HydroCAD® 10.10-5a s/n 11557 © 2020 HydroCAD Software Solutions LLC

Page 14

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.27' @ 12.25 hrs Surf.Area= 1,420 sf Storage= 3,421 cf

Plug-Flow detention time= 194.5 min calculated for 0.313 af (100% of inflow)
 Center-of-Mass det. time= 195.0 min (974.3 - 779.3)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 339.00' | 1,895 cf | 44.25'W x 32.10'L x 4.50'H Field A 6,391 cf Overall - 1,654 cf Embedded = 4,737 cf x 40.0% Voids |
| #2A | 339.50' | 1,654 cf | ADS_StormTech SC-740 +Cap x 36 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 36 Chambers in 9 Rows |
| | | 3,549 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 339.00' | 1.020 in/hr Exfiltration over Surface area |
| #2 | Primary | 341.04' | 6.0" Vert. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads |

Discarded OutFlow Max=0.03 cfs @ 7.75 hrs HW=339.05' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=2.66 cfs @ 12.25 hrs HW=343.27' TW=0.00' (Dynamic Tailwater)
 ↑**2=Orifice/Grate** (Orifice Controls 2.66 cfs @ 6.77 fps)

Summary for Link DP-1: Design Point 1

Inflow Area = 3.1006 ac, 18.73% Impervious, Inflow Depth = 3.02" for 100-year event
 Inflow = 9.53 cfs @ 12.11 hrs, Volume= 0.781 af
 Primary = 9.53 cfs @ 12.11 hrs, Volume= 0.781 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

207974

QUITCLAIM DEED

45/2001

I, JERALD A. RICE, of Grafton, Worcester County, Massachusetts

being unmarried, for consideration paid, and in full consideration of \$250,000.00

grant to FAWAZ EL KHOURY, Trustee of ZAWAF Realty Trust udt dated December 20, 2001 and recorded herewith as Instrument #

of 10 ELI Whitney Road, Westford, MA

with QUITCLAIM COVENANTS

all of my right, title and interest, in and to:

The land in Grafton, Worcester County, Massachusetts, together with the building thereon, in the northerly part thereof, and being the same premises shown on a plan entitled, "Plan of land in Grafton, Mass., owned by Leo O. Durant et ux, dated July 20, 1977, by Lavallee Brothers, Inc., filed in Worcester District Deeds, Plan Book 440, Plan 83, and containing according to said plan 1.46 acres, more or less.

Said premises are more particularly bounded and described as follows:

BEGINNING at a point on the easterly line of Worcester Street, which is South 39 degrees 17' 36" East two hundred (200) feet southerly from a concrete bound at the intersection of the east line of Worcester Street and the south side of the Massachusetts Turnpike Authority;

THENCE North 50 degrees 42' 24" East by other land of the grantors one hundred ninety-four (194) feet more or less to the center of the Quinsigamond River as now or formerly located;

THENCE Easterly and southerly by the center of the Quinsigamond River three hundred ninety-eight (398) feet more or less to a point at the other land of the grantors;

THENCE South 49 degrees 11' 39" West by other land of the grantors, one hundred eighty-six (186) feet more or less to a point on the easterly line of Worcester Street;

THENCE North 40 degrees 48' 21" West by the easterly line of said street one hundred nine and ninety-five hundredths (109.95) feet to a Massachusetts Highway Bound opposite Station 86 + 29.59 as shown on said plan heretofore referred to;

THENCE North 39 degrees 17' 36" West by the easterly line of said Worcester Street one hundred forty and five hundredths (140.05) feet to the point of beginning.

MHM

Law Offices of Donald M. Hodge
30 Eastbrook Road
Dedham, MA 02026

PROPERTY ADDRESS: 130 Worcester Street, North Grafton, MA

01 DEC 20 AM 10:23

QUITCLAIM DEED

2500
[Handwritten signature]

I, James E. O'Brien, of 693 Fowler Road, Northbridge, Worcester County, Massachusetts, for consideration paid, and in full consideration of FIFTY THOUSAND DOLLARS AND NO CENTS (\$50,000.00), hereby grants to Fawaz El Khoury, Trustee of Worcester Street Realty Trust u/d/t April 19, 2000 recorded herewith of 10 Eli Whitney Street, Westboro, Worcester County, Massachusetts, with quitclaim covenants

the land in Grafton, Worcester County, Massachusetts, situated in the northeasterly line of Worcester Street and being Lots D and E on a plan entitled "Plan of land in Grafton, Mass., owned by Leo O. Durant et ux, dated October 15, 1977 by Lavallee Brothers, Inc.," filed in Worcester District Deeds, Plan Book 444, Plan 116, and which is more particularly bounded and described as follows:

BEGINNING: At a point located at the most northwesterly corner of the premises to be conveyed on the northeasterly line of Worcester Street at land of the Massachusetts Turnpike Authority;

THENCE: North 68° 54' 58" East by land of the Massachusetts Turnpike Authority one hundred seventy-four and ninety-two hundredths (174.92) feet to a point;

THENCE: South 21° 05' 02" East fifty and no hundredths (50.00) feet to a point;

THENCE: North 68° 54' 58" East by land of the Massachusetts Turnpike Authority two hundred ninety-four and twenty-two hundredths (294.22) feet to a point;

THENCE: North 68° 54' 58" East still by land of the Massachusetts Turnpike Authority one hundred (100) feet, more or less, to the approximate center line of the Quinsigamond River; at land of E. L. Dauphinas, Inc.

THENCE: Southerly approximately by the center line of the Quinsigamond River two hundred ninety (290) feet more or less to a point at Lot C on the plan hereinafter referred to;

THENCE: South 49° 11' 30" West by said Lot C one hundred forty-nine (149) feet, more or less, to a point;

THENCE: Northeasterly, northerly and westerly by the original location of the Quinsigamond River, by land of Gerald A. Rice and Meredith Rice, three hundred ninety-eight (398) feet, more or less, to a point at Lot D on the plan hereinafter referred to;

THENCE: South 50° 42' 24" West by land of said Rice one hundred ninety-four and no hundredths (194.00) feet to a point on the easterly line of Worcester Street;

THENCE: North 39° 17' 36" West by the easterly line of Worcester Street two hundred and thirty-five hundredths (200.35) feet to the point of beginning.

Worcester St., Grafton

00 APR 19 PM 1:01

Return to: DONALD M. HADGE, Esq.
30 Westbrook Road, Suite 201
Dedham, MA 02026

BEING Lots D and E on a plan entitled, "Plan to show land in Grafton, Mass., owned by Leo O. Durant et ux, dated October 15, 1977 by Lavallee Brothers, Inc.," filed in Worcester District Deeds, Plan Book 444, Plan 116.

Said Lot D contains 40,701 square feet and said Lot E contains 1.04 acres, more or less. Said premises of Lot E are conveyed subject to a sewage easement to the Town of Grafton as shown on said plan and as is recorded in Worcester District Deeds, Book 6131, Page 101.

Lots D & E are conveyed subject to the restrictions shown in Plan Book 444, Plan 116 requiring that Lots D & E remain in common ownership.

BEING the same premises conveyed to the grantor by deed recorded in Worcester District Registry of Deeds Book 6565, Page 297.

WITNESS MY HAND AND SEAL THIS 18 DAY OF APRIL, 2000.

James E. O'Brien
James E. O'Brien

COMMONWEALTH OF MASSACHUSETTS

WORCESTER, SS.

APRIL 18, 2000

Then personally appeared the above named James E. O'Brien and acknowledged the foregoing instrument to be his free act and deed before me.

Shandra L. Allen

Notary Public:

My commission expires: 11-20-2003

Shandra L. Allen

CANCELLED

WORCESTER
DEEDS REG 20
WORCESTER

04/19/00 11:08AM 01
000000 #6390

FEE \$228.00

CASH \$228.00

ATTEST: WORC. Anthony J. Vigliotti, Register