Tuesday, October 25, 2022
Medway Planning and Economic Development Board
155 Village Street
Medway, MA 02053
Meeting Minutes

Member	**Matt Hayes, Chair**	**Bob Tucker**	**Jessica Chabot**	**Sarah Raposa**	**Tom Gay Assoc. member**
Attendance	**X**	**X**	**X**	**X**	**Absent with Notice**

PRESENT:
Barbara J. Saint Andre, Director of Community and Economic Development

The meeting was called to order by Chair Hayes at 7:00 p.m.

There were no citizen comments.

The Board is in receipt of a resignation letter from member Richard Di Iulio.

On a motion made by Sarah Raposa, seconded by Jessica Chabot, the Board voted unanimously to accept the resignation from Rich Di Iulio.

Resignation:
The Board discussed the recent resignation of member Di Iulio from both the PEDB and EDC. The Board thanks Rich for his service.

Clerk:
On a motion made by Jessica Chabot, seconded by Bob Tucker, the Board voted unanimously to appoint Sarah Raposa as the Clerk of the Planning and Economic Development Board.

Economic Development Representative:
On a motion made by Bob Tucker, seconded by Sarah Raposa, the Board voted unanimously to appoint Jessica Chabot as the Board's representative to the Economic Development Committee.

Sanderson View Public Hearing Continuation

The Board is in receipt of the following: (**See Attached**)

- Notice dated September 15, 2022 to continue the public hearing for Sanderson View to the October 25, 2022 meeting.

- Email dated October 19, 2022 from Cameron Bagherpour requesting a continuation of the hearing to the November 22, 2022 meeting.

On a motion made by Sarah Raposa, seconded by Jessica Chabot, the Board voted unanimously to continue the hearing to November 22, 2022 at 7:00 p.m.

Milford Hospital Medical Facility Site Plan Endorsement, 86 Holliston Street

The Board is in receipt of the following: (**See Attached)**

- Pre-Endorsement checklist (10-20-22)
- Verification of paid taxes from treasurer/collector
- Certificate of No Appeal from Town Clerk
- Revised site plan by Guerriere and Halnon
- Tetra Tech review comments dated 10.20.22
- Medical Office Building Layout Specs
- Site Plan Final Revisions
- Tetra Tech email dated 10.25.22

Engineer Michael Hassett from Guerriere and Halnon provided an update. He has received an email from Consultant Bouley that all items have been addressed. The Board was also informed that the check for consultant services for construction observation has been paid.

It was recommended that the plan be endorsed and signed.

On a motion made by Bob Tucker, seconded by Sarah Raposa, the Board voted unanimously to endorse the site plan for 86 Holliston Street.

Master Plan Update:

The Board is in receipt of the following: (**See Attached**)

- Submittal memo from Jessica Chabot, Master Plan Committee Chair, dated October 18, 2022.
- Draft proposal for Master Plan Implementation Committee, dated August 18, 2022.

Member Chabot provided a final update. The plan is comprised of 90 actionable strategies. Each of the strategies has a lead responsible party recommended for implementation. The members of the Master Plan Committee were thanked individually. The plan, when approved, will be in place for the next ten years.

On a motion made by Sarah Raposa, seconded by Bob Tucker, the Board voted unanimously to adopt the new Medway Master Plan pursuant to G.L. Chapter 41, Section 81-D.

On a motion made by Sarah Raposa, seconded by Bob Tucker, the Board voted unanimously to disband the Medway Master Plan Committee.

The Board discussed the proposed Master Plan Implementation Committee. The Select Board will be appointing those members. This Committee should be in place in January 2023 when the assignments for various committee assignments are established. The Master Plan recommends which Boards/Committees and departments would be part of the implementation. It was suggested that the committee composition include representatives of the Select Board, Planning and Economic Development board, Finance Committee, Board of Parks Commissioners, and the School Committee and two at-large members. It is recommended that the term of these members would be one year term. The two at-large members would be appointed by the Select Board. This will be discussed at the Select Board's November 7, 2022 meeting.

On a motion made by Sarah Raposa, seconded by Jessica Chabot, the Board voted 3-0-1 to recommend the Master Plan Implementation Committee composition as noted in the memo from Jessica Chabot. (Mr. Tucker abstained)

Master's Touch – 83 Main Street Public Hearing Continuation

The Board is in receipt of the following: (**See Attached**)

- Notice dated September 28, 2022, to continue the public hearing for Master's Touch to October 25, 2022 meeting.
- Email dated October 20, 2022 from Jacob Gadbois requesting a continuation of the hearing.
- Request for extension of deadline to December 30, 2022.

The Chair opened the hearing for the Master's Touch site plan.

The applicant has requested a continuation and also an extension of the action deadline.

On a motion made by Sarah Raposa, seconded by Bob Tucker, the Board voted to continue the hearing for Master's Touch to November 22, 2022 at 7:15 pm.

On a motion made by Bob Tucker, seconded by Sarah Raposa, the Board voted to extend the action deadline for Master's Touch to December 30, 2022 as requested by the applicant.

Construction Reports

The Board is in receipt of the following: (**See Attached**)

- 8/19/22 Field Report – Tetra Tech
- 9/14/22 Field Report – Tetra Tech
- 9/20/22 Field Report – Tetra Tech

PEDB MEETING MINUTES:

September 27, 2022 (Executive)

On a motion made by Sarah Raposa, seconded by Jessica Chabot, the Board voted unanimously to approve the executive session minutes from the September 27, 2022 meeting.

October 11, 2022
On a motion made by Sarah Raposa, seconded by Bob Tucker, the Board voted 3-0-1 to approve the minutes from the October 11, 2022 meeting. (Jessica Chabot abstained)

October 17, 2022
On a motion made by Sarah Raposa, seconded by Bob Tucker, the Board voted unanimously to approve the minutes from the October 17, 2022 meeting.

Zoning Bylaw Amendments:

The Board discussed that the Finance Committee meeting will be holding the public hearing on the Town Meeting warrant. The Finance Committee will then provide its recommendations. The Town Meeting will be held on November 14, 2022

Petition to the ZBA for an Accessory Family Dwelling Unit Special Permit for 124 Fisher Street

The Board is in receipt of the following: (**See Attached**)

- Petition for an AFDU special permit for an AFDU to be included in the existing building. ZBA hearing is November 2, 2022.

The Board reviewed the application and is fine with the application and will not take any action.

NOTE - The meeting was paused and reconvened at 8:25 pm.

Public Hearing Continuation 2 Marc Road – CommCan Modification to previously Approved Site Plan, Marijuana Special Permits, and Groundwater Protection Permit

The Board is in receipt of the following: (**See Attached**)

- Notice dated October 12, 2022 to continue the 2 Marc Road public hearing to October 25, 2022
- Email from John Lally dated 9.15.22
- Letter from Dan Merrikin, Legacy Engineering dated 10/7/22
- DRC site plan review memo dated 10/11/22
- Revised site plan submittal letter from Dan Merrikin dated 10/21/22
- Revised site plan dated 10/20/22
- Additional waiver requests dated 10/13/22
- Tetra Tech Review Letter dated 10/19/22
- Medway Cultivation Facility HVAC Odor Mitigation Reports dated 10/11/22 by Engineered Systems Consulting Engineers.

- Email dated 9/2/22, 9/22/22, and 10/17/22 from Bruce Straughan, the Board's Odor Consultant
- MA DEP Notice of Noncompliance dated 9/14/22
- Email Ellen Rosenfeld to MA DEP dated 10/6/22
- 11-19-22 email from Giles Stelle Perkins of MA DEP re: status of complaint
- Noise Control Engineering (Board's noise consultant) memo dated 10/13/22
- DRAFT decision dated 10.24.22

Chair Hayes opened the hearing.

The applicant Ellen Rosenfeld was present along with project engineer Dan Merrikin.

Mr. Merrikin provided an update. There was a plan revision which was provided to the Conservation Agent. There was a recommendation to have a noise study post construction. The odor consultant reviewed the plan and recommended some changes and those were resubmitted. It was explained that some thermal imaging was conducted some locations were identified where air is leaking from the building. One of the locations was the overhead door. There was also a weather station installed to detect and record wind direction and conditions to help identify odor sources for the future. This is a proven method for cannabis applications. It was noted again that the planned addition is not a grow facility and will be isolated form the rest of the building. It was recommended to seal the overhead door frames and extend the vapor piping on the ground level door and the applicant is proceeding with this work.

Resident John Lally was present via Zoom. He explained that there has been odor at his home. There has been an impact on the quality of his life along with other people in this area. He recommends that under Section 3.4 findings C6 that there are environmental factors and does not want the Board to render a decision on this project until the odor is remedied.

Ms. Rosenfeld communicated that she is working to resolve this and will continue to work on this. It was also explained that no growing is allowed in the addition without another modification. There could be language added within the decision to include this as a condition. The Board was informed that the applicant is making drinks and the growing aspect is slowing down.

There was a recommendation to have the Board's odor consultant visit the site. The issue is the consultant is in Colorado and there are not enough funds. There is also a question about if there is a determination about where the smell is coming from with more than one marijuana cultivation facility in the area. It was suggested to put in the decision that no cultivating is to be allowed in the new addition. Ellen Rosenfeld also suggested that her representative could come and do an infra-red test and she could provide results. The Board was informed that there were no complaints since this summer.

The members then reviewed the draft decision. The following were suggested:

- John Lally commented Item #13: - this project is not meeting Item #13 since there is still odor and there were leaks noted. These need to be addressed prior to the decision.
- It was suggested to add language about further mitigation.
- The Conservation Agent wants the basin area to remain a meadow with conservation mix.

Waivers:
The Board reviewed each of the waivers requested by the applicant.
On a motion made by Jessica Chabot, seconded by Sarah Raposa, the Board voted unanimously to approve the waivers as discussed.

Conditions:
The following were recommended:

- There should be 60 days to submit the final plan for endorsement
- Add an odor plan revision if needed.
- Add Stormwater Operation and Maintenance plan to the plan set.
- Add language about no parking on Marc Road.
- Have noise evaluated post construction.
- There needs to be a dollar amount for the sidewalk construction. This is only 20 ft.
- Three years to complete the project.

On a motion made by Jessica Chabot, seconded by Sarah Raposa, the Board voted unanimously to continue the hearing to November 22, 2022 at 7:30 p.m.

On a motion made by Jessica Chabot, seconded by Bob Tucker, the Board voted unanimously to grant an extension for final action to December 9, 2022 as requested by the applicant.

ADJOURN:

On a motion made by Jessica Chabot, seconded by Sarah Raposa, the Board voted unanimously to adjourn the meeting.

The meeting was adjourned at 9:53 p.m.

Prepared by,
Amy Sutherland
Recording Secretary

Reviewed and edited by,
Barbara J. Saint Andre
Director, Community and Economic Development

October 25, 2022
Medway Planning & Economic Development Board Meeting

Sanderson View Public Hearing Continuation

- Notice dated September 15, 2022, to continue the public hearing for Sanderson View (16 Holliston Street) to the October 25, 2022, meeting.
- Email from Cameron Bagherpour requesting a continuation to the November 22, 2022, meeting, dated October 19, 2022.

Board Members
Matthew J. Hayes, P.E., Chair
Robert Tucker, Vice Chair
Richard Di Iulio, Clerk
Jessica Chabot, Member
Sarah Raposa, A.I.C.P, Member
Thomas Gay, Associate Member

Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 533-3291
Fax (508) 321-4987
Email: planningboard
@townofmedway.org
www.townofmedway.org

TOWN OF MEDWAY

COMMONWEALTH OF MASSACHUSETTS

PLANNING AND ECONOMIC DEVELOPMENT BOARD

MEMORANDUM

September 15, 2022

TO: Stefany Ohannesian, Town Clerk
Town of Medway Departments, Boards and Committees
FROM: Susy Affleck-Childs, Planning and Economic Development Coordinator
RE: ***Public Hearing Continuation for Sanderson View - Special Permit for Multi-family Housing, Major Site Plan Review for 16 Holliston Street***
Continuation Date – Tuesday, October 25, 2022 at 7:00 p.m.

At its September 13, 2022 meeting, the Planning and Economic Development Board voted to continue the public hearing on the application of Larkin Real Estate Group, Inc. of Medfield, MA for approval of a Multi-Family Housing Special Permit and a major site plan entitled *Sanderson View* dated June 20, 2022, prepared by Colonial Engineering of Medway, MA at 16 Holliston Street to the Board's meeting on Tuesday, October 25, 2022 at 7:00 p.m. at Medway Town Hall, 155 Village Street. The meeting will also be available via Zoom.

The applicant proposes to develop a 4-unit residential condominium at 16 Holliston Street in the Village Residential zoning district and multi-family housing overlay district. The 0.83 acre property *(Medway Assessors Map 60, Parcel 19)* is owned by Maurizio and Michele Santangelo of Medway, MA. As currently proposed, the development will retain the existing home at 16 Holliston Street and construct a new 7,038 sq. ft. triplex building for 3 townhouse style residential dwelling units. Thirteen off- street parking spaces will be provided – 6 new garaged spaces, 3 new driveway spaces, and 4 existing spaces for the existing house. Proposed access to the new triplex will be from a single curb cut off Sanderson Street and will include a 122' long private driveway.

It is anticipated that the applicant will be filing modified plans, which will be posted on the Town website when received.

The current plan is entitled *Sanderson View Plan of Land* dated June 20, 2022, prepared by Colonial Engineering of Medway, MA The architectural drawings and renderings are dated July 8, 2022, prepared by Damon McQuaid Architect.

Project information for Sanderson View is posted at the Planning and Economic Development web page at https://www.townofmedway.org/planning-economic-development-board/pages/sanderson-view-multi-family-housing-development

We invite your comments; please provide comments to Anna Rice and me.

Susan Affleck-Childs

From: Cameron Bagherpour <bagherc@gmail.com>
Sent: Wednesday, October 19, 2022 3:26 PM
To: Susan Affleck-Childs
Cc: .Mike
Subject: [External] 16 Holliston St Medway Sanderson View

Susan,

Per our conversation this afternoon we will need to request a continuance of our hearing to the next scheduled planning board meeting on November 22.

Best,

Cameron Bagherpour
919.434.9001

October 25, 2022
Medway Planning & Economic Development Board Meeting

Plan Endorsement – Milford Hospital Medical Facility Site Plan, 86 Holliston Street

- Pre-Endorsement checklist (10-20-22)
- Verification of paid taxes from Treasurer/Collector
- Certificate of NO Appeal from Town Clerk
- Revised Site Plan by Guerriere and Halnon
- Tetra Tech review email dated 10-20-22

NOTES

- As of 12:00 pm on 10-21-22, we have not yet received payment for the construction services account ($14,851)
- We await a revised cover sheet for the plan set from Guerriere and Halnon
- We await an added detail sheet showing the lighting specifications from Guerriere and Halnon

Milford Regional Hospital Site Plan
Pre-Endorsement Checklist – TO DO

NOTE – The site plan must be endorsed by the Board within 60 days after the decision was filed with the Town Clerk (9-29-22). Therefore, the deadline for the Board to endorse the plan is November 28, 2022. However, the Board cannot endorse the plan until after the 20-day appeal period concludes on October 19, 2022. Assuming there is no appeal, the soonest possible meeting date for the Board to endorse the final Milford Hospital site plan is October 25, 2022.

Prior to plan endorsement, the following items must be completed.

Permittee's Responsibility:

In process	1. Guerriere & Halnon to revise the site plan as itemized in Specific Conditions D and E of the decision and submit the updated plan electronically to the PED office for staff and consultant review.
✓	2. Secure a *Certificate of No Appeal* from the Town Clerk and provide it to the PED office after the 20-day appeal period has concluded on October 19, 2022.
Not Recvd.	3. Pay the Construction Services invoice for Tetra Tech's services for construction inspection of site infrastructure and amenities. This invoice will be emailed to you on October 12, 2022 after the Board approves the amount at the October 11, 2022 meeting.
NA	4.Pay balance of any outstanding Plan Review fees and/or taxes and fees if such are owed the Town and if you are invoiced by the PED office.
✓	5. Be current on taxes/fees owned the Town of Medway for 86 Holliston Street.

PED Office's Responsibility

✓	6. Prepare and send a construction services invoice to the applicant on October 12, 2022 after such is approved by the Board on October 11, 2022.
NA	7. Prepare and send an invoice for plan review funds, if needed, to the applicant.
In Process	8. Receive revised subdivision plan from Guerriere and Halnon and forward it to Tetra Tech for review. Secure sign-off memo from Tetra Tech verifying that the required plan revisions specified in the site plan decision have been made. There may be some back and forth on this between G & H and Tetra Tech before this is finalized.
✓	9. Contact Treasurer/Collector's office to secure verification that real estate taxes are current, and any liens are resolved. Susy will communicate directly with the Treasurer/Collector's office.

TOWN OF MEDWAY

Planning & Economic Development Board
155 Village Street
Medway, Massachusetts 02053

Request for Medway Treasurer/Collector's Verification of Status of Paid Taxes

Date: October 3, 2022

Applicant's Name: Lobisser Companies

Subject Property Address: 86 Holliston Street

Map/Parcel Number(s): 41-008

Property Owner(s): Freil Realty II, LLC

Project Name: Milford Regional Hospital Medical Facility

Type of Permit: Site Plan Endorsement

Please indicate the status of taxes/fees owed to the Town:

- ☑ By checking this box and with my signature below, I verify that all taxes and fees owed the Town of Medway ***for the subject property(s)*** are paid in full as of this date.
- ☑ By checking this box and with my signature below, I verify that all taxes and fees owed the Town of Medway ***for other properties owned by the Applicant*** noted above are paid in full as of this date.
- ☐ By checking this box and with my signature below, I verify that the ***Town is owed taxes or fees*** on properties owned by the above noted Applicant. Briefly explain on the lines below. Please attach a report that indicates the property address, what taxes are owed, and the respective amounts.

Signature

10/3/22
Date

Please complete and return to the Planning and Economic Development office.

TOWN OF MEDWAY
COMMONWEALTH OF MASSACHUSETTS
TOWN CLERK'S OFFICE

Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 533-3204
Fax (508) 321-4988
sohannesian@townofmedway.org
www.townofmedway.org

Town Clerk
Stefany Ohannesian

CERTIFICATE

I, Stefany Ohannesian, Town Clerk of the Town of Medway, hereby certify that the decision of the Medway Planning and Economic Development Board, regarding the **Milford Hospital Medical Facility – Major Site Plan, Parking Location Special Permit, Building Type Special Permit and Groundwater Protection Special Permit at 86 Holliston Street Medway, MA 02053.**

It was received and filed in this office on September 29, 2022 in the matter of:

Major Site Plan
Parking Location Special Permit
Building Type Special Permit
Groundwater Protection Special Permit

Applicant: Lobisser Companies
1 Charlesview Road
Hopedale, MA 01747

Property Owner: Friel Realty II, LLC
86 Holliston Street
Medway, MA 02053

No appeal was received during the twenty days after such receipt and recording of said decision in the Town Clerk's Office.

Dated **October 20, 2022** in Medway, MA.

A true copy
ATTEST.....Stefany Ohannesian

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS
FINAL REVISION: SEPTEMBER 30, 2022

INDEX

1. COVER SHEET
2. ABUTTER SHEET
3. EXISTING CONDITIONS
4. EROSION CONTROL
5. PROPOSED SITE LAYOUT
6. GRADING PLAN
7. UTILITY PLAN
8. LANDSCAPING PLAN
9. CONSTRUCTION DETAILS
10. CONSTRUCTION DETAILS
11 CONSTRUCTION DETAILS
12. CONSTRUCTION DETAILS
13. OPERATION AND MAINTENANCE PLAN

PHOTOMETRIC PLAN (BY OTHERS)

ARCHITECTURAL PLANS (BY OTHERS)

VICINITY MAP

1"=500'

NOTE:
LOT A1 (REMAINING LAND) AND LOT A2 TO BE DEPICTED ON AN ANR PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. THE NEW LOT A2 ADDRESS WILL BE #68A MAIN STREET.

APPROVED WAIVERS:

WAIVERS APPROVED BY THE TOWN OF MEDWAY PLANNING BOARD RULES AND REGULATIONS CHAPTER 200

ARTICLE IV MAJOR SITE PLAN REVIEW
1. SECTION 204–5 B SITE CONTEXT SHEET– PLAN SET INCLUDES A VICINITY MAP PROVIDING PARCELS WITHIN 2,000 FEET OF SITE IN LIEU OF A SITE CONTEXT SHEET.
2. SECTION 204–5 D.8.A LANDSCAPE PLAN– TO ALLOW THE LANDSCAPE PLAN BE PREPARED BY A NON–REGISTERED LANDSCAPE ARCHITECT.
3. SECTION 204–5 D.14 MASTER SIGNAGE PLAN – TO ALLOW THE MASTER SIGNAGE PLAN BE SUBMITTED FOR REVIEW PRIOR TO ISSUANCE OF AN CERTIFICATE OF OCCUPANCY.

ARTICLE VII DEVELOPMENT STANDARDS
1. SECTION 207–9 B.1 TO ALLOW A PORTION OF THE FRONT FASCADE SIDEWALK WIDTH TO BE REDUCED TO FIVE FEET WIDE WHERE 7 FEET WOULD BE REQUIRED.
2. SECTION 207–12 G.3.A TO ALLOW PARKING SPACES WITHIN 20FT. OF A BUILDING ENTRANCE.
3. SECTION 207–19 B.2 TO ALLOW REDUCED LANDSCAPE BUFFERS AT THE WEST AND EAST PROPERTY BOUNDARIES.
4. SECTION 207–19 C.1.D. TO ALLOW SHADE TREES WHERE POSSIBLE THAT DO NOT INTERFERE WITH THE REQUIRED UNDERGROUND UTILITIES AND STORMWATER DRAINAGE.

ZONING BYLAWS SECTION 10 CENTRAL BUSINESS DISTRICT DEVELOPMENT STANDARDS
1. SECTION 2.D.2 A OFF STREET PARKING REQUIREMENTS– TO ALLOW ADDITIONAL OFF STREET PARKING SPACES GREATER THAN THE MIN./MAX. REQUIRED BY REQUEST OF A WAIVER FROM THE PLANNING AND ECONOMIC DEVELOPMENT BOARD.

SPECIAL PERMITS:

SPECIAL PERMITS APPROVED THROUGH PLANNING BOARD:
1. ZONING BYLAWS SECTION 5.6.3 GROUNDWATER PROTECTION DISTRICT TO ALLOW IMPERVIOUS COVERAGE IN EXCESS OF 15% OR 2500 SF. WHICHEVER IS GREATER, WITHIN A GROUNDWATER PROTECTION DISTRICT.
2. ZONING BYLAWS SECTION 10 CENTRAL BUSINESS DISTRICT DEVELOPMENT STANDARDS SECTION 2.D.2 C PARKING PLACEMENT OFF STREET PARKING AND LOADING TO ALLOW PARKING WITHIN THE FRONT YARD SETBACK BETWEEN A PUBLIC STREET AND THE STREET FACING FASCADE OF A PRIMARY BUILDING HAVING A SETBACK GREATER THAN 20 FEET FROM THE STREET LINE AND STREETSCAPE TREATMENT.
3. ZONING BYLAWS SECTION 10 CENTRAL BUSINESS DISTRICT DEVELOPMENT STANDARDS SECTION 2.D.2.C PARKING PLACEMENT– TO ALLOW VEHICULAR PARKING BETWEEN THE FRONT BUILDING LINE AND THE STREET RIGHT OF WAY LINE.
4. ZONING BYLAWS SECTION 10 CENTRAL BUSINESS DISTRICT DEVELOPMENT STANDARDS SECTION 4.C.2 TO ALLOW AN ALTERNATIVE BUILDING TYPE OTHER THAN ONE OF THE BUILDING TYPES SPECIFICALLY ALLOWED BY ISSUANCE OF A SPECIAL PERMIT.

I, STEFANY OHANNESIAN, CLERK OF THE TOWN OF MEDWAY, RECEIVED AND RECORDED FROM THE PLANNING BOARD DECISION APPROVAL OF THIS PLAN ON _____ AND NO APPEAL WAS TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY
PLANNING & ECONOMIC DEVELOPMENT BOARD
DECISION APPROVAL DATE: SEPTEMBER 27, 2022
PLAN ENDORSEMENT DATE: OCTOBER 25, 2022

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG–SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS–OF–WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

COVER SHEET

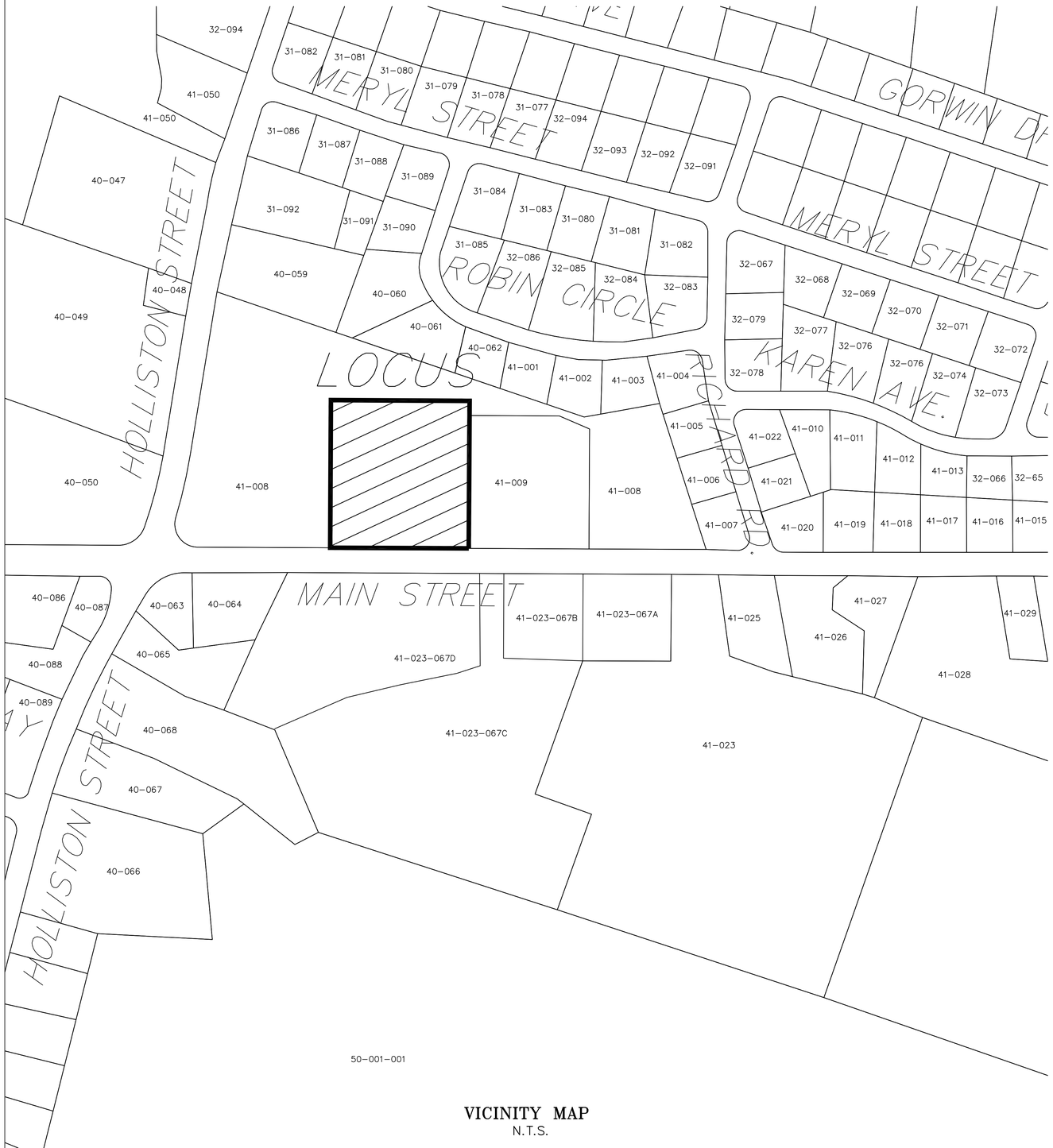
APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST.
FRANKLIN, MA 02038
PH. (508) 528–3221
FX. (508) 528–7921
www.gandhengineering.com

SHEET 1 OF 13

JOB NO. F4516



VICINITY MAP
N.T.S.

OWNER(S)/ASSESSOR INFORMATION:

PARCEL IDs:

41–007 DEIDRE ODONNELL
64 MAIN ST.
MEDWAY, MA.

40–049
FREIL REALTY II, LLC.
86 HOLLISTON ST.
MEDWAY, MA.

40–088
LOK CHING NOMINEE TRUST
6 HAVEN WAY
HOPEDALE, MA.

31–092
JAMES M. CASSIDY
90 HOLLISTON ST.
MEDWAY, MA

40–063
P & A REALTY TRUST
82 HOLLISTON ST.
MEDWAY, MA

41–027
SEAN M CURRIVAN TRUSTEE
36 ELLIS ST.
MEDWAY, MA.

40–050
CHARLES RIVER BANK
70 MAIN ST.
MEDWAY, MA

41–10
REBECCA L. PURCELL
4 KAREN AVE.
MEDWAY, MA.

40–061
DAVID J. MCWHINNIE
11 ROBIN CIRCLE
MEDWAY, MA.

40–047
HERISTON PINTO
91 HOLLISTON ST.
MEDWAY, MA.

31–090
CHARLES J. DUDDY JR.
15 ROBIN CIRCLE
MEDWAY, MA.

41–021
ANGELO MUCCI TRUSTEE
2 RICHARD RD.
MEDWAY, MA.

32–086
GEORGE M. FASOLINO
8 ROBIN CIRCLE
MEDWAY, MA.

32–067
MICHAELS TRAINOR
10 RICHARD RD.
MEDWAY, MA.

40–059
FREIL REALTY II, LLC
86 HOLLISTON ST.
MEDWAY, MA.

40–064
NORMAN W. GREEN REALTY TRUST
71 MAIN ST.
MEDWAY, MA.

41–023
HIDDEN ACRES REALTY I, LLC
1371 OAKLAND BLVD.
WALNUT CREEK, CA.

41–023–067
HIDDEN ACRES REALTY I, LLC.
(67 C MAIN ST)
75 HOLLYHILL LANE
GREENWICH, CT.

32–085
CHRISTOPHER A. ANTHONY
6 ROBIN CIRCLE
MEDWAY, MA.

41–022
ERIC H. KESSLER
4 RICHARD RD.
MEDWAY, MA.

OWNER(S)/ASSESSOR INFORMATION:

PARCEL IDs:

32–079
KATHLEEN A. BUXTON
8 RICHARD RD.
MEDWAY, MA.

32–082
ALAN J. MEISTER
9 RICHARD RD.
MEDWAY, MA.

41–023–067
(67 A MAIN ST)
HIDDEN ACRES REALTY I, LLC.
75 HOLLY HILL LANE
GREENWICH, CT.

41–023–067
(67 B MAIN ST.)
HIDDEN ACRES REALTY I, LLC.
PO BOX 902
SPENCER MA.

31–085
JOSEPH J. LATOSEK JR.
10 ROBIN CIRCLE
MEDWAY, MA.

41–023–067
(67 D MAIN ST.)
HIDDEN ACRES REALTY I, LLC.
ONE CVS DRIVE
WOONSOCKET, RI.

31–091
CHARLES J. DUDDY JR.
15 ROBIN CIRCLE
MEDWAY, MA.

41–25
FREIL REALTY I, LLC.
86 HOLLISTON ST.
MEDWAY, MA.

32–083
DIANE PRIDE
2 ROBIN CIRCLE
MEDWAY, MA.

41–004
SYDNEY LAMPKE
5 RICHARD RD.
MEDWAY, MA.

41–020
SAMUEL S. TORREY JR.
62 MAIN ST.
MEDWAY, MA.

40–086
CHEN DE XIANG TRUSTEE
6 HAVEN WAY
HOPEDALE, MA.

32–078
(1 KAREN AVE)
MARGARET A. LE COADY
7539 DANVERS CIRCLE
PORT CHARLOTTE, FL.

32–084
RYAN P. SULLIVAN
4 ROBIN CIRCLE
MEDWAY, MA.

40–048
FREIL REALTY II, LLC.
86 HOLLISTON ST.
MEDWAY, MA.

41–026
SEAN M. CURRIVAN
59 MAIN ST.
MEDWAY, MA.

40–066
(74 HOLLISTON ST.)
HIDDEN ACRES REALTY I, LLC.
75 HOLLY HILL LANE
GREENWICH, CT.

41–019
WILLIAM MCCAUL
60 MAIN ST.
MEDWAY, MA.

31–084
JOHN K. SPURLING
16 ROBIN CIRCLE
MEDWAY, MA.

OWNER(S)/ASSESSOR INFORMATION:

PARCEL IDs:

32–81
JAMES F. CASSIDY
14 MERYL ST.
MEDWAY, MA.

40–065
WHITE PEARL LLC.
76 HOLLISTON ST.
MEDWAY, MA.

40–87
AOUDE GAS & REPAIRS
73 MAIN ST.
MEDWAY, MA.

40–062
ROBERT G. COLLINS
9 ROBIN CIRCLE
MEDWAY, MA.

40–060
EDGAR E. DOCHERTY
13 ROBIN CIRCLE
MEDWY, MA.

41–003
EDITH E. CULLEN
3 ROBIN CIRCLE
MEDWAY, MA.

41–001
MARILYN E. SMITH
7 ROBIN CIRCLE
MEDWAY, MA.

41–011
ERIKA R. LEGER
6 KAREN AVE.
MEDWAY, MA.

41–009
(68 MAIN ST)
FREIL REALTY II, LLC.
PO BOX 1159
DEERFIELD, IL.

41–002
AUTUMN RICHARD
5 ROBIN CIRCLE
MEDWAY, MA.

41–005
CLIFFORD M. LANDER
3 RICHARD ROAD
MEDWAY, MA.

32–077
ELOISE C. THIBAULT
3 KAREN AVE
MEDWAY, MA.

31–099
(9 LOVERING ST.)
TOWN OF MEDWAY
155 VILLAGE STREET
MEDWAY, MA.

41–006
KEVIN D. MULLER
1 RICHARD ROAD
MEDWAY, MA.

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY
PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG–SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS–OF–WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

ABUTTER SHEET

APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST.
FRANKLIN, MA 02038
PH. (508) 528–3221
FX. (508) 528–7921
www.gandhengineering.com

JOB NO. F4516

ZONING DISTRICT
CENTRAL BUSINESS

	REQUIRED
MIN. LOT AREA	10,000 SF
MIN. LOT FRONTAGE	NA[1]
MIN. YARD SETBACKS	
FRONT	10 FT
SIDE	10 FT 25 FT*
REAR	25 FT
STRUCTURE COVERAGE	80%
MAXIMUM IMPERVIOUS COVERAGE	NA
MINIMUM OPEN SPACE	15%

*WHEN ABUTTING A RESIDENTIAL DISTRICT
[1]PROPERTIES IN THE CENTRAL BUSINESS DISTRICT THAT DO NOT HAVE FRONTAGE ON A PUBLIC STREET SHALL BE REQUIRED TO HAVE AN EASEMENT OF AT LEAST 30 FEET IN WIDTH PROVIDING ACCESS TO A PUBLIC STREET.

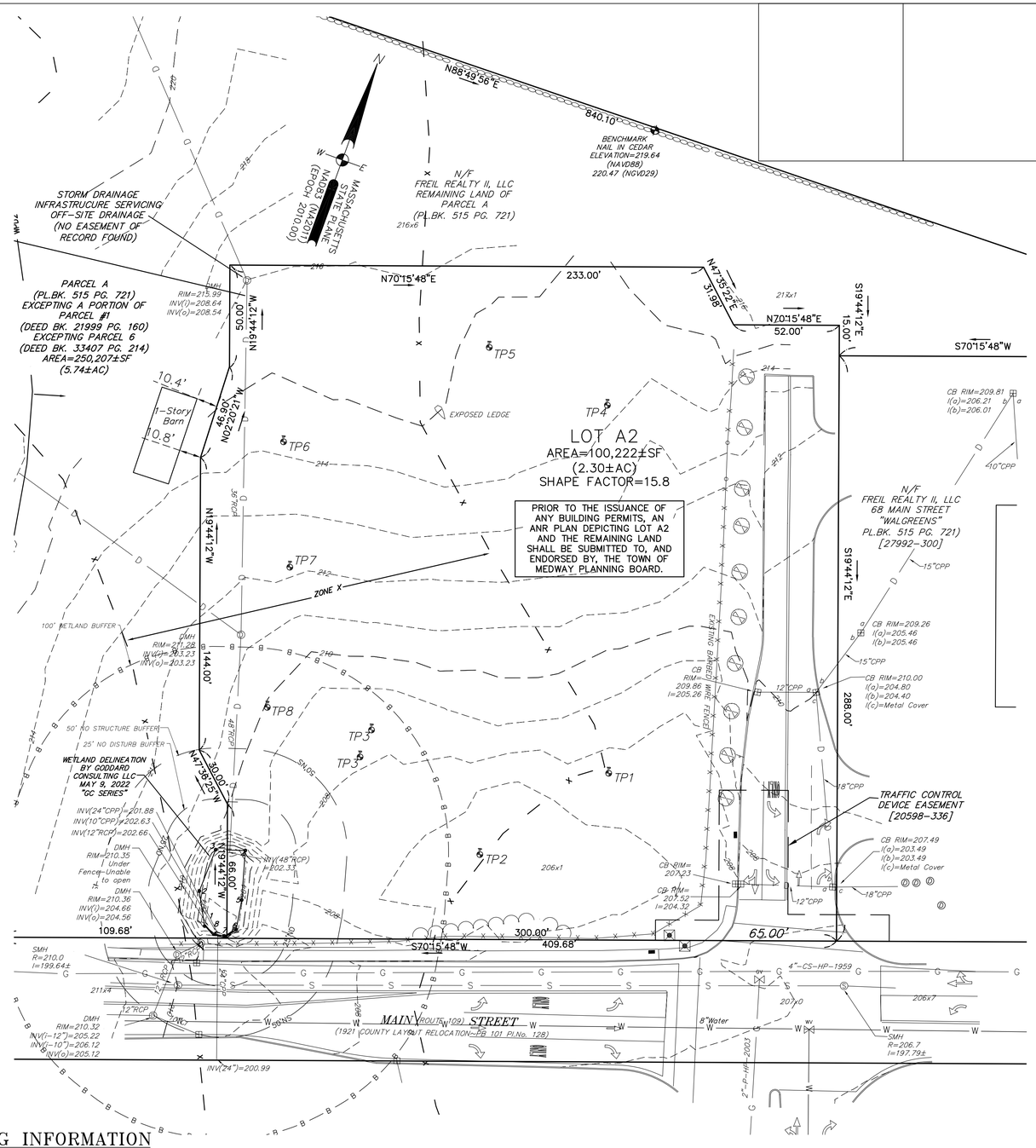
LEGEND

	CATCH BASIN		LIGHT POLE
	DRAIN MANHOLE		UTILITY POLE
	ELECTRIC MANHOLE		GUY WIRE
	SEWER MANHOLE		SIGN
	MANHOLE		WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. STREET LIGHTING
WV	WATER VALVE		
	WATER SHUT OFF VALVE	x 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP

000	EXISTING CONTOUR
D	EXISTING DRAIN LINE
W	EXISTING WATER LINE
x x x x x	EXISTING FENCE
X	FLOOD ZONE X– MINIMAL RISK AREA
WPD2	ZONE 2 WELLHEAD PROTECTION DISTRICT

NOTES

1. THIS LAND IS ZONED CENTRAL BUSINESS.
2. A PORTION OF THIS SITE IS LOCATED FLOOD HAZARD ZONE X PER FEMA FLOOD MAP 25021C0143E, EFFECTIVE DATE 7/17/2012.
3. THE WETLANDS WERE EVALUATED BY GODDARD CONSULTING LLC. ON DECEMBER 13, 2021 AND JANUARY 28, 2022 SEE WETLAND REPORTS FOR FURTHER INFORMATION. WETLANDS WERE FIELD LOCATED BY GUERRIERE & HALNON, INC.
4. REFER TO MEDWAY ASSESSORS MAP 41 LOT 008
5. THIS SITE IS LOCATED WITHIN THE GROUNDWATER PROTECTION DISTRICT.
6. ALL REFERENCED DEEDS ARE ON RECORD AT THE NORFOLK REGISTRY OF DEEDS.
7. THIS SITE IS NOT LOCATED WITHIN A NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM AREA.
8. ELEVATIONS ARE BASED ON HORIZONTAL DATUM:NAD83; VERTICAL DATUM: NAVD88.
9. EXISTING SEWER INVERTS IN MAIN STREET OBTAINED FROM PLAN TITLED "TOWN OF MEDWAY, MASSACHUSETTS BOARD OF WATER/SEWER COMMISSIONERS SANITARY SEWER PROGRAM MAIN STREET – STA. 45+00 TO STA. 55+60.71" SHEET 5 OF 16 DATED 3–20–84, REVISED THROUGH 4–7–89, AND PREPARED BY METCALF & EDDY, INC./ENGINEERS.
10. EXISTING SEWER INVERTS TO BE VERIFIED PRIOR TO START OF CONSTRUCTION.



TESTING INFORMATION

TESTING DATE: JANUARY 5, 2022 SOIL EVALUATOR: MICHAEL HASSETT

TP 1

207.60		
206.94	SANDY LOAM A	8" 10YR 2/2
205.36	SANDY LOAM B	19" 7.5YR 5/8
203.62	COARSE SAND C1	21" 10YR 5/8
202.29	SANDY LOAM C2	16" 2.5YR 5/4
198.49	SAND & GRAVEL C3	46" 2.5YR 6/3

WEEPING @ 77"
MOTTLES @ 27" 205.35
NO REFUSAL

TP 2

206.5		
203.00	F	42"
201.50	SANDY LOAM Ab	18" 10YR 2/2
196.25	LOAMY SAND Ab VARIES IN DEPTH	63" 10YR 5/4

MOTTLES @ 34" 203.67
WEEPING @ 6.5'

TP 3

208.1		
205.10	F	36"
204.10	SANDY LOAM Ab	12" 10YR2/2
202.60	SANDY LOAM B	18" 7.5YR 5/8
199.10	SAND & GRAVEL C	42" 10YR 5/8

MOTTLES @ 42" 204.60
WEEPING @ 78"

TP 4

214.20		
210.90	LOAM/FILL	

GW @ 3.3'

TP 5

214.80		
209.80	LOAM/FILL	

GW @ 5'

TP 6

214.20		
211.70	F	30"
209.20	SAND & GRAVEL C1	28" 10YR 5/8
208.70	LOAMY SAND C2	6" 2.5YR 5/4
205.53	SAND & GRAVEL C3	38" 2.5YR 6/3

MOTTLES @ 36"
WEEPING @ 98"

TP 7

212.20		
209.20	F	36"
201.70	SANDY LOAM C	90" 10YR 5/8

MOTTLES @ 54"
WEEPING @ 120"

TP 8

209.90		
206.90	F	36"
205.90	SANDY LOAM Ab	12" 10YR2/2
204.90	SANDY LOAM B	12" 7.5YR 5/8
200.40	SAND & GRAVEL C	54" 10YR 5/8

MOTTLES @ 54"
B LAYERS VARY

REGISTRY USE ONLY
F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO DIGGING, EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG–SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS–OF–WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

EXISTING CONDITIONS

APRIL 14, 2022

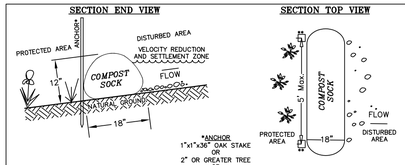
DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

GRAPHIC SCALE: 1"=30'

0 10 20 30 40 50 75 FEET
0 5 10 15 20 25 METERS

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528–3221
FRANKLIN, MA 02038 FX. (508) 528–7921
www.gandhengineering.com

SHEET 3 OF 13 JOB NO. F4516



COMPOST SOCK COMPONENTS:

OUTSIDE CASING: 100% organic hessian.

FILLER INGREDIENT: *PiberRoot Mulch*™

- A blend of coarse and fine compost and shredded wood.
- Particle sizes: 100% passing a 3" screen; 90–100% passing a 1" screen; 70–100% passing a 0.75" screen; 30–75% passing a 0.25" screen.
- Weight: Approx. 850 lbs./cu.yd. (Ave. 30 lbs./l.f.)

COMPOST SOCK INSTALLATION:

With the newest technology and equipment, sections can be constructed on site in lengths from 1' to 100'.

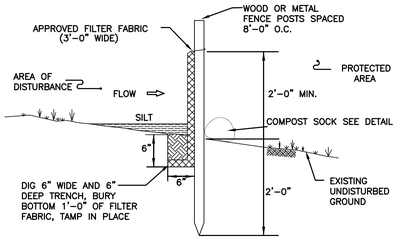
Sections can also be delivered to the site in lengths from 1' to 8'.

The flexibility of *COMPOST SOCK* allows it to conform to any contour or terrain while holding a slightly oval shape at 12" high by 18" wide.

Where section ends meet, there shall be an overlap of 6" or greater. Both sides shall be anchored (ock stakes, trees, etc.) to stabilize the union. No additional anchors are required on slopes less that 2:1. **Additional anchors are required at 5' intervals (max.) on the downslope or protected side on slopes greater than 2:1 to prevent movement.

COMPOST SOCK DETAIL

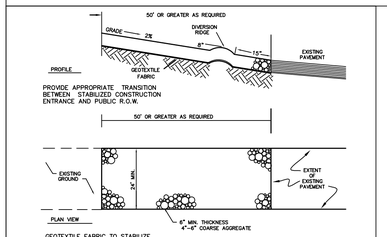
NOT TO SCALE



1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE GRADING AND DRAINAGE PLAN.
2. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE SIDES.
3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
4. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE CONSERVATION COMMISSION.

SILT FENCE EROSION CONTROL

N.T.S.



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

NAMES OF PERSONS OR ENTITIES RESPONSIBLE FOR PLAN COMPLIANCE

KEVIN LOBISSER
LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747
TEL: 508-478-6235

EROSION CONTROL AND DRAINAGE CONSTRUCTION PHASING

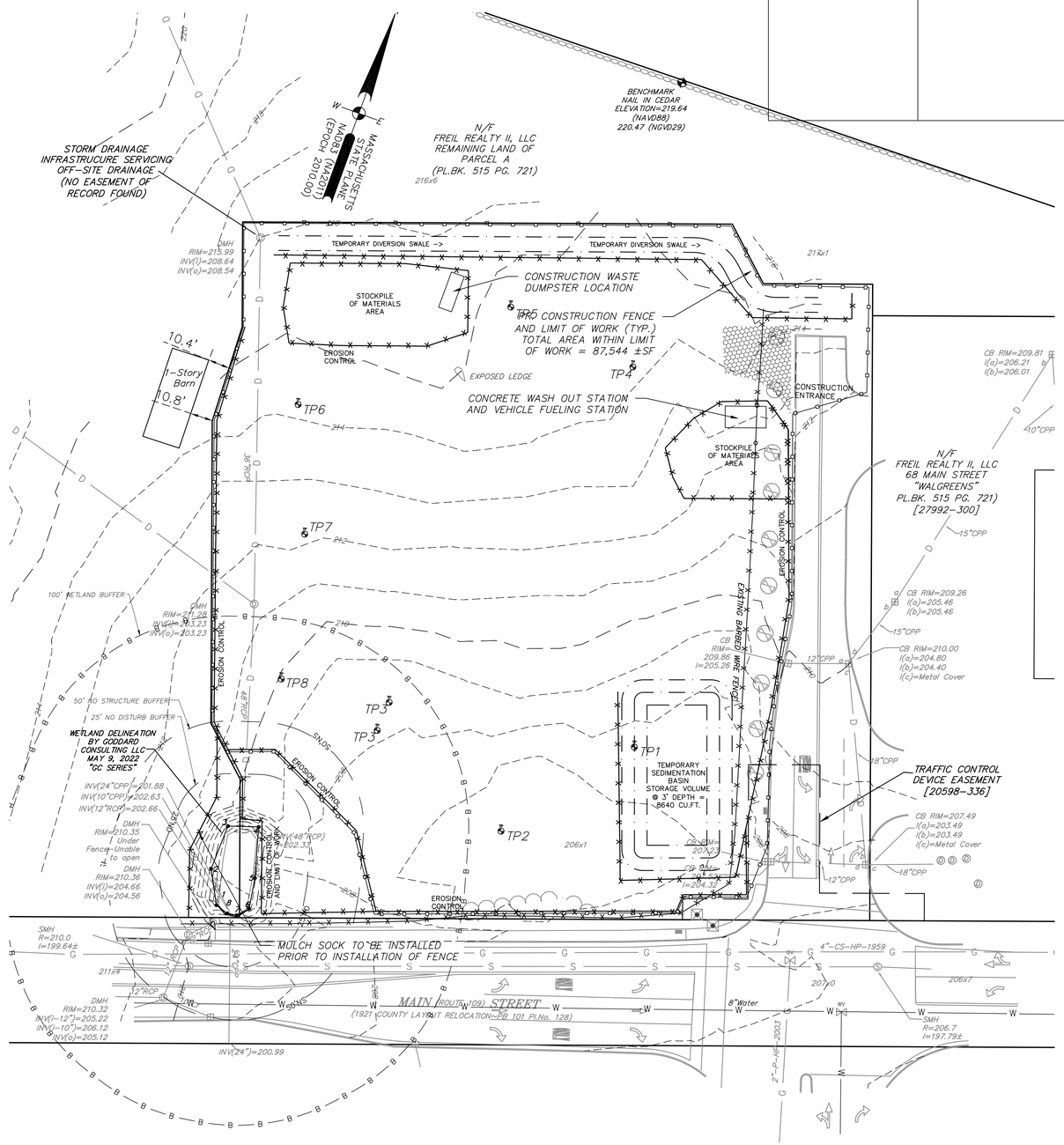
1. INSTALL EROSION CONTROL DEVICES ALONG PERIMETER OF SITE WHERE SHOWN.
2. INSTALL CONSTRUCTION ENTRANCE AND TEMPORARY DIVERSION SWALE.
3. SITE TO BE CLEARED AND GRUBBED.
4. INSTALL SLOPE MATTING TO STABILIZE SLOPES (IF APPLICABLE)
5. INSTALL DRAINAGE MANHOLES AND CATCHBASINS AND ENSURE TEMPORARY COVER IS IN PLACE.
6. INSTALL ALL DRAINAGE RISERS, GRATES AND COVERS
7. REMOVE CONSTRUCTION ENTRANCES.
8. UPON ALL CATCHMENT STRUCTURES AND MITIGATION FEATURES BECOMING OPERATIONAL, INSTALL PAVEMENT TO BINDER FINISH GRADE. PAVER TO PROVIDE TEMPORARY ASPHALT BERM ON BOTH SIDES OF PROPOSED PAVED AREAS. EROSION CONTROL MEASURES BACKED BY CRUSHED STONE TO BE PROVIDED ON DOWN GRADIENT SIDE OF CATCH BASINS TO DIRECT WATER TO TEMPORARY BASIN.
9. REMOVE TEMPORARY SEDIMENTATION BASIN AND FOREBAY AFTER SITE HAS BEEN STABILIZED AND PREPARED FOR BUILDING FOUNDATION INSTALLATION.
10. EROSION CONTROL AND TEMPORARY DIVERSION SWALE TO REMAIN IN PLACE UNTIL ALL DRAINAGE IS CONSTRUCTED AND INSPECTED AND READY TO RECEIVE FULL DESIGN FLOWS.

GENERAL NOTES:

1. SPECIAL CONSIDERATION FOR INLET CONTROLS FOR EROSION COLLECTION BEFORE ENTERING DRAINAGE SYSTEM.
2. INSTALL SILT SACKS IN ALL EXISTING CATCH BASINS WITHIN THE AREA OF WORK.
3. INSTALL BARRIER AROUND CATCH BASIN, COMPOST SOCK OR EQUAL.
4. INSTALL FILTER FABRIC ON ALL DRAIN MANHOLE OUTLETS DISCHARGING TO INFILTRATION SYSTEM.
5. INSPECTIONS BEFORE AND AFTER STORM EVENTS ARE REQUIRED TO INSURE ADEQUACY OF EROSION CONTROL MEASURES.
6. ALL EXISTING STRUCTURES TO BE RAZED.
7. STOCK PILE AREA TO BE CONTAINED USING EROSION CONTROL DEVICES
8. DIRT BAG SHALL BE USED TO PERIODICALLY CLEAN THE TEMPORARY SEDIMENTATION BASINS DURING CONSTRUCTION.
9. A CONSTRUCTION FENCE SHALL BE PLACED AROUND THE PERIMETER OF THE SITE.
10. SOILS UNDERLYING THE SITE ARE DEFINED AS MAP UNITS 260B SUDBURY FINE SANDY LOAM (HSG B), 254B MERRIMAC FINE SANDY LOAM (HSG A), 300B MONTAUK FINE SANDY LOAM (HSG C), AND 310B WOODBRIDGE FINE SANDY LOAM (HSG C/D).
11. THE PROJECT RESULTS IN A NET FILL OF SOILS OF APPROXIMATELY 5,400 CY. ALL IMPORTED MATERIAL SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF MEDWAY.

LEGEND

	CATCH BASIN		LIGHT POLE
	DRAIN MANHOLE		UTILITY POLE
	ELECTRIC MANHOLE		GUY WIRE
	SEWER MANHOLE		SIGN
	MANHOLE		WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. STREET LIGHTING
WV	WATER VALVE		
	WATER SHUT OFF VALVE	X 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP
000	EXISTING CONTOUR		
D	EXISTING DRAIN LINE		
W	EXISTING WATER LINE		



TEMPORARY SEDIMENTATION BASIN SIZING:
3600 CU.FT. OF STORAGE PER ACRE DRAINED

2.3 ACRES DRAINED X 3600 CU.FT. = 8282.8 CU.FT.

STORAGE PROVIDED = 8640 CU.FT.

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE(7233).

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN 86 HOLLISTON STREET MEDWAY MASSACHUSETTS

EROSION CONTROL

APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

GRAPHIC SCALE: 1"=30'

0 10 20 30 40 50 75 FEET
0 5 10 15 20 25 METERS

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST.
FRANKLIN, MA 02038
PH. (508) 528-3221
FX. (508) 528-7921
www.gandhengineering.com

SHEET 4 OF 13

JOB NO. F4516

ZONING DISTRICT
CENTRAL BUSINESS

	REQUIRED	PROPOSED
MIN. LOT AREA	10,000 SF	100,222 SF
MIN. LOT FRONTAGE	NA[f]	300.00 FT
MIN. YARD SETBACKS		
FRONT	10 FT	112.3 FT
SIDE	10 FT 25 FT[e]	55.4 FT
REAR	25 FT	54.8 FT
STRUCTURE COVERAGE	80%	21.9%
MAXIMUM IMPERVIOUS COVERAGE**	NA	68.3%**
MINIMUM OPEN SPACE	15%	31.7%
INTERIOR PARKING LANDSCAPING	10%	11.0%

[e]WHEN ABUTTING A RESIDENTIAL DISTRICT
[f]PROPERTIES IN THE CENTRAL BUSINESS DISTRICT THAT DO NOT HAVE FRONTAGE ON A PUBLIC STREET SHALL BE REQUIRED TO HAVE AN EASEMENT OF AT LEAST 30 FEET IN WIDTH PROVIDING ACCESS TO A PUBLIC STREET.

**MAXIMUM IMPERVIOUS COVERAGE IN A GROUND WATER PROTECTION DISTRICT: ANY USE THAT WILL RENDER IMPERVIOUS MORE THAN 15% OR 2500 SF. OF ANY LOT WHICHEVER IS GREATER.

NOTE

LOT COVERAGE CALCULATION:

NEW LOT AREA = 100,222±SF.

EXISTING PAVEMENT = 10,263± SF.
PROPOSED BUILDING = 21,900± SF.
PROPOSED PAVEMENT = 36,329± SF.

TOTAL IMPERVIOUS = 68,492± SF.
(68.3%)

LEGEND

	CATCH BASIN		LIGHT POLE
D	DRAIN MANHOLE		UTILITY POLE
E	ELECTRIC MANHOLE		GUY WIRE
S	SEWER MANHOLE		SIGN
	MANHOLE		WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. STREET LIGHTING
WV	WATER VALVE	VGC	VERTICAL GRANITE CURB
	WATER SHUT OFF VALVE	x 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP
000	EXISTING CONTOUR		
D	EXISTING DRAIN LINE		
W	EXISTING WATER LINE		

NOTE:
NO SNOW IS TO BE STORED WITHIN WETLAND RESOURCES OR THEIR BUFFERS, STORMWATER MANAGEMENT AREAS, OR PARKING SPACES. SNOW STORAGE SIGNS ARE TO BE PROVIDED ADJACENT TO THE WETLAND RESOURCE AREA AS SHOWN ON THIS PLAN. EXCESS SNOW THAT CANNOT BE STORED WITHIN THE DESIGNATED SNOW STORAGE AREAS IS TO BE REMOVED AND DISPOSED OF OFF-SITE WITHIN 72 HOURS.

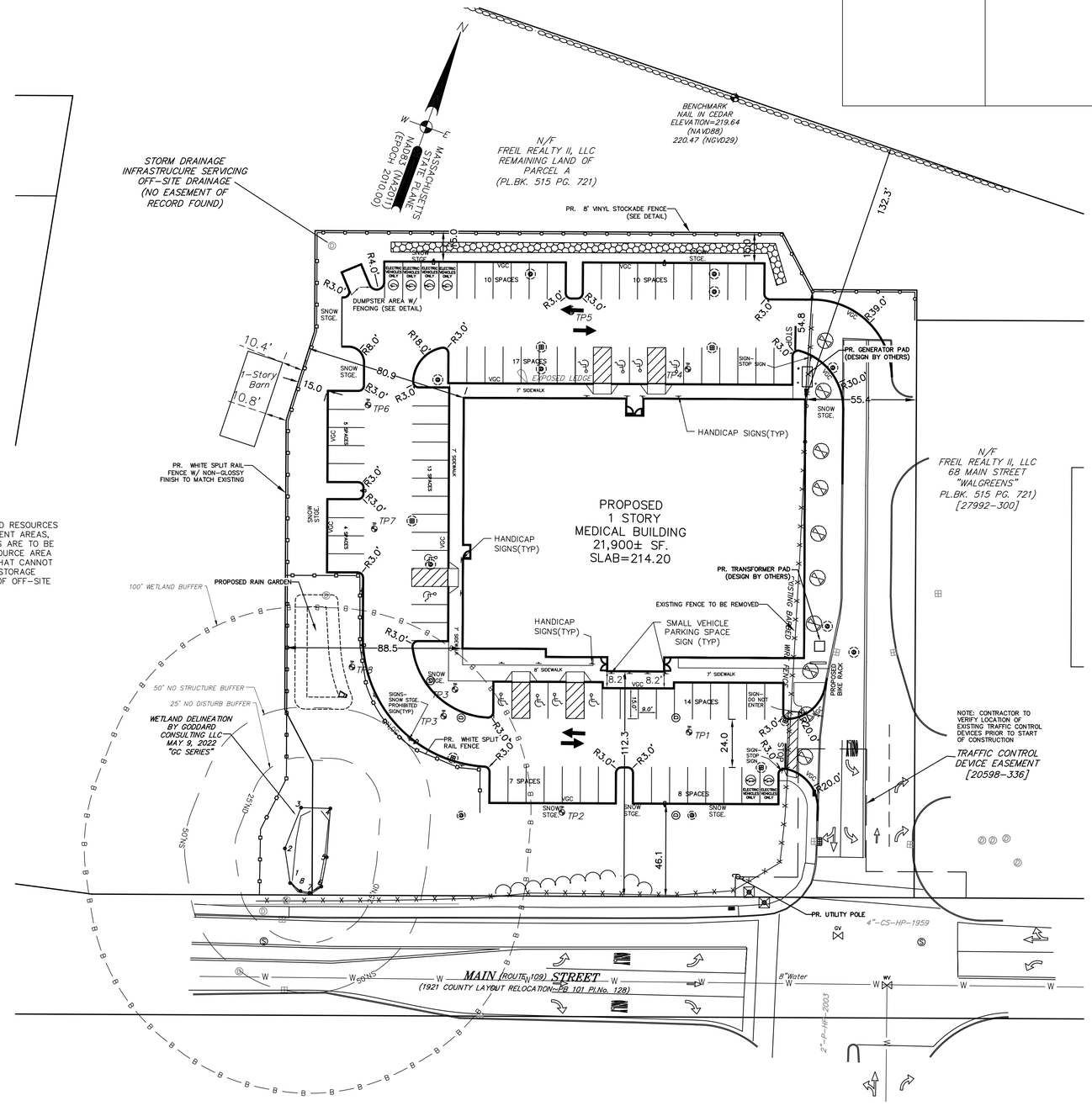
PARKING NOTES

ZONED: CENTRAL BUSINESS
PARKING REQUIREMENTS PER ZONING:
TABLE 3. SCHEDULE OF OFF STREET PARKING REQUIREMENTS

MEDICAL OFFICE OR CLINIC:
1 SPACE PER 300 SF. = 73 SPACES REQUIRED
NUMBER OF EMPLOYEES = 41
PARKING SPACES PROVIDED = 88 SPACES

TYPICAL PARKING SPACE: 18' X 9'

ELECTRIC VEHICLE SPACES REQ'D = 4
ELECTRIC VEHICLE SPACES PROVIDED = 6



REGISTRY USE ONLY
F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

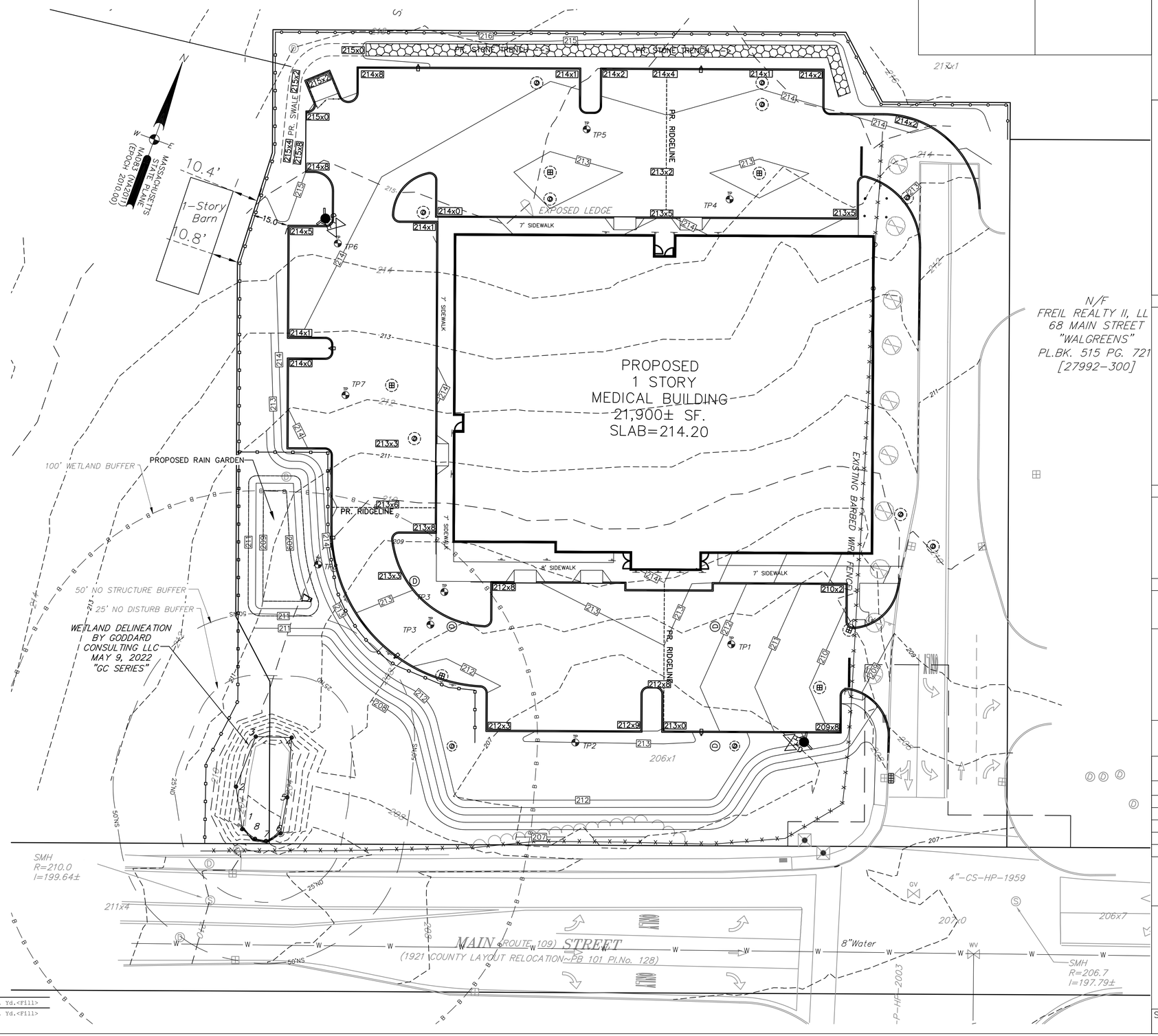
LAYOUT PLAN

APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

GRAPHIC SCALE: 1"=30'
0 10 20 30 40 50 75 FEET
0 5 10 15 20 25 METERS

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST.
FRANKLIN, MA 02038
PH. (508) 528-3221
FX. (508) 528-7921
www.gandhengineering.com



LEGEND

	CATCH BASIN		LIGHT POLE
	DRAIN MANHOLE		UTILITY POLE
	ELECTRIC MANHOLE		GUY WIRE
	SEWER MANHOLE		SIGN
	MANHOLE		WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. STREET LIGHTING
WV	WATER VALVE		
	WATER SHUT OFF VALVE	x 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP

000	EXISTING CONTOUR
D	EXISTING DRAIN LINE
W	EXISTING WATER LINE

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
CUTFILL	1.000	1.000	80176 Sq. Ft.	709 Cu. Yd.	6106 Cu. Yd.	5397 Cu. Yd.<Fill>
Totals			80176 Sq. Ft.	709 Cu. Yd.	6106 Cu. Yd.	5397 Cu. Yd.<Fill>

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY
PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

GRADING PLAN

APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

GRAPHIC SCALE: 1"=20'

0 5 10 15 20 25 30 40 50 FEET
0 1 2 3 4 5 10 15 20 METERS

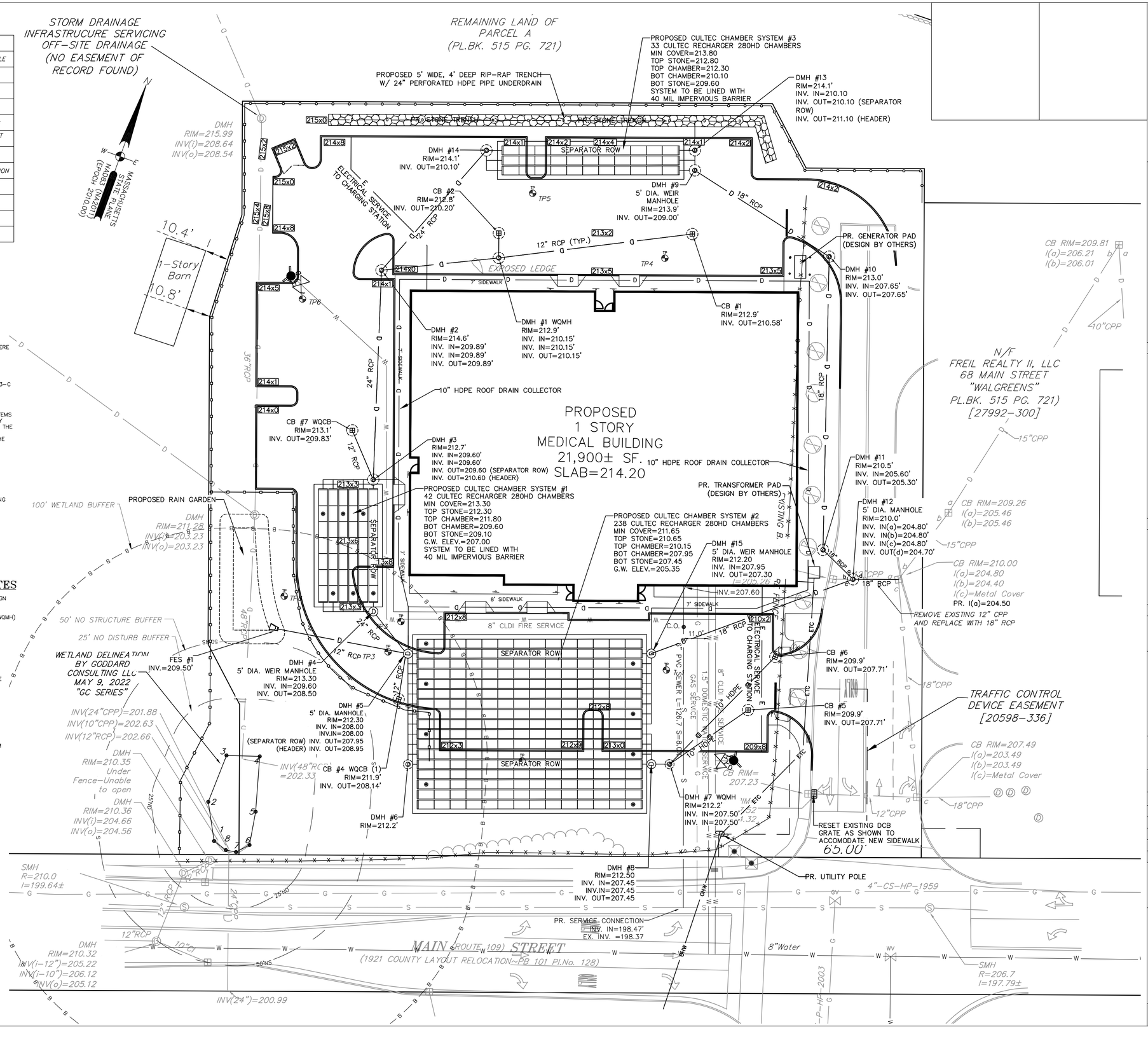
Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528-3221
FRANKLIN, MA 02038 FX. (508) 528-7921
www.gandhengineering.com

SHEET 6 OF 13

JOB NO. F4516

LEGEND

	CATCH BASIN		LIGHT POLE
	DRAIN MANHOLE		UTILITY POLE
	ELECTRIC MANHOLE		GUY WIRE
	SEWER MANHOLE		SIGN
	MANHOLE		WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. STREET LIGHTING
WV	WATER VALVE		
	WATER SHUT OFF VALVE	X 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP
000	EXISTING CONTOUR		
D	EXISTING DRAIN LINE		
W	EXISTING WATER LINE		



STORM DRAINAGE NOTES

1. ALL DRAINAGE PIPES TO BE 12" RCP UNLESS OTHERWISE NOTED. WHERE LESS THAN 3.5' OF COVER IS PROVIDED, CLASS V RCP SHALL BE USED.

2. SEPARATOR ROWS SHALL BE INSTALLED IN ACCORDANCE WITH THE CULTEC SEPARATOR ROW DETAIL SHEET. SEE STORMWATER REPORT.

3. DMH #1, DMH #7, CB #4, AND CB #7 SHALL BE CONTECH CDS1515-3-C WATER QUALITY MANHOLES.

4. NON-METAL ROOFS ARE PROPOSED FOR THE PROPOSED BUILDING.

5. FILL MATERIAL BENEATH THE PROPOSED INFILTRATION CHAMBER SYSTEMS AND RAIN GARDEN SHALL BE REMOVED TO THE DEPTH OF THE NATURALLY OCCURRING SANDY MATERIAL IDENTIFIED IN THE TEST PIT SOIL LOGS, AND THE SYSTEM BROUGHT TO GRADE WITH SAND, CRUSHED STONE, OR OTHER ACCEPTABLE MATERIAL, AS DETERMINED BY THE DESIGN ENGINEER AND THE TOWN OF MEDWAY.

SPECIAL CONSIDERATION FOR INLET CONTROLS FOR EROSION COLLECTION BEFORE ENTERING DRAINAGE SYSTEM:

A. INSTALL SILT SACKS.

B. BARRIER AROUND CATCH BASIN, COMPOST SOCK OR EQUAL

C. INSTALL FILTER FABRIC ON ALL DRAIN MANHOLE OUTLETS DISCHARGING TO INFILTRATION SYSTEM.

D. INSPECTIONS BEFORE AND AFTER STORM EVENTS ARE REQUIRED TO INSURE ADEQUACY OF EROSION CONTROL MEASURES.

E. CONTRACTOR & ARCHITECT ARE TO VERIFY SITE UTILITIES PRIOR TO DESIGN & CONSTRUCTION.

F. ALL PIPE GASKETS SHALL BE PRE-MOLDED NEOPRENE O-RING TYPE (300-11 B.(2)(A)).

SITE DRAINAGE INSTALLATIONS NOTES

1. EACH SUBSURFACE CHAMBER WILL BE INSTALLED SEPARATELY TO DESIGN ELEVATION.

2. INSTALL CONNECTIONS TO CATCH BASINS, WATER QUALITY MANHOLE (WQMH) AND DRAIN MANHOLES.

3. EXCAVATE AND INSTALL SUBSURFACE UNIT, BACKFILL W/ STONE MAINTAINING 18"-24" COVER AND AS-BUILT EACH SECTION.

UTILITY NOTES

ALL UTILITIES SHALL BE CONSTRUCTED AND TESTED ACCORDING TO STATE AND LOCAL REGULATIONS.

ALL WATER AND SEWER UTILITIES TO COMPLY WITH THE TOWN OF MEDWAY DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS. WHERE CONFLICTS EXIST, THE TOWNS SPECIFICATIONS SHALL CONTROL.

ALL WATER AND SEWER LINE WORK WITHIN THE STREET OR SIDEWALK MUST UTILIZE FLOWABLE FILL TO THE SATISFACTION OF THE MEDWAY DEPARTMENT OF PUBLIC WORKS.

THE PROPOSED ELECTRIC UTILITY WILL BE INSTALLED UNDERGROUND FROM THE PROPOSED UTILITY POLE TO THE TRANSFORMER.

ALL UTILITIES SHALL BE INSTALLED UNDERGROUND UNLESS OTHERWISE SHOWN ON THIS PLAN.

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

UTILITY PLAN

APRIL 14, 2022

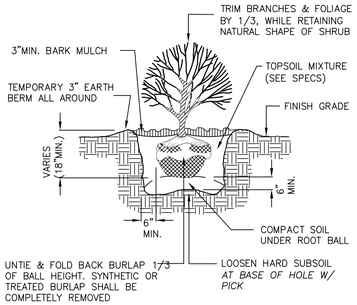
DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

GRAPHIC SCALE: 1"=20'

0 5 10 15 20 25 30 40 50 FEET
0 1 2 3 4 5 10 15 20 METERS

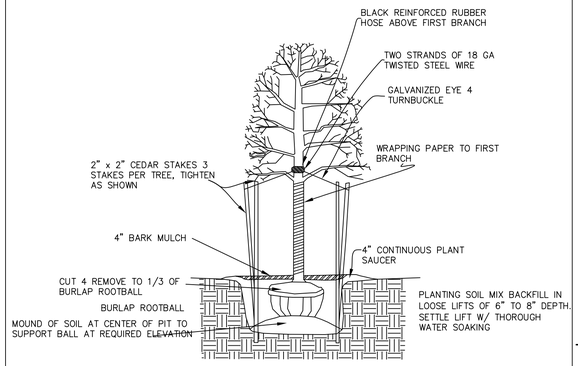
Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. FRANKLIN, MA 02038
PH. (508) 528-3221
FX. (508) 528-7921
www.gandhengineering.com

JOB NO. F4516



SHRUB PLANTING DETAIL

N.T.S.



TREE DETAIL

N.T.S.

NOTES

1. THE CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
2. PLANT MATERIALS SHALL CONFORM TO THE GUIDELINES BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
3. ALL PLANTING SHALL BE PLACED ACCORDING TO THE APPROVED LANDSCAPING PLAN.
4. AFTER PLANTING 4" OF MULCH SHALL BE PLACED WITHIN THE DESIGNATED AREAS.
5. ALL PLANT MATERIAL SHALL INCLUDE A 1 YEAR GUARANTEE.
6. THE CONTRACTOR/LANDSCAPER SHALL WATER NEWLY PLANTED MATERIAL FOR 90 DAYS.
7. DAMAGED VEGETATION WILL BE REMOVED AND REPLACED IF NECESSARY.
8. AREA OF INTERIOR LANDSCAPING = 6,005±SF (13.3%)

LEGEND

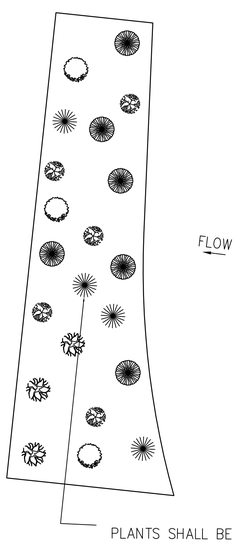
	CATCH BASIN		LIGHT POLE
	DRAIN MANHOLE		UTILITY POLE
	ELECTRIC MANHOLE		GUY WIRE
	SEWER MANHOLE		SIGN
	MANHOLE		WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. STREET LIGHTING
WV	WATER VALVE		
	WATER SHUT OFF VALVE	X 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP
000	EXISTING CONTOUR		
D	EXISTING DRAIN LINE		
W	EXISTING WATER LINE		

PLANTING LEGEND

SYMBOL	NAME	SIZE	QUANTITY
	RED MAPLE ACER RUBRUM	5' MIN. 2.5" CAL.	11
	NORWAY SPRUCE PICEA ABIES	6–7' HIGH MIN.	12
	RED OAK QUERCUS RUBRA	5' MIN. 2.5" CAL.	4
	MOUNTAIN LAUREL KALMIA LATIFOLIA	3 GAL.	7
	EARLY AZALEA R.ROSEUM	3 GAL.	6
	CREEPING JUNIPER JUNIPERUS HORIZONTALIS	3 GAL.	33
	DWARF MUGO PINE PINUS MUGO VAR. PUMILIO	3' GAL.	4
	BOXWOOD NORTH STAR BUXUS SEMPERVIRENS KATERBERG	3' GAL	5
	SWITCH GRASS PANICUM VIGATUM	3' GAL	19
	WHITE SAGE ARTEMISIA LUDOVICIANA	3' GAL	20
	SPIREA WEDDING CAKE SPIREA HIPPONICA	3' GAL	15
	PURPLE CONEFLOWER ECHINACEA PURPPUREA	3' GAL	27

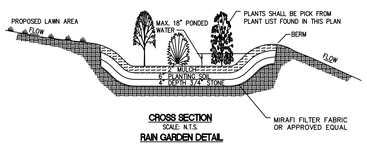
REPLICATION LEGEND

SYMBOL	NAME	SIZE	QUANTITY
	RIVER BIRCH BETULA NIGRA	4' MIN. 2.5" CAL.	4
	MOUNTAIN PEPPERBUSH CLETHRA ACUMINATA	3 GAL.	10
	HIGH BUSH BLUEBERRY VACCINIUM CORYMBOSUM	5 GAL.	10
	WINTERBERRY ILEX VERTICILLATA	3 GAL.	14
	SHEEP LAUREL KALMIA ANGUSTIFORLIA	3 GAL.	6
	CINNAMON FERN OSMUNDA CINNAMOMEA	2 GAL.	23
	NORTHERN BUSH HONEYSUCKLE DIERVILLA LONICERA	3 GAL.	20



RAIN GARDEN PLANTING

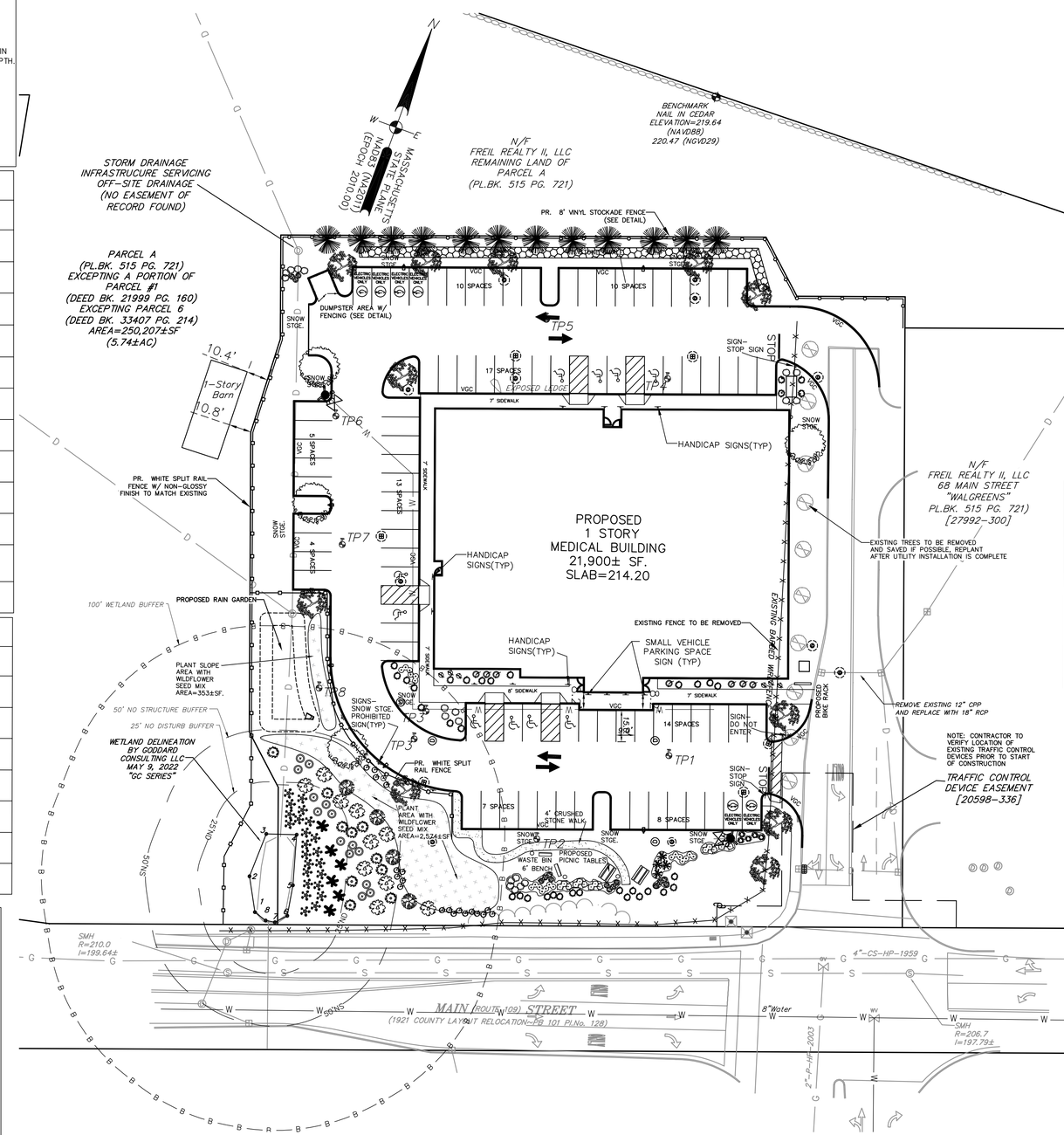
NOT TO SCALE



CROSS SECTION
SCALE: N.T.S.
RAIN GARDEN DETAIL

NOTES: PLANTS TO BE INSTALLED FROM THIS LIST.

Lotus corniculatus (Birdsfoot–trefoil)	Herbaceous
Onoclea sensibilis (Sensitive fern)	Herbaceous
Panicum virgatum (Switch grass)	Herbaceous
Photinia pyrifolia (Red chokeberry)	Shrub
Clethra alnifolia (Sweet pepperbush)	Shrub
Cornus amomum (Silky dogwood)	Shrub
Viburnum dentatum (Arrow–wood)	Shrub
Acer rubrum (Red maple)	Tree
Betula populifolia (Gray birch)	Tree
Juniperus virginiana (Eastern red cedar) (plant along upper/outer edges)	Tree



REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG–SAFE(7233).

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS–OF–WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

LANDSCAPING PLAN

APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

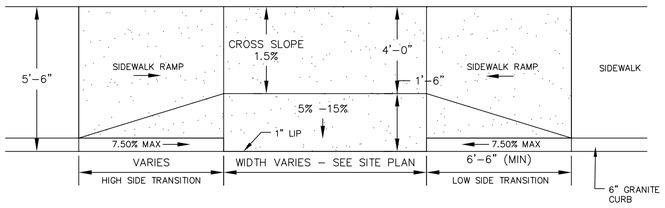
GRAPHIC SCALE: 1"=30'

0 10 20 30 40 50 75 FEET
0 5 10 15 20 25 METERS

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. FRANKLIN, MA 02038
PH. (508) 528–3221
FX. (508) 528–7921
www.gandhengineering.com

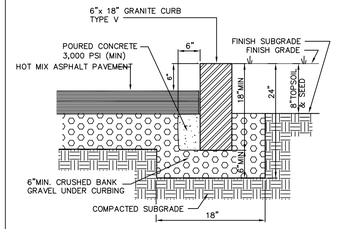
SHEET 8 OF 13

JOB NO. F4516



NOTE:

1. DRIVEWAYS ENTRANCES SHALL BE IN ACCORDANCE WITH MASSDOT STANDARD DRAWINGS AND SPECIFICATIONS.

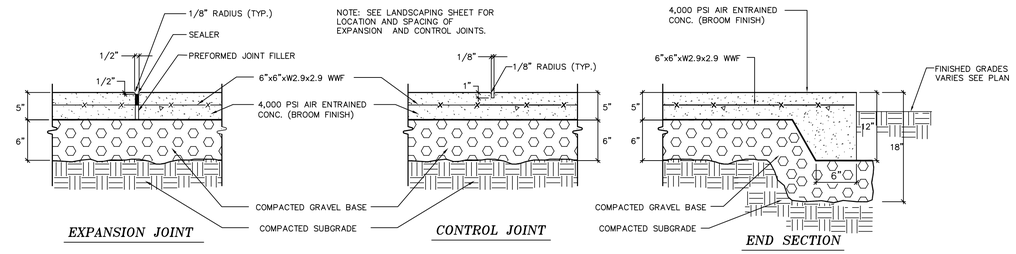


NOTE:

1. INSTALL AS SHOWN ON PLANS

VERTICAL GRANITE CURB DETAIL

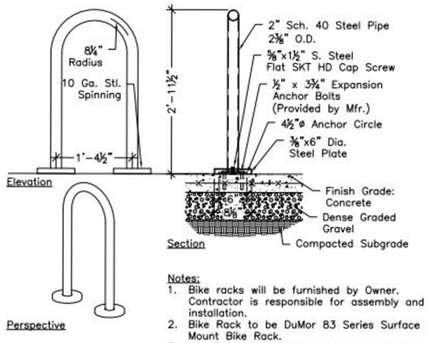
N.T.S.



NOTES:
1. SEE SITE PLAN FOR WIDTH AND GRADES
2. PROVIDE MINIMUM 1/8"/FT. CROSS-SLOPE
3. PROVIDE CONTROL JOINTS 5'- 0" O.C. MIN.
4. PROVIDE EXPANSION JOINTS 20'- 0" O.C. MIN.

TYP. CONC. SIDEWALK DETAILS

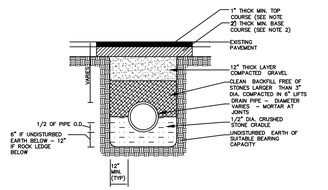
N.T.S.



Notes:
1. Bike racks will be furnished by Owner. Contractor is responsible for assembly and installation.
2. Bike Rack to be DuMor 83 Series Surface Mount Bike Rack.
3. Installation to be completed in accordance with Manufacturer's Specifications.
4. Contractor to touch up all damage to finishes with manufacturer's provided touch up kit.

SURFACE MOUNTED BIKE RACK

NOT TO SCALE

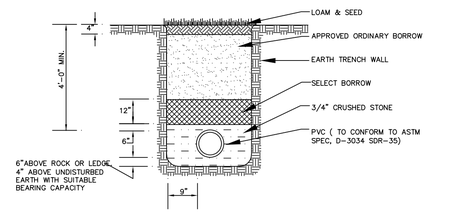


NOTES:

1. AT TIME OF CONSTRUCTION, THE TRENCH IS TO BE BACKFILLED, THEN TOPPED WITH A 12" THICK LAYER OF COMPACTED GRAVEL AND A 2" THICK TEMPORARY LAYER OF HOT TOP PATCH.

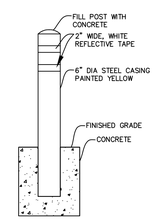
2. AFTER THE TRENCH HAS SETTLED THE ORIGINAL PAVEMENT IS TO BE SAW CUT ALONG THE TRENCH. PAVEMENT & TEMPORARY HOT TOP PATCH TO BE REMOVED, ADDITIONAL COMPACTED GRAVEL TO BE PLACED AS NEEDED, AND BITUMINOUS CONCRETE TO BE PLACED TO THE THICKNESS OF THE ORIGINAL PAVEMENT OR TO THE MINIMUM THICKNESS AS SPECIFIED ABOVE, WHICHEVER IS GREATER.

TYPICAL TRENCH SECTION FOR REINFORCED CONCRETE PIPE



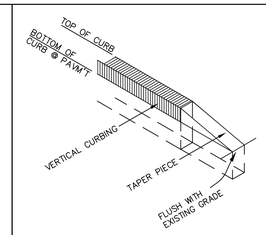
TYPICAL P.V.C. TRENCH SECTION

NOT TO SCALE



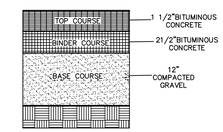
BOLLARD DETAIL

NOT TO SCALE



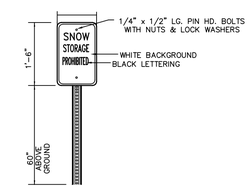
VERTICAL CURB TAPER DETAIL

N.T.S.



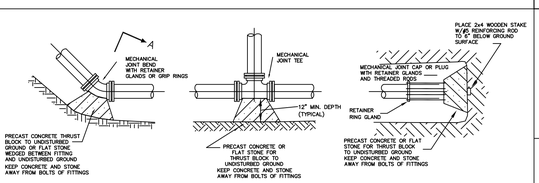
TYPICAL PAVEMENT SECTION

NOT TO SCALE

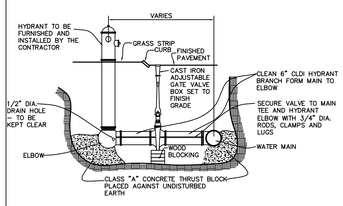


SNOW STORAGE SIGN

NOT TO SCALE

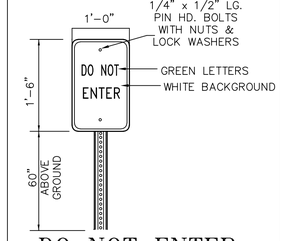


TYPICAL THRUST BLOCK DETAILS

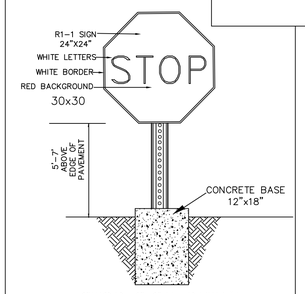


TYPICAL HYDRANT

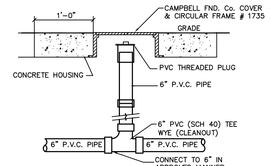
NOT TO SCALE



DO NOT ENTER SIGN DETAIL

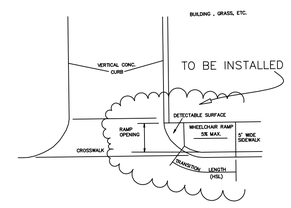


STOP SIGN DETAIL



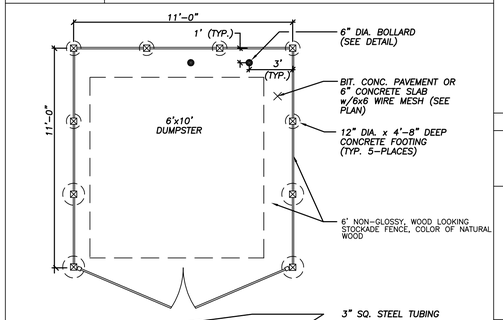
SEWER CLEANOUT DETAIL

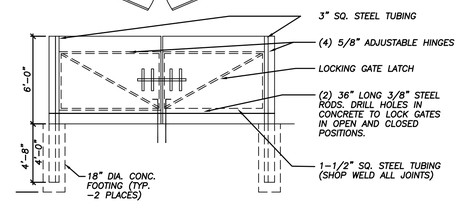
NOT TO SCALE



MASS HIGHWAY DRAWING NO 107.6.0
WHEELCHAIR RAMP FOR RIGHT OF WAY AREAS

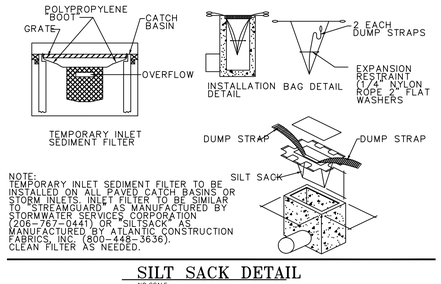
NOT TO SCALE





DUMPSTER ENCLOSURE

NOT TO SCALE

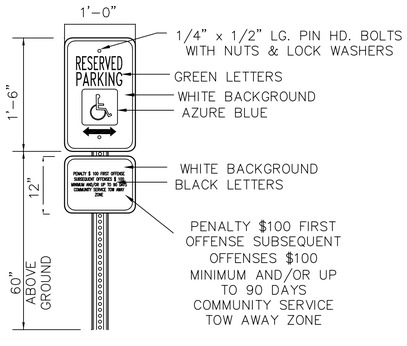


NOTE:
TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVED CATCH BASINS OR STORM INLETS. INLET FILTER TO BE SIMILAR TO "STREAMGUARD" AS MANUFACTURED BY STORMWATER SERVICES CORPORATION (206-767-0441) OR "SILTSACK" AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS, INC. (800-448-3636). CLEAN FILTER AS NEEDED.

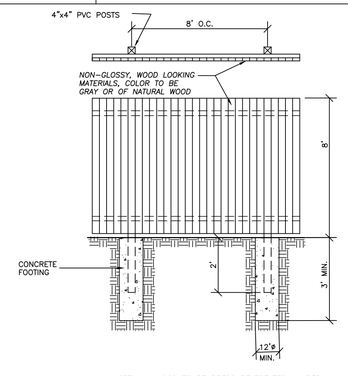
SILT SACK DETAIL

NO SCALE

D-SESC- silt sack



HANDICAP PARKING SIGN DETAIL



NOTE: ALL WOOD TO BE PRESSURE TREATED LUMBER

PVC FENCE DETAIL

N.T.S.

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

CONSTRUCTION DETAILS

APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST.
FRANKLIN, MA 02038
PH. (508) 528-3221
FX. (508) 528-7921
www.gandhengineering.com

GENERAL EROSION CONTROL AND CONSTRUCTION NOTES

1. THE LIMITS OF ALL CLEARING, GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE THE LIMITS OF DISTURBANCE SHALL REMAIN TOTALLY UNDISTURBED.
2. INSPECT ALL SEDIMENT AND EROSION CONTROL MEASURES AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS AFTER EVERY RAINFALL EVENT.
3. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES OR REPLACE AS REQUIRED TO ASSURE PROPER FUNCTION.
4. CONTRACTOR SHALL IMMEDIATELY REPAIR ANY AND ALL EROSION AND SEDIMENT CONTROLS FOUND TO BE FAULTY.
5. ANY AND ALL DEBRIS AND LITTER WHICH ACCUMULATES IN THE BASINS SHALL BE REMOVED WEEKLY.
6. THE CONTRACTOR SHALL IMPLEMENT ALL REASONABLE EROSION AND SEDIMENT CONTROLS PRIOR TO THE ACTUAL COMMENCEMENT OF CONSTRUCTION ACTIVITIES INCLUDING THE CLEARING AND/OR GRUBBING OF ANY PORTION OF THE PROPERTY. THESE MEASURES SHALL BE MAINTAINED IN EFFECT THROUGHOUT THE ENTIRE CONSTRUCTION PHASE, OR UNTIL THE SITE HAS BECOME STABILIZED WITH AN ADEQUATE VEGETATIVE COVER.
7. SEDIMENT BUILD UP BEHIND FILTERMITT SHALL BE MONITORED AND BE REMOVED WHENEVER IT HAS ACCUMULATED TO FOUR INCHES IN DEPTH.
8. CATCH BASINS SHALL BE PROTECTED WITH SILT FILTERS (SILT SACKS). INSPECT SEDIMENT FILTERS AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS AFTER RAINFALL THAT PRODUCES RUNOFF.
9. CLEAN OR REPLACE FILTERS WITHIN 24 HOURS OF INSPECTION WHEN SEDIMENT REACHES ONE HALF OF THE FILTER SACK DEPTH. CATCH BASINS SHALL BE PROTECTED BY SEDIMENT FILTERS THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED. SUMPS SHALL BE CLEANED WHENEVER SEDIMENT HAS ACCUMULATED TO A DEPTH OF 24 INCHES AND IMMEDIATELY FOLLOWING INSTALLATION OF PERMANENT PAVEMENT.
10. THE CONTRACTOR SHALL MAINTAIN AN ADEQUATE STOCKPILE OF EROSION CONTROL MATERIALS ON-SITE AT ALL TIMES FOR EMERGENCY OR ROUTINE REPLACEMENT AND SHALL INCLUDE MATERIALS TO REPAIR OR REPLACE SILT FENCE, MULCH SOCK, STONE FILTER DIKES OR ANY OTHER DEVICES PLANNED FOR USE DURING CONSTRUCTION.
11. THE CONTRACTOR IS TO INSPECT ALL CONTROLS NO LESS THAN WEEKLY, AND IN ANTICIPATION OF RAINFALL EVENTS EXPECTED TO EXCEED 1/2 INCH IN DEPTH. ALL DEFICIENCIES NOTED DURING SAID INSPECTION SHALL BE REPAIRED IMMEDIATELY AND IN NO CASE SHALL A DEFICIENCY BE ALLOWED TO GO UNCORRECTED DURING A RAINFALL EVENT. THE EROSION CONTROL DEVICES SHALL BE MAINTAINED, REINFORCED, OR REPLACED IF NECESSARY. ALL ACCUMULATED SEDIMENTS AND OTHER MATERIALS COLLECTED
12. BY THE SEDIMENTATION CONTROL SYSTEMS SHALL BE REMOVED AS NECESSARY TO INSURE PROPER FUNCTION OF SYSTEMS AND DISPOSED OF IN A MANNER THAT IS CONSISTENT WITH THE INTENT OF THIS PLAN, IN AN UPLAND AREA.
13. TEMPORARY EARTH OR STONE DIKES, DRAINAGE SWALES AND/OR TEMPORARY SLOPE DRAINS SHALL BE INSTALLED WHERE OFF-SITE OR ON-SITE RUNOFF IS SUFFICIENT ENOUGH SUCH THAT IT WILL BE NECESSARY TO DIVERT THE FLOW AROUND THE SITE OR PREVENT EROSION WITHIN THE LIMITS OF WORK.
14. STORM DRAIN INLET PROTECTION SHALL BE USED FOR ALL EXISTING AND PROPOSED CATCH BASINS IN THE PROJECT AREA. PRIOR TO COMPLETION OF THE PROJECT, ALL CATCH BASINS WITHIN THE PROJECT AREA SHALL BE CLEANED.
15. ALL DISTURBED EARTH SLOPES AREA TO BE STABILIZED WITH PERMANENT VEGETATIVE COVER, TO BE ESTABLISHED AS SOON AS POSSIBLE. DISTURBED AREAS THAT ARE NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL RECEIVE A PERMANENT OR TEMPORARY VEGETATIVE COVER AS SOON AS FINAL CONTOURS ARE ESTABLISHED. TEMPORARY VEGETATIVE COVER IS TO BE ESTABLISHED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES WILL NOT REQUIRE ADDITIONAL DISTURBANCE FOR PERIOD OF 30 DAYS OR MORE. IF THE SEASON PREVENTS THE ESTABLISHMENT OF VEGETATIVE COVER, DISTURBED AREAS SHALL BE MULCHED AND THEN SEEDED AS SOON AS WEATHER CONDITIONS ALLOW.
16. THERE SHALL BE NO DIRECT DISCHARGE OF DEWATERING OPERATIONS INTO ANY DRAINAGE SYSTEM UNLESS THIS DISCHARGE IS CLEAN AND FREE OF SETTLEABLE SOLIDS. ANY DEWATERING DISCHARGE CONTAINING SETTLEABLE SOLIDS (SEDIMENTS) SHALL BE PASSED THROUGH A SEDIMENTATION CONTROL DEVICE(FILTER BAG) TO REMOVE THESE SOLIDS. THE CONTRACTOR IS TO MAINTAIN SAID SEDIMENT CONTROL DEVICE THROUGHOUT THE ENTIRE DEWATERING OPERATION AND REPAIR DEFICIENCIES IMMEDIATELY.
17. SOIL STOCKPILE AREAS FOR CONSTRUCTION MATERIALS SHALL BE LOCATED OUTSIDE WETLAND AREAS AND ASSOCIATED BUFFERS.
18. ALL PLANTINGS SHALL BE ACCOMPLISHED BY THE CONTRACTOR AS EARLY AS THE POSSIBLE UPON COMPLETION OF GRADING AND CONSTRUCTION.
19. ALL PLANTINGS SHALL BE WATERED AND MAINTAINED BY THE CONTRACTOR TO ENSURE SURVIVAL.
20. EROSION CONTROL SHALL REMAIN IN PLACE UNTIL THE CERTIFICATE OF COMPLETION IS ISSUED

INTERIM EROSION CONTROL AND CONSTRUCTION SEQUENCE

1. INSTALL EROSION CONTROL BARRIERS AND HAVE ENGINEER INSPECT AND PREPARE LETTER.
2. CLEAR SITE OF ALL TREES DESIGNATED TO BE REMOVED. CONSTRUCT A TEMPORARY BASIN TO COLLECT RUNOFF DURING CONSTRUCTION.
3. STOCKPILE LOAM, OR REMOVE LOAM.
4. INSTALL PIPES FOR DRAINAGE SYSTEMS. INSTALL DISCHARGE POINT ON EACH SYSTEM.
5. BRING SITE TO SUB-GRADE.
6. ALL SLOPES ALONG THE PROPERTY LINES SHALL BE MULCHED TEMPORARILY, IF DISTURBED.
7. TEMPORARY STONE (3/4" - 1 ½") SHALL BE PLACED AT THE PROJECT ENTRANCE WHEN ACCESSING EXISTING PAVEMENT. SWEEPING IS REQUIRED IF FINES ARE OBSERVED IN THE PARKING LOT OR PUBLIC WAYS.
8. ALL DISTURBED AREAS NOT TREATED WITH PERMANENT LOAM AND SEED SHALL BE COVERED WITH MULCH, OR OTHER EROSION CONTROL DEVISE.
9. ALL CONSTRUCTION GRADES IN THE INTERIM SHALL BE SLOPED TO FLOW INTO THE TEMPORARY BASIN, WHERE POSSIBLE.
10. THE SITE MITIGATION OF EROSION IN THOSE AREAS TO BE LANDSCAPED OR MULCHED SHALL BE TO INSTALL AS SOON AS POSSIBLE.
11. CLEAN ALL SEDIMENT OUT OF TEMPORARY BASIN AND INSTALL CLEAN FILL PER PLAN SPECIFICATIONS PRIOR TO FINAL GRADING AND SURFACE STABILIZATION.
12. THE SUBSURFACE DRAINAGE SYSTEM SHALL BE INSTALLED PRIOR TO PAVEMENT INSTALLATION PROPER FILTERFABRIC SHALL BE PLACED AT INLETS TO KEEP THE STORM DRAINAGE CLEAN OF DEBRIS.
13. ONCE THE CURB IS INSTALLED, THE PERMANENT MULCH AND LANDSCAPING SHALL BE INSTALLED.
14. SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL THE SITE IS STABILIZED.
15. CLEAN ALL ON SITE CATCH BASINS, MANHOLES, PIPING, TEMPORARY BASIN, AND INFILTRATION CHAMBERS. INSTALL SILT BAGS AT EACH CATCH BASIN.
16. KEEP SITE SWEPT AND MAINTAINED PER STORMWATER MANAGEMENT PLAN.

IVAFT-75LPA730KU

Low profile, low glare. Edge-lit technology unlike any other.

Color: Black

Weight: 14.0 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.58A
208V	0.34A
240V	0.29A
277V	0.25A
Input Watts	66.3W

LED Info

Watts	67W
Color Temp	3000K (Warm)
Color Accuracy	80 CRI
L70 Lifespan	100,000 Hours
Lumens	7,480
Efficacy	112.2 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

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

Title 24 Compliant:

An IWELOT edge-lit area light can be used with a motion sensor or photocell control option to comply with 2016 Title 24 Part 6 Section 130.2 (a,b,v)

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: S-SPSYL4

Electrical

Driver:

Class 2, 50/60Hz, 120-277V, -48V standard, 10kV optional

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

13.4% at 120V, 13.23% at 277V

Power Factor:

98.9% at 120V, 93.7% at 277V

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations at 25°C

LED Characteristics

LEDs:

Long-life, high-efficacy, surface-mount LEDs

Color Stability:

LED color temperature is warranted 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.

Construction

IP Rating:

Ingress protection rating of IP66 for dust and water

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Copyright © 2022 RAB Lighting All Rights Reserved Note: Specifications are subject to change at any time without notice

IVAFT-75LPA730KU

Ordering Matrix

Family	Distribution		Lumen Output	Mounting	CRI/Color Temp	Finish	Voltage/Driver	Sensor Options	Lightcloud Option
IVA	FT	-	75L	PA	730	K	U		
	T2 = Type II [1] T3 = Type III [1] T4 = Type IV [1] TS5 = Type V Square [1] FT = Forward Throw [1]		45L = 4,500 lumens (38W) 75L = 7,500 lumens (67W) 100L = 10,000 lumens (86W) 130L = 13,000 lumens (117W)	PA = Universal Pole Mount WM = Wall mount SF = Slipfitter	730 = 70CRI 3000K 740 = 70CRI 4000K 730 = 70CRI 3000K	Z = Bronze W = White G = Roadway Gray K = Black	U = 120-277V 0-10V Dimming H = 347-480V, 0-10V Dimming	Blank = No Options /MS = IR1 lens Wattstopper /MS2 = 2IR1 lens Wattstopper /MS3 = 3IR1 lens Wattstopper /FPR = 7-Pin receptacle	Blank = No Lightcloud® /LC = Lightcloud® Controller [2]

[1] *Applies to Type IV, V Square*
[2] *Applies 120-277V*
* *All values are nominal with +/- 10% tolerance. See spec sheet for more details.*

Copyright © 2022 RAB Lighting All Rights Reserved Note: Specifications are subject to change at any time without notice

GN2LED26YSTB

Technical Specifications (continued)

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz; 0.48 A, THD≤20%, PF 97.9%.

Surge Protection:

4kV

Other

Patents:

The design of the Gooseneck is protected by patents pending in US, Canada, China and 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.

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.

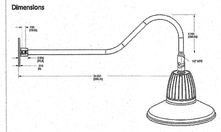
Equivalency:

Equivalent 120W Incandescent, 75W Metal Halide or 42W CFL

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.

Dimensions



Features

Adjustable 45° swivel joint

Superior heat sink

Die-cast aluminum housing

5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Color Temp	Reflector	Shade	ShadeSize	Finish
GN2LED	26	Y		ST		B
	13 = 13W 26 = 26W	Y = 3000K Warm N = 4000K Neutral	Blank = Flood R = Rectangular S = Spot	ST = Straight Shade	11 = 11" Blank = 13"	B = Black W = White A = Bronze S = Silver G = Hunter Green N = Navy LB = Light Blue BL = Royal Blue BWN = Brown I = Ivory R = Red

Copyright © 2022 RAB Lighting All Rights Reserved Note: Specifications are subject to change at any time without notice

IVAFT-75LPA730KU

Technical Specifications (continued)

Construction

Maximum Ambient Temperature:

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

Housing:

Precision die-cast aluminum

IES Classification:

The Forward Throw distribution is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Mounting:

Universal pole adapter

Lens:

Diffused Polymethyl Methacrylate (PMMA)

Effective Projected Area:

EPA = 0.61

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Optical

BUG Rating:

B1 U0 G3

Other

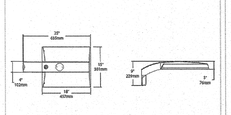
Warranty:

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.

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.

Dimensions



Features

0-10V Dimming, standard

100,000-Hour LED lifespan

Copyright © 2022 RAB Lighting All Rights Reserved Note: Specifications are subject to change at any time without notice

GN2LED26YSTB

13 & 26 Watt Straight Shade LED Gooseneck Luminaire designed to match the architecture of Main Street storefronts and building perimeters. LED Gooseneck Straight Shade with 35° Goose Arm Style 2.

Color: Black

Weight: 14.0 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.25A
208V	0.16A
240V	0.14A
277V	0.12A
Input Watts	29.2W

LED Info

Watts	26W
Color Temp	3000K (Warm)
Color Accuracy	82 CRI
L70 Lifespan	100,000 Hours
Lumens	1,262
Efficacy	43.2 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations. Suitable for mounting within 1.2m (48") of the ground.

IESNA LM-79 & 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.

Performance

Lifespan:

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

Construction

Fixture:

The GN2LED26YSTB comes with the GOOSE28 arm

Housing:

Precision die-cast aluminum housing, lens frame and mounting plate

Gaskets:

High-temperature Silicone

Mounting:

Heavy-duty mounting arm with "O" ring seal and stainless steel screw

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Shades:

15" Straight Shade offered

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LED:

Single multi-chip, 26W high-output, long-life LED

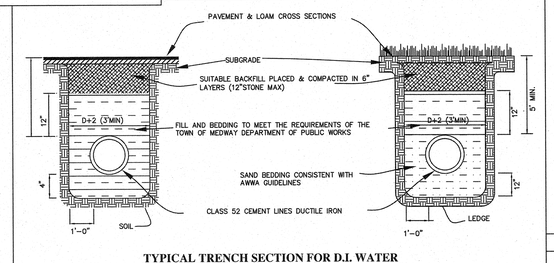
Color Stability:

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

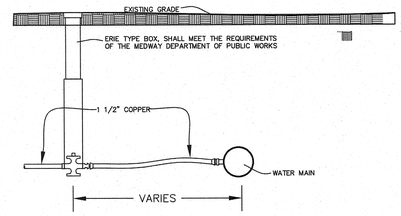
Color Uniformity:

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.

Copyright © 2022 RAB Lighting All Rights Reserved Note: Specifications are subject to change at any time without notice

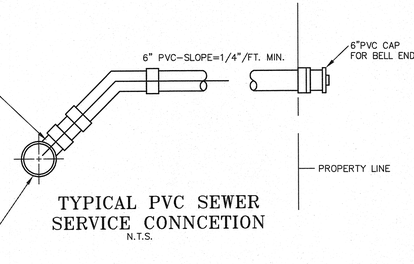


TYPICAL TRENCH SECTION FOR D.I. WATER MAIN (TYPE 5 BEDDING AWWAC-600)



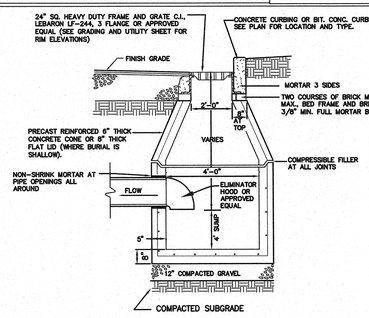
TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE



TYPICAL PVC SEWER SERVICE CONNCETION

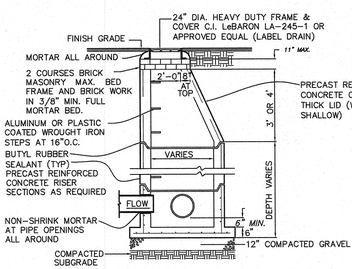
N.T.S.



TYP. PRECAST CONCRETE CATCH BASIN DETAIL

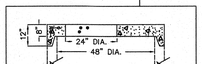
NOT TO SCALE

NOTE:
ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.



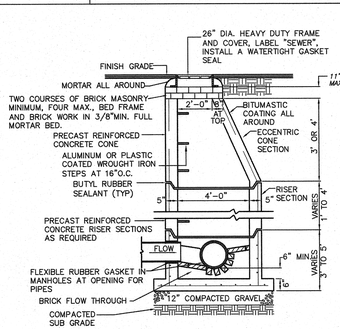
TYP. PRECAST CONCRETE MANHOLE STORM DRAIN

N.T.S.
NOTE:
ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF A.S.T.M. C478.



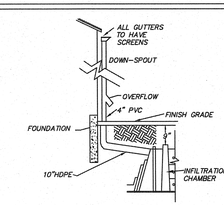
ALTERNATE TOP SLAB

(STEEL REINFORCED FOR H-20 LOADING)



TYP. PRECAST CONCRETE MANHOLE SANITARY

N.T.S.
NOTE:
ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.



ROOF DRAIN DETAIL

N.T.S.

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. BEFORE EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE[7233].

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

CONSTRUCTION DETAILS

MARCH 28, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528-3221
FRANKLIN, MA 02038 FX. (508) 528-7921
www.gandhengineering.com

SHEET 10 OF 13

JOB NO. F4516

CULTEC RECHARGER® 280HD SPECIFICATIONS

GENERAL

CULTEC RECHARGER 280HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE CHAMBER WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS.
6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER 280HD SHALL BE 25.0 INCHES (673 mm) TALL, 47 INCHES (1194 mm) WIDE AND 8 FEET (2.44 m) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 280HD SHALL BE 7 FEET (2.13 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER ENDWALL IS 21 INCHES (525 mm) HDPE.
8. THE CHAMBER WILL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV® FC-24 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. NOMINAL INSIDE DIMENSIONS OF THE SIDE PORTAL SHALL HAVE A WIDTH OF 11.20" [286 mm] AND HEIGHT OF 11.0" [292 mm]. THE SIDE PORTAL CAN ACCEPT A MAXIMUM OUTER DIAMETER (O.D.) PIPE SIZE OF 12.25 INCHES [311 mm].
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV® FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 280HD CHAMBER WILL BE 6.079 FT3 / FT (0.565 m^3 / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 280HD SHALL BE 42.553 FT³ / UNIT (1.205 m^3 / UNIT) - WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³ / FT (0.085 m^3 / m) - WITHOUT STONE.
12. THE RECHARGER 280HD CHAMBER WILL SEVENTY-TWO DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE RECHARGER 280HD CHAMBER SHALL HAVE 15 CORRUGATIONS.
14. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PLATES CANNOT BE USED WITH THIS UNIT.
15. THE RECHARGER 280HD STAND ALONE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS.
16. THE RECHARGER 280HD STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 9 INCHES (229 mm) HIGH X 35 INCHES (889 mm) WIDE.
17. THE RECHARGER 280HD INTERMEDIATE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY OPEN ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 9 INCHES (229 mm) HIGH X 35 INCHES (889 mm) WIDE.
18. THE RECHARGER 280HD END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
19. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT WILL FIT INTO THE SIDE PORTALS OF THE RECHARGER 280HD AND ACT AS CROSS FEED CONNECTIONS.
20. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
21. THE CHAMBER WILL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN INSPECTION PORT OR CLEANOUT.
22. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
23. THE CHAMBER SHALL BE MANUFACTURED IN AN IN AN ISO 9001:2015 CERTIFIED FACILITY
24. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S INSTALLATION INSTRUCTIONS.
25. THE CHAMBER SHALL BE DESIGNED AND MANUFACTURED TO MEET THE MATERIAL AND STRUCTURAL REQUIREMENTS OF AWMC PS 6-2019, INCLUDING RESISTANCE TO AASHTO H-10 AND H-20 HIGHWAY LIVE LOADS, WHEN INSTALLED IN ACCORDANCE WITH CULTEC'S INSTALLATION INSTRUCTIONS.
26. MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12 FEET (3.65 m).

CULTEC HVLV® FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL

CULTEC HVLV FC-24 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER 280HD STORMWATER CHAMBERS.

CHAMBER PARAMETERS

1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³ / FT (0.085 m^3 / m) - WITHOUT STONE.
7. THE HVLV FC-24 FEED CONNECTOR CHAMBER SHALL HAVE 2 CORRUGATIONS.
8. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT WILL FIT INTO THE SIDE PORTALS OF THE RECHARGER 280HD STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS

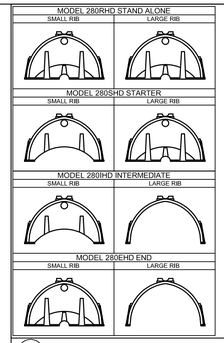
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL MASS/UNIT AREA OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

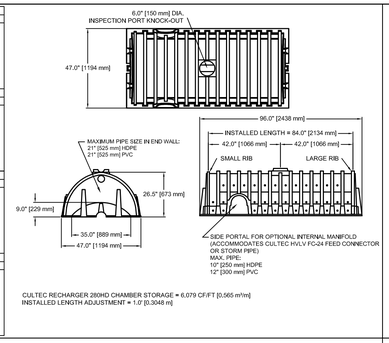
CULTEC NO. 4800™ WOVEN GEOTEXTILE

CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

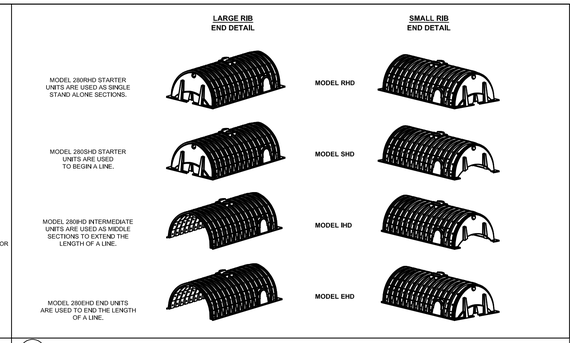
GEOTEXTILE PARAMETERS

1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096 LBS/FT (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2,740 LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180 LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491 TESTING METHOD.
14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

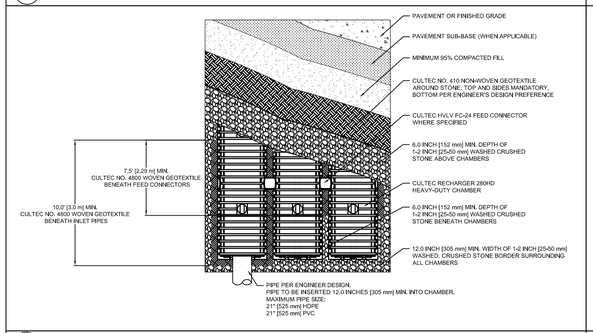




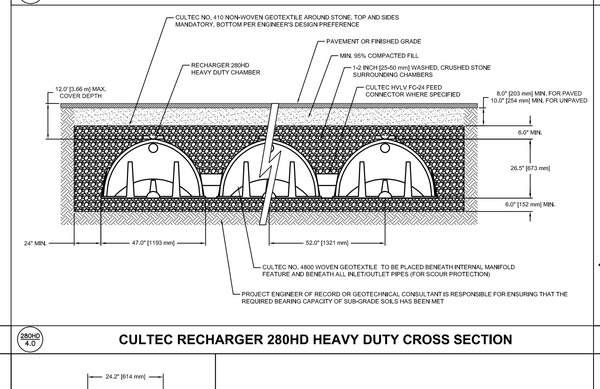
280HD 2.0 **CULTEC RECHARGER 280HD HEAVY DUTY THREE VIEW**



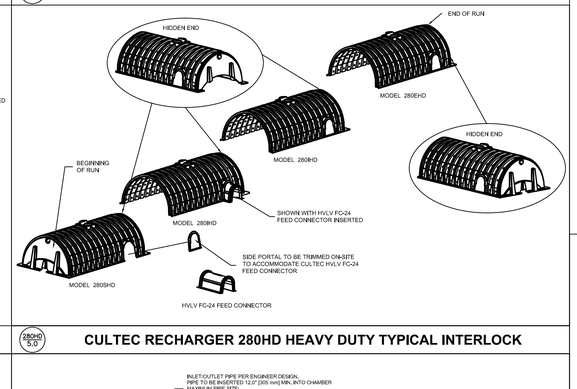
280HD 3.0 **CULTEC RECHARGER 280HD HEAVY DUTY END DETAIL INFORMATION**



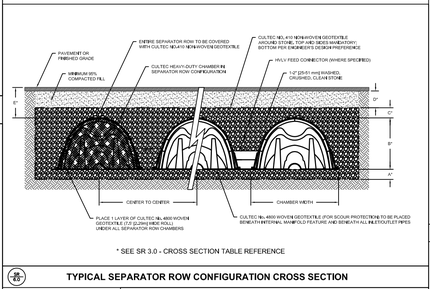
280HD 6.0 **CULTEC RECHARGER 280HD HEAVY DUTY PLAN VIEW**



280HD 4.0 **CULTEC RECHARGER 280HD HEAVY DUTY CROSS SECTION**



280HD 5.0 **CULTEC RECHARGER 280HD HEAVY DUTY TYPICAL INTERLOCK**



* SEE SR 3.0 - CROSS SECTION TABLE REFERENCE

25/13 **TYPICAL SEPARATOR ROW CONFIGURATION CROSS SECTION**

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO LEVEL OF A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO ANY EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG–SAFE(7233).

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS–OF–WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

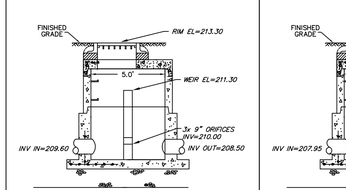
LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

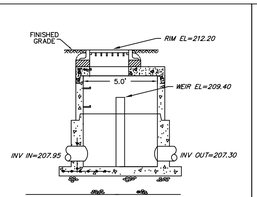
CONSTRUCTION DETAILS

MARCH 28, 2022

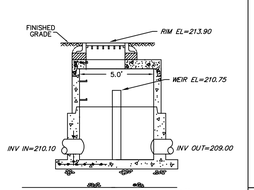
DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION



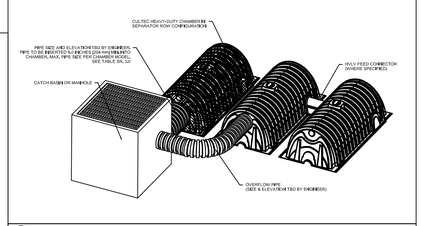
WEIR MANHOLE DMH#4 DETAIL
NOT TO SCALE



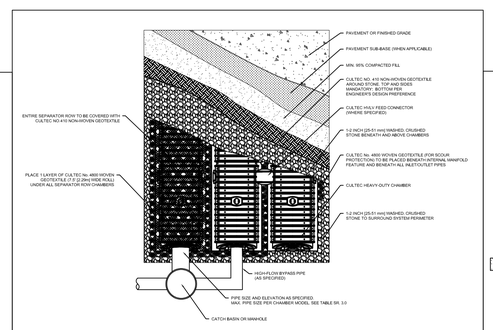
WEIR MANHOLE DMH#15 DETAIL
NOT TO SCALE



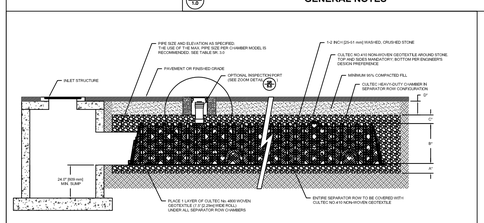
WEIR MANHOLE DMH#9 DETAIL
NOT TO SCALE



25/13 **TYPICAL SEPARATOR ROW CONFIGURATION INLET CONNECTION**



25/13 **TYPICAL SEPARATOR ROW CONFIGURATION PLAN VIEW**



* SEE SR 3.0 - CROSS SECTION TABLE REFERENCE

25/13 **TYPICAL SEPARATOR ROW CONFIGURATION CROSS SECTION WITH INSPECTION PORT DETAIL**

SEPARATOR ROW™ SPECIFICATIONS

GENERAL

1. CULTEC'S SEPARATOR ROW IS USED AS AN INEXPENSIVE MEANS OF REMOVING TOTAL SUSPENDED SOLIDS FROM THE CHAMBER SYSTEM. AS WELL AS PROVIDING EASIER ACCESS FOR INSPECTION AND MAINTENANCE.

2. THE SEPARATOR ROW PERFORMANCE SHALL BE TESTED AND VERIFIED TO THE PROTOCOLS AND PROCEDURES AS DEFINED BY ENVIRONMENTAL TECHNOLOGY VERIFICATION (ETV) CANADA TO ACHIEVE 80% TSS REMOVAL.

INSTALLATION INSTRUCTIONS

A SEPARATOR ROW IS INSTALLED ON A 1-2 INCH [25-51 mm] WASHED, CRUSHED STONE BASE, TYPICALLY. THE CULTEC CHAMBER MODEL USED FOR THE SEPARATOR ROW IS THE SAME CHAMBER USED THROUGHOUT THE ENTIRE CHAMBER BED.

STORMWATER IS DISTRIBUTED TO THE SEPARATOR ROW BY A PRIMARY FEED SYSTEM THAT DIVERTS FLOW TO THE SEPARATOR ROW AND A SECONDARY BYPASS FEED SYSTEM THAT DIVERTS THE FLOW OF CLEAN WATER TO THE OTHER PARTS OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM. THE DISTRIBUTION SYSTEM MAY BE BY PIPES SET AT A LOWER ELEVATION THAT PERMIT THE FIRST FLUSH TO THE SEPARATOR ROW VERSUS OTHER PARTS OF THE UNDERGROUND STORMWATER SYSTEM. THIS INITIAL FLOW MAY BE MANAGED BY A BAFFLE OR WEIR. THE SIZING OF THE PIPE(S) THAT PROVIDE STORM WATER TO THE SEPARATOR ROW IS TO BE DETERMINED BY THE DESIGN ENGINEER AND IS BASED UPON THE REQUIREMENT TO ACCOMMODATE THE DESIGN FLOW AND SERVICE CONVENIENCE.

THE CHAMBERS UTILIZED IN THE SEPARATOR ROW ARE TO BE COMPLETELY WRAPPED WITH CULTEC NO. 410 NON-WOVEN GEOTEXTILE. THIS CREATES A PASS-THROUGH FILTER ARRANGEMENT TO SEPARATE TOTAL SUSPENDED SOLIDS IN THE TRANSFER OF STORM WATER TO OTHER CHAMBERS THROUGHOUT THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM.

ONCE WRAPPED, THE SEPARATOR ROW IS TO THEN PLACED ENTIRELY OVER 1 LAYER OF CULTEC No. 4800 WOVEN GEOTEXTILE. THIS WOVEN GEOTEXTILE PROVIDES A DURABLE SURFACE WITHIN THE ROW FOR MAINTENANCE PROCEDURES AS WELL AS TO PREVENT ANY SCOURING OF THE STONE BASE DURING HIGH PRESSURE JETTING.

THE RECOMMENDED INSTALLATION OF SEPARATOR ROW CHAMBERS, IN REGARD TO STONE SEPARATION AND STONE ABOVE THE UNIT, ALONG WITH OTHER MINIMUM BURIAL MATERIALS AND METHOD SPECIFICATIONS DETAILED FOR THE PROPER INSTALLATION IS THE SAME AS CULTEC'S REQUIREMENT DETAILED IN THE COMPANY'S INSTALLATION GUIDELINES WITH THE EXCEPTION OF THE PLACEMENT OF THE REQUIRED FILTERING FABRICS. PLEASE REFER TO CULTEC'S CURRENT INSTALLATION INSTRUCTIONS FOR STORMWATER CHAMBERS AS A GUIDE.

MAINTENANCE PROCEDURES

CULTEC RECOMMENDS INSPECTIONS OF THE SEPARATOR ROW TO BE PERFORMED EVERY SIX MONTHS FOR THE FIRST YEAR. THE FREQUENCY OF INSPECTION CAN THEN BE ADJUSTED BASED UPON PREVIOUS OBSERVATION OF SEDIMENT DEPOSITION.

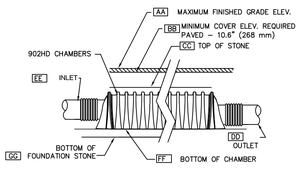
WHILE CLEANING IS POSSIBLE FROM A SINGLE MANHOLE IN SHORTER LINES, A CLEANOUT OPTION FROM EITHER END OF A LINE IS PREFERABLE, PARTICULARLY FOR LONGER RUNS. CLEANING INVOLVES FLUSHING SEDIMENT FROM THE BASE FABRIC OF THE SEPARATOR ROW.

ACCESS WILL BE PROVIDED VIA A MANHOLE(S) LOCATED AT THE END(S) OF THE ROW FOR CLEAN OUT.

MAINTENANCE OF THE SEPARATOR ROW IS TO BE ACCOMPLISHED WITH A JETVAC PROCESS.

THE JETVAC IS TO BE SENT DOWN THE ENTIRE LENGTH OF THE SEPARATOR ROW, AS THE HIGH PRESSURE WATER NOZZLE IS RETRIEVED, THE CAPTURED SEDIMENTS ARE PUSHED BACK INTO THE MANHOLE FOR VACUUMING.

25/13 **GENERAL NOTES**

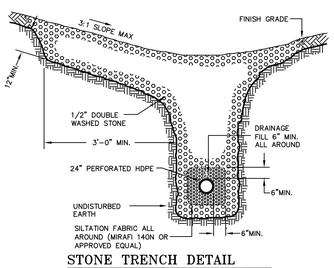


		SYSTEM #1	SYSTEM #2	SYSTEM #3
AA	MAXIMUM FINISHED GRADE ELEV.	213.80	213.20	214.50
BB	MINIMUM COVER ELEV.	213.30	211.65	213.80
CC	TOP OF STONE	212.30	210.65	212.80
DD	12" OUTLET	209.60	207.95	210.10
EE	12" INLET	209.60	207.95	210.10
FF	BOTTOM OF CHAMBER	209.60	207.95	210.10
GG	BOTTOM OF FOUNDATION STONE	209.10	207.45	209.60
HH	ESTIMATED GROUNDWATER	207.00	205.35	N/A

NOTES:

1. CHAMBERS ARE TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS. SEE STORMWATER REPORT FOR INSTALLATION INSTRUCTIONS AND DETAILS.

CULTEC 280HD CHAMBER SYSTEM ELEVATIONS
NOT TO SCALE

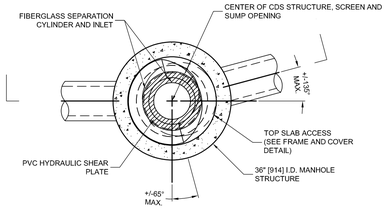


STONE TRENCH DETAIL
N.T.S.

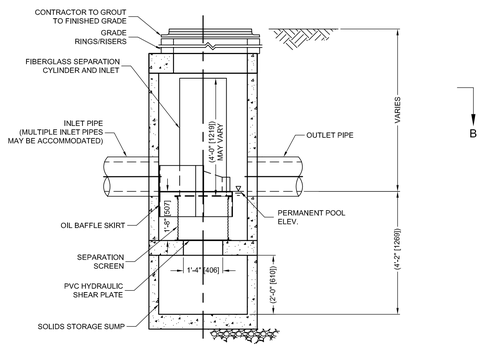
Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528–3221
FRANKLIN, MA 02038 FX. (508) 528–7921
www.gandhengineering.com

SHEET 11 OF 13

JOB NO. F4516



PLAN VIEW B-B
N.T.S.

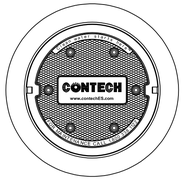


ELEVATION A-A
N.T.S.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.

THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

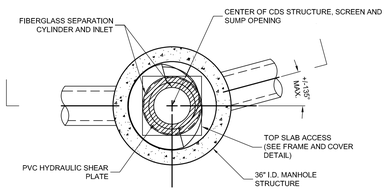
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			
PEAK FLOW RATE (CFS OR L/s)			
RETURN PERIOD OF PEAK FLOW (YRS)			
SCREEN APERTURE (2400 OR 4700)			
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
RIM ELEVATION			
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2'. AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

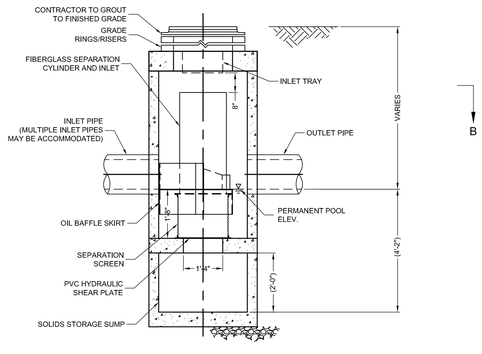
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.

THE STANDARD CDS1515-3-C WITH GRATED INLET CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES

INLET TRAY
NOT TO SCALE

24" X 24" FRAME AND GRATE
(MAY VARY)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

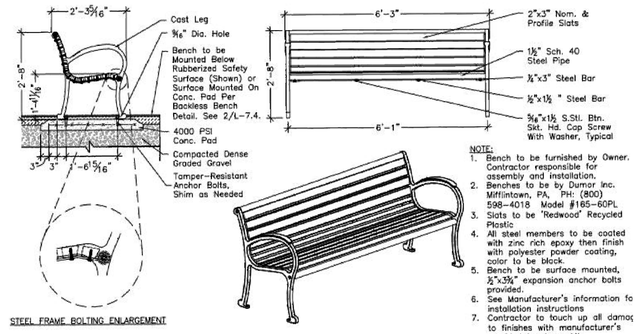
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			
PEAK FLOW RATE (CFS OR L/s)			
RETURN PERIOD OF PEAK FLOW (YRS)			
SCREEN APERTURE (2400 OR 4700)			
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
RIM ELEVATION			
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2'. AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

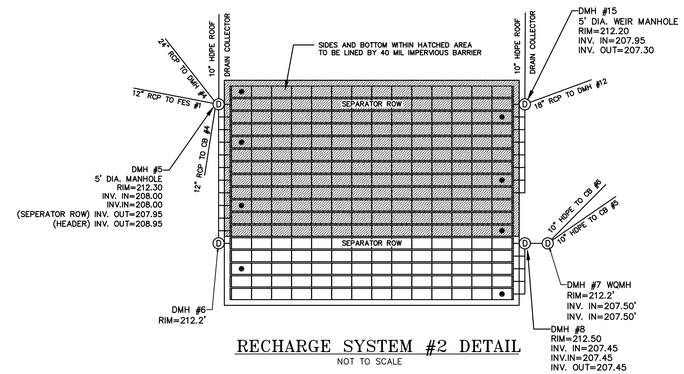
CONTECH ENGINEERED SOLUTIONS LLC

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL



NOTE:
1. Bench to be furnished by Owner. Contractor responsible for assembly and installation.
2. Benches to be by Dumar Inc. Mifflintown, PA. PH: (800) 598-4018 Model #165-60PL
3. Slats to be 'Redwood' Recycled Plastic
4. All steel members to be coated with zinc rich epoxy then finish with polyester powder coating, color to be black.
5. Bench to be surface mounted, ½"x3½" expansion anchor bolts provided.
6. See Manufacturer's information fo installation instructions.
7. Contractor to touch up all damag to finishes with manufacturer's provided touch up kit.

1 6' Bench With Back
Scale: 3/4" = 1'-0"



RECHARGE SYSTEM #2 DETAIL
NOT TO SCALE

REGISTRY USE ONLY
F4516

APPROVED BY THE TOWN OF MEDWAY
PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE(7233).

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

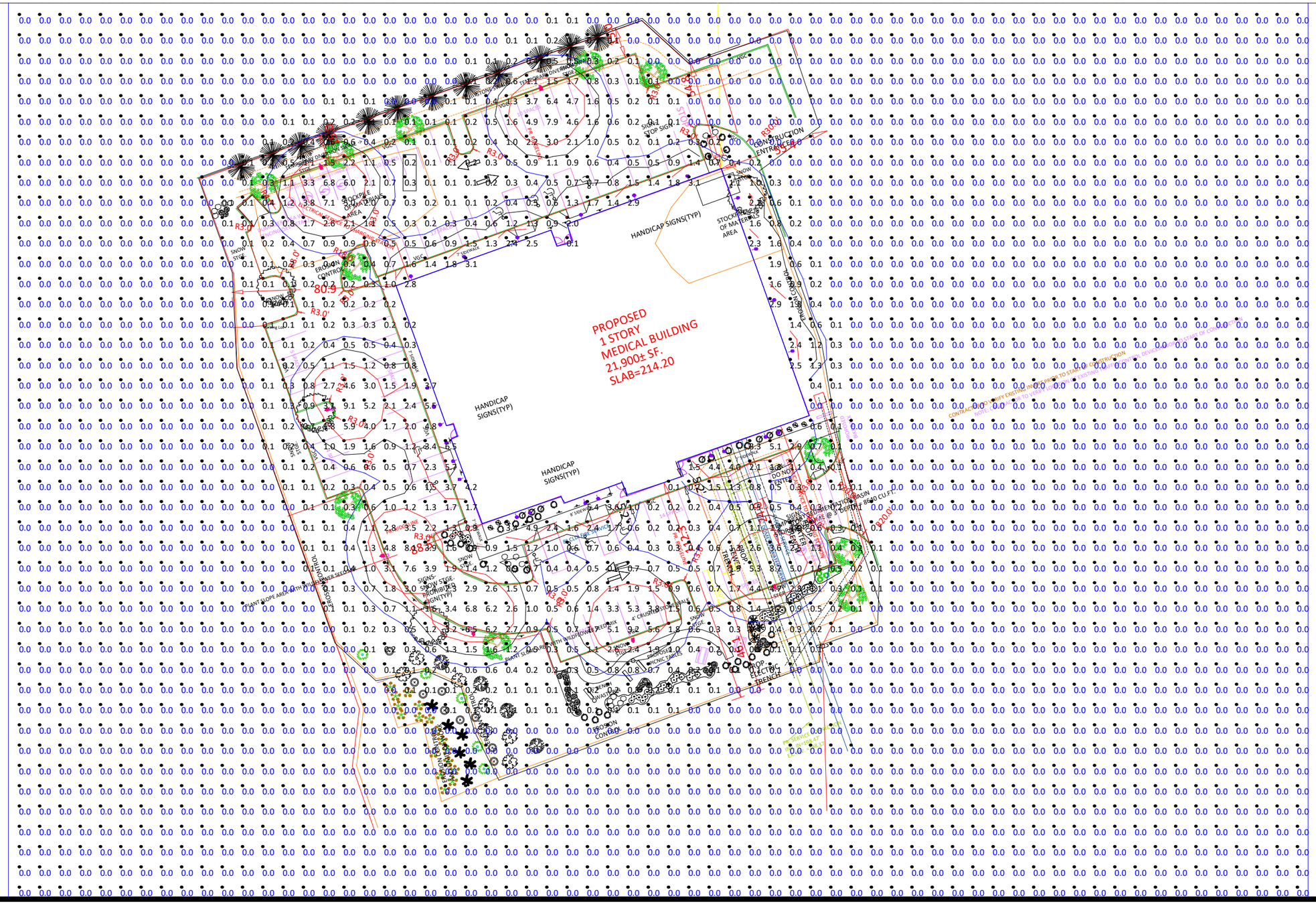
CONSTRUCTION DETAILS

MARCH 28, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528-3221
FRANKLIN, MA 02038 FX. (508) 528-7921
www.gandhengineering.com

SHEET 12 OF 13
JOB NO. F4516


PROPOSED
1 STORY
MEDICAL BUILDING
21,900± SF.
SLAB=214.20
HANDICAP SIGNS(TYP)
HANDICAP SIGNS(TYP)
HANDICAP SIGNS(TYP)
CONSTRUCTION ENTRANCE
STOCKPILE OF MATERIALS AREA
STOCKPILE OF MATERIALS AREA
DO NOT ENTER
SIGN-STOP
SIGN-SNOW STAGE PROHIBITED SIGN(TYP)
PLANT SLOPE AREA WITH WILDFLOWER SEED
EROSION CONTROL
DRAINAGE BASIN
SNOW STAGE
SNOW STAGE
SNOW STAGE

CULTEC RECHARGER® 280HD SPECIFICATIONS

GENERAL

CULTEC RECHARGER 280HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE CHAMBER WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS.
6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER 280HD SHALL BE 25.0 INCHES (673 mm) TALL, 47 INCHES (1194 mm) WIDE AND 8 FEET (2.44 m) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 280HD SHALL BE 7 FEET (2.13 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER ENDWALL IS 21 INCHES (525 mm) HDPE.
8. THE CHAMBER WILL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV® FC-24 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. NOMINAL INSIDE DIMENSIONS OF THE SIDE PORTAL SHALL HAVE A WIDTH OF 11.20" [286 mm] AND HEIGHT OF 11.0" [292 mm]. THE SIDE PORTAL CAN ACCEPT A MAXIMUM OUTER DIAMETER (O.D.) PIPE SIZE OF 12.25 INCHES [311 mm].
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV® FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 280HD CHAMBER WILL BE 6.079 FT3 / FT (0.565 m^3 / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 280HD SHALL BE 42.553 FT³ / UNIT (1.205 m^3 / UNIT) - WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³ / FT (0.085 m^3 / m) - WITHOUT STONE.
12. THE RECHARGER 280HD CHAMBER WILL SEVENTY-TWO DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE RECHARGER 280HD CHAMBER SHALL HAVE 15 CORRUGATIONS.
14. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PLATES CANNOT BE USED WITH THIS UNIT.
15. THE RECHARGER 280HD STAND ALONE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS.
16. THE RECHARGER 280HD STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 9 INCHES (229 mm) HIGH X 35 INCHES (889 mm) WIDE.
17. THE RECHARGER 280HD INTERMEDIATE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY OPEN ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 9 INCHES (229 mm) HIGH X 35 INCHES (889 mm) WIDE.
18. THE RECHARGER 280HD END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
19. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT WILL FIT INTO THE SIDE PORTALS OF THE RECHARGER 280HD AND ACT AS CROSS FEED CONNECTIONS.
20. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
21. THE CHAMBER WILL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN INSPECTION PORT OR CLEANOUT.
22. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
23. THE CHAMBER SHALL BE MANUFACTURED IN AN IN AN ISO 9001:2015 CERTIFIED FACILITY
24. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S INSTALLATION INSTRUCTIONS.
25. THE CHAMBER SHALL BE DESIGNED AND MANUFACTURED TO MEET THE MATERIAL AND STRUCTURAL REQUIREMENTS OF AWMC PS-6-2019, INCLUDING RESISTANCE TO AASHTO H-10 AND H-20 HIGHWAY LIVE LOADS, WHEN INSTALLED IN ACCORDANCE WITH CULTEC'S INSTALLATION INSTRUCTIONS.
26. MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12 FEET (3.65 m).

CULTEC HVLV® FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL

CULTEC HVLV FC-24 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER 280HD STORMWATER CHAMBERS.

CHAMBER PARAMETERS

1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³ / FT (0.085 m^3 / m) - WITHOUT STONE.
7. THE HVLV FC-24 FEED CONNECTOR CHAMBER SHALL HAVE 2 CORRUGATIONS.
8. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT WILL FIT INTO THE SIDE PORTALS OF THE RECHARGER 280HD STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS

1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL MASS/UNIT OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC NO. 4800™ WOVEN GEOTEXTILE

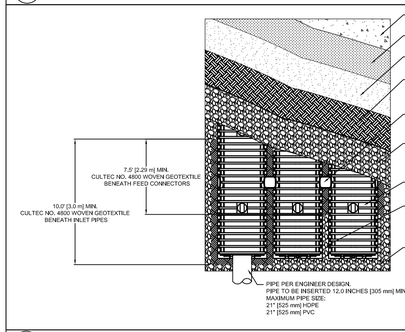
CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

GEOTEXTILE PARAMETERS

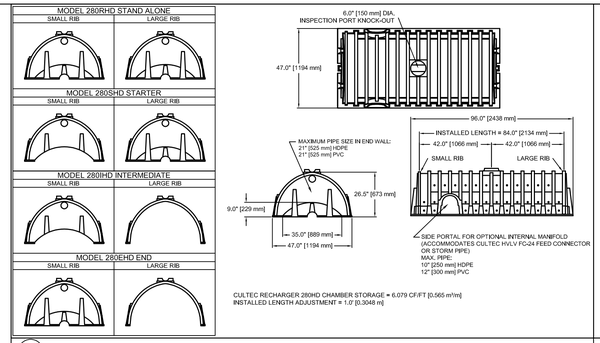
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096 LBS/FT (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2,740 LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180 LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491 TESTING METHOD.
14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

280HD 1.0

GENERAL NOTES

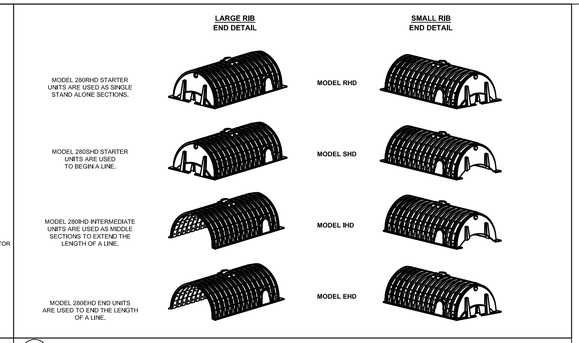


CULTEC RECHARGER 280HD HEAVY DUTY PLAN VIEW



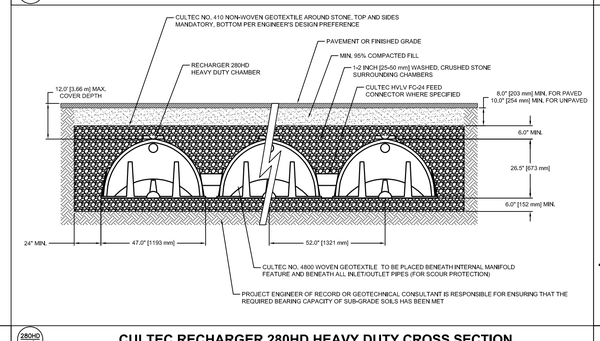
280HD 2.0

CULTEC RECHARGER 280HD HEAVY DUTY THREE VIEW



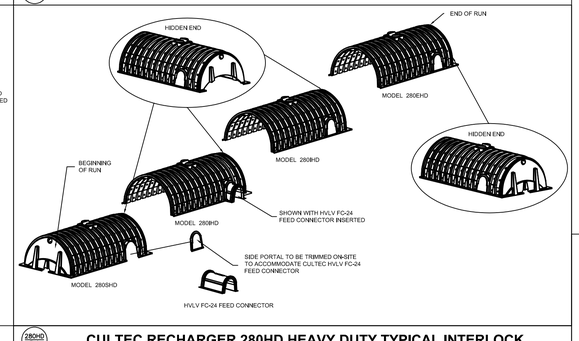
280HD 3.0

CULTEC RECHARGER 280HD HEAVY DUTY END DETAIL INFORMATION



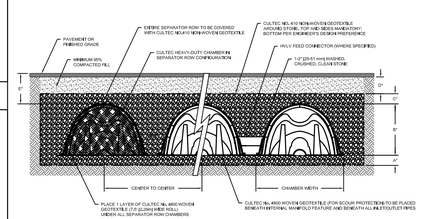
280HD 4.0

CULTEC RECHARGER 280HD HEAVY DUTY CROSS SECTION



280HD 5.0

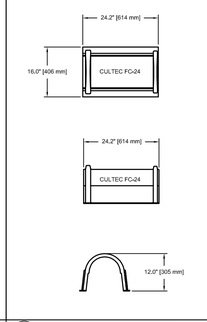
CULTEC RECHARGER 280HD HEAVY DUTY TYPICAL INTERLOCK



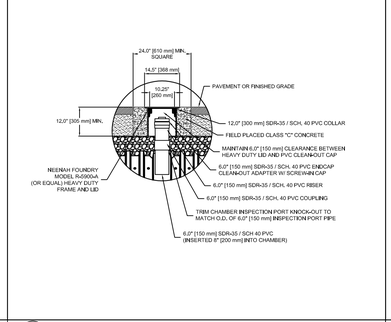
* SEE SR 3.0 - CROSS SECTION TABLE REFERENCE

25/13

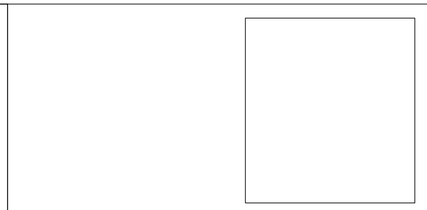
TYPICAL SEPARATOR ROW CONFIGURATION CROSS SECTION



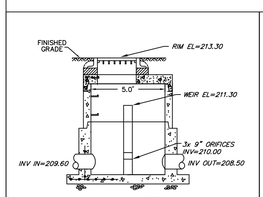
7.0 CULTEC HVLV FC-24 FEED CONNECTOR THREE VIEW



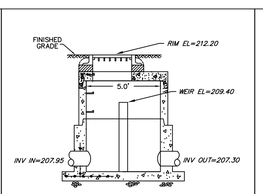
8.0 INSPECTION PORT - ZOOM DETAIL



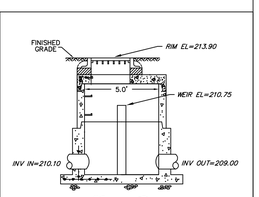
9.0 CULTEC INTERNAL MANIFOLD - INSPECTION PORT DETAIL



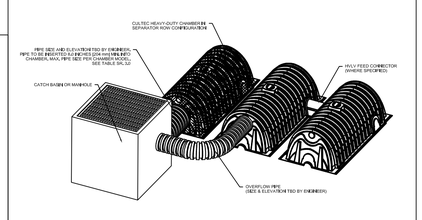
WEIR MANHOLE DMH#4 DETAIL
NOT TO SCALE



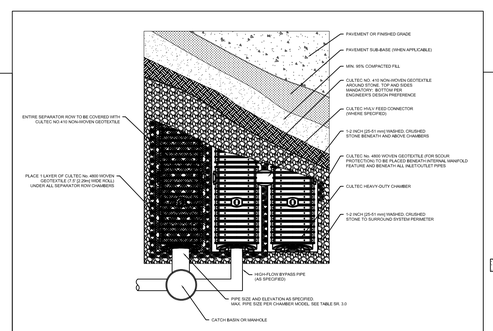
WEIR MANHOLE DMH#15 DETAIL
NOT TO SCALE



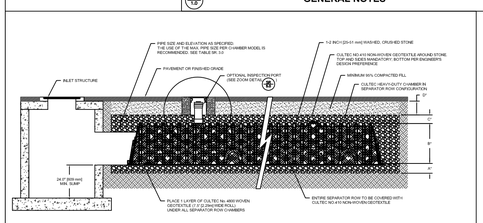
WEIR MANHOLE DMH#9 DETAIL
NOT TO SCALE



25/23 TYPICAL SEPARATOR ROW CONFIGURATION INLET CONNECTION

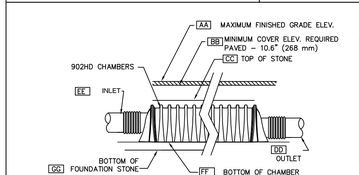


25/23 TYPICAL SEPARATOR ROW CONFIGURATION PLAN VIEW



* SEE SR 3.0 - CROSS SECTION TABLE REFERENCE

25/23 TYPICAL SEPARATOR ROW CONFIGURATION CROSS SECTION WITH INSPECTION PORT DETAIL

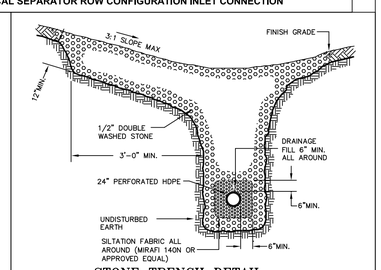


		SYSTEM #1	SYSTEM #2	SYSTEM #3
AA	MAXIMUM FINISHED GRADE ELEV.	213.80	213.20	214.50
BB	MINIMUM COVER ELEV.	213.30	211.65	213.80
CC	TOP OF STONE	212.30	210.65	212.80
DD	12" OUTLET	209.60	207.95	210.10
EE	12" INLET	209.60	207.95	210.10
FF	BOTTOM OF CHAMBER	209.60	207.95	210.10
GG	BOTTOM OF FOUNDATION STONE	209.10	207.45	209.60
HH	ESTIMATED GROUNDWATER	207.00	205.35	N/A

NOTES:

1. CHAMBERS ARE TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS. SEE STORMWATER REPORT FOR INSTALLATION INSTRUCTIONS AND DETAILS.

CULTEC 280HD CHAMBER SYSTEM ELEVATIONS
NOT TO SCALE



STONE TRENCH DETAIL
N.T.S.

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY
PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO ANY EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG–SAFE[7233].

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS–OF–WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

CONSTRUCTION DETAILS

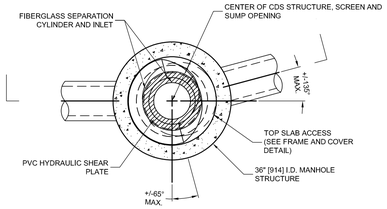
MARCH 28, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

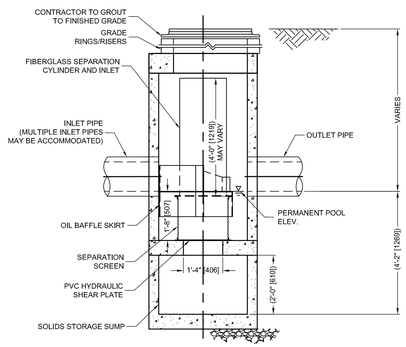
Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528–3221
FRANKLIN, MA 02038 FX. (508) 528–7921
www.gandhengineering.com

SHEET 11 OF 13

JOB NO. F4516



PLAN VIEW B-B
N.T.S.

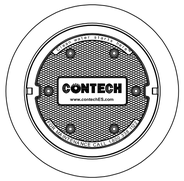


ELEVATION A-A
N.T.S.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.

THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

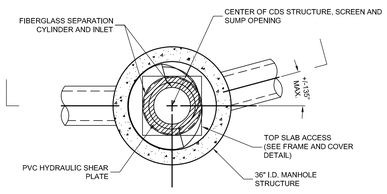
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			
PEAK FLOW RATE (CFS OR L/s)			
RETURN PERIOD OF PEAK FLOW (YRS)			
SCREEN APERTURE (2400 OR 4700)			
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
RIM ELEVATION			
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2'. AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

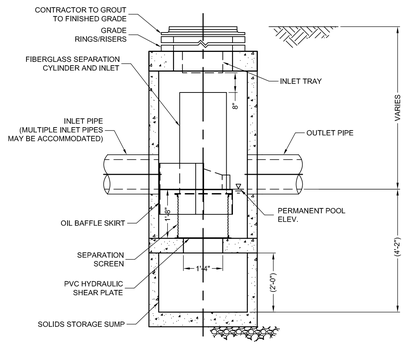
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.

THE STANDARD CDS1515-3-C WITH GRATED INLET CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES

INLET TRAY
NOT TO SCALE

24" X 24" FRAME AND GRATE
(MAY VARY)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

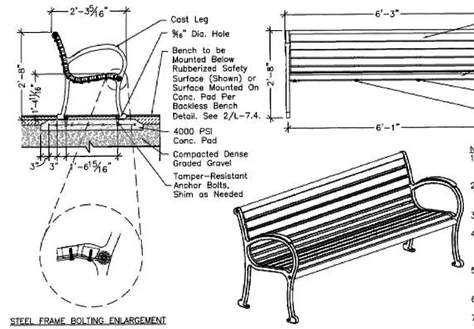
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			
PEAK FLOW RATE (CFS OR L/s)			
RETURN PERIOD OF PEAK FLOW (YRS)			
SCREEN APERTURE (2400 OR 4700)			
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
RIM ELEVATION			
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2'. AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

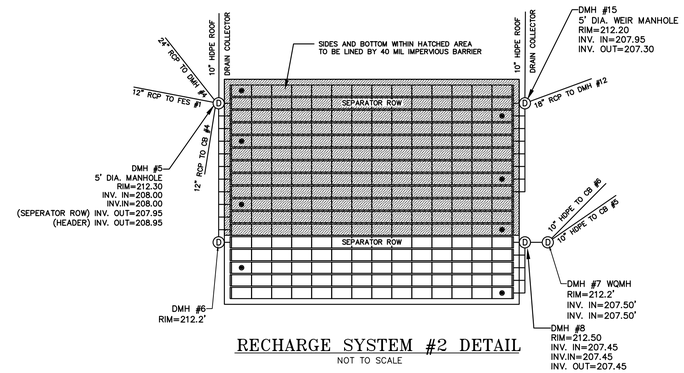
CONTECH ENGINEERED SOLUTIONS LLC

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL



NOTE:
1. Bench to be furnished by Owner. Contractor responsible for assembly and installation.
2. Benches to be by Dumar Inc. Mifflintown, PA. PH: (800) 598-4018 Model #165-60PL
3. Slats to be 'Redwood' Recycled Plastic
4. All steel members to be coated with zinc rich epoxy then finish with polyester powder coating, color to be black.
5. Bench to be surface mounted, ½"x3¾" expansion anchor bolts provided.
6. See Manufacturer's information fo installation instructions.
7. Contractor to touch up all damag to finishes with manufacturer's provided touch up kit.

1 6' Bench With Back
Scale: 3/4" = 1'-0"



RECHARGE SYSTEM #2 DETAIL
NOT TO SCALE

REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY
PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE(7233).

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN
86 HOLLISTON STREET
MEDWAY
MASSACHUSETTS

CONSTRUCTION DETAILS

MARCH 28, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

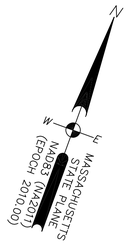
Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST.
FRANKLIN, MA 02038
PH. (508) 528-3221
FX. (508) 528-7921
www.gandhengineering.com

SHEET 12 OF 13

JOB NO. F4516

LEGEND

	CATCH BASIN		LIGHT POLE
	DRAIN MANHOLE		UTILITY POLE
	ELECTRIC MANHOLE		GUY WIRE
	SEWER MANHOLE		SIGN
	MANHOLE		WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. STREET LIGHTING
WV	WATER VALVE		
	WATER SHUT OFF VALVE	X 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP
000	EXISTING CONTOUR		
D	EXISTING DRAIN LINE		
W	EXISTING WATER LINE		



Standard 9: A Long -Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that storm water management systems function as designed.

The following shall serve as the (O&M) Plan required by Standard 9, as well as the Long-Term Pollution Prevention Plan required by Standard 4.

A. Names of Persons or Entities Responsible for Plan Compliance;

Freil Realty II, LLC
c/o David Cassidy
86 Holliston Street
Medway, MA 02053
Tel: 508-533-8939

It is the intent of the Applicant to have the site completed and released by the various town Departments and Boards.

B. Good housekeeping practices

1. Maintain site, landscaping and vegetation.
2. Sweep and pick up litter on pavements and grounds.
3. Deliveries shall be monitored by owners or representative to ensure that if any spillage occurs, it shall be contained and cleaned up immediately.
4. Maintain pavement and curbing in good repair.

C. Requirements for routine inspections and maintenance of stormwater BMPs

1. Plans: The storm water Operation and Maintenance Plan shall consist of all Plans, documents and all local state and federal approvals as required for the subject property.
2. Record Keeping:
   a. Maintain a log of all operation and maintenance activities for at least three years following construction, including inspections, repairs, replacement and disposal (for disposal, the log shall indicate the type of material and the disposal location);

3. Descriptions and Designs: The Best Management Practices (BMP) incorporated into the design include the following;
   a. Pavement Sweeping - Stipulated within the Construction Period Pollution Prevention Plan, the Long Term Pollution Prevention Plan, and the Operation and Maintenance Plan. As the amount of TSS removal is discretionary, no credit was taken within the calculations for this BMP.
   b. Deep sump catch basins with hoods installed to promote TSS Removal of solids and control floatable pollutants. This BMP has a design rate of 25% TSS Removal.
   c. Contech Water Quality Manholes - installed to promote TSS Removal of solids. These proprietary BMPs have a variable rate of TSS removal, see manufacturer calculations in attachment section of this report.
   d. Infiltration Chambers - subsurface infiltration BMP provides the required groundwater recharge and has a design rate of 80% TSS Removal. Refer to TSS Removal Worksheet included in the Attachments.
   e. Rain Garden: planted infiltration BMP provides required groundwater recharge and has a design rate of 80% TSS Removal.
   f. Stormwater Swales: Conveyance BMP to capture and convey stormwater to other stormwater BMPs for treatment, detention, and infiltration.
   g. Spill Containment Kit to contain and clean-up spills that could occur on site.

4. BMP Maintenance: After construction it is the responsibility of the owner to perform maintenance. The owner shall also be responsible for the maintenance of the existing stormwater BMPs on the abutting Walgreens property. The cleaning of the components of the stormwater management system shall generally be as follows:
   a. Pavement: The owner shall keep the pavement swept with a mechanical sweeper or hand swept semi-annually at a minimum.
   b. Catch Basins: Shall be cleaned by excavating, pumping or vacuuming. The sediment shall be disposed of off-site by the Owner. Inspect quarterly, remove silt when ¼ full.
   c. Water Quality Manholes: Inspect twice a year. Clean structure when sediment accumulation reaches a depth of 2.0ft. Cleaning is generally done with the combination of a high pressure spray jet and vacuum truck and is the most effective and convenient method. A maintenance log shall be kept for all maintenance activities
   d. Infiltration Chambers: Inspect after 2 years of commission using the inspection port via a CCTV and inspect every year thereafter or as needed depending on rainfall and site conditions. Cleaning with high pressure water through culvert cleaning nozzle when sediment accumulation reaches a depth of 3 inches or more. A maintenance log shall be kept for all maintenance activities.
   e. Rain Garden: Inspect for proper function after every major storm event during the first 3 months of operation, inspect/remove debris twice per year afterward. Inspect mulch condition at least twice per year and refresh as needed, removing any deteriorated mulch.
   f. Stormwater Swale: Inspect for proper function after every major storm event during the first 3 months of operation, inspect/remove debris twice per year afterward. Mow grassed swales a minimum of twice per year.

5. Access Provisions: All of the components of the storm water system will be accessible by the Owner

D. Spill prevention and response plans

1. Train employees and subcontractors in prevention and clean up procedures.
2. All materials stored on site will be stored in their appropriate containers under a roof or in the approved underground storage tanks.
3. No hazardous materials are to be stored outside.
4. Follow manufacturer's recommendation for disposal of used containers.
5. On site equipment, fueling and maintenance measures:
   a. Inspect on-site vehicles and equipment daily for leaks.
   b. Conduct all vehicle and equipment maintenance off Site and refueling in one location, away from storm drains and wetlands. No vehicle washing is allowed on impervious surfaces draining into the stormwater management system, and is recommended for pervious vegetated areas only.
6. Clean up spills.
   a. Never hose down "dirty" pavement or impermeable surfaces where fluids have spilled. Use dry clean-up methods (sawdust, cat litter and/or rags and absorbent pads).
   b. Sweep up dry materials immediately. Never wash them away or bury them.
   c. Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
   d. Report significant spills to the Fire Department, Conservation Commission and Board of Health.
   e. Floatables shall be promptly and completely removed from catch basins, water quality units, and other drainage structures following a spill.

E. Provisions for maintenance of lawns, gardens, and other landscaped areas
Dispose of clippings away from storm drainage, wetland resource areas, and their buffers.

F. Requirements for storage and use of fertilizers, herbicides, and pesticides
The application of fertilizers, herbicides, or pesticides will be done by professional certified contractor. Only slow release, organic options are permitted for use within wetland jurisdictional buffer areas. Storage these chemicals is not permitted with 100' of the wetland resource area.

G. Provisions for solid waste management

1. Waste Management Plan
   a. Recycle materials whenever possible (paper, plaster cardboard, metal cans). Separate containers for material is recommended.
   b. Do not bury waste and debris on site.
   c. Certified haulers will be hired to remove the dumpster container waste as needed. Recycling products will also be removed off site weekly.
   d. No hazardous waste are to be disposed of in the on-site dumpster, and must be disposed of in accordance with all applicable regulations.

H. Snow disposal and plowing plans
Snow storage areas are designated on the site plan. No snow is to be stored within wetland resources, stormwater management areas, or parking spaces. Snow storage signs are to be provided adjacent to the wetland resource area as shown on the site plan. Excess snow that cannot be stored within the designated snow storage areas is to be removed and disposed of off-site within 72 hours.

I. Winter Road Salt and/or Sand Use and Storage restrictions
No sand, salt, or chemicals for de-icing will be stored outside. No de-icer shall be used without the authorization of the Medway Conservation Commission. Calcium Chloride is proposed for use as the primary de-icing chemical.

J. Pavement sweeping schedules
Sweeping, the act of cleaning pavement can be done by mechanical sweepers, vacuum sweeper or hand sweeper. The quantity of sand is a direct correlation with the treatment of ice and snow and the types of chemicals and spreaders that are being used on site to manage snow. If a liquid de-icer such as calcium chloride is used as a pretreatment to new events the amount of sand is minimized. Sweeping for this site should be done semi-annually at a minimum. Collecting the particulate before it enters the catch basins is cheaper and more environmentally friendly than in a catch basin mixing with oils and greases in the surface water runoff in catch basins.

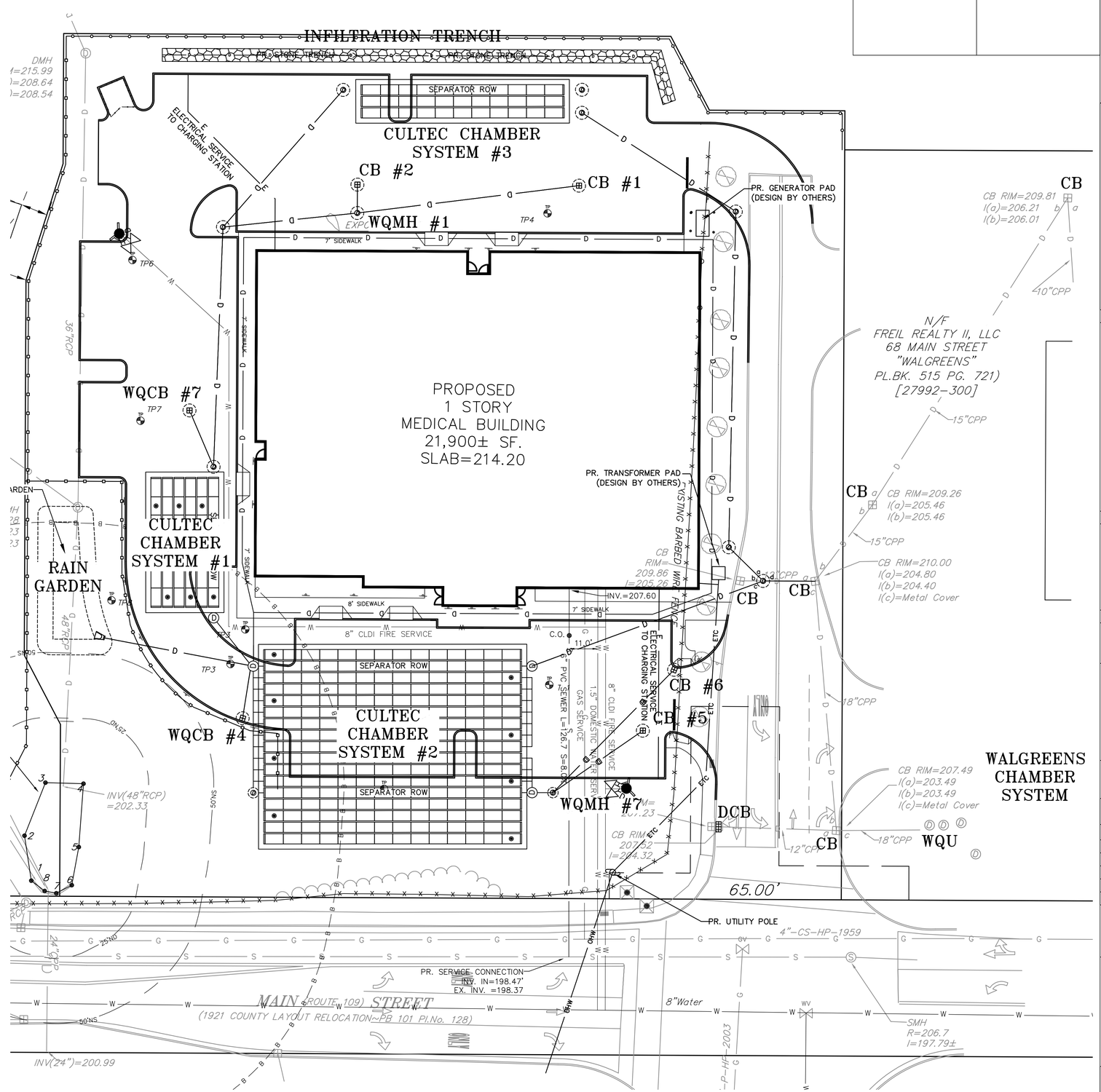
K. Provisions for prevention of illicit discharges to the stormwater management system
The discharge into the stormwater system is not being violated, see attachment for illicit discharges compliance.

L. Training the staff or personnel involved with implementing Long-Term Pollution Prevention Plan The owner shall develop policies and procedures for containing the illicit spilling of oils, soda, beer, paper, and litter. These wastes provide a degrading of the water quality. The placement of signs and trash barrels with lids around the site would contribute to clean water quality site conditions.

M. List of Emergency contacts for implementing Long-Term Pollution Prevention Plan:

Freil Realty II, LLC
c/o David Cassidy
86 Holliston Street
Medway, MA 02053
Tel: 508-533-8939

BMP	Estimated Maintenance Cost
Pavement sweeping	$ 400 per year
Catch basin & WQMH cleaning	$ 200 per catch basin per cleaning
Infiltration Chambers	$ 500 per cleaning
Spill Containment Kit	$ 750 purchase price



REGISTRY USE ONLY

F4516

APPROVED BY THE TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

BOARD MEMEBER DATE

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS. MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

FREIL REALTY II, LLC
DEED BOOK 27992 PAGE 300
PLAN BK. 515, PG 721 OF 2003
A.M. 41 LOT 8

APPLICANT

LOBISSER COMPANIES
1 CHARLESVIEW ROAD
HOPEDALE, MA 01747

SITE PLAN 86 HOLLISTON STREET MEDWAY MASSACHUSETTS

OPERATION AND MAINTENANCE PLAN

APRIL 14, 2022

DATE	REVISION DESCRIPTION
6/29/2022	REVISED PER TOWN COMMENTS
7/25/2022	REVISED PER TOWN COMMENTS
9/30/2022	REVISED PER PB DECISION

GRAPHIC SCALE: 1"=20'

0 5 10 15 20 25 30 40 50 FEET
0 1 2 3 4 5 10 15 20 METERS

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528-3221
FRANKLIN, MA 02038 FX. (508) 528-7921
www.gandhengineering.com

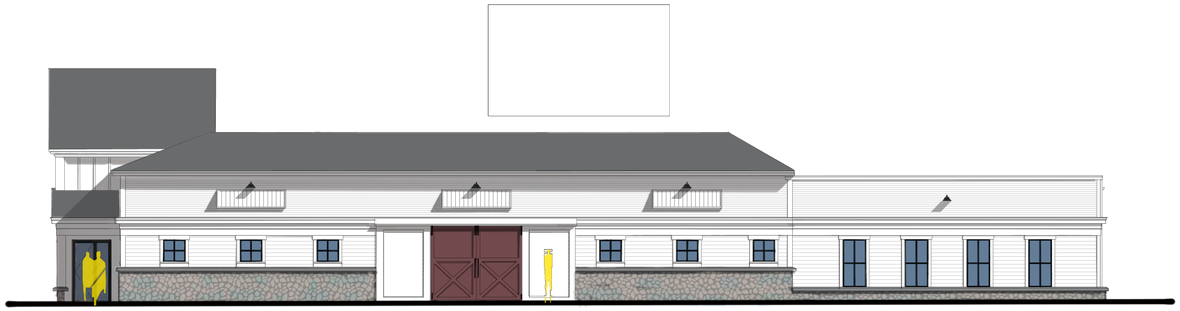
SHEET 13 OF 13

JOB NO. F4516

1 North
1/8" = 1'-0"

2 West
1/8" = 1'-0"

3 South
1/8" = 1'-0"



4 East
1/8" = 1'-0"

MATERIAL LEGEND

- HARDI BOARD AND BATTEN SIDING
- HARDI BOARD AND BATTEN SIDING
- HARDI BOARD SIDING 4" TW.
- HARDI BOARD SIDING 8" TW.
- FIELDSTONE VENEER - NEW ENGLAND BLEND - MOSAIC PATTERN WITH PRECAST CAP.
- BLACK ENERGY STAR WINDOWS
- FIBERGLASS ARCHITECTURAL ROOF SHINGLES
- BLACK ALUM AND GLASS STOREFRONT
- BLACK GOOSE NECK SIGN LIGHTS

MEDICAL BUILDING
MEDWAY MA

LOBISSER BUILDING CORP

DAI DiGIORGIO ASSOCIATES INCORPORATED
A LiRo Group Company

ARCHITECTURE
PLANNING
INTERIOR DESIGN
ENGINEERING

BOSTON
529 MAIN STREET, SUITE 3303
BOSTON, MA 02129
TEL. 617.723.7100
FAX. 617.723.9113

PORTLAND
570 WASHINGTON AVE.
PORTLAND, ME 04103
TEL. 207.582.2400
FAX. 207.582.8320

CONSULTANT:

ISSUE/REVISION:

NO:	DATE:	DESCRIPTION:
A	9.27.22	REVISED PER DRC

KEY PLAN:

N TRUE

DRAWING TITLE:
Exterior Elev/Bldg Sections

DRAWN BY: Author
CHECKED BY: Checker
SCALE: 1/8" = 1'-0"
PROJECT NO.: Project Number

SEAL:

DRAWING NO.:
A-400

PROJECT LOCATION:
C:\Users\FermanC\Documents\22-xxx-xxxx MRPG Medway_FermanC_25V2EYN34ISC.rvt

DATE & TIME PRINTED: 7/28/2022 9:40:49 AM

Susan Affleck-Childs

From: Bouley, Steven <Steven.Bouley@tetratech.com>
Sent: Thursday, October 20, 2022 12:34 PM
To: Susan Affleck-Childs
Cc: Michael Hassett
Subject: [External] 86 Holliston St Final Plan Review

Hi Susy,

We reviewed the plans titled "Site Plan, 86 Holliston Street, Medway, Massachusetts" dated April 14, 2022 with revisions through September 30, 2022 by Guerriere & Halnon, Inc., against the Decision dated September 27, 2022. We have the following comments:

Decision Review:

1. The Applicant should add 207-19.C.1.d to the approved waivers list shown on the Cover Sheet to be consistent with the Approved Waivers noted in the Decision. (VIII.D.1)
2. A Lighting Plan has not been provided. This will be needed to confirm proposed light pole height, luminaire details and color temperature, etc. (VIII.E.4)
3. Architectural plans were not provided in order to confirm the barn style door colors. (VIII.E.5)

General Review:

4. Did the PEDB ever confirm if an easement is required for the existing culvert the runs along the west side of the property?
5. I didn't see an item in the PEDB decision related to the inclusion of the O&M Plan in the set but that is usually a requirement (in this case most likely through Conservation). I don't have the Order of Conditions on hand but please confirm if an O&M procedures Plan shall be placed into the set.

Please let me know if you need anything else, thanks.

Steve

Steven M. Bouley, PE | Project Manager
Direct **+1 (508) 786-2382** | Business **+1 (508) 786-2200** | Fax **+1 (508) 786-2201** | steven.bouley@tetratech.com

Tetra Tech | *Leading with Science®* | INE
100 Nickerson Road | Marlborough, MA 01752 | tetratech.com

This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

Please consider the environment before printing. Read more

TETRA TECH

October 25, 2022
Medway Planning & Economic Development Board Meeting

Master Plan

- Submittal memo from Jessica Chabot, Master Plan Committee Chair, dated October 18, 2022
- Draft proposal for Master Plan Implementation Committee, dated August 18, 2022

TOWN OF MEDWAY

COMMONWEALTH OF MASSACHUSETTS

MASTER PLAN COMMITTEE

Medway Town Hall
155 Village Street - Medway, MA 02053
Phone (508) 533-3291 Fax (508) 321-4987
masterplancommittee@townofmedway.org

MEMORANDUM

October 18, 2022

TO: Planning and Economic Development Board
FROM: Jessica Chabot, Chair
RE: Medway Master Plan Submittal for Approval

The Master Plan Committee has completed its work and is pleased to provide a new Medway Master Plan to the community.

At its October 4, 2022 meeting, the Master Plan Committee concluded its work and voted to recommend approval of the new Medway Master Plan to the Planning and Economic Development Board.

The 99.5% final version of the key documents are posted at:

- https://www.townofmedway.org/master-plan-committee/news/revised-master-plan-report-october-7-2022
- https://www.townofmedway.org/master-plan-committee/news/revised-master-plan-action-plan-october-7-2022
- https://www.townofmedway.org/sites/g/files/vyhlif8006/f/news/medway_draft_implementation_matrix_100722_1.pdf

I believe Sarah Raposa is prepared to offer a motion for the Planning and Economic Development Board to adopt the new Medway Master Plan pursuant to G.L. Chapter 41, Section 81-D.

The Board should also vote to refer the Master Plan to the Select Board and Town Meeting and recommend their endorsement.

Committee members and affiliated groups

Jessica Chabot, Planning & Economic Development Board – Chair
Debi Rossi, Board of Parks Commissioners – Vice Chair
Eric Arbeene, At-Large Member | *Becky Atwood*, Cultural Council | *Carey Bergeron*, Energy & Sustainability Committee
Susan Dietrich, School Committee | *John Foresto*, Select Board | *Ellen Hillery*, Finance Committee | *Siri Krishna Khalsa*, Council on Aging
Tara Kripowicz, Conservation Commission | *Denise Legee*, Open Space Committee | *Cassandra McKenzie*, Economic Development Committee
Sarah Raposa, At-Large Member | *Linda Reynolds*, Lions Club | *Kristen Salera*, Medway Business Council
Jack Wolfe, Affordable Housing Trust & Committee

Proposal – To establish a Medway Master Plan Implementation Committee (MPIC) to replace the Master Plan Committee to work to ensure the vision, goals, and strategies of the 2022 Master Plan are achieved.

The Medway Master Plan Action Plan outlines a wide range of strategies to achieve the 2022 Master Plan's vision and goals. The Master Plan Action Plan is comprised of 94 actionable strategies grouped under four key themes:

- Responsible and Strategic Growth
- Public Infrastructure to Support Growth
- Conservation, Resilience and Stewardship
- Supportive Community

Each strategy identifies a lead responsible party for implementation (Town board, committee, or department) and other supporting entities to be involved.

The MPIC shall work with these various parties in a supportive and collaborative role to:

- Assist in understanding how the Master Plan integrates with their existing priorities, programs, and services.
- Advocate to stay on track with the implementation strategies assigned to them.
- Liaise with and promote collaboration among Town boards, committees, departments, and residents on implementation tasks that require additional planning work.

The MPIC shall also:

- Track and evaluate the Town's progress on implementation of Master Plan strategies, on an annual basis, to ascertain status, identify issues or constraints and barriers to progress, and determine if conditions have changed or new information has become available that could affect the implementation activities, responsibility assignment, and completion schedule.
- Prepare and provide an annual progress report to the Select Board, Planning and Economic Development Board, and Town Meeting
- Advocate with various decision-making entities to carry forward Master Plan implementation strategies
- Secure community support for proposed Master Plan implementation actions by keeping citizens actively engaged in planning and committed to the success of the Master Plan through public education, web site information, and social media

Composition – The Committee shall be comprised of a representative of the Select Board, Planning and Economic Development Board, Finance Committee, Board of Parks Commissioners, and School Committee and two other at-large members who may be representatives of other Town boards and committees.

The above noted boards/committee shall annually select their representative to the MPIC. The other members shall be appointed by (TM, SB, PEDB?) for a ___ year term.

The Committee will conduct its activities in compliance with all relevant state and local laws and regulations including, but not limited to the open meeting law, ethics laws, and public records laws.

The Committee will be supported by staff from the Community and Economic Development Department and the Town Manager's office. Additional support may be provided by other Town departments such as Public Works, Building, Parks, or Finance at the direction of the Town Manager.

Committee members are not authorized to direct Town staff or members of other Boards and Committees.

DRAFT – August 18, 2022

DRAFT

October 25, 2022
Medway Planning & Economic Development Board Meeting

Master's Touch – 83 Main Street Public Hearing Continuation

- Notice dated September 28, 2022, to continue the public hearing for Master's Touch (83 Main Street) to October 25, 2022, meeting.
- Email from Jacob Gadbois requesting a continuation, dated October 20, 2022.
- Request for extension of deadline dated October 24, 2022.

Board Members

Matthew J. Hayes, P.E., Chair
Robert Tucker, Vice Chair
Richard Di Iulio, Clerk
Jessica Chabot, Member
Sarah Raposa, A.I.C.P, Member
Thomas Gay, Associate Member

Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 533-3291
Fax (508) 321-4987
Email: planningboard
@townofmedway.org
www.townofmedway.org

TOWN OF MEDWAY

COMMONWEALTH OF MASSACHUSETTS

PLANNING AND ECONOMIC DEVELOPMENT BOARD

MEMORANDUM

September 28, 2022

TO: Stefany Ohannesian, Town Clerk
Town of Medway Departments, Boards and Committees
FROM: Susy Affleck-Childs, Planning and Economic Development Coordinator
RE: ***Public Briefing Continuation for Master's Touch Site Plan, 83 Main Street***
Continuation Date – Tuesday, October 25, 2022 at 7:30 p.m.

At its September 27, 2022 meeting, the Planning and Economic Development Board, at the applicant's request, voted to continue the public briefing on the application of Master's Touch of Holliston, MA for approval of a minor site plan for redevelopment of 83 Main Street to the Board's meeting on Tuesday, October 25, 2022 at 7:30 p.m. p.m. at Medway Town Hall, 155 Village Street. The meeting will also be available via Zoom.

The applicant proposes to improve and expand the existing building, renovate the building façade, construct a new building for storage, and add a series of site improvements to the property at 83 Main Street. The property will be used by Master's Touch, a custom home design build construction and remodeling firm, for its offices, showroom, and storage. Planned site work includes construction of a paved parking area, driveway extension, stormwater management facilities, and a second curb cut on Main Street.

The subject property (Map 40, Parcel 79) is owned by DEM Realty Enterprises, LLC of Holliston, MA. It is located in the Central Business zoning district on the south side of Main ST (Route 109).

The application documents and proposed site plan are on file with the Medway Town Clerk and at the office of the Planning and Economic Development Board at Medway Town Hall, 155 Village Street and may be reviewed during regular business hours. The documents are also posted at the Board's web page at: https://www.townofmedway.org/planning-economic-development-board/pages/masters-touch-site-plan-83-main-street

Based on the feedback provided at the July 12th hearing, the Applicant will be revising the site plan to resubmit to the Board for further review. Upon receipt, we will upload it to the web site and inform you.

Please do not hesitate to contact me if you have any questions at 508-533-3291. Thanks.

Susan Affleck-Childs

From: Jacob Gadbois <jake@masterstouchweb.com>
Sent: Thursday, October 20, 2022 12:47 PM
To: Susan Affleck-Childs
Subject: [External] continuance

HI Susan,

Please continue our project to the next hearing date, and the decision date as well if needed.

Best
Jacob

Jacob Gadbois, PMP

Program Manager
Masters Touch Design Build
24 Water Street
Holliston, MA 01746
P. 508-359-5900 x 219

We Build Trust.

www.masterstouchweb.com | MTDB on Facebook | Blog | MTDB on Houzz | MTDB on YouTube

Request for Extension of Deadline

for Action by the

Medway Planning & Economic Development Board

The undersigned Applicant (or official representative) requests an extension of the deadline for action by the Planning and Economic Development Board on the application of Jacob Gadbois for:

___ *ANR (Approval Not Required/81P Plan)*

___ *Preliminary Subdivision Plan*

___ *Definitive Subdivision Plan*

__x_ *Site Plan Application (or modification)*

___ *Scenic Road Work Permit Application*

___ *Special Permit Application*

___ *Land Disturbance Permit Application*

___ *Other*

for the development project known as: Master's Touch

address of project: 83 Main Street

to the following date: _____12/30_____

Respectfully submitted,

Name of Applicant or official representative: _____JACOB GADBOIS_____

Signature of Applicant or official representative: _____

Date: ____10-24-22_____

****

Date approved by Planning and Economic Development Board: _____

New Action Deadline Date: ____ _____

Signature: _____

October 25, 2022
Medway Planning & Economic Development Board Meeting

Construction Reports

- 288 Village Street
  - 8/19/2022 Field Report – Tetra Tech
  - 9/14/2022 Field Report – Tetra Tech
  - 9/20/2022 Field Report – Tetra Tech

TETRA TECH

FIELD REPORT

PROJECT	DATE	REPORT NO.
288 Village Street	08/19/2022	01
LOCATION	**TT PROJECT NO.**	**TT INSPECTOR**
288 Village St., Medway, MA	143-21583-22012	Tucker Paradee, EIT
CONTRACTOR	**WEATHER**	**TEMPERATURE**
Tony Leland (Owner/Contractor)	A.M. P.M. SUNNY	A.M. P.M. 80-90 (F)

SECTION A: FIELD OBSERVATIONS

1. Contractor has erected silt fence barriers (SFB) along the southern and western property limits in accordance with the Plans. Additional SFBs are required in the north-east corner of the site surrounding the proposed stockpile area. These erosions are to be erected once land is disturbed and material is stockpiled.
2. Existing asphalt driveway remains. Contractor intends to demo the driveway as needed and install the construction entrance once complete. TT recommends routine sweeping of the existing asphalt to ensure no material is tracked off site.
3. Two catch basins exist on Village St. and require silt sacks.

SECTION B: SCHEDULE

1. TT will maintain communication with the developer and perform site inspections on an as-need basis.

SECTION C: NEW ACTION ITEMS

1. Install silt sacks in CB's along Village St.

SECTION D: OUTSTANDING ACTION ITEMS

1. N/A

CONTRACTOR'S FORCE AND EQUIPMENT				WORK DONE BY OTHERS	
LABOR		EQUIPMENT		DEPT./COMPANY	WORK DESC.
Sup't		Excavator (mini)			
Foreman	1	Loader			
Laborers		Bulldozer			
Drivers		Tri-Axle Dump Truck		**OFFICIAL VISITORS TO JOB**	
Operators		Trailer Dump Truck		NAME	DEPT.
Surveyors		Asphalt Paver			
Masons		Roller (static) [vibratory]			
Police Detail		Concrete Truck			

TETRA TECH

FIELD REPORT

PROJECT	DATE	REPORT NO.
288 Village Street	09/14/2022	02
LOCATION	**TT PROJECT NO.**	**TT INSPECTOR**
288 Village St., Medway, MA	143-21583-22012	Tucker Paradee, EIT
CONTRACTOR	**WEATHER**	**TEMPERATURE**
Tony Leland (Owner/Contractor)	A.M. P.M. PARTLY CLOUDY	A.M. P.M. 65-75 (F)

SECTION A: FIELD OBSERVATIONS

1. Contractor has erected silt fence barriers (SFB) along the southern and western property limits in accordance with the Plans. Contractor has been told to place additional compost filter socks around the stockpiled material in the north-east corner of the site to prevent erosion off site.
2. Approx. 10-feet of driveway entrance remains asphalt, the rest of the existing asphalt has been removed. No sediment appears to being tracked off site.
3. Contractor has poured and backfilled the foundation for the multi-family development.
4. Excavation for the proposed subsurface infiltration basin has been completed. The soils at the bottom of the trench appear to be loamy sand, consistent with the test pit data provided in the Stormwater Report.

SECTION B: SCHEDULE

1. TT will maintain communication with the developer and perform site inspections on an as-need basis.

SECTION C: NEW ACTION ITEMS

1. Place compost filter socks around stockpiled material.

SECTION D: OUTSTANDING ACTION ITEMS

1. Install silt sacks in catch basins along Village St.

CONTRACTOR'S FORCE AND EQUIPMENT				WORK DONE BY OTHERS	
LABOR		EQUIPMENT		DEPT./COMPANY	WORK DESC.
Sup't		Excavator (mini)	1		
Foreman	1	Loader			
Laborers	2	Bulldozer			
Drivers		Tri-Axle Dump Truck		**OFFICIAL VISITORS TO JOB**	
Operators		Trailer Dump Truck		NAME	DEPT.
Surveyors		Asphalt Paver			
Masons		Roller (static) [vibratory]			
Police Detail		Concrete Truck			

TETRA TECH

FIELD REPORT

PROJECT	DATE	REPORT NO.
288 Village Street	09/20/2022	03
LOCATION	**TT PROJECT NO.**	**TT INSPECTOR**
288 Village St., Medway, MA	143-21583-22012	Tucker Paradee, EIT
CONTRACTOR	**WEATHER**	**TEMPERATURE**
Tony Leland (Owner/Contractor)	A.M. P.M. OVERCAST	A.M. P.M. 60-70 (F)

SECTION A: FIELD OBSERVATIONS

1. Silt fence barriers (SFB) remain intact along the southern and western property limits. Contractor has been told to place compost filter socks around the stockpiled material in the northeast portion of the site.
2. Contractor has installed proposed subsurface infiltration chambers. Bottom of trench was lined with filter fabric then covered with approx. 12-inches of washed crushed stone. Filter fabric was also draped along the sides to wrap the chambers at the end. Six (6) rows containing four (4) Stormtech SC-310 chambers were installed on the crushed stone then backfilled with additional crushed stone to 6-inches above the chambers per the detail. The chambers and stone were wrapped with filter fabric and backfilled with on-site excavated material.
3. Two inspection ports were also installed for the two outside rows in accordance with the approved Plans.

SECTION B: SCHEDULE

1. TT will maintain communication with the developer and perform site inspections on an as-need basis.

SECTION C: NEW ACTION ITEMS

1. N/A

SECTION D: OUTSTANDING ACTION ITEMS

1. Install silt sacks along Village St.
2. Place compost filter socks around stockpiled material.

CONTRACTOR'S FORCE AND EQUIPMENT				WORK DONE BY OTHERS	
LABOR		EQUIPMENT		DEPT./COMPANY	WORK DESC.
Sup't		Excavator (mini)	1		
Foreman	1	Loader			
Laborers	2	Bulldozer			
Drivers		Tri-Axle Dump Truck		**OFFICIAL VISITORS TO JOB**	
Operators		Trailer Dump Truck		NAME	DEPT.
Surveyors		Asphalt Paver			
Masons		Roller (static) [vibratory]			
Police Detail		Concrete Truck			

P:\21583\143-21583-22012 (PEDB 288 VILLAGE ST)\Construction\FieldObservation\FieldReports\288 Village St_Field Report No. 03_2022-09-20.docx

October 25, 2022
Medway Planning & Economic Development Board Meeting

Petition to the ZBA for an Accessory Family Dwelling Unit Special Permit for 124 Fisher Street

- Petition for an AFDU special permit to be included in the existing building. ZBA hearing is November 2, 2022.

TOWN OF MEDWAY
COMMONWEALTH OF MASSACHUSETTS
ZONING BOARD OF APPEALS

Medway Town Hall
155 Village Street
Medway, MA 02053
Telephone (508) 321-4890
Email: zoning@townofmedway.org
www.townofmedway.org

PUBLIC HEARING NOTICE

MEDWAY ZONING BOARD OF APPEALS

Notice is hereby given that the Town of Medway **Zoning Board of Appeals** will conduct a **Public Hearing** on **Wednesday, November 02, 2022** at **7:30 P.M,** in **Sanford Hall** at the **Medway Town Hall, 155 Village Street, Medway, MA** on an application from **Douglas Walton, DLW Carpentry Inc.,** with respect to property located at **124 Fisher Street**, Assessor Parcel No. 26-016, in the Agricultural Residential I Zoning District.

The application is for the issuance of a **special permit** under Section 8.2 for an Accessory Family Dwelling Unit (AFDU) to be included in the existing dwelling.

Copies of the petition are on file in the offices of the Town Clerk and the Department of Community and Economic Development, 155 Village St, Medway, MA; you may contact the office of Community and Economic Development at **(508) 321-4890** or zoning@townofmedway.org for information or to obtain copies. You can also view the application on our website at www.townofmedway.org/zoning-board-appeals.

Pursuant to Chapter 20 of the Acts of 2021, this meeting will be conducted in person and, as a courtesy, via remote means in accordance with applicable law. Please note that while an option for remote attendance and/or participation is being provided as a courtesy to the public and board members, the meeting and hearing will not be suspended or terminated if technological problems interrupt the virtual broadcast, unless required by law.

Members of the public who wish to watch the meeting may do so on Medway Cable Access: channel 11 on Comcast Cable, or channel 35 on Verizon Cable; or on Medway Cable's Facebook page @medwaycable.

See below for how to join this meeting via internet, telephone, or mobile device. If you need any assistance joining this meeting, please contact us at the telephone or email address above. Information for joining the meeting will also be included in the meeting agenda, which will be posted on the Town website at least 48 hours prior to the meeting.

Medway Cable Access is inviting you to a scheduled Zoom meeting.

Topic: Zoning Board of Appeals
Time: Nov 2, 2022 07:30 PM Eastern Time (US and Canada)

Join Zoom Meeting
https://us02web.zoom.us/j/86721354753?pwd=Vlg2dEk0Q3V5LzZZNURsajdUSWIwQT09

Meeting ID: 867 2135 4753
Passcode: 164046
One tap mobile
+13126266799,,86721354753# US (Chicago)
+16469313860,,86721354753# US

Dial by your location
+1 312 626 6799 US (Chicago)
+1 646 931 3860 US
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Washington DC)
+1 309 205 3325 US
+1 386 347 5053 US
+1 564 217 2000 US
+1 669 444 9171 US
+1 669 900 6833 US (San Jose)
+1 719 359 4580 US
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
Meeting ID: 867 2135 4753

TOWN OF MEDWAY

ZONING BOARD OF APPEALS

155 Village Street
Medway MA 02053

Phone: 508-321-4915 | zoning@townofmedway.org
www.townofmedway.org/zoning-board-appeal

NOTE: THE APPLICATION WILL NOT BE CONSIDERED "COMPLETE" UNLESS ALL NECESSARY DOCUMENTS, FEES, & WAIVER REQUESTS ARE SUBMITTED. A GENERAL APPLICATION FORM MUST BE COMPLETED FOR ALL APPLICATIONS.

TO BE COMPLETED BY THE APPLICANT

Applicant/Petitioner(s):
Douglas Walton / DLW Carpentry Inc.
contractor, MA const. supervisor

Property Owner(s):
Keith + Terriann Rafal

Site Address(es):
124 Fisher St.

Parcel ID(s):

Zoning District(s):

Application Request(s):

- Appeal ☐
- Special Permit ☒
- Variance ☐
- Determination/Finding ☐
- Extension ☐
- Modification ☐
- Comprehensive Permit ☐

Registry of Deeds Book & Page No. and Date or Land Court Certificate No. and Date of Current Title:

TO BE COMPLETED BY STAFF:
Check No.:
Date of Complete Submittal:
Comments:

APPLICANT/PETITIONER INFORMATION

The owner(s) of the land must be included as an applicant, even if not the proponent. Persons or entities other than the owner may also serve as co-applicants in addition to the owner(s), however, in each instance, such person shall provide sufficient written evidence of authority to act on behalf of the owner(s). For legal entities such as corporations, LLCs, etc., list the type and legal status of ownership, the name of the trustees/officer members, their affiliation, and contact information. Please provide attachment for information if necessary.

Applicant/Petitioner(s): Douglas Walton / DLW Carpentry Inc. MA Lic. Construction Supervisor Unrestricted	Phone: (508) 341-8041
	Email: dlwcarpentry@live.com
Address: 36 Grove St. Bellingham, MA 02019	
Attorney/Engineer/Representative(s):	Phone:
	Email:
Address:	
Owner(s): Keith + Teriann Rafal	Phone: (617) 968-3409
	Email: krafalmd@gmail.com
Mailing Address: 124 Fisher St. Medway, MA 02053	

Please list name and address of other parties with financial interest in this property (use attachment if necessary):

Keith + Teriann Rafal

Please disclose any relationship, past or present, interested parties may have with members of the ZBA:

Teriann + Keith Rafal

I hereby certify that the information on this application and plans submitted herewith are correct, and that the application complies with all applicable provisions of Statutes, Regulations, and Bylaws to the best of my knowledge, and that all testimony to be given by me during the Zoning Board of Appeals public hearing associated with this application are true to the best of my knowledge and belief.

Douglas L. Walton — 10-6-2022

Signature of Applicant/Petitioner or Representative — *Date*

Teriann Rafal / Keith Rafal — 10-6-22

Signature Property Owner (if different than Applicant/Petitioner) — *Date*

Received by: Date:

APPLICATION INFORMATION

		YES	NO
Applicable Section(s) of the Zoning Bylaw: section 8.4	Requesting Waivers?	☐	☒
	Does the proposed use conform to the current Zoning Bylaw?	☐	☐
Present Use of Property: single family dwelling	Has the applicant applied for and/or been refused a building permit?	☐	☒
	Is the property or are the buildings/ structures pre-existing nonconforming?	☐	☒
Proposed Use of Property: AFDU	Is the proposal subject to approval by the BOH or BOS?	☒	☐
	Is the proposal subject to approval by the Conservation Commission?	☐	☒
Date Lot was created:	Is the property located in the Floodplain District?	☐	☒
Date Building was erected:	Is the property located in the Groundwater Protection District?	☐	☒
Does the property meet the intent of the Design Review Guidelines?	Is the property located in a designated Historic District or is it designated as a Historic Landmark?	☐	☒

Describe Application Request:

Received by: _____ Date: _____

FILL IN THE APPLICABLE DATA BELOW

Required Data	Bylaw Requirement	Existing	Proposed
A. Use			
B. Dwelling Units			
C. Lot Size			
D. Lot Frontage			
E. Front Setback			
F. Side Setback			
G. Side Setback			
H. Rear Setback			
I. Lot Coverage			
J. Height			
K. Parking Spaces			
L. Other			

FOR TOWN HALL USE ONLY

To be filled out by the Building Commissioner:

Date Reviewed

Medway Building Commissioner

Comments:

After completing this form, please submit an electronic copy to zoning@townofmedway.org
and 4 paper copies to the Community & Economic Development Department.

Received by: Date:

TOWN OF MEDWAY
ZONING BOARD OF APPEALS
155 Village Street
Medway MA 02053

Phone: 508-321-4915 | zoning@townofmedway.org
www.townofmedway.org/zoning-board-appeal

NOTE: THE APPLICATION WILL NOT BE CONSIDERED "COMPLETE" UNLESS ALL NECESSARY DOCUMENTS, FEES, & WAIVER REQUESTS ARE SUBMITTED. A GENERAL APPLICATION FORM MUST BE COMPLETED FOR ALL APPLICATIONS.

TO BE COMPLETED BY THE APPLICANT

Please provide evidence regarding how the Special Permit Decision Criteria, outlined below, is met. Please write "N/A" if you believe any of the Criteria is Not Applicable. Provide attachments if necessary.

1. **The proposed site is an appropriate location for the proposed use:**
   Unit will be in existing basement space.

2. **Adequate and appropriate facilities will be provided for the operation of the proposed use:**
   Full bath, kitchenette, bedroom + living room planned for space.

3. **The proposed use as developed will not create a hazard to abutters, vehicles, pedestrians, or the environment:**
   yes

4. **The proposed use will not cause undue traffic congestion or conflicts in the immediate area:**
   Long remote driveway with 2 car garage and 4-5 parking spots existing.

5. **The proposed use will not be detrimental to the adjoining properties due to lighting, flooding, odors, dust, noise, vibration, refuse materials, or other undesirable visual, site, or operational attributes of the proposed use:**
   Use will not be detrimental to any noted issues above, use expected to be completely unoticed by neighbors.

6. **The proposed use as developed will not adversely affect the surrounding neighborhood or significantly alter the character of the zoning district:**
   No it will not.

7. The proposed use is in harmony with the general purpose and intent of this Zoning Bylaw: yes
8. The proposed use is consistent with the goals of the Medway Master Plan: yes
9. The proposed use will not be detrimental to the public good: no

Douglas Walter — 10-6-2022

Signature of Applicant/Petitioner or Representative — *Date*

Received by: _____ Date: _____

SPECIAL PERMIT FORM
Accessory Family Dwelling Unit (AFDU)

TOWN OF MEDWAY
ZONING BOARD OF APPEALS
155 Village Street
Medway, MA 02053

Phone: 508-321-4915 | zoning@townofmedway.org
www.townofmedway.org/zoning-board-appeal

NOTE: THE APPLICATION WILL NOT BE CONSIDERED "COMPLETE" UNLESS ALL NECESSARY DOCUMENTS, FEES, & WAIVER REQUESTS ARE SUBMITTED. A GENERAL APPLICATION FORM MUST BE COMPLETED FOR ALL APPLICATIONS. A GENERAL SPECIAL PERMIT APPLICATION IS REQUIRED IN ADDITION TO THIS FORM FOR AFDU'S.

TO BE COMPLETED BY THE APPLICANT

Please provide evidence regarding how the Special Permit Decision Criteria, outlined below, is met. Please write "N/A" if you believe any of the Criteria is Not Applicable. Provide attachments if necessary.

1. An accessory family dwelling unit shall be located within:
a. a detached single-family dwelling (principal dwelling unit); or
b. an addition to a detached single-family dwelling principal dwelling unit); or
c. a separate structure on the same premises as a detached single-family dwelling (principal dwelling unit).

Unit designed in existing basement footprint.

2. There shall be no more than one accessory family dwelling unit associated with a detached single-family dwelling (principal dwelling unit).

Design is for 1 unit w/ 1 bedrm. Owner Family occupied only understood by owners.

3. No accessory family dwelling unit shall have more than one bedroom, unless a second bedroom is authorized by the Board of Appeals pursuant to 8.2.C. 8.

Design is for 1 unit w/ 1 bedroom.

4. An accessory family dwelling unit shall not exceed 800 sq. ft. of gross floor area unless:
a. there is an existing detached accessory structure larger than 800 sq. ft. located on the same lot as a detached single-family dwelling (principal dwelling unit) and the Board of Appeals determines its use as an accessory family dwelling unit is in character with the neighborhood; or
b. authorized by the Board of Appeals pursuant to 8.2.C.8.

O.K.

5. There shall be at least one designated off-street parking space for the accessory family dwelling unit in addition to parking for the occupants of the detached single-family (principal dwelling unit). The off-street parking space shall be located in a garage or in the driveway, and shall have vehicular access to the driveway. The location, quantity and adequacy of parking for the accessory

existing 2 car garage and 4-5 spots on paved existing driveway. "No" parking, driveway changes proposed.

family dwelling unit shall be reviewed by the Board of Appeals to ensure its location and appearance are in keeping with the residential character of the neighborhood.

Unit to be inside existing basement footprint.

6. Occupancy of the single-family dwelling (principal dwelling unit) and accessory family dwelling unit shall be restricted as follows:

a. The owners of the property shall reside in one of the units as their primary residence, except for bona fide temporary absences due to employment, hospitalization, medical care, vacation, military service, or other comparable absences which would not negate the primary residency standard. For purposes of this Section, "owners" shall mean one or more individuals who hold legal or beneficial title to the premises.

b. The accessory dwelling unit and the detached single-family dwelling (principal dwelling unit) shall be occupied by any one or more of the following:

i. the owner(s) of the property;

ii. the owner's family by blood, marriage, adoption, foster care or guardianship;

iii. an unrelated caregiver for an occupant of the detached single-family dwelling or the accessory family dwelling unit, who is an elder, a person with a disability, handicap or chronic disease/medical condition, or a child.

✓

7. An accessory family dwelling unit shall be designed so as to preserve the appearance of the single-family dwelling (principal dwelling unit) and be compatible with the residential character of the neighborhood. Any new separate outside entrance serving an accessory family dwelling unit shall be located on the side or in the rear of the building.

✓

In order to encourage the development of housing units for disabled and handicapped individuals and persons with limited mobility or a chronic medical condition, the Board of Appeals may allow reasonable deviations from the Basic Requirements where necessary to install features in the accessory family dwelling unit to facilitate the care of, and access and mobility for, disabled and handicapped individuals and persons with limited mobility or a chronic medical condition. This may include, but is not limited to, authorizing a second bedroom in the accessory family dwelling unit.

If you are seeking relief under this provision, please specify the relief sought and the reasons supporting your request.

Douglas R. Watt — 10-6-2022

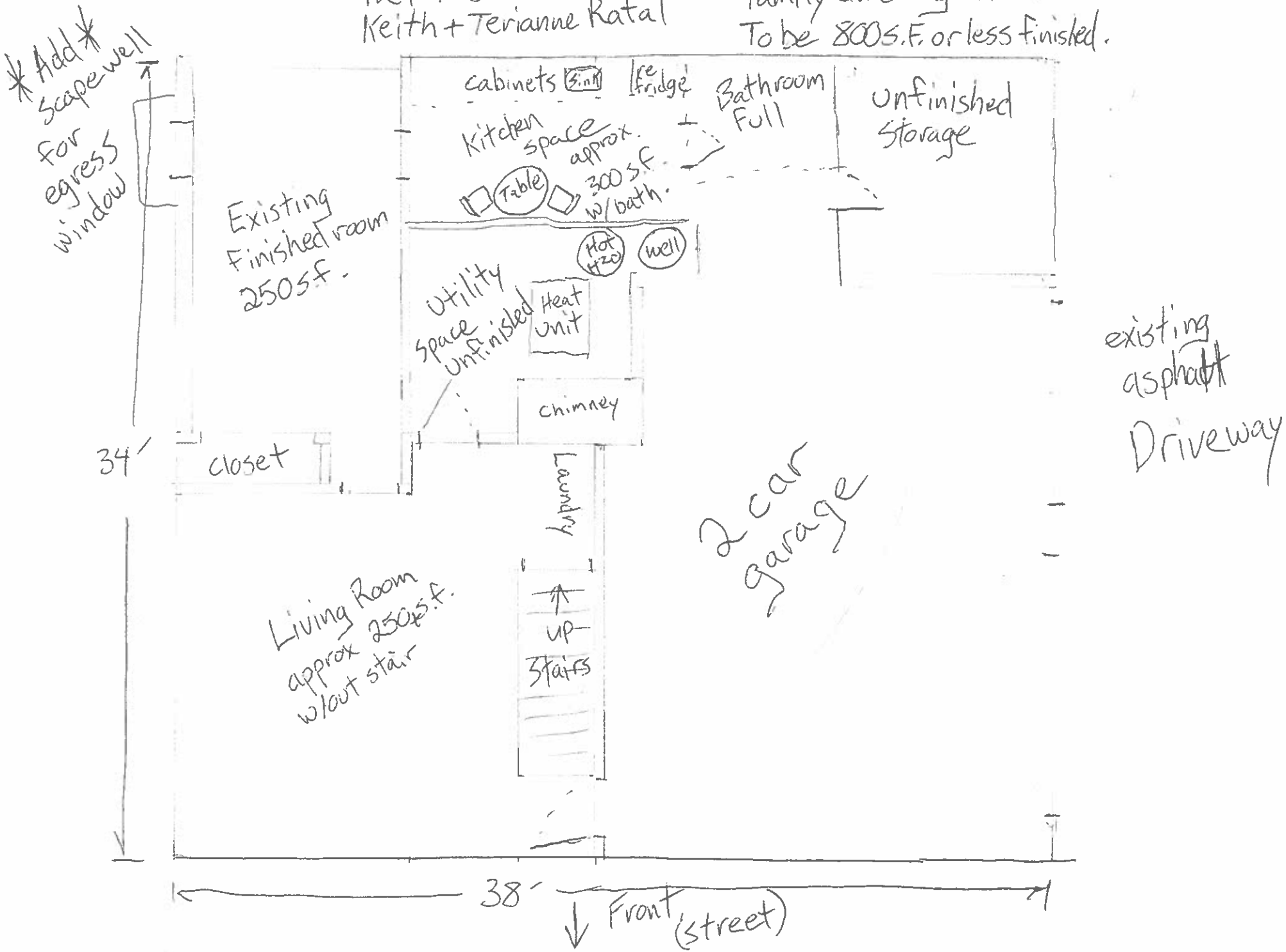
Signature of Applicant/Petitioner or Representative — *Date*

Received by: _____ Date: _____

Basement level
124 Fisher St.
Keith + Terianne Rafal

Proposed Accessory Family dwelling unit.
To be 800 s.f. or less finished.

10-4-2022



TREASURER/COLLECTOR CERTIFICATION

TOWN OF MEDWAY
ZONING BOARD OF APPEALS
155 Village Street
Medway MA 02053

Phone: 508-321-4915 | zoning@townofmedway.org
www.townofmedway.org/zoning-board-appeal

TO BE COMPLETED BY THE APPLICANT

Applicant/Petitioner(s): Douglas Walton MA lic. Construction Supervisor
Property Owner(s): Keith + Teriann Rafal
Site Address(es): 124 Fisher St. Medway, MA 02053
Parcel ID(s): 26-016
Registry of Deeds Book & Page No. and Date or Land Court Certificate No. and Date of Current Title:

Signature of Applicant/Petitioner or Representative *Date*

FOR TOWN HALL USE ONLY
To be filled out by the Treasurer/Collector:

Date Reviewed Medway Treasurer/Collector

Tax Delinquent: Y N
Comments:

TOWN OF MEDWAY
COMMONWEALTH OF MASSACHUSETTS
ZONING BOARD OF APPEALS

Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 321-4890
Email: zoning@townofmedway.org
www.townofmedway.org

Board Members
Brian White, Chair
Gibb Phenegar, Vice Chair
Christina Oster, Clerk
Joe Barresi, Member
Tom Emero, Member

Legal Notice Billing Agreement Form

The Zoning Board of Appeals will prepare and submit a legal notice to be published in the *Milford Daily News*. This legal notice will appear in two consecutive issues of the newspaper, at least 14 days prior to the date of your hearing. The cost varies based upon the applicant request and information required for the notice. The Zoning Board of Appeals will forward the ad proof with the total to be paid by the applicant.

Douglas Walton
Applicant Name

124 Fisher St.
Property Address

(508) 341-8041
Telephone Number

26-016
Parcel ID

dlwcarpentry@live.com
Email Address

AR-1
Zoning District

I hereby agree to provide a check in the sum of the ad proof total provided by the Zoning Board of Appeals for the required legal notice for a public hearing before the Zoning Board of Appeals.

Applicant Signature

10-3-22
Date

Please Note: *This form must be returned to the Zoning Board of Appeals when submitting your application*

TOWN OF MEDWAY
COMMONWEALTH OF MASSACHUSETTS
ZONING BOARD OF APPEALS

Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 321-4890
Email: zoning@townofmedway.org
www.townofmedway.org

Board Members
Brian White, Chair
Gibb Phenegar, Vice Chair
Christina Oster, Clerk
Joe Barresi, Member
Tom Emero, Member

Representative Authorization Form

I, Keith & Teriann Rafal certify that I am the owner of the property and I am aware of and authorize the submission of this application being submitted by my representative Douglas Walton.
All information submitted is accurate to my knowledge.

Keith & Teriann Rafal — Property Owner Name
124 Fisher St. — Property Address

Keith-(617) 968-3409
Teriann (508) 533-6285 — Telephone Number
26-016 — Parcel ID

Keith-KRafal MD @gmail.com
~~KWLF~~ — Email Address
AR1 — Zoning District

Teriann Rafal — Property Owner Signature
10/5/2022 — Date

Please Note: *This form must be returned to the Zoning Board of Appeals when submitting the application if being completed by a representative or it will be incomplete until this form is completed.*

October 25, 2022
Medway Planning & Economic Development Board Meeting

Public Hearing Continuation 2 Marc Road – CommCan Modification to Previously Approved Site plan, Marijuana Special Permits, and Groundwater Protection Permit

- Notice dated October 12, 2022, to continue the 2 Marc Road public hearing to October 25, 2022.
- Email from John Lally re: odor complaints, dated 9/15/2022. NOTE - Information was forwarded to the Applicant and provided to the Building Department.
- Letter from Dan Merrikin, Legacy Engineering, re: requirement for a diesel generator, dated 10/7/2022
- Design Review Committee site plan review memo dated 10/11/2022
- Revised site plan submittal letter from Dan Merrikin, Legacy Engineering, dated 10/21/2022
- Revised site plan dated 10/20/2022
- Additional waiver requests dated 10/13/2022
- Tetra Tech Review Letter dated 10/19/2022 of the revised 10-13-22 site plan

- Medway Cultivation Facility HVAC Odor Mitigation Reports dated 10/11/2022 by Engineered Systems Consulting Engineers
- Emails dated 9/2/22, 9/22/22 and 10/17/22 from Bruce Straughan, the Board's odor consultant, re: the Applicant's Odor Mitigation Reports

- MA Department of Environmental Protection Notice of Noncompliance dated 9/14/2022
- Email from Ellen Rosenfeld to MA DEP dated 10/6/2022 providing their Odor Mitigation Report
- 11-19-22 email from Giles Stelle Perkins of MA DEP re: status of enforcement order

- Noise Control Engineering (the Board's noise consultant) memo dated 10/13/22 re: CommCan Expansion Noise Analysis dated 8-25-22 by Acentech (the Applicant's noise consultant)

- DRAFT Decision dated 10-24-22

- FORTHCOMING from Dan Merrikin – Report from installers of the new odor mitigation system based on their 10-17-22 site visit and inspection.

Historical Reference Documents

- CommCan medical special permit decision dated 6/28/2016
- 2 Marc Road recreation marijuana special permit decision dated 2/26/2019

NOTE – Applicant is very eager for the Board to vote a decision on 10-25-22. The current deadline for the PEDB to act on this application is 10-30-22. Please continue the PH to 11-22-22 and secure a deadline extension to 11-30-22.

Board Members
Matthew J. Hayes, P.E., Chair
Robert Tucker, Vice Chair
Richard Di Iulio, Clerk
Jessica Chabot, Member
Sarah Raposa, A.I.C.P, Member
Thomas Gay, Associate Member

TOWN OF MEDWAY

COMMONWEALTH OF MASSACHUSETTS

PLANNING AND ECONOMIC DEVELOPMENT BOARD

Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 533-3291
Fax (508) 321-4987
Email: planningboard
@townofmedway.org
www.townofmedway.org

RECEIVED TOWN CLERK
OCT 12 '22 PM3:37

MEMORANDUM

October 12, 2022

TO: Stefany Ohannesian, Town Clerk
Town of Medway Departments, Boards and Committees
FROM: Susy Affleck-Childs, Planning and Economic Development Coordinator
RE: ***Public Hearing Continuation for CommCan – Modification to Previously Approved Site Plan, Marijuana Special Permits, and Groundwater Protection Special Permit for 2 Marc Road***
Continuation Date – Tuesday, October 25, 2022 at 8:30 p.m.

At its October 11, 2022 meeting, the Planning and Economic Development Board voted to continue the public hearing on the application of 2 Marc Road LLC of Millis, MA for approval of modifications to the previously approved major site plan, marijuana special permits, and groundwater protection district special permit for its existing marijuana cultivation and processing establishment (CommCan) at 2 Marc Road to the Board's meeting on Tuesday, October 25, 2022 at 8:30 p.m. at Medway Town Hall, 155 Village Street. The meeting will also be available via Zoom.

The proposal is to construct a two-story, 20,000 sq. ft. addition (10,000 sq. ft. footprint) and loading dock at the rear of the existing building to be used for the processing of products, a beverage canning operation, and storage. The proposal also includes constructing a 56 vehicle parking area in the previously disturbed easterly portion of the site with a connecting driveway to the existing access driveway from Marc Road. The existing parking area in front of the building will be modified to include additional handicap spaces and parking spaces for charging electric vehicles. The existing driveway around the building will also be modified to accommodate the building addition and loading dock. The site work includes expanded stormwater management facilities and other site amenities. The property includes wetland resources which are under the jurisdiction of the Medway Conservation Commission for an Order of Conditions and a Land Disturbance permit.

The planned work is shown on a plan titled *2 Marc Road Site Plan of Land in Medway, MA* dated February 28, 2022, last revision August 26, 2022, prepared by Legacy Engineering of Millis, MA. The architectural drawings and renderings dated February 24, 2022 were prepared by UDA Architects of Walpole, MA. Project information is posted at: https://www.townofmedway.org/planning-economic-development-board/pages/2-marc-road-commcan-special-permit-and-site-plan

We expect a further revised site plan to be submitted this week and will post it to the web page upon receipt. We invite you to review the revised plan and provide comments to the Board by October 20th.

dan@legacy-ce.com
508-376-8883(o)
508-868-8353(c)
730 Main Street
Suite 2C
Millis, MA 02054

October 7, 2022

Planning & Economic Development Board
Town Offices
155 Village Street
Medway, MA 02053

Ref: 2 Marc Road
Site Modification

Dear Members of the Board:

With respect to the existing diesel generator on the site, please note the following:

- 935 CMR 500.110(5)(a)8 (Adult Use of Marijuana regulations) requires the ability to remain operational during a power outage, which is why the generator is present.
- The fuel tank is alarmed and double-walled, providing the required secondary containment.

Do not hesitate to contact me should you have any questions or comments.

Yours Truly,

LEGACY ENGINEERING LLC

Daniel J. Merrikin, P.E.
President

Town of Medway
DESIGN REVIEW COMMITTEE
155 Village Street
Medway MA 02053
508-533-3291
drc@townofmedway.org

October 11, 2022

TO: Medway Planning and Economic Development Board
FROM: Design Review Committee
RE: DRC Comments, Site plan review – CommCan Building Expansion and Site Improvements
2 Marc Road, Medway, MA 02053

Dear Members of the Medway Planning and Economic Development Board

The Medway Design Review Committee [DRC] is pleased to provide a comment letter for the proposed building expansion and site improvements at 2 Marc Road. The DRC met with project engineer Dan Merrikin on Monday, October 3, 2022. At this meeting, we reviewed a site plan for the expansion of the building and parking facilities August 31, 2022, and received a presentation prepared by Mr. Merrikin.

The DRC believes that these plans demonstrate a serious effort by the applicant to align the building design, site layout and amenities with the Medway *Design Review Guidelines*. Careful thought has been given to the design and materials to create an appropriate and attractive building and site. A constructive discussion followed mostly focused on the parking area, during which the DRC provided several recommendations as follows:

- The length of the driveway from the site to new parking area should include additional lighting for pedestrians. A mixture of additional streetlights and lighting bollards can achieve this without adding too much light to the area.

- The landscape plan should be enhanced and updated, and the DRC requests an opportunity to review such revised plan.

- The DRC recommends that the dumpster enclosure be screened with fencing that is of sufficient height to conceal the dumpster. A natural color fencing is recommended to help the screening blend with surroundings.

Thank you for your time and again, thank you for allowing the DRC the chance to review this important site plan. The DRC remains available to review any updates and will gladly provide feedback in the most effective manner that will assist these proceedings.

Sincerely,

Matthew J. Buckley
Chair

Design Review Committee Members

Matthew Buckley, Member & Chair
Janine Clifford, Member & Vice Chair
Jamie Ahlstedt, Member
Susan Alessandri, Member
Jess Chabot, Member
Tom Gay, Planning and Economic Development Board Representative

dan@legacy-ce.com
508-376-8883(o)
508-868-8353(c)
730 Main Street
Suite 2C
Millis, MA 02054

October 21, 2022

Conservation Commission
Planning and Economic Development Board
Town Offices
155 Village Street
Medway, MA 02053

Ref: 2 Marc Road
Site Modification

Dear Members of the Board:

Please find enclosed the following in relation to changes made per comments by Tetra Tech:

- Three copies of a revised site plan; and
- One copy of a revised O&M plan.

In response to comments generated by the Conservation agent, the following changes have been made to the enclosed plans:

- ✓ Shrubs were added to the restoration of the existing gravel driveway within the buffer zone in proximity to Jayar Road. As requested by the Conservation agent, all other areas will be vegetated with a conservation seed mix to create a meadow consistent with current conditions on the site.
- ✓ The culvert crossing detail on sheet C-7 was revised to call for conservation seed mix on the sideslope areas and to identify a silt fence to be lapped under the compost sock.
- ✓ The erosion control detail was revised to depict compost sock and silt fence.

In addition to the above, as requested by the peer review consultant, the enclosed O&M plan has been updated to specifically refer to the maintenance of the pipes under the sidewalk.

dan@legacy-ce.com
508-376-8883(o)
508-868-8353(c)
730 Main Street
Suite 2C
Millis, MA 02054

Do not hesitate to contact me should you have any questions or comments.

Yours Truly,

LEGACY ENGINEERING LLC

Daniel J. Merrikin, P.E.
President

Medway Planning and Economic Development Board
Request for Waiver from Site Plan Rules and Regulations
Complete 1 form for each waiver request

Project Name	2 Marc Road
Property Location	2 Marc Road
Type of Permit	Marijuana Special Permit
Identify the number and title of the relevant section of the *Site Plan Rules and Regulations* from which a waiver is sought.	207-11.B.2 Planning Board Rules and Regulations - Curbing
Summarize the text of the relevant section of the *Rules and Regulations* from which a waiver is requested.	Perimeter of drive aisles to be bounded with vertical granite curbing.
What aspect of the *Rule and Regulation* do you propose be waived?	To allow cape cod berm in lieu.
What do you propose as an alternative to the standard?	To allow cape cod berm in lieu.
Explanation/justification for the waiver request. How does the particular rule/regulation not apply to the site or situation under review?	The site is already developed and has cape cod berm throughout as does the adjacent roadways
Explanation/justification. How would approval of this waiver request not be significantly detrimental to achieving the purposes of site plan review?	It is consistent with the site conditions.
Explanation/justification. How would approval of this waiver request result in a superior design or provide a clear and significant improvement to the quality of this development?	To provide consistency in site features.
What is the impact on the development if this waiver request is denied?	Change of curbing.
What mitigation measures do you propose to offset not complying with the particular Rule/Regulation?	None.
Waiver Request Prepared By:	Daniel Merrikin
Date:	October 13, 2022

Questions?? - Please contact the Medway PEDB office at 508-533-3291.

Medway Planning and Economic Development Board
Request for Waiver from Site Plan Rules and Regulations
Complete 1 form for each waiver request

Project Name	2 Marc Road
Property Location	2 Marc Road
Type of Permit	Marijuana Special Permit
Identify the number and title of the relevant section of the *Site Plan Rules and Regulations* from which a waiver is sought.	207-19: Planning Board Rules and Regulations - Landscaping plan
Summarize the text of the relevant section of the *Rules and Regulations* from which a waiver is requested.	Landscaping shall be provided per the regulations.
What aspect of the *Rule and Regulation* do you propose be waived?	To allow tree and herbaceous plantings as shown on the site plan.
What do you propose as an alternative to the standard?	To allow tree and herbaceous plantings as shown on the site plan.
Explanation/justification for the waiver request. How does the particular rule/regulation not apply to the site or situation under review?	The site is already developed. Extensive landscaping is not allowed by state regulation for these types of facilities. Trees and herbaceous vegetation are proposed around the new parking area.
Explanation/justification. How would approval of this waiver request not be significantly detrimental to achieving the purposes of site plan review?	The site will be fully vegetated but vegetation will focus on herbaceous layers and trees in areas that are historically disturbed.
Explanation/justification. How would approval of this waiver request result in a superior design or provide a clear and significant improvement to the quality of this development?	Consistency with the existing site development.
What is the impact on the development if this waiver request is denied?	n/a
What mitigation measures do you propose to offset not complying with the particular Rule/Regulation?	Plantings shown on the site plan
Waiver Request Prepared By:	Daniel Merrikin
Date:	October 13, 2022

Questions?? - Please contact the Medway PEDB office at 508-533-3291.

2 MARC ROAD

SITE PLAN OF LAND
IN MEDWAY, MASSACHUSETTS

FEBRUARY 28, 2022

Latest Revision: October 20, 2022

PREPARED BY:

MERRIKIN ENGINEERING, LLP
730 MAIN STREET, SUITE 2C
MILLIS, MA 02054

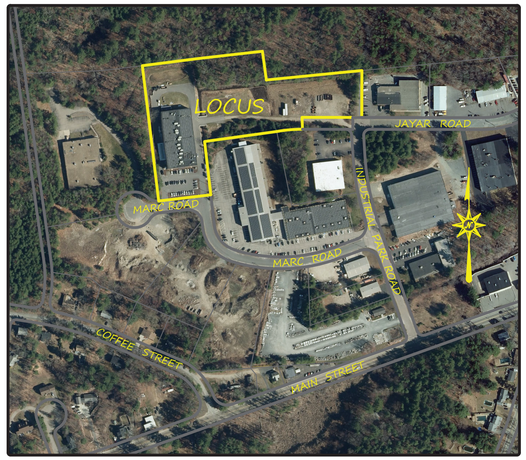
PREPARED FOR:

2 MARC ROAD LLC
730 MAIN STREET
MILLIS, MA 02054

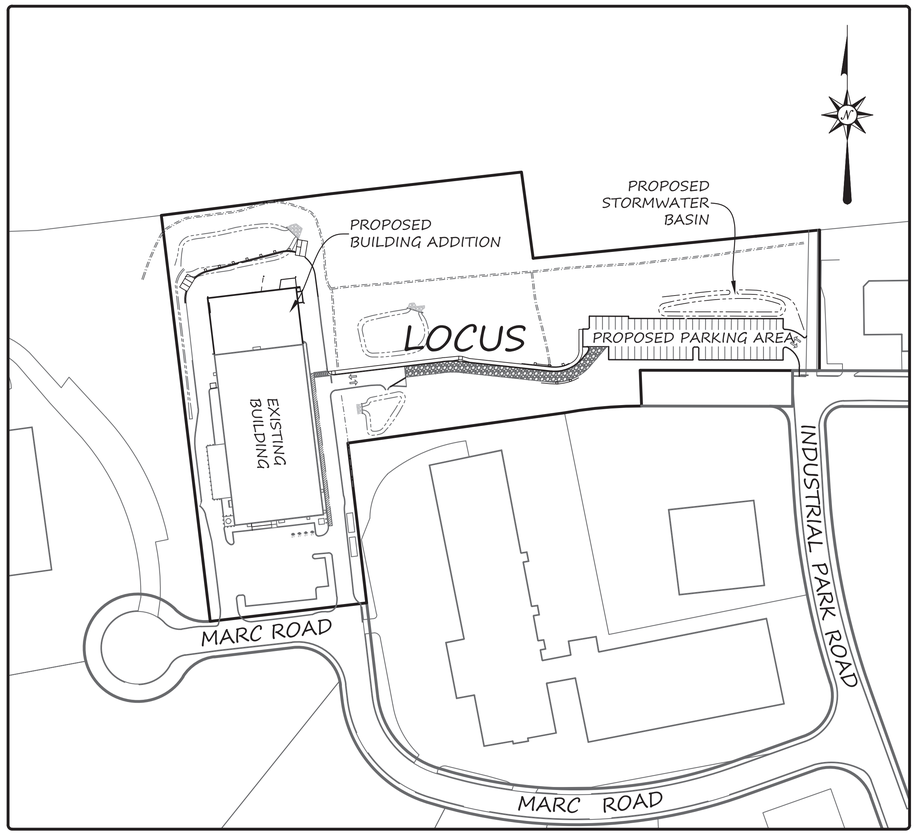
COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:40:10 -04'00'

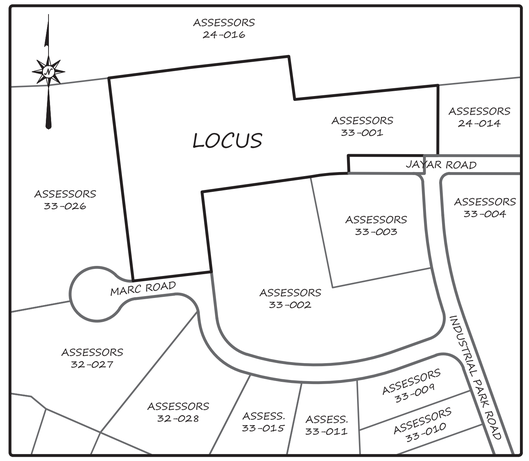
For Registry Use



2019 MASSGIS AERIAL LOCUS
SCALE: 1" = 300'



LOCUS
SCALE: 1" = 100'



ASSESSORS LOCUS
SCALE: 1" = 200'

PLAN SCALE: AS NOTED

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

_____

_____

_____

_____

_____

_____
MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

_____
REGISTERED LAND SURVEYOR

PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

2 MARC ROAD
COVER SHEET
PLAN OF LAND
IN
MEDWAY, MA

WAIVERS GRANTED OR REQUESTED:

1. S.204-3.F.1: TO NOT REQUIRE A TRAFFIC IMPACT ASSESSMENT.
2. S.204-5.C.3: NOT TO HAVE TO INCLUDE AN "EXISTING LANDSCAPE INVENTORY" PREPARED BY A PROFESSIONAL LANDSCAPE ARCHITECT.
3. S.204-5.D.8: NOT REQUIRE THE SUBMISSION OF A LANDSCAPE PLAN.
4. S.207-9.A.6, S207-11.B.2: TO ALLOW CAPE COD BERM ACROSS THE SITE.
5. S.207-19.C.1.a: TO NOT REQUIRE 10% OF INTERNAL PARKING AREA TO BE LANDSCAPED.
6. S.207-19.C.1.c: TO NOT REQUIRE PARKING AISLES EXCEEDING 25 SPACES TO HAVE LANDSCAPED ISLANDS.
7. S.207-19.E: TO NOT REQUIRE LANDSCAPING AROUND THE PROPOSED BASIN.

PLAN INDEX

SHEET C-0: COVER
SHEET C-1: EXISTING CONDITIONS
SHEET C-2: EROSION CONTROL
SHEET C-3: LAYOUT
SHEET C-4: GRADING & UTILITY
SHEET C-5: LIGHTING
SHEET C-6: DETAIL
SHEET C-7: DETAIL
SHEET C-8: DETAIL
SHEET A1.0: FIRST FLOOR PLAN
SHEET A1.2: SECOND FLOOR PLAN
SHEET A4.0: EXTERIOR ELEVATIONS
SHEET A4.1: RENDERINGS

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

LEGACY ENGINEERING

C-0

354-D63

GENERAL NOTES:

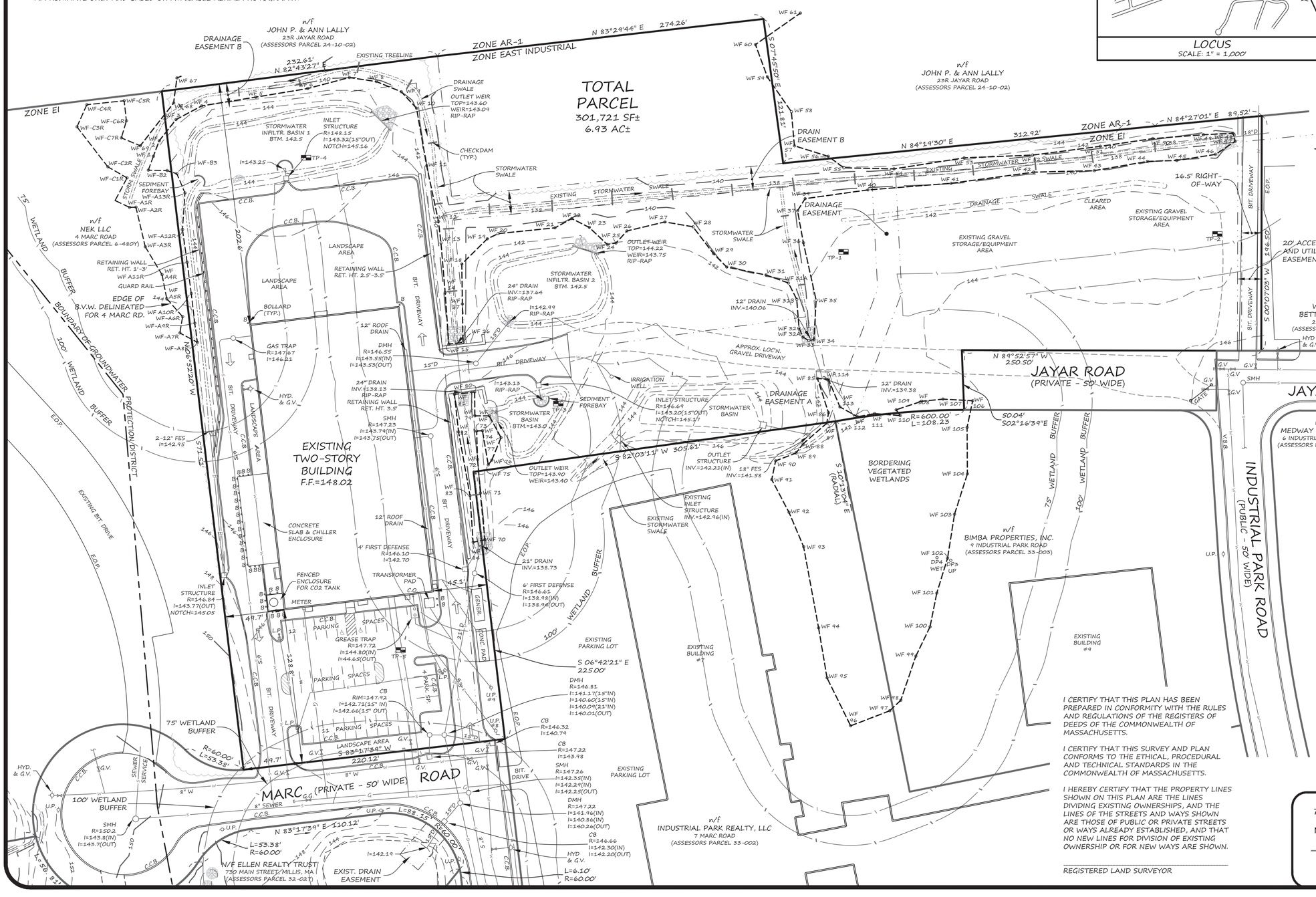
1. SURVEY & PLAN REFERENCES:
   A. DEED REFERENCES:
      BOOK 8379, PAGE 83
      BOOK 18164, PAGE 320
      BOOK 40331, PAGE 234
   B. PLAN REFERENCES:
      PLAN BOOK 299 NO. 900
      PLAN BOOK 300 NO. 955
      PLAN BOOK 326 NO. 1145
      PLAN BOOK 410 NO. 749
      PLAN BOOK 454 NO. 94
2. DATUM: NAVD88
3. EXISTING UTILITY INFORMATION IS BASED ON BEST AVAILABLE RECORDS AND VISIBLE SURFACE FEATURES SUCH AS MANHOLES, CATCH BASINS, UTILITY POLES, HYDRANTS, VALVE BOXES, ETC... EXISTING UTILITY INFORMATION DEPICTED ON THESE PLANS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS PRIOR TO COMMENCEMENT OF WORK.
4. FEATURES OUTSIDE OF THE SITE SUCH AS ADJACENT STRUCTURES ARE APPROXIMATE ONLY AND BASED ON AVAILABLE AERIAL PHOTOGRAPHY.

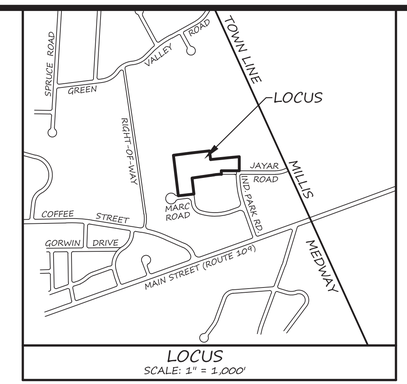
CONSERVATION/EROSION & SEDIMENT CONTROL NOTES:

1. PER 310 CMR 10.02(2)(C), THE EXISTING ON-SITE STORMWATER SWALES WERE RECONSTRUCTED FOR MAINTENANCE PURPOSES IN 2017 PURSUANT TO AND ORDER OF CONDITIONS AND ARE THEREFORE NOT CONSIDERED TO BE WETLAND RESOURCE AREAS UNDER THE WETLANDS PROTECTION ACT. THE PRIOR WETLAND DELINEATION ALONG THESE SWALES FROM THE 2016 DESIGN IS SHOWN FOR INFORMATIONAL PURPOSES. BUFFER ZONE LINES INCLUDE THE PRIOR SWALE WETLAND DELINATION LINES BECAUSE IT IS UNCLEAR HOW THEY ARE TREATED UNDER THE MEDWAY WETLAND BYLAW.
2. WETLANDS BOUNDARIES WERE DELINEATED BY RUSSELL WALDRON.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL CONTACT DIGSAFE AT 811 PRIOR TO ANY EXCAVATION ACTIVITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ANY STRUCTURAL RETAINING WALLS (WALLS WITH AN EXPOSED FACE OF GREATER THAN 4'). DESIGN SHALL BE BY A REGISTERED STRUCTURAL ENGINEER AND SHALL BE STAMPED ACCORDINGLY.





LOCUS
SCALE: 1" = 1,000'

COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:40:29 -04'00'

For Registry Use

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

PLAN SCALE: 1" = 40'

0' 40' 80' 160'

LEGEND & ABBREVIATIONS

CB: SINGLE-GRATE CATCH BASIN
CB: DOUBLE-GRATE CATCH BASIN
PTU xxx: PROPRIETARY STORMWATER UNIT
DMH: DRAIN MANHOLE
TR. DR.: TRENCH DRAIN
INFIL. TR.: INFILTRATION TRENCH
—X" D— DRAIN PIPELINE
RCP: REINFORCED CONCRETE PIPE
PVC: POLYVINYL CHLORIDE PIPE
SMH: SEWER MANHOLE
—X" S— SEWER PIPELINE
C.O.: SEWER SERVICE CLEANOUT
—X" W— WATER MAIN
HYD: HYDRANT
G.V.: WATER GATE VALVE
C.S.: WATER SERVICE CURB STOP
M.B.: WATER SERVICE METER BOX
—G— GAS PIPELINE
—E— ELECTRIC CONDUIT
L.P.: LIGHT POLE
U.P.: UTILITY POLE
G.Y.: GUY WIRE
S.P.: TRAFFIC SIGNAL POLE
252 EXISTING CONTOUR
252 PROPOSED CONTOUR

E.O.P.	EDGE OF PAVEMENT
C.C.B.	INTEGRAL SLOPED BIT. BERM
V.B.B.	VERTICAL BITUMINOUS BERM
S.G.C.	SLOPED GRANITE CURB
V.G.C.	VERTICAL GRANITE CURB
V.C.C.	VERTICAL CONCRETE CURB
E.C.S.	EDGE CONCRETE SLAB
G.V.	GATE VALVE
C.L.F.	CHAIN LINK FENCE
W.S.F.	WOOD STOCKADE FENCE
P.P.F.	PVC PICKET FENCE
G.R.	GUARD RAIL
C.C.	HANDICAP CURB CUT

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

REGISTERED LAND SURVEYOR

PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

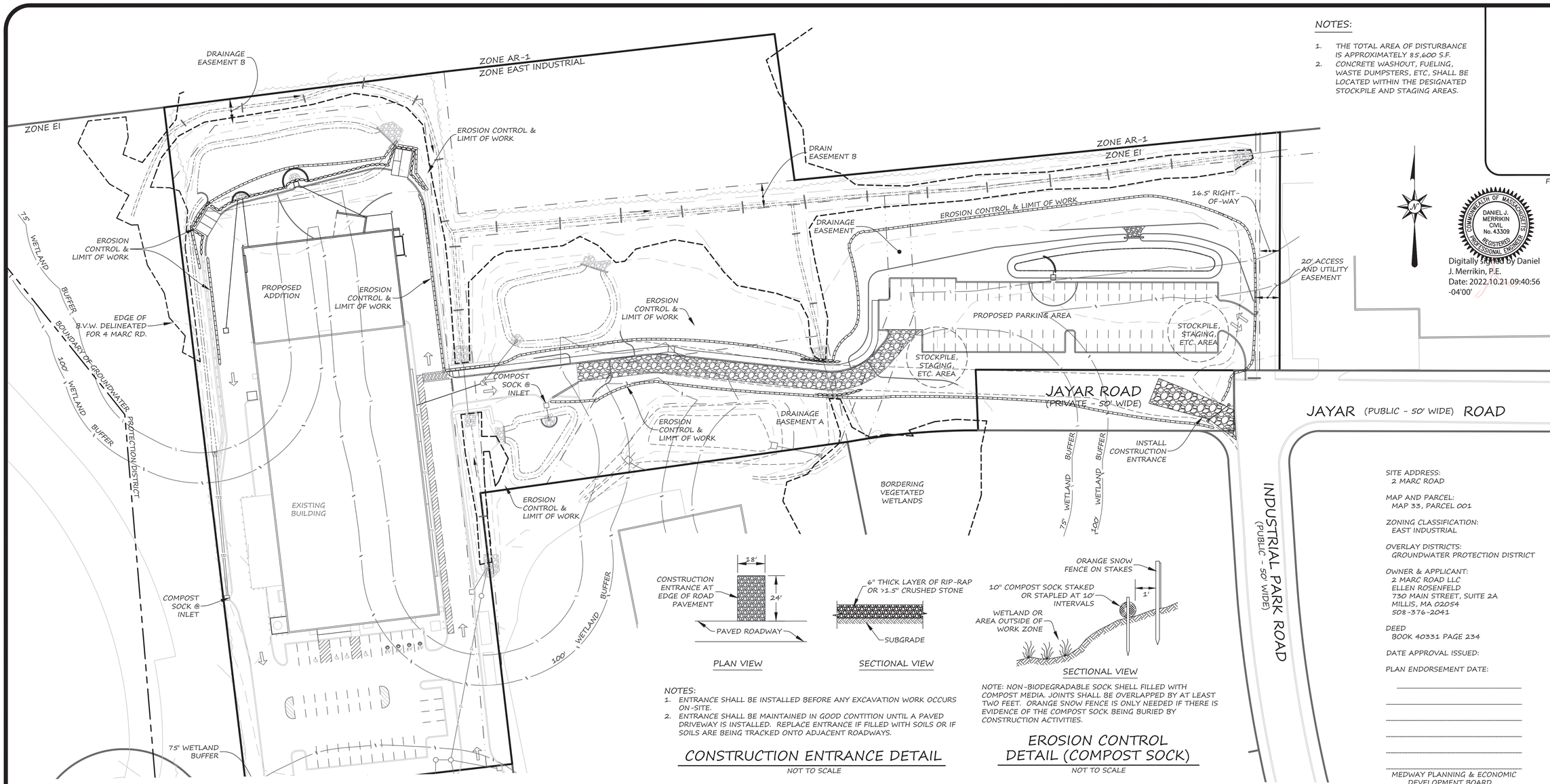
2 MARC ROAD
EXISTING CONDITIONS PLAN OF LAND IN MEDWAY, MA

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

C-1

LEGACY ENGINEERING

354-D63



NOTES:

1. THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 85,600 S.F.
2. CONCRETE WASHOUT, FUELING, WASTE DUMPSTERS, ETC, SHALL BE LOCATED WITHIN THE DESIGNATED STOCKPILE AND STAGING AREAS.

For Registry Use

COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:40:56 -04'00'

PLAN SCALE: 1" = 40'

0' 40' 80' 160'

PLAN VIEW

SECTIONAL VIEW

SECTIONAL VIEW

NOTES:
1. ENTRANCE SHALL BE INSTALLED BEFORE ANY EXCAVATION WORK OCCURS ON-SITE.
2. ENTRANCE SHALL BE MAINTAINED IN GOOD CONTITION UNTIL A PAVED DRIVEWAY IS INSTALLED. REPLACE ENTRANCE IF FILLED WITH SOILS OR IF SOILS ARE BEING TRACKED ONTO ADJACENT ROADWAYS.

CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

NOTE: NON-BIODEGRADABLE SOCK SHELL FILLED WITH COMPOST MEDIA. JOINTS SHALL BE OVERLAPPED BY AT LEAST TWO FEET. ORANGE SNOW FENCE IS ONLY NEEDED IF THERE IS EVIDENCE OF THE COMPOST SOCK BEING BURIED BY CONSTRUCTION ACTIVITIES.

EROSION CONTROL DETAIL (COMPOST SOCK)

NOT TO SCALE

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

_____

_____

_____

_____

_____

_____

MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

SEDIMENT & EROSION CONTROL NOTES

GENERAL
1. IF APPLICABLE (I.E. >1 ACRE OF DISTURBANCE), FOR COMPLETE EROSION CONTROL AND CONSTRUCTION ACTIVITY GUIDANCE, REFER TO THE SWPPP. OTHERWISE FOLLOW THE SITE PLAN.
2. FOR SWPPP PROJECTS, A NOTICE SHALL BE POSTED VISIBLE FROM A PUBLIC RIGHT-OF-WAY WITH CONTACT INFORMATION AND INSTRUCTIONS TO FIND A COPY OF THE SWPPP.

PHASING AND CONSTRUCTION SEQUENCE
1. PHASE 1 - CONSTRUCTION SEQUENCE
   - 1.1. STAKEOUT AND INSTALL EROSION AND PERIMETER CONTROLS (WHICH WILL DELINEATE THE LIMIT OF WORK FOR THE PROJECT);
   - 1.2. DEMARCATE THE LOCATION OF EXISTING UTILITIES ON AND AROUND THE CONSTRUCTION AREA;
   - 1.3. CLEAR THE PROPOSED ENTRY AREAS AND INSTALL THE CONSTRUCTION ENTRANCE APRON(S);
   - 1.4. CLEAR AND GRUB THE DEVELOPMENT AREA;
   - 1.5. STRIP AND STOCKPILE TOPSOIL;
   - 1.6. COMMENCE ROUGH GRADING TO SUB-GRADE ELEVATIONS;
   - 1.7. INSTALL BUILDING FOUNDATION(S) AND BEGIN BUILDING CONSTRUCTION;
   - 1.8. INSTALL NEW SITE UTILITIES, INCLUDING THE STORMWATER MANAGEMENT SYSTEM;
   - 1.9. COMPLETE CONSTRUCTION OF NEW BUILDING(S);
   - 1.10. PAVE THE ROAD/DRIVEWAY AND SIDEWALK (IF APPLICABLE) TO BINDER COURSE;
   - 1.11. LOAM, SEED, AND STABILIZE DISTURBED AREAS, INCLUDING ALL SITE LANDSCAPING;
   - 1.12. CLEANOUT ALL CATCH BASINS AND NEW STORMWATER BMPs IN THE PORTION OF THE SITE AFFECTED BY CONSTRUCTION ACTIVITIES AFTER THE SITE IS FULLY STABILIZED.

PERIMETER EROSION CONTROL AND SEDIMENT CONTROLS
1. PERIMETER EROSION AND SEDIMENT CONTROL BARRIERS WILL BE PROVIDED, INSTALLED, AND MAINTAINED DOWNSTREAM OF ALL PROPOSED CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE SWPPP (IF APPLICABLE), THE SITE PLAN, AND ALL PERMITS ISSUED FOR THE SITE DEVELOPMENT. SUCH CONTROLS MUST BE INSTALLED BEFORE ANY EARTH-DISTURBING ACTIVITIES OCCUR ON THE SITE IN QUESTION. EROSION AND SEDIMENT CONTROLS MAY BE INSTALLED IN PHASES SO LONG AS IT PRECEDES ANY EARTH-DISTURBING ACTIVITIES WITHIN THE CONTROLS' UPSTREAM WATERSHED.
2. SEDIMENT SHALL BE REMOVED ALONG SUCH CONTROLS ON A REGULAR BASIS. IN NO CASE, SHALL SEDIMENT BE ALLOWED TO REACH A DEPTH EQUAL TO ONE HALF OF THE ABOVE GROUND HEIGHT OF THE EROSION CONTROL DEVICE.

SITE ACCESS CONTROLS
1. CONSTRUCTION VEHICLES WILL USE DESIGNATED ENTRY POINTS FOR EACH SITE. CRUSHED STONE OR RIP-RAP ENTRY APRON(S) WILL BE INSTALLED AND PROPERLY MAINTAINED DURING CONSTRUCTION UNTIL THE SITE IS PAVED. ALL CONSTRUCTION ACCESS WILL BE VIA THE FRONTAGE PUBLIC ROAD STREET, WHICH WILL BE KEPT CLEAN AND SWEPT AS NEEDED TO MINIMIZE THE TRACKING OF SOILS AND DUST FROM THE SITE.

STOCKPILED SOILS
1. SOIL STOCKPILES TO BE LEFT IN PLACE MORE THAN 24 HOURS SHALL BE SURROUNDED WITH A LINE OF SILT FENCE OR COMPOST SOCK TO PREVENT THE PILES FROM ERODING INTO THE SITE AND TO DISCOURAGE ON-SITE RUNOFF FROM ERODING THE STOCKPILES. SOIL STOCKPILES TO BE LEFT IN PLACE MORE THAN 14 DAYS SHALL BE STABILIZED TEMPORARILY. DUST CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT WIND EROSION OF THE STOCKPILES.

DUST CONTROL
1. DUST CONTROL MEASURES WILL BE IMPLEMENTED REGULARLY TO PREVENT THE OFF-SITE DEPOSITION OF WIND-ERODED SOILS. THE PRINCIPAL FORM OF DUST CONTROL WILL BE WATER APPLICATION.

DISTURBANCE OF STEEP SLOPES
1. CONTRACTORS MUST PAY CAREFUL ATTENTION TO STEEP SLOPES AND MUST IMPLEMENT ADDITIONAL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES DURING WORK ON STEEP SLOPES TO PREVENT EROSION. INSTALL EROSION CONTROL BLANKETS IF NEEDED.

SOIL COMPACTION
1. AREAS DESIGNATED FOR FINAL VEGETATIVE SURFACES OR CONSTRUCTION-STAGE OR FINAL STORMWATER INFILTRATION PRACTICES SHALL BE PROTECTED FROM EXCESSIVE COMPACTION BY RESTRICTING VEHICLE ACCESS AND THE TYPES OF EQUIPMENT THAT MAY BE USED IN SUCH AREAS. PRIOR TO SEEDING/PLANTING OF SUCH AREAS, EXPOSED SOIL THAT HAS BEEN COMPACTED SHALL BE LOOSENED BY TILLING OR OTHER SIMILAR METHODS. CONDITIONING SHALL CONSIST OF DEEP TILLING WITH A ROTARY TILLER, DISC HARROWING, OR MANUAL LOOSENING AND RE-GRADING WITH AN EXCAVATOR BUCKET. CONDITIONING SHALL EXTEND TO A DEPTH OF AT LEAST 12-INCHES.

PROTECTION OF STORM DRAIN INLETS
1. ALL STORM DRAIN SYSTEM INLETS INSIDE OF PERIMETER CONTROLS SHALL BE PROTECTED WITH SEDIMENT CONTROL MEASURES DESIGNED TO REMOVE SEDIMENT FROM STORMWATER PRIOR TO ENTERING THE INLET. CATCH BASINS ALONG THE STREET FRONTAGE SHALL ALSO BE PROTECTED. SUCH MEASURES SHALL BE PERIODICALLY MAINTAINED AND REPLACED AS NEEDED TO ENSURE THEIR PROPER FUNCTIONALITY. SEDIMENT SHALL BE REMOVED DAILY WHERE FOUND.

TEMPORARY STABILIZATION
1. FOR PERMANENTLY OR TEMPORARILY (14 DAYS) CEASED CONSTRUCTION ACTIVITIES, TEMPORARY SOIL STABILIZATION MEASURES WILL BE EMPLOYED AS SOON AS PRACTICABLE BUT NO LONGER THAN 14 CALENDAR DAYS AFTER STABILIZATION HAS BEEN INITIATED. WHERE APPLICABLE, SEE THE SWPPP FOR ADDITIONAL REQUIREMENTS.

MAINTENANCE OF EROSION & SEDIMENT CONTROL MEASURES
1. EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF THE CONSTRUCTION ACTIVITY AND UNTIL SUCH TIME AS THE UPSTREAM AREAS ACHIEVE FINAL STABILIZATION. SEDIMENT WILL BE REMOVED ALONG PERIMETER EROSION CONTROLS WHEN THE DEPTH EXCEEDS FOUR-INCHES. ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IF SITE INSPECTIONS IDENTIFY CONTROL MEASURES THAT ARE NOT OPERATING EFFECTIVELY OR FINDS OTHER PROBLEMS, THE CONTRACTOR MUST:
   - 1.1. INITIATE WORK TO CORRECT THE PROBLEM IMMEDIATELY UPON DISCOVERY AND COMPLETE THE WORK BY THE CLOSE OF THE NEXT WORK DAY IF THE PROBLEM CAN BE CORRECTED THROUGH ROUTINE MAINTENANCE;
   - 1.2. FOR MORE SIGNIFICANT REPAIRS OR WHERE INSPECTIONS DETERMINE THAT ADDITIONAL EROSION AND SEDIMENT CONTROLS ARE NEEDED, SUCH WORK MUST BE COMPLETED AND OPERATION NO LATER THAN 7 CALENDAR DAYS AFTER DISCOVERY OF THE PROBLEM.

POLLUTION PREVENTION
1. CONSTRUCTION STAGING AREAS WILL BE LIMITED IN QUANTITY AND WILL BE MAINTAINED IN A NEAT AND ORDERLY FASHION. REFER TO THE SITE PLAN FOR STAGING AREA LOCATION(S).
2. VEHICLES SHALL BE STORED IN FUELED IN DESIGNATED AREAS. MONITOR ALL EQUIPMENT FOR LEAKS. WHERE APPLICABLE, REFER TO THE SWPPP FOR ADDITIONAL VEHICLE STORAGE AREA REQUIREMENTS.
3. VEHICLE OR EQUIPMENT WASHING IS NOT ALLOWED ON-SITE.
4. MATERIALS AND EQUIPMENT SHALL BE STORED PROPERLY AND ORDERLY.
5. WHERE APPLICABLE, REFER TO THE SWPPP FOR.
   - 5.1. FURTHER INSTRUCTIONS ON PROPER MATERIAL AND EQUIPMENT STORAGE.
   - 5.2. REFER TO THE SWPPP FOR DISPOSAL OF WASTE, INCLUDING HAZARDOUS WASTE.
   - 5.3. REFER TO THE SWPPP FOR SPILL PREVENTION AND RESPONSE PROCEDURES.

DEWATERING PRACTICES
1. THIS SITE IS NOT EXPECTED TO ENCOUNTER SIGNIFICANT QUANTITIES OF GROUNDWATER DURING CONSTRUCTION ACTIVITIES BUT IF IT DOES, THE FOLLOWING PRACTICES WILL BE IMPLEMENTED:
   - 1.1. DO NOT DISCHARGE ANY FLOATING SOLIDS OR FOAM;
   - 1.2. IF DEWATERING WATER IS FOUND TO CONTAIN OIL, GREASE, ETC... IT MUST BE FILTERED OR PASSED THROUGH AN OIL/WATER SEPARATOR PRIOR TO DISCHARGE;
   - 1.3. WHEREVER POSSIBLE, DISCHARGE DEWATERING WATER TO VEGETATED UPLAND AREAS FOR INFILTRATION. WHERE THIS IS NOT POSSIBLE, DISCHARGE DEWATERING WATER INTO A FILTERING PIT CONSISTING OF A PERIMETER OF DOUBLE ROWS OF HAYBALES LINED WITH THREE LAYERS OF FILTER FABRIC. DO NOT DIRECT DEWATERING WATER INTO WETLANDS WITHOUT PRIOR TREATMENT;
   - 1.4. VELOCITY DISSIPATION MEASURES MUST BE INCLUDED AT ALL DISCHARGE POINTS (RIP-RAP OR CRUSHED STONE APRON).

INSPECTIONS
1. WHERE APPLICABLE, REFER TO SWPPP FOR INSPECTION & REPORTING REQUIREMENTS IN ADDITION TO THE FOLLOWING:
   - 1.1. THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF THE OCCURRENCE OF A STORM EVENT OF 0.25 INCHES OR GREATER. INSPECTIONS MAY BE REDUCED DURING THE WINTER AND IN STABILIZED AREAS.
   - 1.2. ANY DEFICIENCIES SHALL BE REMEDIED IMMEDIATELY AND NO LATER THAN 7 DAYS AFTER DISCOVERY OF THE DEFICIENCY, AND IF POSSIBLE, PRIOR TO THE NEXT RAINFALL EVENT.

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

_____
REGISTERED LAND SURVEYOR

2 MARC ROAD EROSION CONTROL PLAN OF LAND IN MEDWAY, MA

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

LEGACY ENGINEERING

C-2

354-D63

LAYOUT NOTES:

1. THE SLOPE OF THE PAVEMENT IN HANDICAP PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION.
2. SNOW STORAGE IN WINDROWS ALONG PAVEMENT EDGE AND IN OTHER AREAS SHOWN ON THIS PLAN.
3. STANDARD PARKING SPACES SHALL BE 9' WIDE x 18' DEEP, HANDICAP SPACES SHALL BE 8' WIDE x 18' DEEP, AND COMPACT SPACES SHALL BE 9' WIDE BY 15' DEEP.
4. BIKE RACK SHALL HOLD A MINIMUM OF FIVE BIKES.

SNOW STORAGE NOTES:

1. SNOW MAY BE LEFT IN REASONABLY SIZED WINDROWS ALONG THE EDGE OF DRIVEWAYS AND PARKING AREAS. SUCH WINDROWS SHALL NOT INTERFERE WITH PARKING.
2. SNOW MAY BE PILED IN THE VARIOUS SNOW STORAGE AREAS SHOWN HEREON.
3. SNOW ACCUMULATION MAY NOT INTERFERE WITH PARKING OR TURNING MOVEMENTS AT INTERSECTIONS.
4. AT SUCH TIME AS SNOW ACCUMULATIONS EXCEED THE CAPACITY OF ON-SITE STORAGE AREAS, SUCH EXCESS SNOW SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH STATE, LOCAL AND FEDERAL LAWS AND REGULATIONS.

LANDSCAPE LEGEND

24 @ 2.5" MIN. CALIPER, 12' MIN, HEIGHT DECIDUOUS TREE (MIX OF RED MAPLE, RED OAK, AND SWAMP WHITE OAK)

34 SHRUBS, MIN. HEIGHT AT INSTALL=18"
MIXTURE OF THE FOLLOWING VARIETIES
HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM)
RHODORA (RHODODENDRON CANADENSE)
PINTAX FLOWER (RHODODENDRON NUDIFLORUM)
EARLY AZALEA (RHODODENDRON ROSEUM)
SHEEP LAUREL (KALMIA AUGUSTIFOLIA)
MOUNTAIN LAUREL (KALMIA LATIFOLIA)

PLANTING NOTES:

1. PLANT LOCATIONS MAY VARY.
2. SHRUB QUANTITIES MAY VARY DEPENDING ON AVAILABILITY.
3. TREE SPECIES MAY BE SUBSTITUTED BASED ON AVAILABILITY BUT SHALL BE NATIVE TO MASSACHUSETTS AND SHALL BE OF THE APPROVED SPECIES LISTED IN THE MEDWAY SITE PLAN REGULATIONS. NO CULTIVARS ALLOWED.
4. INVASIVE SPECIES SHALL NOT BE USED.
5. ALL LANDSCAPE AREAS THAT ARE NOT FINISHED AS MULCHED PLANTING BEDS SHALL BE SURFACED WITH A MINIMUM OF 6-INCHES OF LOAM AND SEEDED.
6. WITHIN THE WORK AREA, FOR DISTURBED/REVEGETATED AREAS THAT ARE NOT PART OF A STORMWATER FACILITY OR OTHERWISE STABILIZED WITH PERMANENT IMPROVEMENTS, LOAM AND SEED WITH CONSERVATION/ WILDLIFE SEED MIX.
7. ALL SEED MIXES AND PLANT SPECIES TO BE APPROVED BY CONSERVATION AGENT PRIOR TO INSTALLATION.

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

For Registry Use

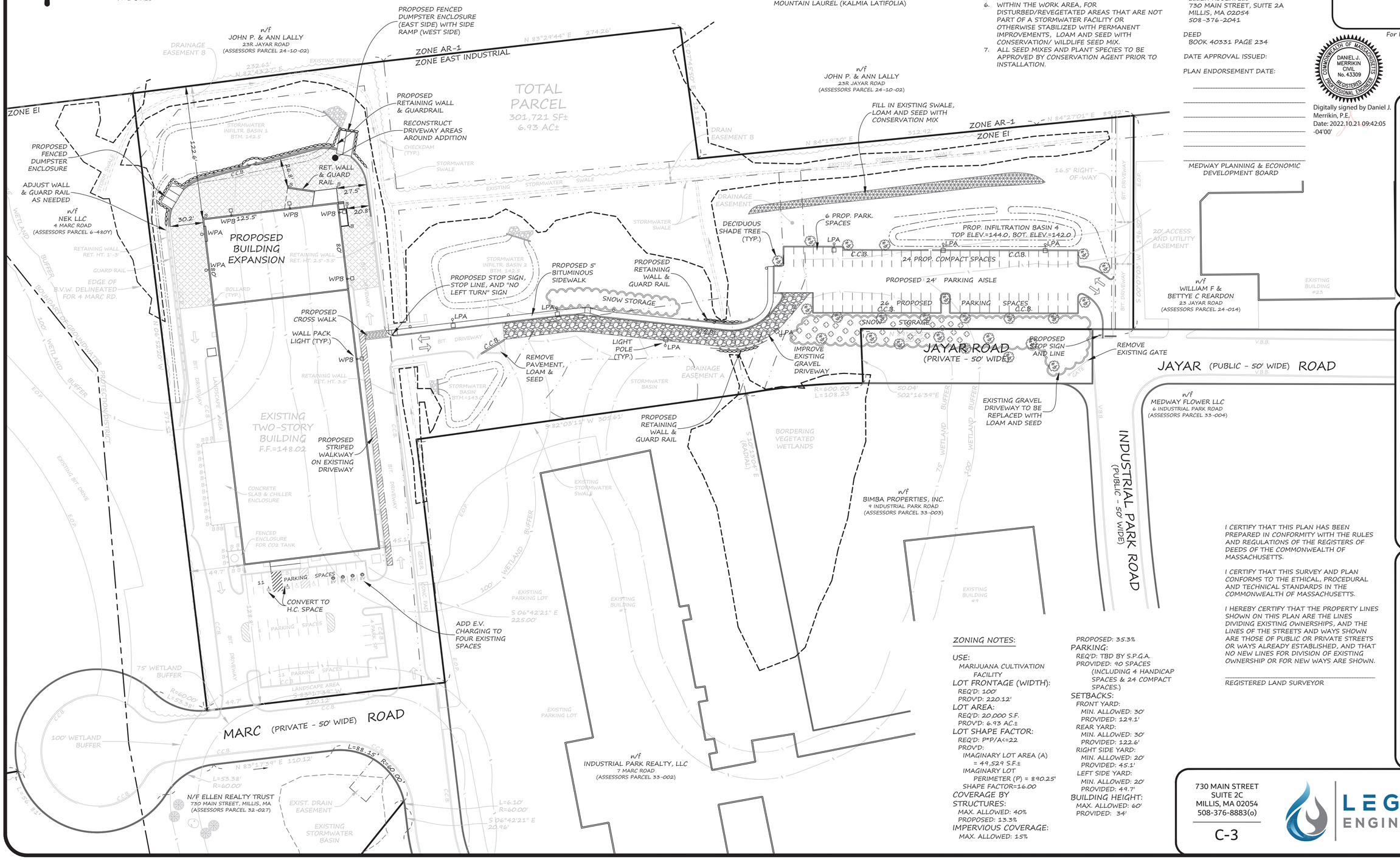
COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:42:05 -04'00'

MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

PLAN SCALE: 1" = 40'

0' 40' 80' 160'



ZONING NOTES:

USE:
MARIJUANA CULTIVATION FACILITY

LOT FRONTAGE (WIDTH):
REQ'D: 100'
PROV'D: 220.12'

LOT AREA:
REQ'D: 20,000 S.F.
PROV'D: 6.93 AC.±

LOT SHAPE FACTOR:
REQ'D: P*P/A<=22
PROV'D:
IMAGINARY LOT AREA (A) = 49,529 S.F.±
IMAGINARY LOT PERIMETER (P) = 890.25'
SHAPE FACTOR=16.00

COVERAGE BY STRUCTURES:
MAX. ALLOWED: 40%
PROPOSED: 13.3%

IMPERVIOUS COVERAGE:
MAX. ALLOWED: 15%
PROPOSED: 35.3%

PARKING:
REQ'D: TBD BY S.P.G.A.
PROVIDED: 90 SPACES (INCLUDING 4 HANDICAP SPACES & 24 COMPACT SPACES.)

SETBACKS:
FRONT YARD:
MIN. ALLOWED: 30'
PROVIDED: 129.1'
REAR YARD:
MIN. ALLOWED: 30'
PROVIDED: 122.6'
RIGHT SIDE YARD:
MIN. ALLOWED: 20'
PROVIDED: 45.1'
LEFT SIDE YARD:
MIN. ALLOWED: 20'
PROVIDED: 49.7'

BUILDING HEIGHT:
MAX. ALLOWED: 60'
PROVIDED: 34'

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

REGISTERED LAND SURVEYOR

PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

2 MARC ROAD LAYOUT PLAN OF LAND IN MEDWAY, MA

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

C-3

LEGACY ENGINEERING

354-D63

GRADING NOTES:

1. SITE CUT/FILL CALCULATIONS:
   - 1.1. FILL VOLUME: 1,050 C.Y.
   - 1.2. CUT VOLUME: 150 C.Y.
   - 1.3. TOTAL FILL VOLUME: 900 C.Y.

UTILITY NOTES:

1. DRAINAGE PIPING SHALL BE HDPE RATED FOR H20 LOADING. (ADS N12 OR EQUAL)
2. PLUMBERS AND DRAIN LAYERS OF ESTABLISHED REPUTATION AND EXPERIENCE WILL BE LICENSED BY THE BOARD AS DRAIN LAYERS AUTHORIZED TO PERFORM THE WORK.
3. ELECTRIC CONDUIT IS TO BE RUN TO THE PROPOSED PARKING AREA FOR FUTURE EV PARKING SPACES.

COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:42:24 -04'00'

For Registry Use

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

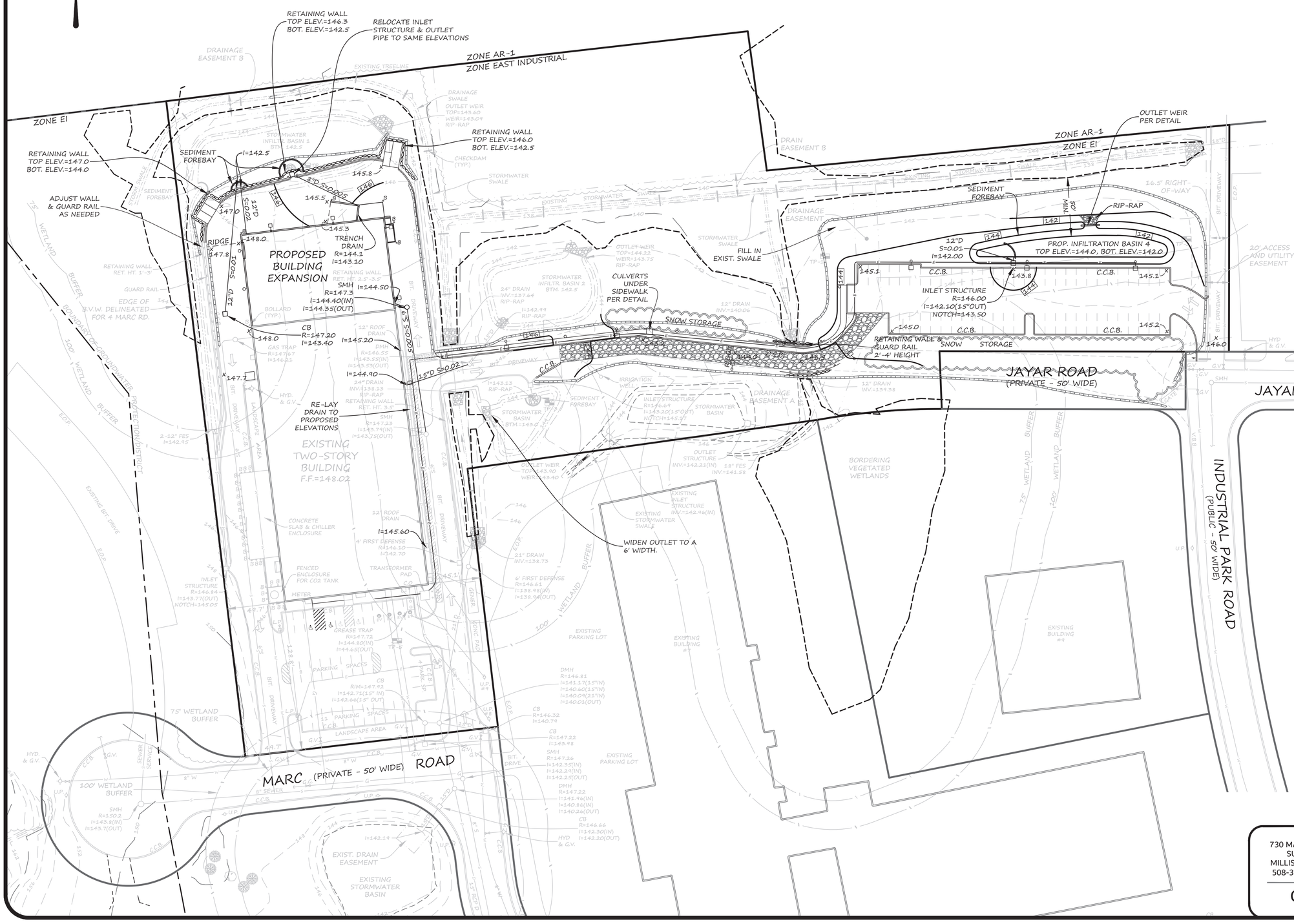
DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

PLAN SCALE: 1" = 40'
0' 40' 80' 160'



PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

REGISTERED LAND SURVEYOR

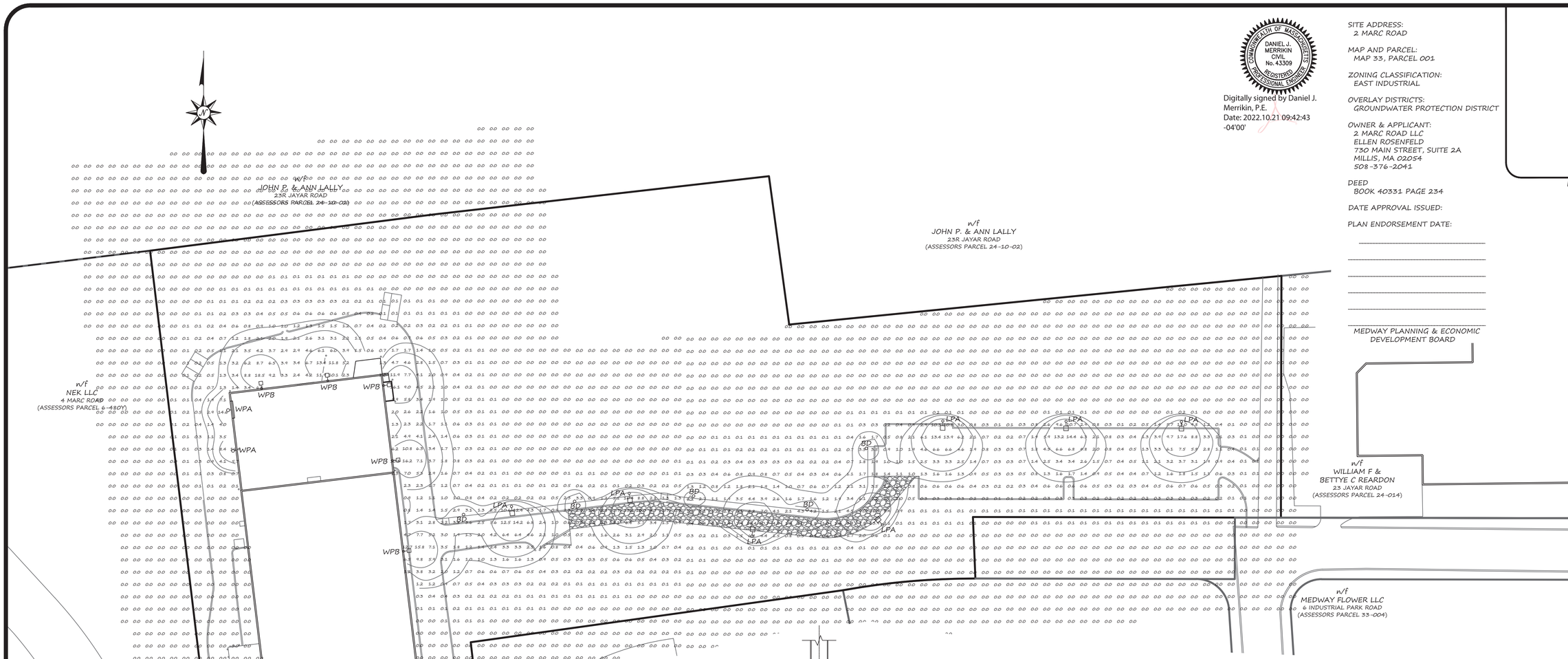
2 MARC ROAD GRADING & UTILITIES PLAN OF LAND IN MEDWAY, MA

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

C-4

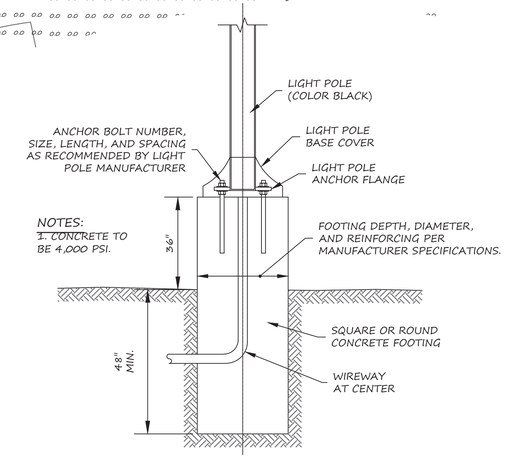
LEGACY ENGINEERING

354-D63



PLAN SCALE: 1" = 40'

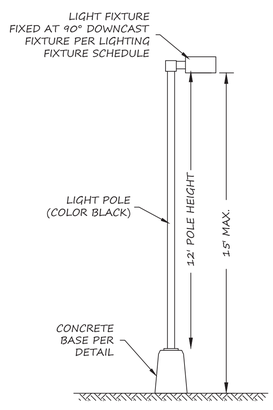
0' 40' 80' 160'



NOTES:
1. CONCRETE TO BE 4,000 PSI.

CONCRETE LIGHT POLE BASE DETAIL

(NO SCALE)



TYPICAL LIGHT POLE DETAIL

NOT TO SCALE

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
	7	LPA	POLE WITH SINGLE FIXTURE @ 15' A.G.	RAB LIGHTING ALED4T105
	2	WPA	SINGLE WALL SCONCE @ 10' A.G.	RAB LIGHTING SLIM57Y
	5	WPB	SINGLE WALL SCONCE @ 15' A.G.	RAB LIGHTING WPLED4T105Y
	5	BD	LED BOLLARD LIGHT (ROUND)	RAB LIGHTING BDLEDR18

LIGHTING FIXTURE SCHEDULE

NOT TO SCALE

COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:42:43 -04'00'

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

For Registry Use

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

REGISTERED LAND SURVEYOR

PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

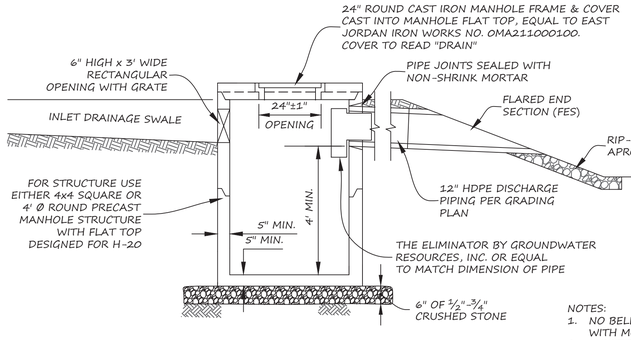
2 MARC ROAD LIGHTING PLAN OF LAND IN MEDWAY, MA

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

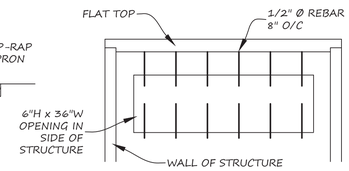
C-5

LEGACY ENGINEERING

354-D63



SECTION VIEW



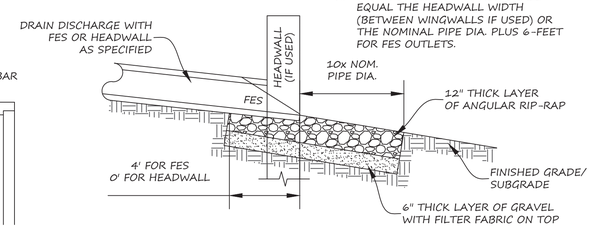
GRATE DETAIL

NOTES:
1. NO BELL ENDS IN CATCH BASIN. CONNECTIONS TO BE TIGHTLY SEALED WITH MORTAR.
2. SUBSTITUTE FRAME AND GRATE SHALL BE MADE IN USA AND SHALL BE APPROVED BY THE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.

PRECAST CONCRETE IN-SWALE CATCH BASIN

NOT TO SCALE

NOTES:
1. RIP-RAP TO BE PLACED ON EMBANKMENTS TO A POINT 1' ABOVE TOP OF FES (WHERE APPLICABLE).
2. WIDTH OF RIP-RAP APRON SHALL EQUAL THE HEADWALL WIDTH (BETWEEN WINGWALLS IF USED) OR THE NOMINAL PIPE DIA. PLUS 6-FEET FOR FES OUTLETS.



TYPICAL RIP-RAP APRON DETAIL

NOT TO SCALE

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

REGISTERED LAND SURVEYOR

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

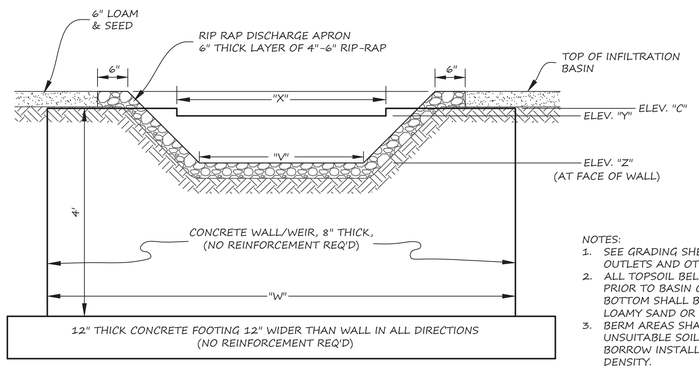
MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

For Registry Use

COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

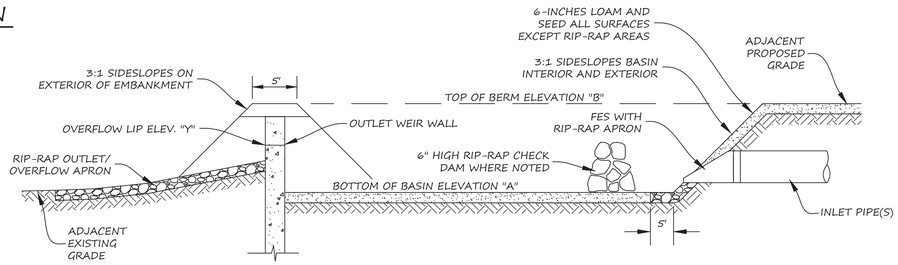
Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:43:04 -04'00'

PLAN SCALE: N.T.S.



OUTLET WEIR AND RIP-RAP SWALE DETAIL

NOTES:
1. SEE GRADING SHEETS AND PROFILE SHEETS FOR SIZE OF INLETS AND OUTLETS AND OTHER DIMENSIONAL REQUIREMENTS FOR EACH BASIN.
2. ALL TOPSOIL BELOW THE BOTTOM OF THE BASIN SHALL BE REMOVED PRIOR TO BASIN CONSTRUCTION. FILL MATERIALS UNDER THE BASIN BOTTOM SHALL BE CLEAN GRAVEL. FILL FOR BERMS MAY BE SAND, LOAMY SAND OR SANDY LOAM. (TITLE V CLASSIFICATIONS).
3. BERM AREAS SHALL BE REMOVED OF ALL TOPSOIL AND OTHER UNSUITABLE SOILS. BERM CORE SHALL CONSIST OF ORDINARY BORROW INSTALLED IN 12-INCH LIFTS TO A MINIMUM 93% PROCTOR DENSITY.



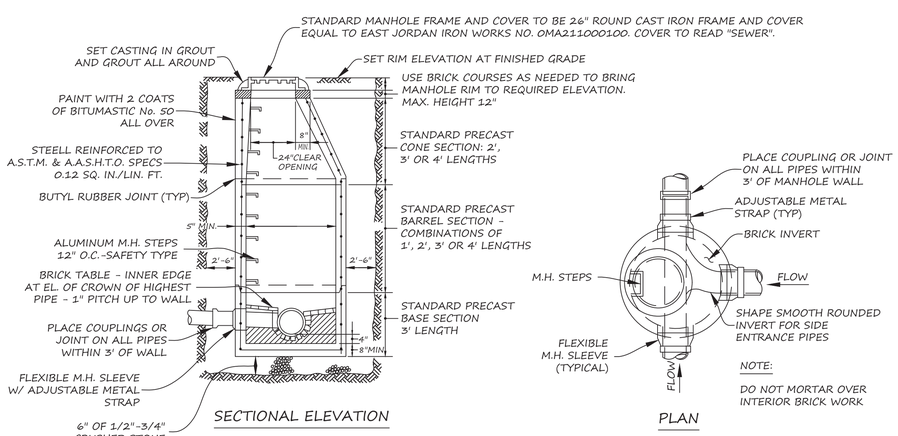
TYPICAL BASIN CROSS-SECTION

SCHEDULE OF DIMENSIONS AND ELEVATIONS

	BASIN #1	BASIN #2	BASIN #3	BASIN #4
BOTTOM OF BASIN ELEVATION "A"	142.5	142.5	143.0	142.0
TOP OF BERM ELEVATION "B"	144.5	144.5	144.9	144.0
OUTLET WEIR WALL LENGTH "W"	23'	23'	14'	16'
OVERFLOW WEIR NOTCH LENGTH "X"	13'	13'	6'	9'
OVERFLOW ELEVATION "Y"	143.10	143.75	143.40	142.70
TOP OF WEIR WALL "C"	143.60	144.25	143.90	143.50
RIP RAP SWALE OUTLET ELEV. "Z" (AT OUTSIDE FACE OF WALL)	142.5	143.0	143.0	142.5

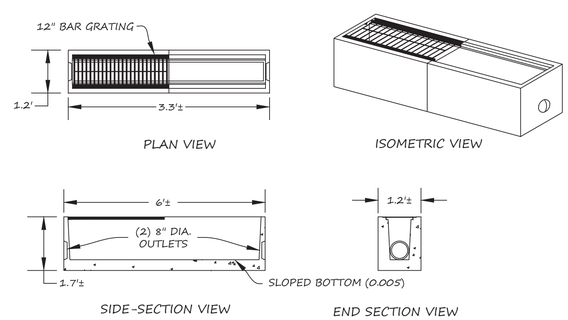
TYPICAL INFILTRATION BASIN CROSS-SECTION

NOT TO SCALE



TYPICAL PRECAST CONCRETE SEWER MANHOLE DETAILS

NOT TO SCALE



NOTES:
1. CONCRETE SHALL BE 4,000 PSI AFTER 28 DAYS.
2. SHALL CONFORM TO H-20 LOADINGS.
3. SHALL BE POWER DRAIN S300K BY ACO DRAIN OR EQUAL.

TRENCH DRAIN DETAIL

NOT TO SCALE

PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

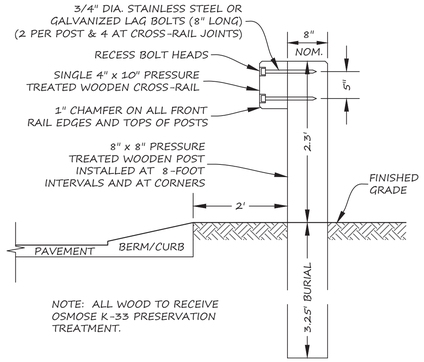
2 MARC ROAD
DETAIL
PLAN OF LAND
IN
MEDWAY, MA

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

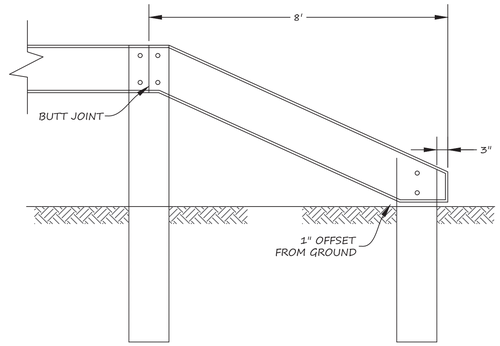
C-6

LEGACY ENGINEERING

354-D63



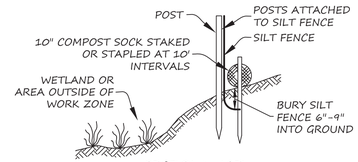
SIDE SECTIONAL VIEW



FRONT VIEW - TYPICAL END SECTION

WOOD GUARD RAIL DETAIL

NOT TO SCALE

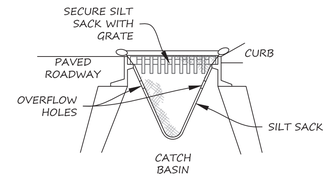


SECTIONAL VIEW

NOTE: NON-BIODEGRADABLE SOCK SHELL FILLED WITH COMPOST MEDIA. JOINTS SHALL BE OVERLAPPED BY AT LEAST TWO FEET. ORANGE SNOW FENCE IS ONLY NEEDED IF THERE IS EVIDENCE OF THE COMPOST SOCK BEING BURIED BY CONSTRUCTION ACTIVITIES.

EROSION CONTROL DETAIL (COMPOST SOCK)

NOT TO SCALE



CATCH BASIN SILT SACK DETAIL

NOT TO SCALE

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

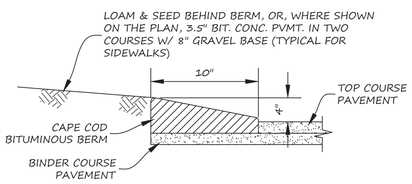
MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

For Registry Use

COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

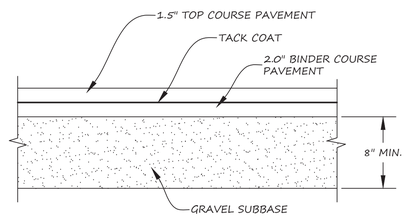
Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:43:27 -04'00'

PLAN SCALE: N.T.S.



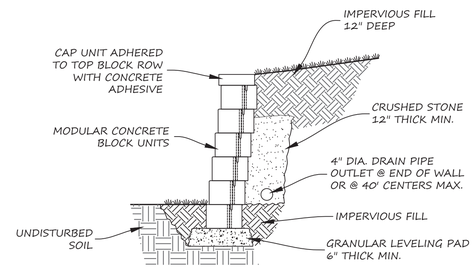
CAPE COD BERM DETAIL - PAVED DRIVEWAY

(NO SCALE)



TYPICAL PARKING LOT PAVING SECTION

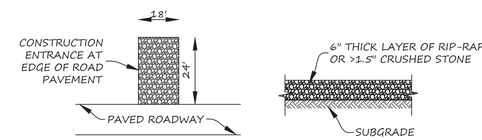
NOT TO SCALE



NOTES:
1. SMALL BLOCK UNITS SHALL BE THE SQUARE FOOT PRODUCT BY VERSA-LOK OR APPROVED EQUAL. WALL HEIGHT WITHOUT REINFORCEMENT SHALL BE LIMITED TO 3.5' EXPOSED FACE.
2. WALL HEIGHTS OVER FOUR FEET, INCLUDING FOOTING, MAY REQUIRE A BUILDING PERMIT AND/OR STRUCTURAL DESIGN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY BUILDING PERMITS AND FOR PROVIDING STRUCTURAL WALL DESIGN MEETING THE REQUIREMENTS OF THE MASSACHUSETTS BUILDING CODE, AS DEEMED APPLICABLE BY THE BUILDING INSPECTOR.
3. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

TYPICAL "SMALL BLOCK" RETAINING WALL

NOT TO SCALE



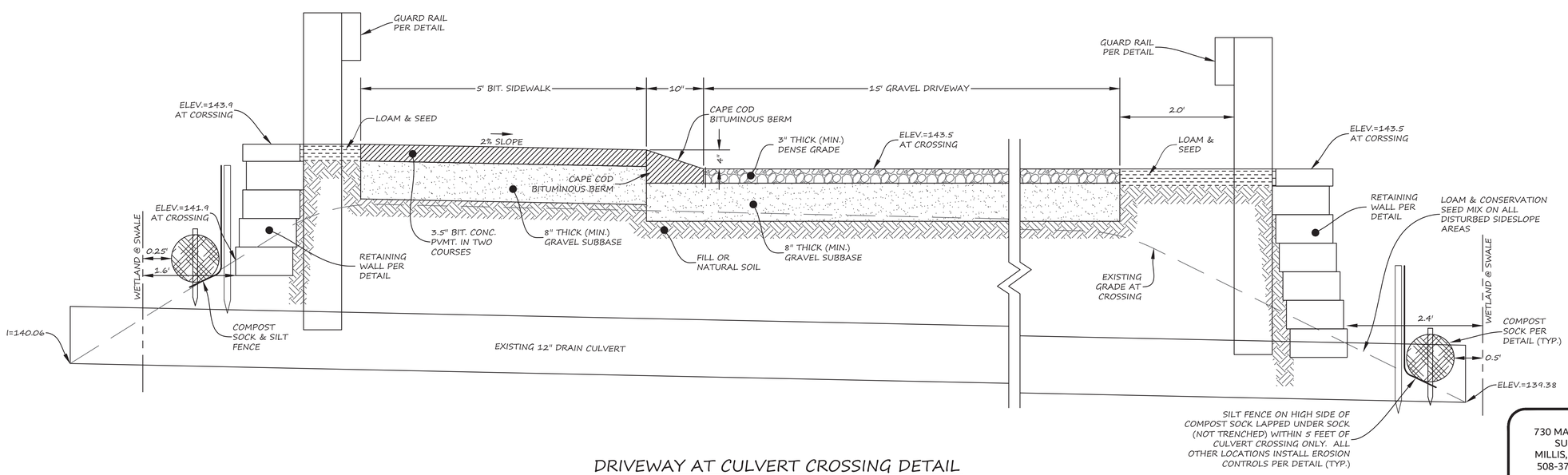
PLAN VIEW

SECTIONAL VIEW

NOTES:
1. ENTRANCE SHALL BE INSTALLED BEFORE ANY EXCAVATION WORK OCCURS ON-SITE.
2. ENTRANCE SHALL BE MAINTAINED IN GOOD CONTITION UNTIL A PAVED DRIVEWAY IS INSTALLED. REPLACE ENTRANCE IF FILLED WITH SOILS OR IF SOILS ARE BEING TRACKED ONTO ADJACENT ROADWAYS.

CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



DRIVEWAY AT CULVERT CROSSING DETAIL

NOT TO SCALE

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

REGISTERED LAND SURVEYOR

PLAN DATE: FEBRUARY 28, 2022

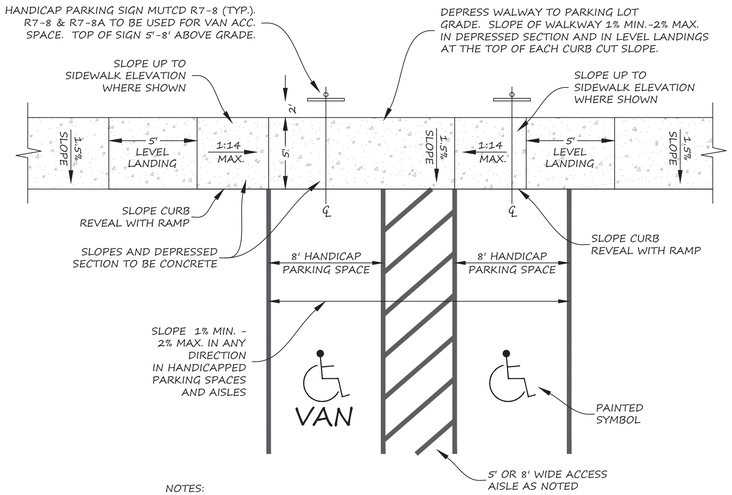
REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

2 MARC ROAD
DETAIL
PLAN OF LAND
IN
MEDWAY, MA

730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

LEGACY ENGINEERING

354-D63

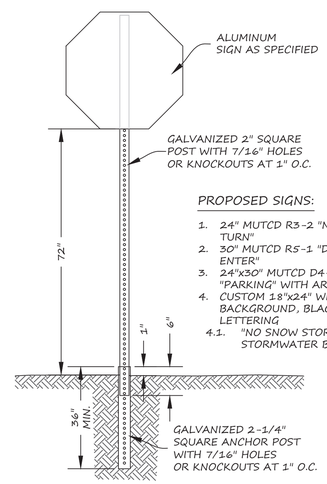


NOTES:

1. REFER TO THE LAYOUT PLAN FOR THE LOCATION, LAYOUT, AND NUMBER OF HANDICAP PARKING SPACES IN RELATION TO ADJOINING WALKWAYS.
2. HANDICAP PARKING SPACES AND ACCESSIBLE ROUTES (CURB CUTS, RAMPS, WALKWAYS, ETC...) SHALL BE IN ACCORDANCE WITH 521 CMR.

TYPICAL HANDICAP PARKING DETAIL

(NO SCALE)

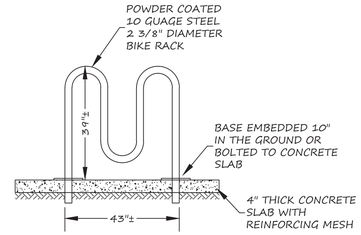


PROPOSED SIGNS:

1. 24" MUTCD R3-2 "NO LEFT TURN"
2. 30" MUTCD R5-1 "DO NOT ENTER"
3. 24"x30" MUTCD D4-1 "PARKING" WITH ARROW.
4. CUSTOM 18"x24" WHITE BACKGROUND, BLACK LETTERING
   4.1. "NO SNOW STORAGE IN STORMWATER BASIN"

TYPICAL SIGN POST DETAIL

NOT TO SCALE



BIKE RACK DETAIL

(NO SCALE)

SITE ADDRESS:
2 MARC ROAD

MAP AND PARCEL:
MAP 33, PARCEL 001

ZONING CLASSIFICATION:
EAST INDUSTRIAL

OVERLAY DISTRICTS:
GROUNDWATER PROTECTION DISTRICT

OWNER & APPLICANT:
2 MARC ROAD LLC
ELLEN ROSENFELD
730 MAIN STREET, SUITE 2A
MILLIS, MA 02054
508-376-2041

DEED
BOOK 40331 PAGE 234

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:

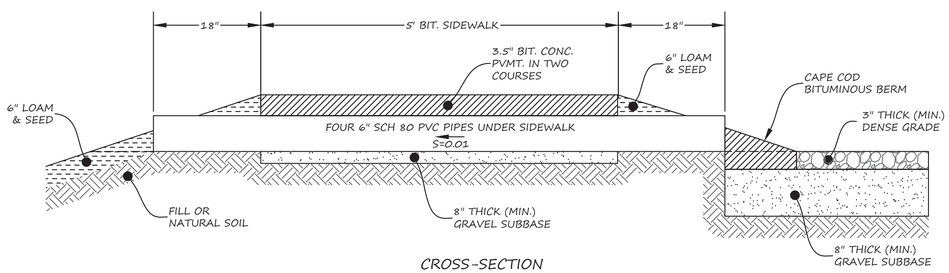
MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

For Registry Use

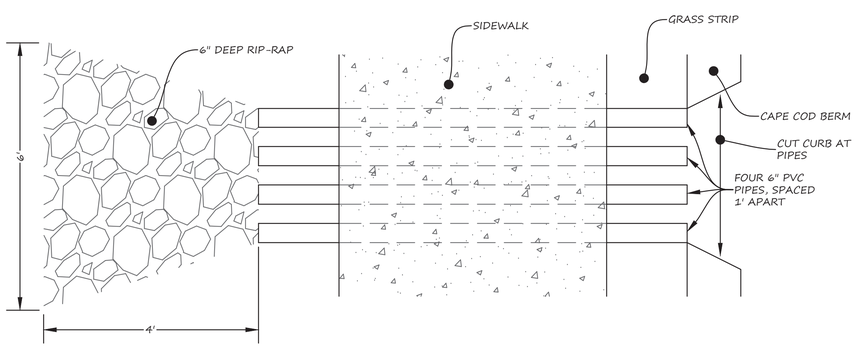
COMMONWEALTH OF MASSACHUSETTS
DANIEL J. MERRIKIN
CIVIL
No. 43309
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Daniel J. Merrikin, P.E.
Date: 2022.10.21 09:43:44 -04'00'

PLAN SCALE: N.T.S.



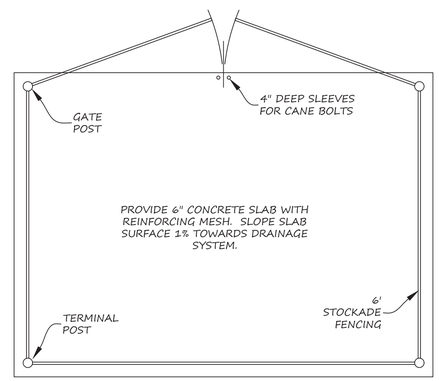
CROSS-SECTION

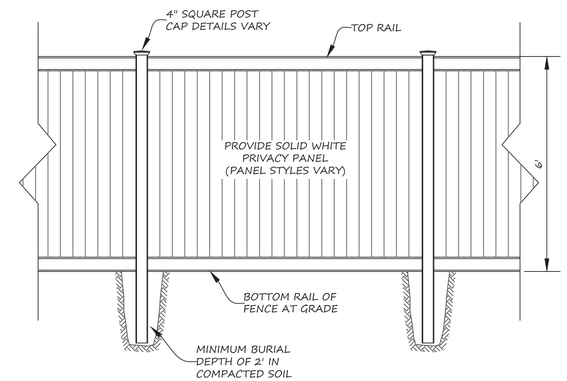


PLAN VIEW

CULVERTS UNDER SIDEWALK DETAIL

(NO SCALE)





DUMPSTER ENCLOSURE PAD & FENCING DETAIL

(NO SCALE)

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL AND TECHNICAL STANDARDS IN THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

REGISTERED LAND SURVEYOR

PLAN DATE: FEBRUARY 28, 2022

REVISION	DATE	BY
NEW WETLAND FLAGS	2022-06-22	DJM
CHANGES PER TOWN COMMENTS	2022-08-26	DJM
CHANGES PER TOWN COMMENTS	2022-10-13	DJM
CHANGES PER CONSERVATION COMMENTS	2022-10-20	DJM

2 MARC ROAD DETAIL PLAN OF LAND IN MEDWAY, MA

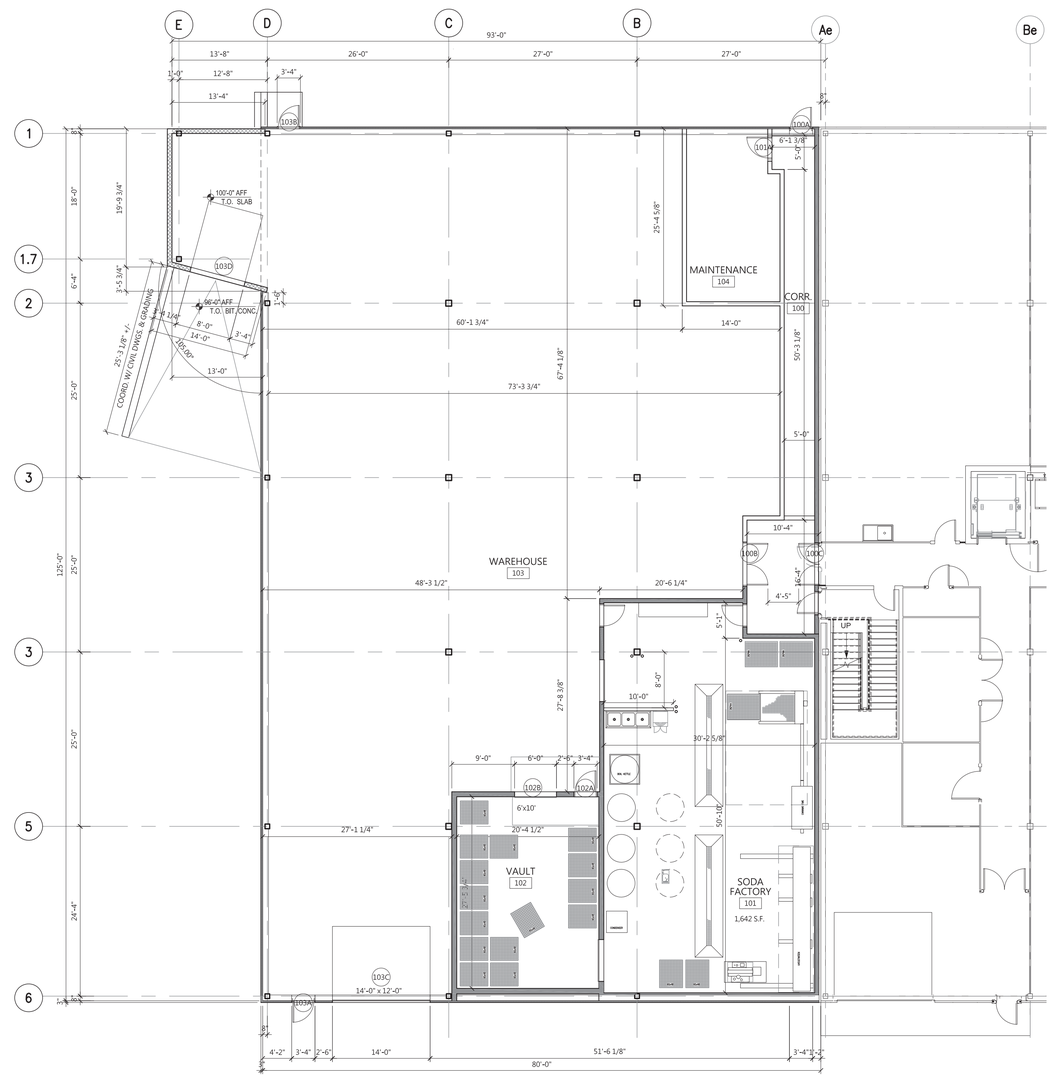
730 MAIN STREET
SUITE 2C
MILLIS, MA 02054
508-376-8883(o)

C-8

LEGACY ENGINEERING

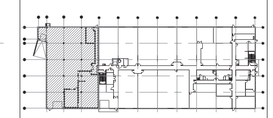
354-D63

UDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256



1 A1.0 1st FLOOR PLAN

SCALE: 1/8" = 1'-0"



Drawing Status:

PLANNING BOARD REVIEW

NOT FOR CONSTRUCTION

Client:

Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:

Grow Facility Addition
2 Marc Rd.
Medway, MA

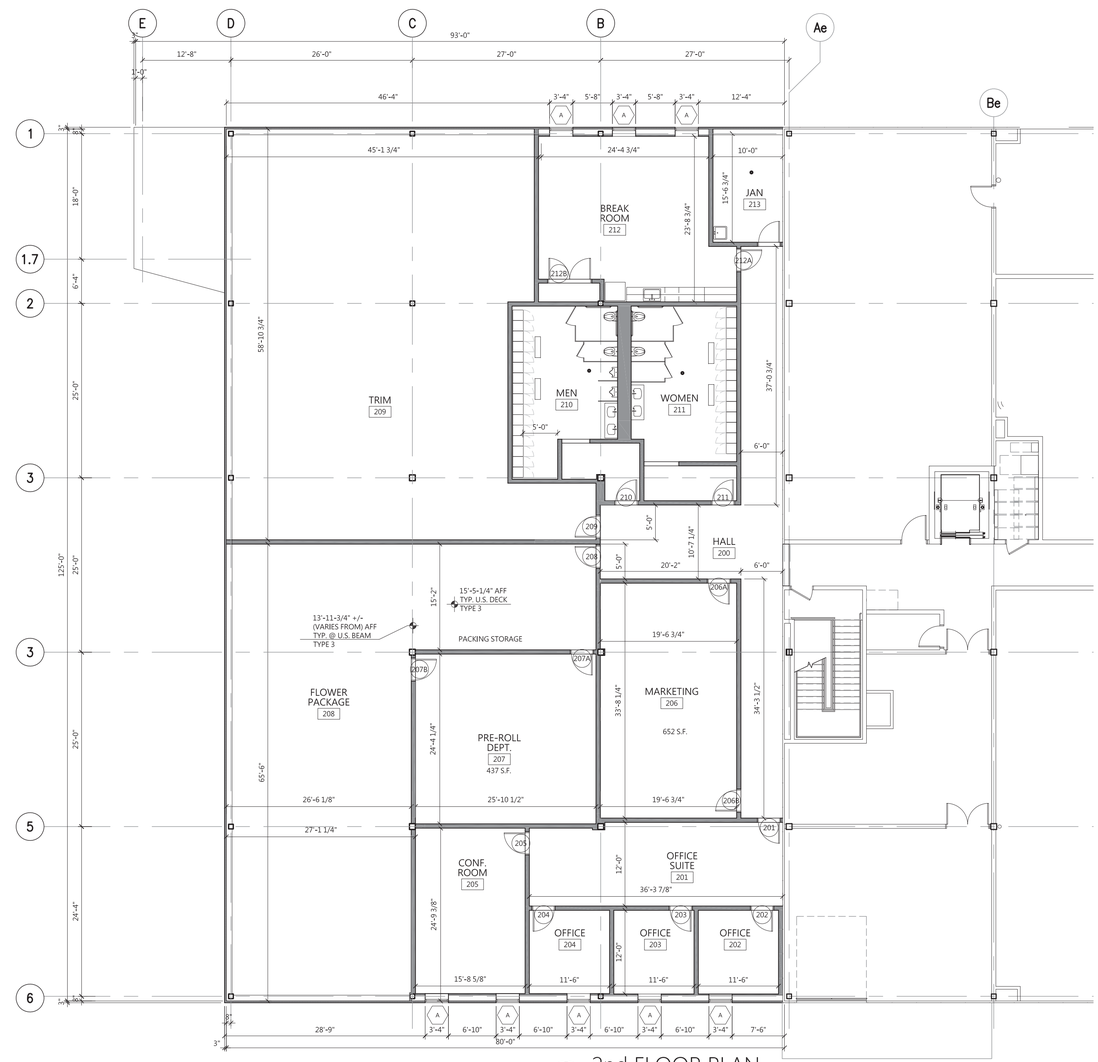
Drawing:

FIRST FLOOR PLAN

Scale:	AS NOTED
Date:	2/24/2022
Job Number:	21052
Drawn By:	TJF
Checked By:	KEU

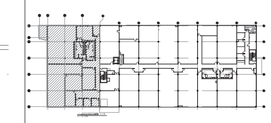
A1.0

UDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256



1 A1.2 2nd FLOOR PLAN

SCALE: 1/8" = 1'-0"



Drawing Status:

PLANNING BOARD REVIEW

NOT FOR CONSTRUCTION

Client:

Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:

Grow Facility Addition
2 Marc Rd.
Medway, MA

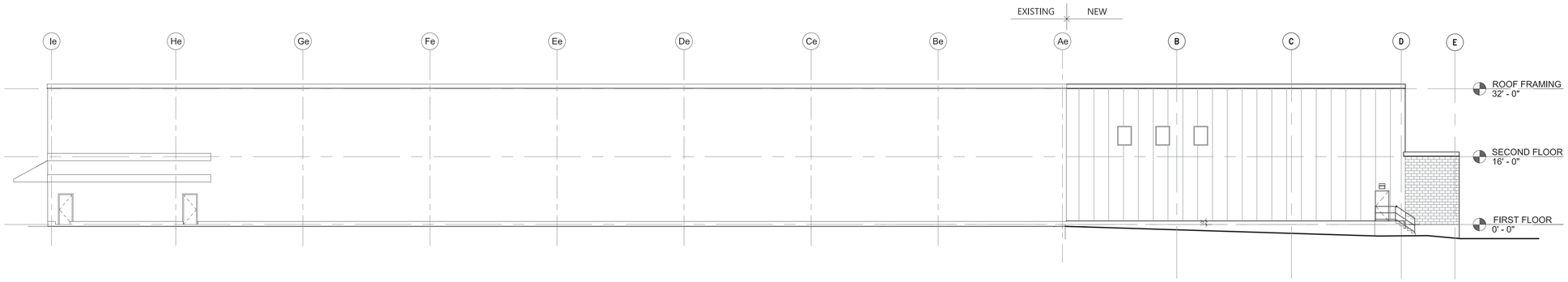
Drawing:

SECOND FLOOR PLAN

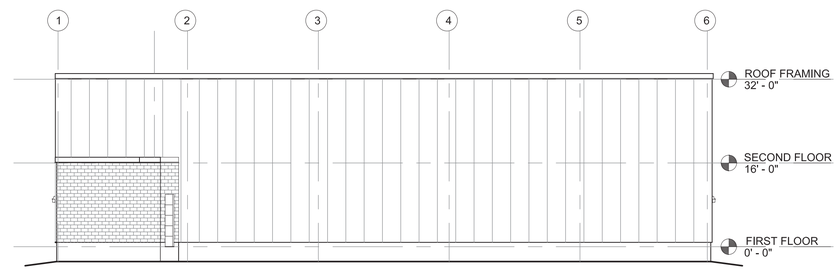
Scale:	AS NOTED
Date:	2/24/2022
Job Number:	21052
Drawn By:	TJF
Checked By:	KEU

A1.2

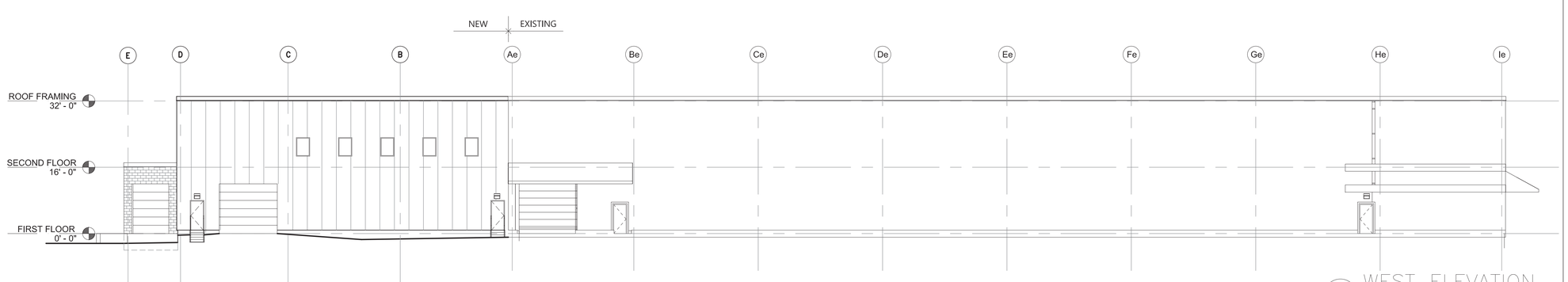
UDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256



3 A4.0 EAST ELEVATION
SCALE: 3/32" = 1'-0"



2 A4.0 NORTH ELEVATION
SCALE: 3/32" = 1'-0"



1 A4.0 WEST ELEVATION
SCALE: 3/32" = 1'-0"

Drawing Status:
PLANNING BOARD REVIEW
NOT FOR CONSTRUCTION

Client:
Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:
Grow Facility Addition
2 Marc Rd.
Medway, MA

Drawing:
EXTERIOR ELEVATIONS

Scale:	AS NOTED
Date:	2/24/2022
Job Number:	21052
Drawn By:	TJF
Checked By:	KEU

A4.0

RIGHT REAR CORNER
LOOKING SOUTH

1
A4.1

NTS

LEFT REAR CORNER
LOOKING SOUTH

2
A4.1

NTS

UDA ARCHITECTS

486 High Plain Street
Walpole, MA 02081

Phone: 508-734-5236
Fax: 508-734-5256

Drawing Status:

PLANNING BOARD REVIEW

NOT FOR CONSTRUCTION

Client:

Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:

Grow Facility Addition
2 Marc Rd.
Medway, MA

Drawing:

EXTERIOR RENDERINGS

Scale:	AS NOTED
Date:	2/24/2022
Job Number:	21052
Drawn By:	TJF
Checked By:	KEU

A4.1

Medway Planning and Economic Development Board
Request for Waiver from Site Plan Rules and Regulations
Complete 1 form for each waiver request

Project Name	2 Marc Road
Property Location	2 Marc Road
Type of Permit	Marijuana Special Permit
Identify the number and title of the relevant section of the *Site Plan Rules and Regulations* from which a waiver is sought.	207-11.B.2 Planning Board Rules and Regulations - Curbing
Summarize the text of the relevant section of the *Rules and Regulations* from which a waiver is requested.	Perimeter of drive aisles to be bounded with vertical granite curbing.
What aspect of the *Rule and Regulation* do you propose be waived?	To allow cape cod berm in lieu.
What do you propose as an alternative to the standard?	To allow cape cod berm in lieu.
Explanation/justification for the waiver request. How does the particular rule/regulation not apply to the site or situation under review?	The site is already developed and has cape cod berm throughout as does the adjacent roadways
Explanation/justification. How would approval of this waiver request not be significantly detrimental to achieving the purposes of site plan review?	It is consistent with the site conditions.
Explanation/justification. How would approval of this waiver request result in a superior design or provide a clear and significant improvement to the quality of this development?	To provide consistency in site features.
What is the impact on the development if this waiver request is denied?	Change of curbing.
What mitigation measures do you propose to offset not complying with the particular Rule/Regulation?	None.
Waiver Request Prepared By:	Daniel Merrikin
Date:	October 13, 2022

Questions?? - Please contact the Medway PEDB office at 508-533-3291.

Medway Planning and Economic Development Board
Request for Waiver from Site Plan Rules and Regulations
Complete 1 form for each waiver request

Project Name	2 Marc Road
Property Location	2 Marc Road
Type of Permit	Marijuana Special Permit
Identify the number and title of the relevant section of the *Site Plan Rules and Regulations* from which a waiver is sought.	207-19: Planning Board Rules and Regulations - Landscaping plan
Summarize the text of the relevant section of the *Rules and Regulations* from which a waiver is requested.	Landscaping shall be provided per the regulations.
What aspect of the *Rule and Regulation* do you propose be waived?	To allow tree and herbaceous plantings as shown on the site plan.
What do you propose as an alternative to the standard?	To allow tree and herbaceous plantings as shown on the site plan.
Explanation/justification for the waiver request. How does the particular rule/regulation not apply to the site or situation under review?	The site is already developed. Extensive landscaping is not allowed by state regulation for these types of facilities. Trees and herbaceous vegetation are proposed around the new parking area.
Explanation/justification. How would approval of this waiver request not be significantly detrimental to achieving the purposes of site plan review?	The site will be fully vegetated but vegetation will focus on herbaceous layers and trees in areas that are historically disturbed.
Explanation/justification. How would approval of this waiver request result in a superior design or provide a clear and significant improvement to the quality of this development?	Consistency with the existing site development.
What is the impact on the development if this waiver request is denied?	n/a
What mitigation measures do you propose to offset not complying with the particular Rule/Regulation?	Plantings shown on the site plan
Waiver Request Prepared By:	Daniel Merrikin
Date:	October 13, 2022

Questions?? - Please contact the Medway PEDB office at 508-533-3291.

TETRA TECH

March 31, 2022
(revised September 9, 2022)
(revised October 19, 2022)

Ms. Susan E. Affleck-Childs
Medway Planning and Economic Development Coordinator
Medway Town Hall
155 Village Street
Medway, MA 02053

Re: CommCan Site Plan Modification
2 Marc Road
Medway, Massachusetts

Dear Ms. Affleck-Childs:

Tetra Tech (TT) has performed a review of the proposed Site Plan for the above-mentioned Project at the request of the Town of Medway Planning and Economic Development Board (PEDB). The proposed Project is located at 2 Marc Road in Medway, Massachusetts. The reviewed materials are part of an Application to Modify a Previously Approved Marijuana Special Permit Decision. The site is currently developed with a two-story, 60,000 square-foot industrial building for marijuana cultivation, along with appurtenant driveways, parking areas, utilities, landscaping, and stormwater infrastructure. The proposed Project includes a 20,000 square-foot, two-story addition to the existing building, driveway reconfigurations, 56 proposed parking spaces and additional onsite stormwater treatment. The Project will also require the addition of two hazardous/toxic materials, referred to in the Site Narrative as “cleaning solutions” that will be handled and stored within the Project’s proposed addition.

TT is in receipt of the following materials:

- A Plan (Plans) set titled “2 Marc Road, Site Plan of Land in Medway, Massachusetts” dated February 28, 2022, prepared by Legacy Engineering, LLC (LEL).
- Project Architecturals including Floor Plans, Elevations and Renderings, dated February 24, 2022, prepared by UDA Architects.
- An Application to Modify a Previously Approved Marijuana Special Permit Decision and/or Plan, dated February 28, 2022, prepared by LEL.
- An Application for Special Permit Approval, dated February 28, 2022, prepared by LEL.
- A Certified List (List) of Abutters, dated January 28, 2022, prepared by The Medway Board of Assessors.
- A Project Narrative (Narrative) titled “Site Narrative for 2 Marc, Road, Medway, MA 02053” dated February 28, 2022, prepared by LEL.

The Plans and accompanying materials were reviewed for conformance with the following Regulations and Bylaws:

- Town of Medway Planning & Economic Development Board Rules and Regulations, Chapter 200 – Site Plans, Rules & Regulations for Submission, Review and Approval of Site Plans. (Amended October 8, 2019)

The Project was also reviewed for good engineering practice and overall site plan efficiency. Review of the Project for zoning related matters is being conducted by Town personnel and is excluded from this review. Stormwater will be reviewed during the anticipated permitting effort with Medway Conservation Commission.

Infrastructure Northeast
Marlborough Technology Park 100 Nickerson Road, Marlborough, MA 01752
Tel 508.786.2200 Fax 508.786.2201 tetratech.com

TT 9/9/22 Update

The Applicant has supplied TT with a revised submission addressing comments provided in our previous letter including the following documents:

- A Response to Comments letter dated August 31, 2022, prepared by LEL.
- A Plan (Plans) set titled "2 Marc Road, Site Plan of Land in Medway, Massachusetts" dated February 28, 2022, with revisions through August 26, 2022, prepared by Legacy Engineering, LLC (LEL).

The revised Plans and supporting information were reviewed against our previous comment letter (March 31, 2022) and comments have been tracked accordingly. Text shown in gray represents information contained in previous correspondence while new information is shown in black text. Additional comments have been added to the end of the document.

TT 10/19/22 Update

The Applicant has supplied TT with a revised submission addressing comments provided in our previous letter including the following documents:

- A Response to Comments letter dated October 13, 2022, prepared by LEL.
- A Plan (Plans) set titled "2 Marc Road, Site Plan of Land in Medway, Massachusetts" dated February 28, 2022, with revisions through October 13, 2022, prepared by LEL.

The revised Plans and supporting information were reviewed against our previous comment letter (September 9, 2022) and comments have been tracked accordingly. Text shown in gray represents information contained in previous correspondence while new information is shown in black text. Comments resolved or Conditions recommended in the previous letter have been removed from this correspondence to consolidate the document for ease of review.

SITE PLAN REVIEW

Site Plan Rules and Regulations (Chapter 200)

1. The Applicant has not included a Development Impact Statement associated with the Project. (Ch. 200 §204-3.F)
   - *LEL 8/31/22 Response: A DIS is attached.*
     - **TT 9/9/22 Update: The Development Impact Statement has been provided which includes narrative for the required information. Traffic impacts are not expected to increase as the Applicant stated that the expansion is proposed to accommodate existing employees. The ongoing odor issues from the facility were noted and the Applicant stated odor is expected to be mitigated by the recently installed supplemental odor mitigation system, however, we recommend the PEDB follow-up with the Applicant and abutters to determine if the odor remains a nuisance. Noise was also addressed, and we recommend the PEDB follow-up with their noise consultant regarding changes to the Plans.**
       - *LEL 10/13/22 Response: No Applicant response.*
         - **TT 10/19/22 Update: We recommend this item be discussed at the next PEDB hearing to ensure it is properly addressed.**

General Site Plan Comments

13. The Applicant proposed a striped walkway along the eastern side of the existing building. Dimensions of the vehicular travel lane adjacent to the proposed walkway should be shown on the Plans to confirm two-way traffic can be maintained when the walkway is in use.
    - *LEL 8/31/22 Response: The driveway circling around the building is one-way only. Pavement markings showing this have been added to the plans for clarity. A crosswalk has also been added to the plans.*

ENGINEERED SYSTEMS
CONSULTING ENGINEERS

COMMCAN

Medway Cultivation Facility

2 Marc Rd. Medway, MA

Building Mechanical Systems

Odor Mitigation Report

October 11, 2022

Prepared for:

Commcan, Inc.

Engineered Systems, Inc. • 237 Lexington Street, Suite 207, Woburn, MA 01801 • tel: 781.569.6525 • fax: 781.569.6526

INTRODUCTION

Engineered Systems, Inc. (ESI) has completed a review of the mechanical systems and plans for the existing building and 2-story expansion for the aforementioned subject project.

The existing building is furnished and operating with existing odor control systems. The 2-story expansion area is provided with a new design prepared by ESI for additional processing rooms, office, warehouse, and bathrooms. The existing odor control systems will be supplemented with an all-new exterior odor neutralizing system.

We offer the following description of the HVAC systems and their associated odor control.

HVAC SUMMARY:

The existing building is split between growing, processing, and office space. Generally, the building is controlled through a series of 4 pipe chilled water & hot water air handlers, CO2 emergency exhaust fans, packaged rooftop units, and hood exhaust with makeup air.

The 1st floor grow rooms, including flowering, mother, and veg, are each served by separate 4 pipe chilled water and hot water air handlers that maintain space temperature and humidity. Those rooms are also provided with exhaust through ductwork and roof mounted fans as well as outside air through supply fans and sidewall louvers. The exhaust fans operate based on CO2 concentration levels or through manual control which relays the outside air supply fan and dampers to open simultaneously.

The 2nd floor grow rooms, including flowering, mother, and veg, are each served by separate 4 pipe chilled water and hot water air handlers on the roof that maintain space temperature and humidity. Those rooms are also provided with exhaust through ductwork and inline exhaust fans that discharge at sidewall louvers. The exhaust fans operate based on CO2 concentration levels or through manual control which relays the outside air dampers on the AHUs to open simultaneously.

The processing rooms utilize packaged rooftop units to maintain space temperature and humidity. The processing lab includes a constant volume exhaust hood and makeup air unit. The kitchen also includes an exhaust hood and makeup air unit.

The office areas and corridors are served by constant volume packaged rooftop units to maintain space temperature and humidity.

The 1st floor bathrooms are served by central roof mounted exhaust fan. The 2nd floor bathrooms utilize inline exhaust fans.

The 2-story expansion will be served by a new Variable Refrigerant Flow (VRF) system for the warehouse, offices, and processing spaces through ducted fan coils and wall-mounted fan coils. Ventilation for these spaces will be provided by a new Indoor Floor

mounted Energy Recovery Ventilator (ERV). The ERV will also provide exhaust for the core bathroom, janitors spaces, and general exhaust throughout.

ODOR CONTROL PRODUCTS:

1. *Bi-Polar Ionization Device:* Air ionization devices are ion tube bipolar ionizer that is installed in the supply ductwork of an air system to control odor. Atmos Air technology produces a natural bio-climate rich in positive and negative oxygen ions. The negative ions contain an extra electron while the positive ions are missing an electron resulting in an unstable condition. In an effort to restabilize, these bipolar ions seek out atoms and molecules in the air to trade electrons with, effectively neutralizing particulate matter, bacteria and virus cells, odorous gases and aerosols, and VOCs. Refer to Appendix A&B.
2. *Molecular Filtration:* CamFil LGX048 activated Carbon Media is an activated carbon media that provides absorption of low and medium molecular weight at higher volatility contaminants. The activated media is configured into a flat panel (Camfil CamCarb PG) and housed in a filter box (CamCarb PG Glidepack) with pre-filter media to remove larger particulate. Refer to Appendix C for more information on cannabis cultivation application data.
3. *UVonair In-Line Duct Ozonator:* UltraViolet (UV) ozone generators, employ a light source that generates a narrow-band of UltraViolet light. UltraViolet light creates ozone when a wavelength at between 185 and 254 nm hits an oxygen atom. These atoms combine with another oxygen molecule to form ozone. Uvonair UV ozone generators use a fan to propel ambient air over a UV bulb for ozone production. This atomically charged atom will readily attach itself to other odor molecules and when it does the Ozone molecule reverts back to Oxygen. This happens as the unstable third atom separates from the other two. When contaminants such as odors, bacteria or viruses make contact with ozone, their chemical structure is changed to less odorous compounds. As more ozone attacks the remaining compounds, the odor is eventually destroyed. Refer to Appendix D.
4. *OMI Ecosorb Vapor Phase Control System:* Vapor Phase Control system is a packaged system that vaporizes pure Ecosorb solutions and pumps them through a perforated pipe distribution system, creating a dry vapor to eliminate airborne odors at exhaust outlets, door openings, relief vents, and at the building perimeter. The Ecosorb® CNB 100 is an odor neutralizer designed specifically for the control of cannabis odors. The solution removes the odorous chemicals that are produced when growing cannabis. Ecosorb CNB 100 is effective on the main groups of odor causing chemical compounds found in cannabis including but not limited to the cannabinoids, terpenes and sesquiterpenes groups. **Note: Ecosorb system is designed and provided by third party organization.**

1ST FLOOR HVAC ODOR CONTROL PLAN(EXISTING):

1. **Flowering, Mother, Veg Rooms** Maintain existing *UVonair in-line Duct Ozonator*, and low pressure drop inline *molecular filtration* in exhaust streams. Maintain existing *AtmosAir Bi-Polar Ionization* devices in Air Handlers. Exhaust fans shall continue to operate for emergency or limited manual operation.
2. **Clone Room:** Maintain existing equipment as installed.
3. **Lab:** Maintain low pressure drop inline *molecular filtration* in lab exhaust duct system with BMS integrated dirty filter alarm status. Maintain *AtmosAir Bi-Polar Ionization* in packaged rooftop units.
4. **Bathrooms:** Maintain existing low pressure drop inline *molecular filtration* in bathroom exhaust duct system with BMS integrated dirty filter alarm status.
5. **Cure Room:** Maintain existing equipment as installed.
6. **Kitchen:** Maintain existing equipment as installed.
7. **Office Area:** Maintain existing *AtmosAir Bi-Polar Ionization* in packaged rooftop units.
8. **Corridors:** Maintain existing *AtmosAir Bi-Polar Ionization* in packaged rooftop units.

2ND FLOOR HVAC ODOR CONTROL (EXISTING):

1. **Flowering, Mother, Veg Rooms** Maintain existing *UVonair in-line Duct Ozonator*, and low pressure drop inline *molecular filtration* in exhaust streams. Maintain existing *AtmosAir Bi-Polar Ionization* devices in Air Handlers. Exhaust fans shall continue to operate for emergency or limited manual operation.
2. **Trim Room:** Maintain existing packaged rooftop units with *AtmosAir Bi-Polar Ionization* devices.
3. **Dry Room:** Maintain closed loop system with no exhaust from space.
4. **Bathrooms:** Maintain existing low pressure drop inline *molecular filtration* in bathroom exhaust duct system with BMS integrated dirty filter alarm status.
5. **Office Area:** Maintain existing *AtmosAir Bi-Polar Ionization* in packaged rooftop units.
6. **Corridors:** Maintain existing *AtmosAir Bi-Polar Ionization* in packaged rooftop units.

BUILDING-WIDE VAPOR PHASE ODOR CONTROL SYSTEM (NEW)

1. **Building Exterior:** Provide new Ecosorb Vapor phase odor control system with perforated piping system to distribute the CNB 100 odor neutralizer. The piping system will be routed to provide the odor neutralizer along the building perimeter at the roof line, at entry doors, overhead doors, exhaust fan outlets, and louvers. Refer to Appendix E-G for details and plans.

2-STORY BUILDING EXPANSION (NEW):

1. **Warehouse:** *Potential for exposed product to be handled within space that produces odor.*
    a. Provide new *AtmosAir Bi-Polar Ionization* for ducted fan coil units.
2. **Office and Processing areas:** *Exposed product will be handled and processed within the trim, flower package, and pre-roll rooms to produce odor.*
    a. Provide new low pressure drop inline *molecular filtration* in ventilation exhaust duct system with BMS integrated dirty filter alarm status.
    b. Provide new *AtmosAir Bi-Polar Ionization* for ducted fan coil units serving odor producing spaces.
3. **Building Exterior:** *Exhaust outlets and doorways will produce odor.*
    a. Utilize new Ecosorb Vapor Phase control system to neutralize exterior odors at doors, louvers, etc.

OPERATING AND MAINTENANCE PLAN:

1. **Molecular Carbon Filters:**
    a. Commcan will document the Carbon Filter Media maintenance cycle. A monthly report will be maintained for documenting filter replacements, inspections, and pressure drop alarms.
    b. Filters will be monitored every 3 months and remaining capacity of filter media will be recorded. TVOC measurements may be taken at inlet and outlets of filters. If measurements are out of the ranges of odor, maintenance will be initiated.
2. **Bi-Polar Ionization:**
    a. Commcan will document the Bi-Polar Ionization maintenance cycle. A monthly report will be maintained for documenting ion tube replacements, equipment inspections, and filter pressure drop alarms.

b. Ionizers will be monitored every 6 months and ion tube status will be recorded. TVOC measurements may be taken at inlet and outlets of ionizer sections. If measurements are out of the ranges of odor, maintenance will be initiated. Cleaning will be provided on ion tubes at a minimum of every 6 months.

3. **UVonair In-Line Duct Ozonator:**
   a. Commcan will document the Uvonair Ozonator maintenance cycle. A monthly report will be maintained for documenting UV bulb replacements, equipment inspections, and filter pressure drop alarms.
   b. Units will be monitored and cleaned every 6 months and bulb life will be recorded.
4. **OMI Ecosorb Vapor Phase Control System:**
   a. Commcan will document the Vapor Phase Odor Control System maintenance cycle. A monthly report will be maintained for documenting Vapor Phase unit Air/Pressure, Flow, run time, and CNB100 liquid usage and equipment inspections.
   b. The system will be monitored weekly and remaining capacity of CNB100 solution will be recorded. Ecosorb will provide a scheduled delivery of solution based on Commcan's usage. A rough inspection of exterior piping will be provided every 6 months and damage and debris will be recorded. If equipment air/flow rates and/or outdoor odors are out of range maintenance will be initiated.

APPENDICES:

A: AtmosAir 500FC
B: AtmosAir Matterhorn 1002
C: Camfil Activated Carbon Filtration
D: Uvonair CD-12 Odor Eliminator
E: Ecosorb Vapor Phase 2400
F: Ecosorb CNB 100
G: Ecosorb Odor Control System Layout Plans
H: Existing Building Mechanical Plans
I: Proposed Expansion Mechanical Plans

Appendix A: AtmosAir 500FC

PRODUCT SUBMITTAL

AtmosAir 500FC

SPECIFICATIONS;

Air Flow Capacity……..……..……..up to 10,000 CFM
Pressure Drop……..……..……. (see Fig. 1)
Housing Material…….....22 gauge powder-coated steel
Weight…….....18 lbs (8.16 kg.)
Maximum Operation Temperature……..……..... 160° F (71° C)

ELECTRICAL

Voltage…….....110 to 250 VAC
Frequency……..…….....50/60 Hz
Power Consumption…….....52 watts
Current Draw…….....0.230 Amps
Internal Fuse…….....… 0.5 Amp
Field Electrical Connection…..... Nema 5-15 plug or 3 wire to Junction Box

IONIZATION TUBE

Material……..……MultiCore Composite, Stainless Steel
Number……..…….....Five (5)
Size……...**F** size = 22" (558mm)
Tube Life…….....2 Years or 17,600 Hours

DIMENSIONS…….see Figure 2

APPROVALS

Underwriters Laboratories Inc. listed as plenum-rated per UL 1995, 867; file # 313742. Energy Star Certified.

APPLICATION;

The **AtmosAir 500FC** ionization system is intended to be mounted in the supply air duct or air handling system of a heating, cooling or ventilation system. The unit is intended to produce bi-polar ions when airflow is delivered over the ion tubes. Power to the unit can be controlled with an optional air pressure differential switch or interlocked with HVAC fan operation, provided the power delivered to the unit does not exceed it's rated voltage. Ionization intensity can be adjusted with a 5 step knob on the unit. Power to the unit can be turned off at the unit or a quick disconnect at the power cord.

OPTIONAL ACCESSORIES;

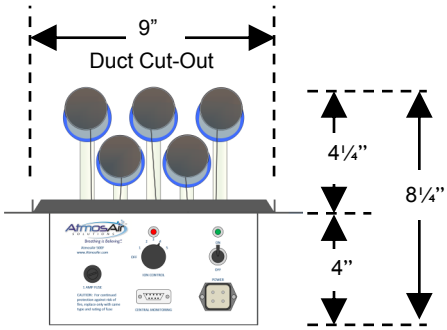
Air Pressure Switch; Mounting Bracket; Timer; Remote Monitoring Panel; Remote Ion Switch and Indicator Light; Remote Indicator light Only. IP66

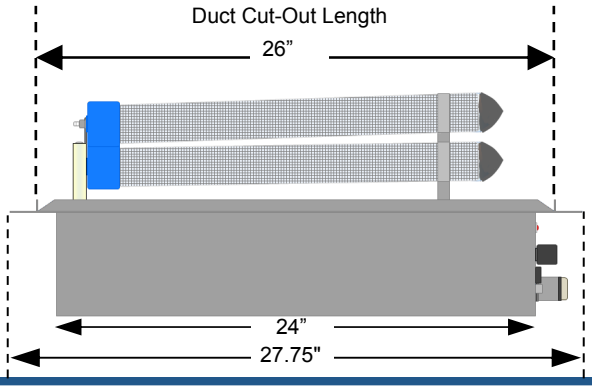
FIGURE 1

	Flowrate (CFM)	Inches WG	Pascal (Pa)
500 FC	8000	0.0080	2.00
	10000	0.0102	2.55

Pressure drop @ 20° C, Density of air = 1.225 kg./m^3

FIGURE 2





AtmosAir Solutions™
CAG-12-18-001

418 Meadow Street, Suite 204 Fairfield, CT 06824
--
2115 E. Cedar Street, Suite 6 Tempe, AZ 85281

Phone: 203-335-3700 (CT) / 480-629-4784 (AZ)
Fax: 203-335-1075
www.AtmosAir.com

Appendix B: AtmosAir Matterhorn 1002

PRODUCT SUBMITTAL

Matterhorn 1002

Application:

The Matterhorn 1002 ionization system is intended to be mounted in the supply duct or air handler of a heating, cooling, or ventilating system. The unit is intended to operate only when air flow is present, thus, power to the ionization unit should be interlocked with fan operation, or controlled via an air pressure switch. The size and number of ionization systems is dependent upon the airflow, size of the space , and severity of the pollution and odors. Ionization can be adjusted with a 5-step knob.

Optional: Air Pressure Switch; Mounting Bracket; Timer; Remote Monitoring Panel

Specifications:

General Product Information	Air Flow Capacity	Up to 5000 CFM
	Pressure Drop	See Figure 1
	Housing Material	Flame-Rated, High Impact ABS (Underwriters Laboratories Inc. pending as plenum-rated per UL 1995, 867; file # 313742. Energy Star Certified.)
	Weight	6.0 lbs
	Max Operation Temp.	200°F (~93°C)
Electrical	Rated Voltage	115 VAC
	Frequency	50/60 Hz
	Power Consumption	6 Watts
	Current Draw	37 mA
	Internal Fuse	1.0 Amp FST Glass 5mm x 20mm
	Field Electrical Connection	Field Electrical Connection; 3-Wire to Jct. Box or Country Specific Cord-Set
Ionization Tube	Material	Mono-Core Composite
	Max Quantity	Two (2)
	Compatible Tube Sizes	C, D, E, & F
	Estimated Tube Life	2 Years or 17,600 Hours
Dimensions	8.75" x 8.5" x 4"	See Figure 2 for more details
Approvals		Underwriters Laboratories Inc. pending as plenum-rated per UL 1995, 867; file # 313742. Energy Star Certified.

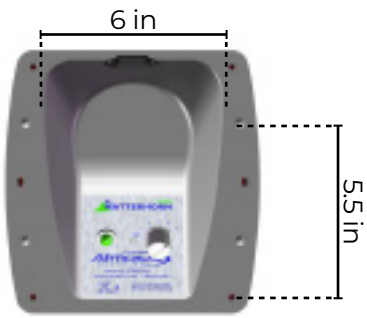
Figure 1

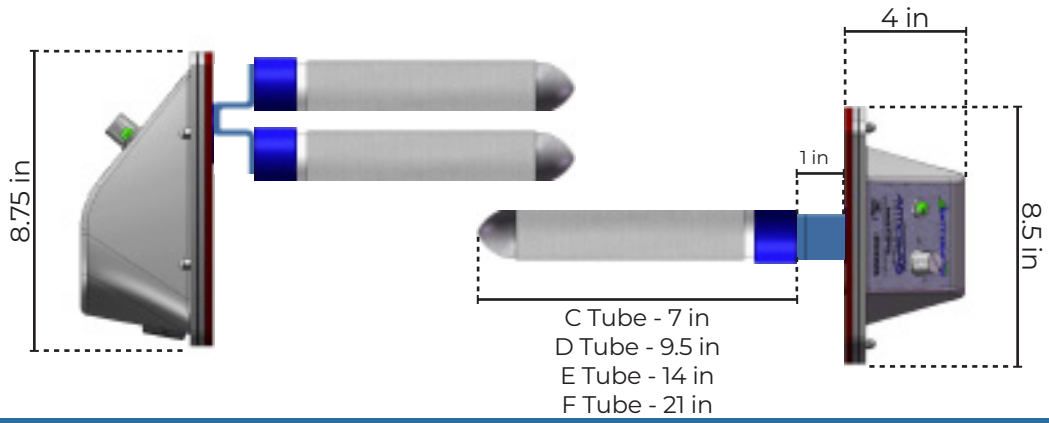
	Tube Type	Tube Number	Flowrate (CFM)	Inches WG	Pascals	Steady State Current (mA)
M - 1002	C	(2)	2000	0.0080	2.00	34.00
	D	(2)	3000	0.0241	6.00	35.00
	E	(2)	4000	0.0482	12.00	35.00
	F	(2)	5000	0.0683	17.00	37.00

Static Pressure Drop was calculated at 1,500 ft/min (7.62 m/s) airflow velocity.

Figure 2

Duct Cut-Out Dimensions





AtmosAir Solutions™
CAG-05-19-001

418 Meadow Street. Suite 204 Fairfield, CT 06824
--
2115 East Cedar Street, Suite 6 Tempe, AZ 85281

Phone: 203-338-3700 (CT) / 203-364-8424 (AZ)
Fax: 203-338-1078
www.AtmosAir.com

Appendix C: CamFil Carbon Filtration

NOMINAL SIZE (inches)	ACTUAL (in.)		ACTUAL (mm)		AIRFLOW CAPACITY (cfm)	CAMFIL MODEL NUMBER	
	H	W	H	W			
12x12x1	11.50	11.50	292	292	350	054862-025	
16x16x1	15.50	15.50	394	394	620	054862-012	
20x10x1	19.50	9.50	495	241	485	054862-016	
20x12x1	19.50	11.50	495	292	585	054862-019	
20x14x1	19.50	13.50	495	343	680	054862-006	
20x15x1	19.50	14.50	495	368	730	054862-008	
20x16x1	19.50	15.50	495	394	780	054862-001	
20x18x1	19.50	17.50	495	445	875	054862-020	
20x20x1	19.50	19.50	495	495	970	054862-002	
20x30x1	19.50	29.50	495	749	1460	054862-029	
22x22x1	21.50	21.50	546	546	1175	054862-021	
24x10x1	23.50	9.50	597	241	585	054862-022	
24x12x1	23.50	11.50	597	292	700	054862-010	
24x14x1	23.50	13.50	597	343	815	054862-026	
24x16x1	23.50	15.50	597	394	935	054862-015	
24x18x1	23.50	17.50	597	445	1050	054862-028	
24x20x1	23.50	19.50	597	495	1165	054862-011	
24x24x1	23.50	23.50	597	597	1400	054862-005	
25x10x1	24.50	9.50	622	241	610	054862-023	
25x12x1	24.50	11.50	622	292	730	054862-024	
25x14x1	24.50	13.50	622	343	850	054862-007	
25x15x1	24.50	14.50	622	368	910	054862-013	
25x16x1	24.50	15.50	622	394	970	054862-004	
25x18x1	24.50	17.50	622	445	1095	054862-017	
25x20x1	24.50	19.50	622	495	1215	054862-003	
25x25x1	24.50	24.50	622	622	1520	054862-014	
12x12x2	11.62	11.62	295	295	500	402314-001	
16x16x2	15.50	15.50	394	394	890	049880-019	
16x25x2	15.50	24.50	394	622	1390	049880-022	
18x18x2	17.50	17.50	445	445	1125	049880-024	
20x10x2	19.50	9.50	495	241	695	049880-008	
20x12x2	19.50	11.50	495	292	835	049880-007	
20x14x2	19.50	13.50	495	343	970	049880-009	
20x15x2	19.50	14.50	495	368	1040	049880-011	
20x16x2	19.50	15.50	495	394	1110	049880-001	
20x18x2	19.50	17.50	495	445	1250	049880-013	
20x20x2	19.50	19.50	495	495	1390	049880-002	
20x24x2	19.50	23.50	495	597	1665	049880-023	
20x25x2	19.50	24.50	495	622	1735	049880-021	
20x30x2	19.50	29.50	495	749	2085	402271-007	
24x12x2	23.38	11.38	594	289	1000	049880-006	4
24x16x2	23.50	15.50	597	394	1335	049880-016	
24x18x2	23.50	17.50	597	445	1500	049880-015	
24x20x2	23.50	19.50	597	495	1665	049880-012	
24x24x2	23.38	23.38	594	594	2000	049880-005	13
25x14x2	24.50	13.50	622	343	1215	049880-010	
25x15x2	24.50	14.50	622	368	1300	049880-020	
25x16x2	24.50	15.50	622	394	1390	049880-004	
25x18x2	24.50	17.50	622	445	1565	049880-014	
25x20x2	24.50	19.50	622	495	1735	049880-003	
25x25x2	24.50	24.50	622	622	2170	049880-018	

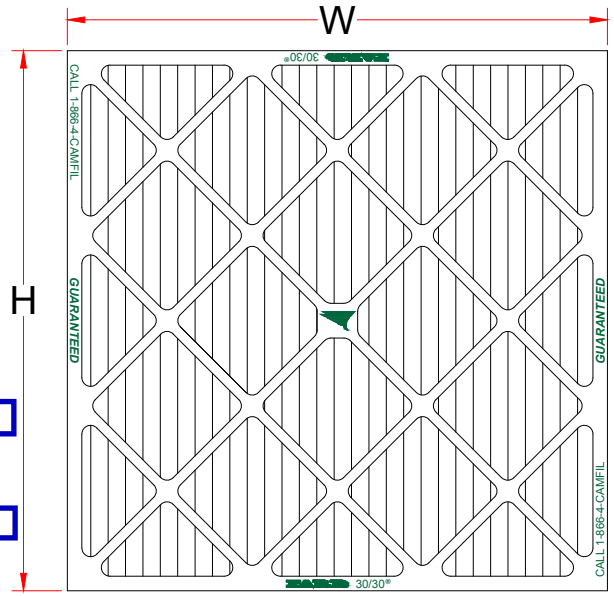
NOMINAL SIZE (inches)	ACTUAL (in.)		ACTUAL (mm)		AIRFLOW CAPACITY (cfm)	CAMFIL MODEL NUMBER
	H	W	H	W		
16x25x4	15.38	24.38	391	619	1390	059413-022
20x16x4	19.38	15.38	492	391	1110	059413-004
20x20x4	19.38	19.38	492	492	1390	059413-003
20x24x4	19.38	23.38	492	594	1665	059413-023
20x25x4	19.38	24.38	492	619	1735	059413-021
24x12x4	23.38	11.38	594	289	1000	059413-002
24x16x4	23.38	15.38	594	391	1335	059413-011
24x18x4	23.38	17.38	594	441	1500	059413-009
24x20x4	23.38	19.38	594	492	1665	059413-008
24x24x4	23.38	23.38	594	594	2000	059413-001
25x16x4	24.38	15.38	619	391	1390	059413-005
25x20x4	24.38	19.38	619	492	1735	059413-006
25x25x4	24.38	24.38	619	619	2170	059413-010
25x29x4	24.38	28.38	619	721	2515	059413-007

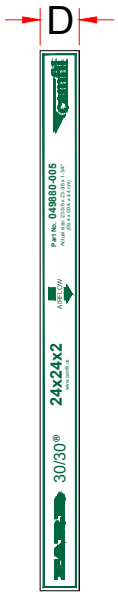
GENERAL NOTES:

1. MEDIUM EFFICIENCY, MERV 8 PANEL PLEATED DISPOSABLE FILTER. EFFICIENCY IS TESTED IN ACCORDANCE WITH ASHRAE 52.2-(LATEST REV). ALSO CLASSIFIED AS MERV-A 8-A PER APPENDIX J OF SAME STANDARD. PER ISO 16890, FILTER MEETS ISO ePM_{10} 50% EFFICIENCY.
2. AVAILABLE SIZES (NOMINAL): SEE TABULATION BLOCK
3. SEE CAMFIL BULLETIN 1002 FOR OTHER FEATURES, CONSTRUCTION, AND PERFORMANCE CHARACTERISTICS.
4. FILTER THICKNESS 'D':
   1" NOMINAL = 0.88" ACTUAL
   2" NOMINAL = 1.75" ACTUAL
   4" NOMINAL = 3.75" ACTUAL
5. FILTER CLASSIFIED AS UL 900.
6. MAX OPERATING TEMP: 200°F (93°C)

PERFORMANCE NOTES:

1. SEE TABULATION BLOCK FOR AIRFLOW CAPACITY.
2. CAMFIL RECOMMENDS FILTER TO BE INSTALLED WITH THE PLEATS RUNNING VERTICALLY, PARALLEL TO HEIGHT DIMENSION.





REV	DATE	DESCRIPTION	EWO	DFT	CK	APP
AA	05/29/19	UPDATED ARTWORK AND SIZE AVAILABILITY	14016-UV	ACS	-	ACS
A	08/15/72	FIRST ISSUE	7680-N	-	-	-

camfil

Camfil USA, Inc. http://www.camfil.com

DESCRIPTION
FARR 30/30 FILTER
0.88, 1.75, & 3.75 THICK
SALES

SHEET 1 OF 1 | DRAWING NUMBER 068766 | REV AA

MFG. DWGS. 054862, 049880, & 059413

TABLE I - STANDARD UNIT AIRFLOW RATING

NO. OF FILTERS WIDE		1	2	3	4	5	6	A
WIDTH INCHES		24.00	48.00	72.00	96.00	120.00	144.00	
NO. OF FILTERS HIGH	HEIGHT INCHES	AIRFLOW CAPACITIES (CFM) AT 500 FPM						
1/2	15.25	1,000	2,000	3,000	4,000	5,000	6,000	3.88
1	27.25	2,000	4,000	6,000	8,000	10,000	12,000	3.88
1-1/2	39.50	3,000	6,000	9,000	12,000	15,000	18,000	4.00
2	51.50	4,000	8,000	12,000	16,000	20,000	24,000	4.00
2-1/2	63.75	5,000	10,000	15,000	20,000	25,000	30,000	4.12
3	75.75	6,000	12,000	18,000	24,000	30,000	36,000	4.12
3-1/2	88.00	7,000	14,000	21,000	28,000	35,000	42,000	4.25
4	100.00	8,000	16,000	24,000	32,000	40,000	48,000	4.25

(4) .5x1

(13) 1x1

TABLE II FILTER OPTIONS

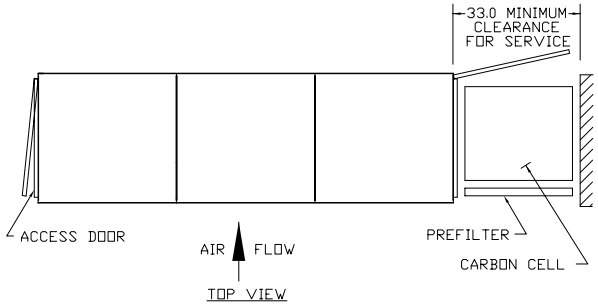
TYPE	DEPTH
30/30 (4")	3.88

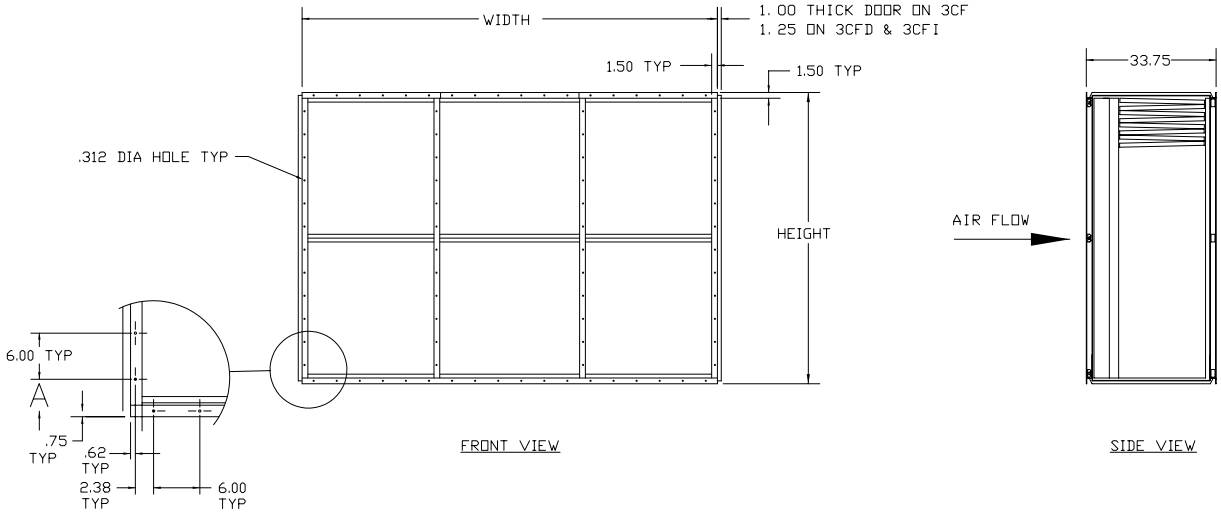
TABLE III G/P HOUSING OPTIONS

OPTION	DESCRIPTION
3CF	STANDARD
3CFD	INSULATED DOORS
3CFI	FULLY INSULATED

TABLE IV MANUFACTURING DRAWINGS

3CF	055348	—	—
3CFD	121143	—	—
3CFI	096121	—	—





GENERAL NOTES:

1. UNIT IS COMPLETELY FACTORY ASSEMBLED. FOR CAPACITY REFER TO TABLE I. FOR APPLICATION REFER TO SALES BULLETIN B-2202-2.
2. STANDARD MATERIAL OF CONSTRUCTION: 16GA GALVANIZED STEEL HOUSING AND 4" PREFILTER TRACK, EXTRUDED ALUMINUM TRACKS FOR CARBON, CELLS, NEOPRENE DOOR GASKET, POLYUREHANE FOAM GASKET (BANKET) FOR CARBON TO DOOR SEALING, PHENOLIC KNOB FOR POSITIVE DOOR SEALING.
3. HOUSING OPTIONS: (SPECIAL PRICING AND PART NUMBERS REQUIRED).
   A. 16GA 304 OR 316 STAINLESS STEEL HOUSING AND TRACKS
   B. PRIMED ONLY (OR PRIMED AND PAINTED) INSIDE, OUTSIDE OR BOTH.
   C. FIVE (5) FILTERS HIGH MAXIMUM AS ONE PIECE CONSTRUCTION.
   D. PRESSURE TAP AND FITTING (SEE DWG 094805)
   E. OTHER SPECIAL OPTIONS REQUIRE CAMFIL FARR ENGINEERING CONSULATION.
   F. SEE TABLE II FOR FILTER OPTIONS. FILTERS ARE NOT INCLUDED WITH HOUSING, ORDER SEPARATELY.
   G. HALF FILTER WIDTH INCREMENTS ARE NOT AVAILABLE IN CARBON FILTERS FOR G/P 3CF SERIES.
4. ORDERING INFORMATION: SPECIFY MODEL, SIZE AND TYPE OF CARBON FILTER. EXAMPLE.

   GLIDE/PACK 3CF 2x4
   (G/P 3CFD 2x4
   - 2x4: FILTERS HIGH X WIDE
   - 3CFD: OPTION, INSULATED DOORS
   - G/P: GLIDE/PACK

PERFORMANCE NOTES:

1. STANDARD HOUSING OPERATING PRESSURE TO +/- 6" W.G. WITH LESS THAN 0.5% LEAKAGE INTO HOUSING FRAME AT 2,000 CFM FOR 1X1 UNIT.
2. OPERATING TEMPERATURE 140°F CONTINUOUS. MEETS NFPA 90A AND TESTED PER ASTM-E84 TESTED PER ASTM-E84.
3. INSULATION ON INSULATED UNITS IS 1" THICK AND IS RATED AT 0.25-0.30 "K" FACTOR
4. EACH UNIT CONTAINS 1.42 CUBIC FEET OF CARBON PER 1,000 CFM WITH ABSORBENT RESIDENCE OF LESS OR EQUAL TO 0.10 CFM PER SECOND.

MFG. DWGS. (SEE TABLE IV)

REV	DATE	DESCRIPTION	EWO	DFT	CK	APP
J	02/11/02	REVISED PER SALES	14955-D	JWC	CAM	Cesar
A	01/04/74	FIRST ISSUE	7270-C	GT	PCI	PZ

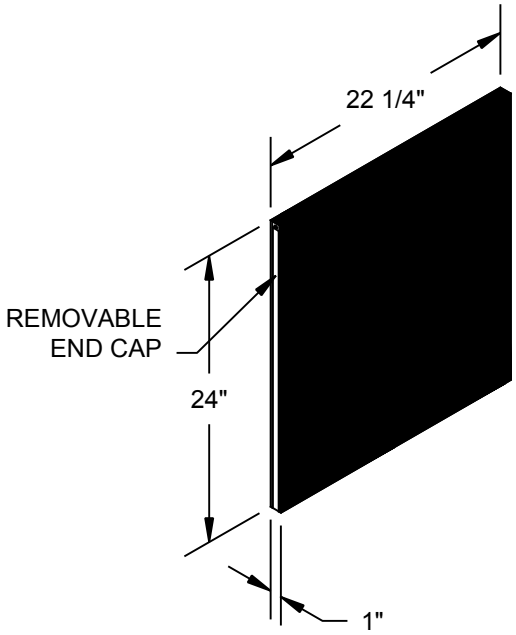
camfil FARR

© Camfil Farr http://www.camfilfarr.com

DESCRIPTION
GLIDE/PACK 3CF, 3CFD & 3CFI
1/2 THRU 4 HIGH

SHEET	DRAWING NUMBER	REV
1 OF 1	055326	J

✓	DESCRIPTION	PART NUMBER	MATERIAL	MEDIA TYPE
	CC-PG-CP48	M29000008	POLYSTYRENE	CP48
	CC-PG-CP98	M29000004	POLYSTYRENE	CP98
	CC-PG-CP4	M29000011	POLYSTYRENE	CP4
	CC-PG-CP9	M29000003	POLYSTYRENE	CP9
180	CC-PG-LGX048	M29000014	POLYSTYRENE	LGX048
	CC-PG-LGX048A3	M29000015	POLYSTYRENE	LGX048A3
	CC-PM-CP48	M29000039	POWDER-COATED STEEL	CP48
	CC-PM-CP98	M29000037	POWDER-COATED STEEL	CP98
	CC-PM-CP4	M29000042	POWDER-COATED STEEL	CP4
	CC-PM-CP9	M29000036	POWDER-COATED STEEL	CP9
	CC-PM-LGX048	M29000045	POWDER-COATED STEEL	LGX048
	CC-PM-LGX048A3	M29000035	POWDER-COATED STEEL	LGX048A3



Notes:
Twelve-panel installation in a 24" x 24" opening at 2,000 CFM or six-panel installation in a 12" x24" opening at 1,000 CFM, provides a nominal residence time of 0.09 seconds.

Pressure drop shall not exceed 0.34" W.G. at a velocity of 500 FPM.

Temperature range: 35°F/(2°C) to 155°F/(68°C)

Specificiations:
High-impact resistant polystyrene or powder-coated steel, with a removable end cap.

Media shall be loose-fill.

Media Type:
CP48: Blended activated carbon and activated alumina impregnated with 4% potassium permanganate

CP98: Blended activated carbon and activated alumina impregnated with 6% potassium permanganate

CP4: Activated alumina impregnated with 4% potassium permanganate

CP9: Activated alumina impregnated with 6% potassium permanganate

LGX048: Activated carbon

LGX048A3: Impregnated carbon for corrosive and acid gases

CUSTOMER APPROVAL BLOCK

YOUR APPROVAL OF THIS PRINT AUTHORIZES CAMFIL TO PROCEED WITH MATERIAL PROCUREMENT, TOOLING AND PRODUCT FABRICATION. ANY CHANGES MADE AFTER APPROVAL MAY INCUR FURTHER EXPENSES TO THE CUSTOMER

☐ OK AS IS ☐ OK WITH REVISIONS ☐ SEND REVISED DWG.

SIGNATURE/DATE

© Camfil http://www.camfil.us

DESCRIPTION
CamCarb PG/PM
1" Panel

APPROVED BY:	DATE:	DRAWN BY:	DATE:	SHEET	DRAWING NUMBER	REV.
		TLC	10/8/15	1 of 1	M29 CC-PG/PM	A

Appendix D: UVonair CD-12 Odor Eliminator

uvonair® CD

odor eliminator
éliminateur d'odeurs
eliminador de olores

In Duct Ozone System
Système d'ozone en conduit
Sistema de ozono en conducto

#CD-1200

12'' / 12 po 30 cm
100 000 cu.ft/ pi3/pies3
3000 m3

MAINTENANCE FREE
AUCUN ENTRETIEN
NO NECESITA MANTENIMIENTO

ADJUSTABLE OUTPUT
SORTIE ENTIÈREMENT RÉGLABLE
POTENCIA TOTALMENTE REGULABLE

#CD-1000-2

10'' / 10 po 25cm
40 000 cu.ft./ pi3/pies3 1200m3

ADJUSTABLE: (HIGH/LOW/OFF)
RÉGLABLE (HAUT/BAS/ ARRÊT)
REGULABLE (ALTO/BAJO/ APAGADO)

#CD-1000-1

10'' / 10po 25cm
20 000 cu.ft./ pi3/pies3 600m3

#CD-800

8'' / 8 po 20cm)
20 000 cu.ft./ pi3/pies3 600m3

ADAPTABLE TO OTHER VENT SIZES
S'ADAPTE À D'AUTRES GRANDEURS D'ÉVENTS*
SE ADAPTA A OTROS TAMAÑOS DE CONDUCTOS DE VENTILACIÓN.*

ADJUSTABLE: (HIGH/LOW/OFF)
RÉGLABLE (HAUT/BAS/ ARRÊT)
REGULABLE (ALTO/BAJO/ APAGADO)

OZONE BY CORONA DISCHARGE

Ozone safely alters the molecular structure of offensive micro-organisms, to eliminate odors. It also kills mould, mildew and bacteria.

Uvonair CD Corona Discharge generators are capable of producing more ozone than any other generator known at this time. They will treat virtually all odors being exhausted if appropriately sized to the room being vented. The duct size and recommended room cubic space limit is indicated under each model number. Establish the need to set the output on high or low by monitoring the exhaust air for odors. Uvonair CD generators can be installed into other duct sizes by using adapters.

Made in Canada
Fabriqué au Canada par :
Hecho en Canada por:

361 Rowntree Dairy Road, Unit 4,
Woodbridge, Ontario, Canada L4L 8H1
1-800-765 2098
www.uvonair.com
info@uvonair.com

OZONE DÉCHARGÉ PAR EFFET DE COURONNE

L'ozone modifie en toute sécurité la structure moléculaire des micro-organismes offensants pour éliminer les odeurs. Il tue également les moisissures et les bactéries.

Les générateurs à décharge par effet de couronne Uvonair CD ont une capacité de production d'ozone supérieure à tout autre générateur connu à l'heure actuelle. Ces appareils traiteront presque toutes les odeurs qui peuvent se dégager à condition qu'ils soient dimensionnés de façon appropriée pour la pièce ventilée. Les dimensions des conduits et le volume maximal conseillé de la pièce sont indiqués pour chaque numéro de modèle. Déterminez s'il est nécessaire de régler la production d'ozone à un niveau élevé ou bas en contrôlant l'air évacué afin d'y déceler toute présence d'odeurs. Les générateurs Uvonair CD peuvent être installés sur des conduits de dimensions différentes au moyen d'adaptateurs.

OZONO EN DESCARGA EN CORONA

El eliminador de olores de Uvonair genera ozono, que es uno de los agentes oxidantes más efectivos que hay en la naturaleza. El ozono altera de manera segura la estructura molecular de los microorganismos para neutralizar el olor. También mata el moho, hongos y bacterias.

Los generadores por descarga en corona Uvonair CD son capaces de producir más ozono que cualquier otro generador conocido en la actualidad. Pueden tratar prácticamente todos los olores emanados si tienen la capacidad adecuada para las habitaciones en donde se instalan. Debajo del número de cada modelo, se indica el tamaño del conducto y el límite recomendado del espacio cúbico de la habitación. Decida si en necesario fijar la salida en nivel alto o bajo, controlando la presencia de olores en el aire de escape. Los generadores Uvonair CD se pueden instalar en conductos de otros tamaños usando adaptadores.

odor eliminator
éliminateur d'odeurs
eliminador de olores

Printed in Canada /Imprimé au Canada /Impreso en Canadá

Appendix E: Ecosorb Vapor Phase 2400

ECOSORB®
Natural Industrial Odor Solutions

Vapor Phase 600, 1200 & 2400

A Simple, Efficient, and Economical Delivery System for Ecosorb Odor Neutralizer

Model 600

APPLICATIONS

- Petrochemical Plants
- Foundries
- Food Processors
- Wastewater Treatment
- Agriculture
- Landfills
- Pulp & Paper
- Soil Remediation
- And More

For large indoor or outdoor areas, the 600 and 1200 Vapor Phase units were designed to control the toughest industrial odors. Each unit is customizable with optional features to meet any application, including the ability to pair with an Ecosorb® 55 gallon drum or 275 gallon tote. Both models are capable of integrating with a color touch screen Programmable Logic Controller (PLC) for increased output control and monitoring.

BENEFITS

- No added water required
- Simple to install, operate & maintain
- Smaller droplets, more absorption
- Flexible & efficient
- Reduced capital expense
- Requires no mixing or dilution
- Zero nozzle maintenance in the distribution system

	Model 600, 1200, 2400 (Conventional)	Model 600, 1200, 2400 (PLC Controls)
	Technical	
Framing	Open	Open with corner protectors
Power	600: 480V/3 Phase/60Hz/8 Amps 1200: 480V/3 Phase/60Hz/10 Amps 2400: 480V/3 Phase/60Hz/18 Amps	Same as Non-PLC
Dimensions	73” x 50” x 65”; 810lbs	56” x 60” x 79”; 925lbs
Blower	600: 5Hp; 1200: 7.5Hp; 2400: 15Hp	Same as Non-PLC
Blower Specs	600 CFM @ 19 IWG Static Pressure 1200 CFM @ 21 IWG Static Pressure 2400 CFM @ 21 IWG Static Pressure	Same as Non-PLC
Blower Outlet Size	600: 6”; 1200: 8”; 2400: 10”	Same as Non-PLC
	Features	
Controls	Conventional	Allen Bradley PLC w/ 7in color HMI touch screen
Product Capacity	55 gal (Drum) or 275 gal (Tote)	Same as Non-PLC
Liquid Delivery	600: 0.1 - 6 GPD; 1200: 0.1 - 12 GPD; 2400: 0.1 - 24 GPD	600: 1.5 - 6 GPD; 1200: 2.0 - 12 GPD; 2400: 2.0 - 24 GPD
Low Liquid Level	Monitoring + Shut off + Alert	Monitoring + Shut off + Alert
Priming	Push to prime	Auto prime
Intake	Filtered	Filtered + Clean Indicator
Monitoring	-	• Air & Liquid Pressure • Motor Current & Overload • Liquid Flow • Running Time & Liquid Usage
	Options	
Timer	Multi-Event	Included
Extendable Intake	Side, Back, or Front	Side, Back, or Front
Discharge Outlet Orientation	Rear Horizontal or Vertical	Rear Horizontal or Vertical
SCADA Remote Monitoring		✓
Alternate Voltage	✓	✓
Wind Direction Optimization	✓	✓
Plant Air Setup	✓	✓
High Pressure Static Version	✓	✓
Blower Motor Soft Start	✓	✓
Freeze Protection Package	✓	✓
Explosion Proof Package	✓	
Alternate Blower/Motor Size	✓	✓
Valve Control		✓
Air Flow Indicator		✓

			Static Pressure (IWG)				Single Branch		2 Equal Branches	
Unit Model	Product Uptake (Max)	Actual Airflow Max (CFM) @FLA	@Rated CFM	@FLA	Unit Blower Outlet Pipe Size(in.)	Duct Pipe Dia. (in.)	Pressure Loss/ 100ft (IWG)*	Max. Duct Length (ft.)	Pressure Loss/ 100ft (IWG)*	Max Duct Length (Ft) [TOTAL LENGTH]
2400	24 GPD	2700	15.0	10.0	10	8	12.0	200	4.0	1100
						10	4.0	550	1.3	3385
						12	1.5	1500	0.50	8800
1200	12 GPD	1650	20.6	18.9	8	6	13.0	150	5.0	750
						8	4.0	500	1.2	3200
						10	1.3	1500	0.35	10000
600	6 GPD	1080	17.6	15.6	6	6	7.0	250	1.8	1725
						8	1.5	1000	0.45	6900
						10	0.5	4000	0.14	15000

Appendix F: Ecosorb CNB 100

Ecosorb® CNB 100

Technical Data Sheet

Ecosorb® CNB 100 is an odor neutralizer designed specifically for the control of cannabis odors. It was designed to remove the odorous chemicals that are produced when growing cannabis. Ecosorb CNB 100 is effective on the main groups of odor causing chemical compounds found in cannabis including but not limited to the cannabinoids, terpenes and sesquiterpenes groups.

Ecosorb CNB 100 can be diluted with water or used neat depending on the application and delivery equipment. Dilution with water ranges from roughly 1 part in 10 of water to 1 part in 100 of water, depending on the type of delivery system and odor intensity. This product is a blend of plant oils, food grade surfactant and purified water.

Ecosorb CNB 100 should never be applied in a manner that would allow it to come in direct contact with the cannabis plant, water or soil.

FEATURES

- True odor neutralizer
- Biodegradable and non-toxic
- Environmentally friendly
- No measurable flash point
- Scientifically proven

ADVANTAGES

- No masking of odors
- Usually no permits required
- Safe for employees and neighbors
- Safe for all environments
- It performs as advertised

PHYSICAL PROPERTIES

pH:	~6.0
Specific Gravity:	~0.99
Boiling point:	~208°F
Appearance:	milky white
Odor:	slight citrus

HMIS CLASSIFICATION

Health: 0

Flammability: 0

Reactivity: 0

Protective Equipment: B

**Ecosorb® is a trademark of OMI Industries.*

ALL INGREDIENTS CAN BE FOUND LISTED ON THE FOLLOWING CHEMICAL SUBSTANCE INVENTORIES:

United States: TSCA	South Korea: ECL and KECI
Canadian: DSL	China: IECSC
European: EINECS	Japan: ENCS
Australian: AICS	New Zeland: NZIoC

REGULATORY

- Ecosorb CNB 100 is non-hazardous by OSHA Hazard Communication Standard 29 CFR 1910.1200
- This product does NOT contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.
- Not subject to reporting requirements of the United States SARA Section 313.
- Uncontrolled product according to WHMIS classification criteria.

HANDLING AND PACKAGING

Ecosorb CNB 100 is shipped in HDPE containers. It is recommended to store the product in the original container. The product should be stored in a well-ventilated place, in a cool area, out of direct sunlight and tightly sealed. Store the product above 35°F and below 85°F. Allowing the product to freeze is especially damaging and will disrupt the emulsion. Extended exposure to higher temperatures may cause separation. Ecosorb CNB 100 is incompatible with oxidizing agents and strong acids. This product does not burn. Always shake or mix before using.

DISPOSAL AND CLEANUP

Wash with water or soap and water. The product is not hazardous to humans, animals, or the environment. Dispose of in accordance to local, regional, national and/or international regulations.

CONTAINERS

Ecosorb® CNB 100 is available in the following sizes:
5 Gallon Pails
55 Gallon Drums
275 Gallon Containers

Ecosorb® ***Remarkably effective. Surprisingly simple.***

OMI INDUSTRIES
One Corporate Drive, Suite 100
Long Grove, IL 60047, USA
Phone: 800.662.6367 Fax: 847.304.0989
www.omi-ecosorb.com

**Ecosorb® is a trademark of OMI Industries.*

Appendix G: Ecosorb Odor Control System Layout Plans

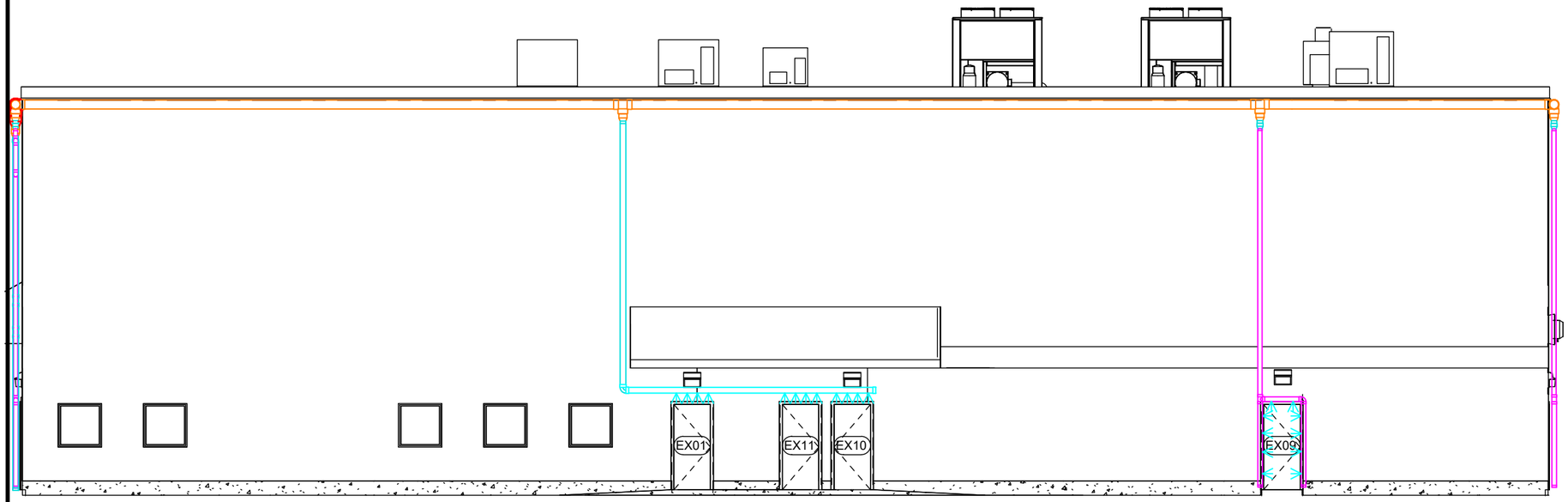
CSL220006 : COMMCAN CANNABIS FACILITY (MA) ODOR CONTROL SYSTEMS LAYOUT
CUSTOMER SYSTEM LAYOUT [COMMCAN CANNABIS FACILITY (MA)]

COMMCAN
ODOR CONTROL SYSTEMS & PIPING LAYOUT

REV	REVISION CHANGE DESCRIPTION	ECN	CHG BY	APPROVED BY	APPROVED DATE
1	ADDED VAPOR PIPE FOR EXPANSION		NMS	RJM	10/03/22
2	ADDED DROPDOWN FOR EXPANSION LOUVER		BTM	RJM	10/07/22

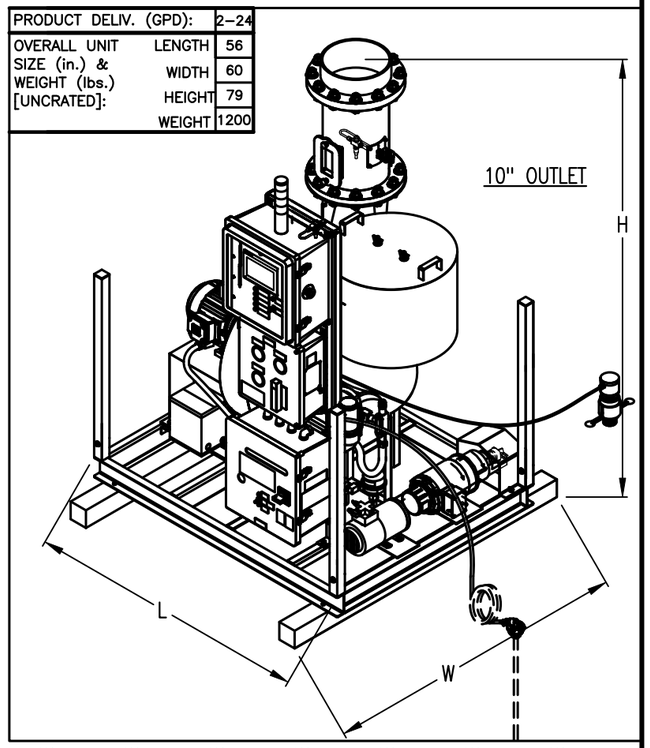
UNIT: [A6124AAAAAVD00] –2400 CFM VAPOR PHASE SYS.,PLC CONTROLS

PRODUCT DELIV. (GPD):		2–24
OVERALL UNIT SIZE (in.) & WEIGHT (lbs.) [UNCRATED]:	LENGTH	56
	WIDTH	60
	HEIGHT	79
	WEIGHT	1200

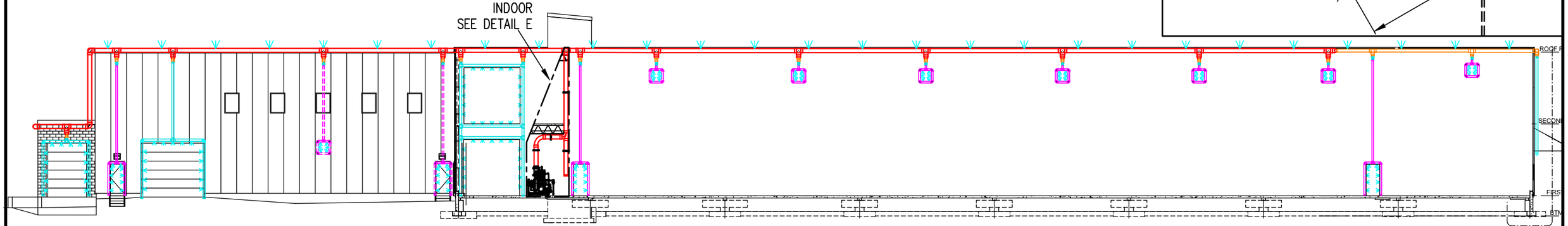


(A) EAST ELEVATION

DETAIL A:
EAST ELEVATION [3/32 = 1' 0"]



INDOOR
SEE DETAIL E



DETAIL B:
SOUTH ELEVATION [3/64 = 1' 0"]

MATERIAL LIST:

NOTE: THE AMOUNT OF DUCTING AND FITTINGS IS SUBJECT TO CHANGE. THE FOLLOWING VALUES ARE ESTIMATES.

DUCTING:
- 10": ~ 690FT.
- 8": ~ 300FT.
- 6": ~ 270FT.
- 4": ~ 470FT.

FITTINGS:
- 10" 90–DEGREE SWEEPING ELBOW: 1
- 10" 90–DEGREE ELBOW: 3
- 10" SANITARY TEE: 1
- 10" TEE: 20
- 10"–8" ADAPTER: 19
- 8" 90–DEGREE ELBOW: 2
- 8" TEE: 9
- 8"–6" ADAPTER: 26
- 6" 90–DEGREE ELBOW: 6
- 6" TEE: 10
- 6"–4" ADAPTER: 25
- 4" 90–DEGREE ELBOW: 70
- 4" TEE: 23
- BALL VALVE: 1

2

2

SECURE ALL PIPE TO WALLS & CEILING
PAINT EXTERIOR PIPE WITH WATER BASED LATEX ACCORDING TO CUSTOMER'S PREFERENCE.

VAPOR PIPE LEGEND
10" PVC
8" PVC
6" PVC
4" PVC

UNLESS OTHERWISE NOTED

TOLERANCES	
1 PLACE DIM.	±0.30in
2 PLACE DIM.	±0.010in
3 PLACE DIM.	±0.005in
FRACTIONAL DIM.	±1/8 in
ANGLES	± 0°–30'

FINISH SYMBOLS
16 POLISH, 32 GRIND, 63 FINE MACHINE, 125 SEMI–FINE, 250 MEDIUM, 500 ROUGH

MATERIAL: –

FINISH/COLOR: –

OTHER:

THIS DRAWING IS THE PROPERTY OF AND CONTAINS CONFIDENTIAL INFORMATION PROPRIETARY TO OMI INDUSTRIES. IT IS TO BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS PROVIDED. IT IS NOT TO BE DISCLOSED TO OTHERS AND IS SUBJECT TO RETURN ON DEMAND.

DWG SIZE: B
PROJECT: 3rd ANGLE PROJECT.

OMI INDUSTRIES

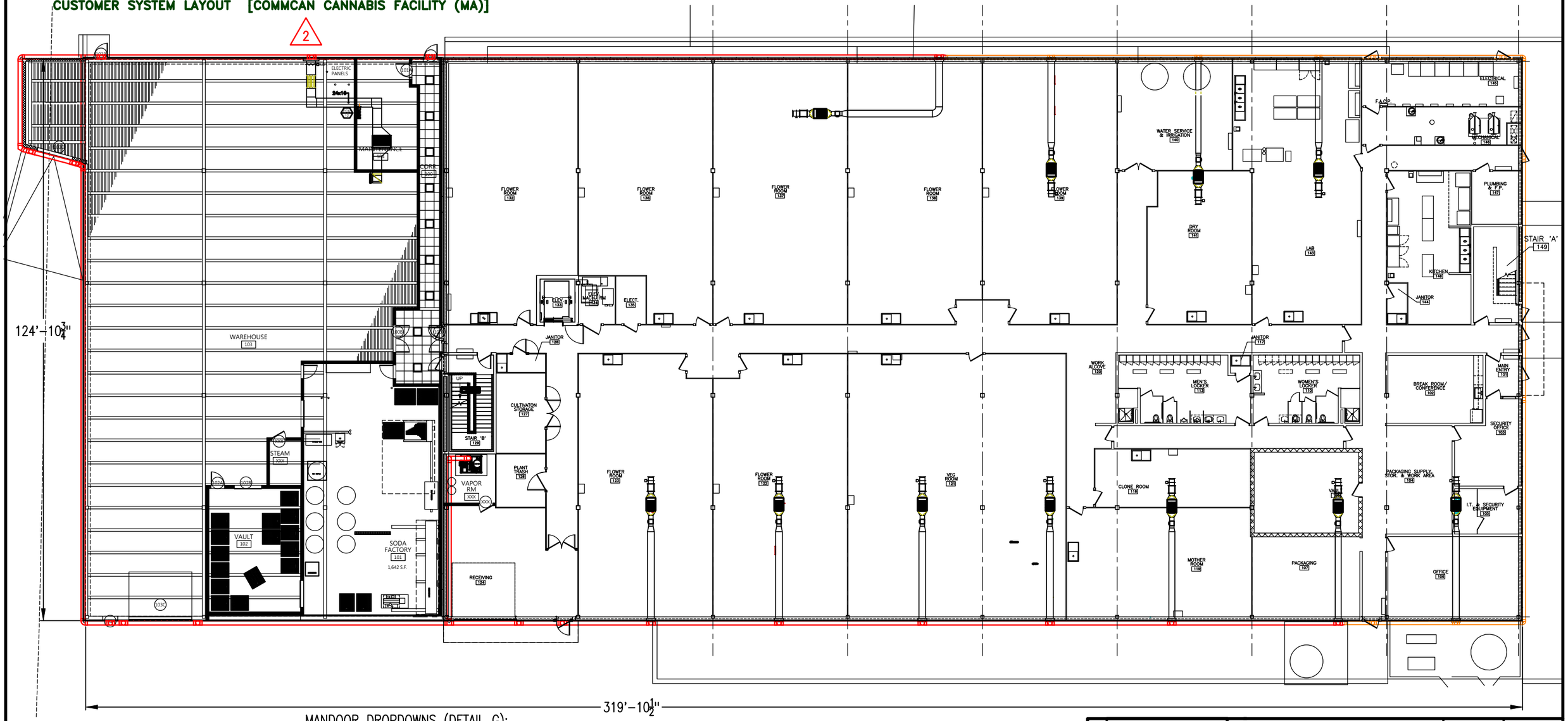
1ST USAGE:
DWN BY: BTM
APRD BY: RJM
DATE: 3/31/2022

ITEM NAME: COMMCAN CANNABIS FACILITY (MA)
DWG DESCRIPTION: CUSTOMER SYSTEM LAYOUT [COMMCAN (MA)]

UNITS	ELECTRONIC FILENAME	SHEET	REV.
FEET	CSL220006_R2	SHEET 1 of 3	2
SCALE	ITEM NUMBER	DRAWING NUMBER	
N.T.S.	CSL220006	CSL220006	

REV	REVISION CHANGE DESCRIPTION	ECN	CHG BY	APPROVED BY	DATE

CSL220006 : COMMCAN CANNABIS FACILITY (MA) ODOR CONTROL SYSTEMS LAYOUT
CUSTOMER SYSTEM LAYOUT [COMMCAN CANNABIS FACILITY (MA)]



DETAIL C:
LAYOUT TOP VIEW

PORT INFORMATION:

NOTE: SPACING OF PORTS ARE APPROXIMATE.

PORT DISTRIBUTION:
- AMOUNT: 253
- DIAMETER: 3/8IN
- SPACING: 10FT (AROUND PERIMETER)
- PORT AREA: 28.4IN²

PORT DISTRIBUTION FOR VAPOR RINGS AND DOORS ARE SHOWN IN DETAILS.

VAPOR RINGS (DETAIL D & F):
- TOTAL: 84 PORTS
- EACH: 6 PORTS
- % VOLUME: 31%

MANDOOR DROPDOWNS (DETAIL G):
- TOTAL: 54 PORTS
- EACH: 6 PORTS
- % VOLUME: 21%

FRONT DOORS (DETAIL I):
- TOTAL: 9 PORTS (7/16IN DIAMETER)
- EACH: 3 PORTS
- % VOLUME: 3.6%

GARAGE DOORS (DETAIL H):
- TOTAL: 34 PORTS
- EACH: 3 PORTS PER SIDE
- %VOLUME: 13%

PERIMETER (DETAIL C)
- TOTAL: 78
- % VOLUME: 31%

VAPOR PIPE LEGEND
10" PVC
8" PVC
6" PVC
4" PVC

UNLESS OTHERWISE NOTED

TOLERANCES	
1 PLACE DIM.	±0.30in
2 PLACE DIM.	±0.010in
3 PLACE DIM.	±0.005in
FRACTIONAL DIM.	±1/8 in
ANGLES	± 0°-30'

FINISH SYMBOLS
- 16 POLISH
- 32 GRIND
- 63 FINE MACHINE
- 125 SEMI-FINE
- 250 MEDIUM
- 500 ROUGH

MATERIAL: –

FINISH/COLOR: –

OTHER:

THIS DRAWING IS THE PROPERTY OF AND CONTAINS CONFIDENTIAL INFORMATION PROPRIETARY TO OMI INDUSTRIES. IT IS TO BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS PROVIDED. IT IS NOT TO BE DISCLOSED TO OTHERS AND IS SUBJECT TO RETURN ON DEMAND.

DWG SIZE	PROJECT.
B	3rd ANGLE PROJECT.

OMI INDUSTRIES

1ST USAGE	DWN BY
	BTM

ITEM NAME	APRD BY
COMMCAN CANNABIS FACILITY (MA)	RJM

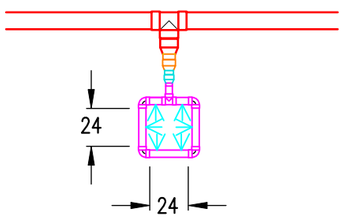
DWG DESCRIPTION	DATE
CUSTOMER SYSTEM LAYOUT [COMMCAN (MA)]	3/31/2022

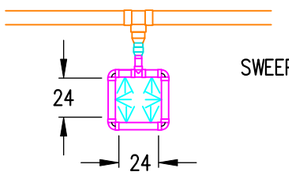
UNITS	ELECTRONIC FILENAME	SHEET	REV.
FEET	CSL220006_R2	SHEET 2 of 3	2

SCALE	ITEM NUMBER	DRAWING NUMBER
3/64 = 1'	CSL220006	CSL220006

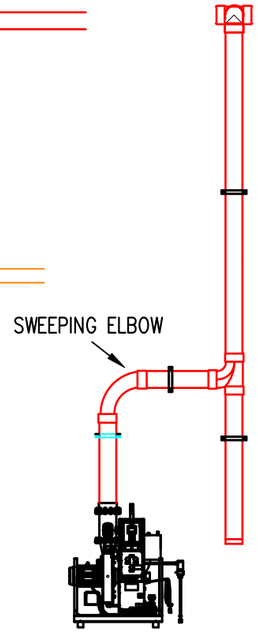
CSL220006 : COMMCAN CANNABIS FACILITY (MA) ODOR CONTROL SYSTEMS LAYOUT
CUSTOMER SYSTEM LAYOUT [COMMCAN CANNABIS FACILITY (MA)]

REV	REVISION CHANGE DESCRIPTION	ECN	CHG BY	APPROVED BY	DATE

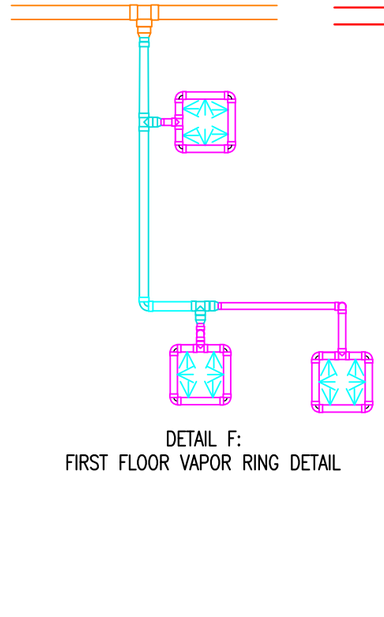




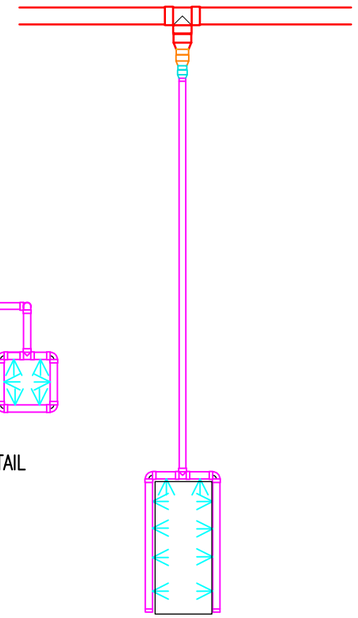
DETAIL D:
VAPOR RING DETAILS



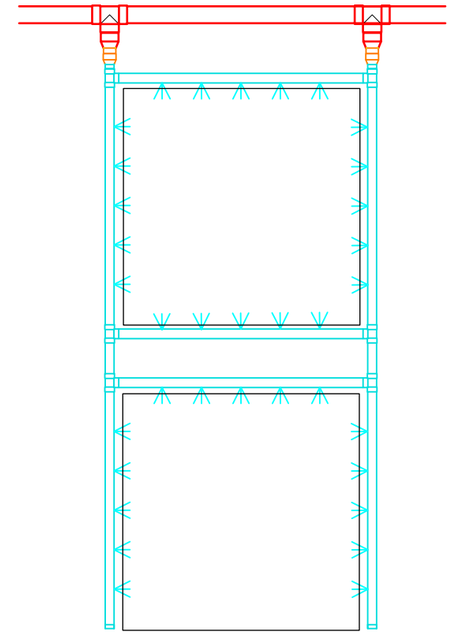
DETAIL E:
VERTICAL DRAINAGE DETAIL



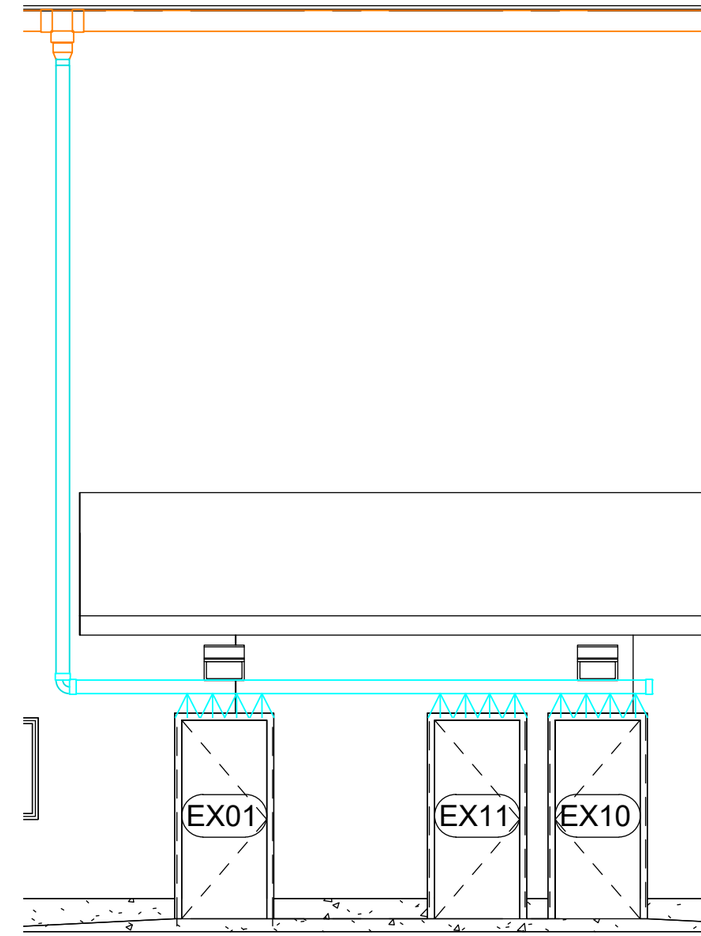
DETAIL F:
FIRST FLOOR VAPOR RING DETAIL



DETAIL G:
DOOR DROP DOWN DETAIL



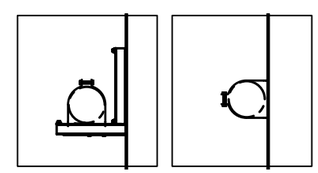
DETAIL H:
GARAGE DOOR DROP DOWN DETAIL



DETAIL I:
FRONT DOOR DROP DOWN DETAIL

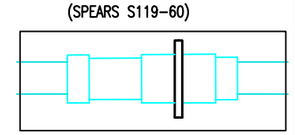
DRAINAGE CONFIGURATION:
AT APPROX. 6–8FT ABOVE THE UNIT TURN USING A SWEEPING 90 ELBOW INTO A SANITARY TEE DIRECTED UPWARD. RUN A DRAINAGE PIPE DOWN FROM THE SANITARY TEE AND AT THE BOTTOM OF THE PIPE INSTALL A BALL VALVE. FROM THE TOP OF THE VALVE RUN UPWARD TOWARD THE TEE WHICH CONNECTS TO THE LOOP AROUND THE ROOF PERIMETER. SEE VERTICAL DRAINAGE DETAIL

INSTALLATION NOTES:
A. THE UNIT MUST BE PLACED ON A LEVEL CONCRETE SURFACE WITH PROTECTION FROM RAINFALL.
B. PVC DUCTING WILL WRAP AROUND THE ROOF LINE.
C. THE DUCTING, PVC SCH40 (DWV OR BETTER) PIPING, SHALL BE CONNECTED TO THE VAPOR SYSTEM AND ROUTED APPROXIMATELY 890' AROUND THE BUILDING.
*OMI RECOMMENDS PIPE TO BE PAINTED WITH A WATER–BASED LIGHT COLORED PAINT FOR UV PROTECTION,
INITIAL PIPING FROM NOZZLE MUST ELBOW SWEEP AND FALLOUT COLLECTION
D. ALL ABOVE GROUND PIPE JOINTS CAN BE GLUED OR FASTENED WITH A MINIMUN OF (3) 1/4" SELF–TAPPING SCREWS. *ALL BURIED PIPE JOINTS MUST BE GLUED WATER TIGHT.
E. ALL PIPE MUST BE SECURED TO THE BUILDING WITH UNISTRUT OR PIPE CLAMPS. STAINLESS STEEL HARDWARE IS PREFERRED.



EXAMPLES OF
PIPE MOUNTING
(~EVERY 10Ft.)

TO ALLOW FOR THERMAL EXPANSION/CONTRACTION OMI RECOMMENDS PISTON TYPE EXPANSION JOINTS (SPEARS S119–60)



SECURE EXPANSION
JOINT AS SHOWN

VAPOR PIPE LEGEND
10" PVC
8" PVC
6" PVC
4" PVC

UNLESS OTHERWISE NOTED

TOLERANCES	
1 PLACE DIM.	±0.30in
2 PLACE DIM.	±0.010in
3 PLACE DIM.	±0.005in
FRACTIONAL DIM.	±1/8 in
ANGLES	± 0°–30'

FINISH SYMBOLS	
16 POLISH	250 MEDIUM
32 GRIND	500 ROUGH
63 FINE MACHINE	
125 SEMI–FINE	

MATERIAL: –

FINISH/COLOR: –

OTHER:

THIS DRAWING IS THE PROPERTY OF AND CONTAINS CONFIDENTIAL INFORMATION PROPRIETARY TO OMI INDUSTRIES. IT IS TO BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS PROVIDED. IT IS NOT TO BE DISCLOSED TO OTHERS AND IS SUBJECT TO RETURN ON DEMAND.

DWG SIZE: B

PROJECT: 3rd ANGLE PROJECT.

OMI INDUSTRIES

1ST USAGE:

DWN BY: BTM

ITEM NAME: COMMCAN CANNABIS FACILITY (MA)

APRD BY: RJM

DWG DESCRIPTION: CUSTOMER SYSTEM LAYOUT [COMMCAN (MA)]

DATE: 3/31/2022

UNITS	ELECTRONIC FILENAME	SHEET	REV.
FEET	CSL220006_R2	SHEET 3 of 3	2
SCALE	**ITEM NUMBER**	**DRAWING NUMBER**	
N.T.S.	CSL220006	CSL220006	

Appendix H: Existing Building Mechanical Plans

GENERAL:

The Work covered by this Section of the Specifications (the "Project") consists of providing all labor, equipment, appliances and materials, and in performing all operations in connection with the installation of the new heating, air conditioning and ventilation systems in the project.

Installation of the systems shall conform to the requirements of the Massachusetts State Building Code Ninth Edition, National Electric Code, International Energy Conservation Code, NFPA, all aplicable codes and laws of the city of Medway and other agencies having jurisdiction, SMACNA HVAC Duct Construction Standards, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the American Conference of Governmental Industrial Hygienists.

Scope of Work shall include labor, premium time, materials, tools, equipment, transportation, scaffolding, hoisting and rigging, etc. to perform the work as herein specified for a complete installation.

Intent: It is the intention of these specifications and drawings to require the equipment to be furnished complete in every respect, and this contractor shall furnish all equipment needed and usually furnished in connections with such systems. Equipment, materials and articles incorporated in the work shall be new and in the best grade of their respective kinds for the type of work involved.

Quality Assurance: Comply with all applicable federal and state laws and all local codes, by-laws and ordinances. Where provisions of the Contract Documents conflict with any codes, rules and regulations, the latter shall govern. Where the contract requirements are in excess of applicable codes, rules and regulations, the contract provisions shall govern unless the Engineer rules otherwise. Request inspections from authorities having jurisdiction, obtain all permits and pay for all fees and inspection certificates as applicable and/or required. All permits and certificates shall be turned over to the owners at the completion of the work.

Guarantee/Warranty: The HVAC Contractor shall submit manufacturer's warranties for new products as specified in this section. The HVAC Contractor shall warrant entire system for one year from owner's acceptance. All warranties shall be submitted to the owner prior to final payment.

Record Drawings: Furnish one set of marked up redline drawings that neatly and accurately document the installation.

Equipment Submittals: Submit for approval, copies of descriptive literature giving performance data, physical size, wiring diagrams, capacity, materials, etc. for all materials and equipment specified herein and on the drawings.

Substitutions: Substitutions of equipment and materials other than those shown on the drawings or named in the specifications may be made only with the written approval of the engineer whom reserves the right to require adequate proof of the quality of the substitute before permitting its use.

Where a contractor proposes to use an item of equipment other than that specified or detailed on the drawings, which requires any redesign of the structure, partitions, foundations, wiring, piping, or any other part of the mechanical, electrical, or architectural layout, all such redesign and all new drawings and detailing required therefore shall, with the approval of the engineer and architect, be prepared by this contractor at his own expense.

Where such approved deviation requires a different quantity and arrangement of piping, wiring, conduit and equipment from that specified or indicated on the drawings, with the approval of the engineer and architect, contractor shall furnish and install any such piping, structural supports, insulation, controllers, motors, starters, electrical wiring and conduit, and any other additional equipment required by the system, at no additional cost to the owner.

SEISMIC RESTRAINT:

All piping, ductwork and equipment shall be installed and certified to remain in place when subjected to a seismic force not less than 0.5" gravity acceleration. All work shall comply to the Massachusetts State Building Code-780 CMR, Earthquake Control.

Applicability:
1. All ducts of a cross sectional area of 6 square ft. and larger
2. All roof mounted equipment
3. All piping of 2-1/2" in diameter and larger
4. All gas piping of 1" diameter and larger
5. All runs of piping and ductwork at 40 feet and longer having a hanger length of 12" or more on any portion of the run

Bracing: Piping and ductwork in excess of 40 feet of straight run and having a hanger length of 12" or more on any part of the straight run shall have traverse braces at the rate of one brace per 40 feet of straight run.

Piping and ductwork in excess of 80 feet of straight run and having a hanger length of 12" or more on any part of the run shall have traverse braces at the rate of one brace per 40 feet of straight run and longitudinal braces at the rate of one brace per 80 feet of straight run.

Roof mounted equipment shall be secured to the curb and/or structure on all sides.

ELECTRIC MOTORS AND DRIVES:

Furnish high efficiency motors and drives for mechanical equipment as noted herein. All motors and drives shall conform to the requirements as specified in the ELECTRICAL DIVISION of this application.

Motor Starters and Disconnects: All motor starters and disconnects shall be furnished by the HVAC Contractor and installed by the Electrical Contractor.

FIRE DAMPERS:

Fire dampers shall meet local codes and the requirements of the National Fire Protection Standards contained in pamphlet 90A.

Locations of the fire dampers shall be as shown on the drawings or as required by code. Dampers shall be approved for use in partitions with fire resistance ratings of two hours in accordance with NFPA pamphlet No. 252-1979 and UL-555, July 31, 1973.

Dampers shall be arranged to close automatically and remain tightly closed upon the operation of a UL approved fusible link or other approved heat actuated device, located where readily affected by the abnormal rise of temperature in the duct. Fusible links shall have a temperature retain of 50 degrees F above the maximum normal duct operating temperature, but not less than 165 degrees F.

Fire dampers shall be installed so as to provide barrier to passage of air when in a closed position. Dampers shall be installed so they will be self supporting in case of duct destruction due to heat. Care must be exercised that the frame be set so that the closing device will bet bind. These fire dampers shall be installed in accordance with manufacturer's instruction and UL-555, paragraph 13.

Tight fitting access doors shall be provided for accessibility to each damper and fusible link for inspection and maintenance.

All fire dampers shall have written approval from local authorities.

The contractor must test all fire dampers with the presence of the architect before final approval of the ductwork can be given.

All fire dampers not attached to shaft wall registers shall have blades out of the air stream and shall be manufactured by Ruskin, model IBD2, or approved equal.

All fire dampers attached to shaft wall registers shall have blades in the air stream and shall be manufactured by Ruskin, model IBDT "thinline" or approved equal.

EQUIPMENT IDENTIFICATION:

Identification shall be applied to all new and existing equipment serving the systems within the scope of work for this project.

Furnish and attach plastic equipment tags onto every major piece of equipment. Tags are to be placed on equipment open to sight below ceilings. Tags shall be 1½" high x a minimum of 5" long plastic laminate with ¾" high lettering. Characters shall be black embossed on a white background. Each tag shall be secured to the equipment with a minimum of two stainless steel screws.

Furnish and attach plastic equipment tags on all roof mounted equipment. Tags shall be 6" high x a minimum of 8" long plastic laminate with 4" high lettering. Characters shall be black embossed on a white background. Each tag shall be secured to the equipment with a minimum of two stainless steel screws.

Markers shall be manufactured by Seton Name Plate Co.. or approved equal.

SYSTEM START UP & FINAL INSPECTION:

This contractor shall start up and place all equipment into service. Equipment manufacturers standard startup procedures shall be followed.

When all work under this contract has been completed as indicated on the drawings and specified herein, an inspection shall be made by the engineer. At this time the HVAC Subcontractor shall demonstrate that the requirements of these specifications have been met.

DUCTWORK:

DUCT SYSTEM	MATERIAL	DESIGN PRESS. (IN wc)	INSULATION TYPE & THICKNESS
CONCEALED SUPPLY DUCTWORK	GALV STEEL	1.5"	2" WRAP
EXPOSED SUPPLY DUCTWORK	GALV STEEL	3.0"	NONE
RETURN DUCTWORK	GALV STEEL	1.0"	NONE
EXHAUST DUCTWORK	GALV STEEL	1.0"	NONE

NOTES

1.) Work under this section includes but is not limited to providing ducts, volume and fire dampers, access doors, diffusers, registers, grilles and all auxiliary work of any kind necessary to make the air distribution systems throughout the building complete and ready for satisfactory operation.

2.) All ductwork shall be constructed in conformance with SMACNA duct construction standards for the pressures indicated in the schedule.

3.) NFPA Compliance: Comply with ANSI/NFPA 90A "Standard for the Installation of Air-Conditioning and Ventilating Systems" and ANSI/NFPA 90B "Standard for the Installation of Warm Air Heating and Air-Conditioning Systems".

4.) Longitudinal joints and fittings shall be made of Pittsburgh Lock Joints, unless specified otherwise. Increase in duct dimensions in the direction of air flow shall be made with transitions not exceeding 1 in 7"; decreases not exceeding 1 in 4"; Supply duct panels over 12" wide are to be cross broken for stiffness. Cross breaking of negative pressure exhaust and return air ducts is not permitted.

5.) Duct Sealant: Duct sealant shall be of a non-hardening, nonflammable vinyl acrylic material. Sealant must be UL approved for use in low pressure ductwork. All ductwork shall be sealed completely; according to SMACNA standards, at all transverse joints and longitudinal seams.

6.) Duct Cement: Non-hardening migrating mastic or liquid neoprene based cement (type applicable for fabrication/installation detail) as compounded and recommended by manufacturer specifically for cementing fitting components or longitudinal seams in ductwork.

7.) Flexible ductwork shall be limited to 5'-0" in length for final connections to registers, grilles and diffusers.

8.) Refer to "Ductwork Insulation Specifications" for insulation materials & methods.

DUCTWORK INSULATION (FLEXIBLE WRAP)

1.) Materials: Interior ductwork insulation shall be R6 (installed value, assuming 25% compression) flexible fiberglass ASTM C 553, Type I - resilient, flexible; Class B-2 - 0.75 lbs/ft3 with aluminum vapor proof jacket. Exterior ductwork insulation shall be R8 rigid insulation. Insulation shall be manufactured by Knauf, Armstrong, Owens Corning, or approved equivalent.

2.) Flame/Smoke Ratings: Provide composite mechanical insulation (insulation, jackets, coverings, sealers, plastics and adhesives) with flamespread index of 25 or less, and smoke-developed index of 50 or less, as tested by ASTM E 84 (NFPA 255) method. Exception: Outdoor mechanical insulation may have flame spread index of 75 or less, and smoke developed index of 150 or less.

3.) Ductwork Insulation Accessories: Provide staples, bands, wires, tape, anchors, corner angles and similar accessories as recommended by the insulation manufacturer for applications indicated. Ductwork Insulation Compounds: Provide cements, adhesives, coatings, sealers, protective finishes and similar compounds as recommended by the insulation manufacturer for applications indicated.

DUCTWORK INSULATION (ACOUSTICAL LINING)

1.) Materials: Interior ductwork insulation shall be R6 acoustical lining ASTM C 1071, Standard Specification for Thermal and Acoustical Insulation (Glass Fiber, Duct Lining Material), ASTM G 21, Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi (fungi resistance section only), ASTM G 22, Practice for Determining Resistance of Plastics to Bacteria (bacteria resistance section only). Exterior ductwork insulation shall be R8 rigid insulation. Insulation shall be manufactured by Owens Corning, QuietRTM, Acoustl'TEX™, or approved equivalent.

2.) Flame/Smoke Ratings: Provide composite mechanical insulation (insulation, jackets, coverings, sealers, plastics and adhesives) with flamespread index of 25 or less, and smoke-developed index of 50 or less, as tested by ASTM E 84 (NFPA 255) method. Exception: Outdoor mechanical insulation may have flame spread index of 75 or less, and smoke developed index of 150 or less.

3.) Ductwork Insulation Accessories: Provide staples, bands, wires, tape, anchors, corner angles and similar accessories as recommended by the insulation manufacturer for applications indicated. Ductwork Insulation Compounds: Provide cements, adhesives, coatings, sealers, protective finishes and similar compounds as recommended by the insulation manufacturer for applications indicated.

INSULATION:

PIPING INSULATION

FLUID TEMPERATURE RANGE (F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (IN)				
	CONDUCTIVITY (Btu'in/F'hr'sf)	MEAN RATING TEMP (F)	<1	1 TO <1-1/2	1-1/2 TO <4	4 TO <8	8 AND OVER
HEATING SYSTEMS (STEAM, STEAM CONDENSATE & HOT WATER)							
>350	0.32-0.34	250	4.5	5.0	5.0	5.0	5.0
251-350	0.29-0.32	200	3.0	4.0	4.5	4.5	4.5
201-250	0.27-0.30	150	2.5	2.5	2.5	3.0	3.0
141-200	0.25-0.29	125	1.5	1.5	2.0	2.0	2.0
105-140	0.21-0.28	100	1.0	1.0	1.5	1.5	1.5
COOLING SYSTEMS (CHILLED WATER, BRINE, AND REFRIGERANT)							
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0	1.0
BELOW 40	0.20-0.26	75	0.5	1.0	1.0	1.0	1.5
COOLING CONDENSATE RETURN/CONDENSATE DRAIN							
ALL	0.21-0.27	75	0.5	0.5	1.0	1.0	1.0

NOTES

1.) Insulation Material: Molded rigid fiberglass sectional pipe insulation rated to 500 °F. The insulation shall have a minimum density of 3.5 lbs. per cu. ft.

2.) Materials shall be fire retardant as follows: Flame/Smoke Ratings: Provide composite mechanical insulation (insulation, jackets, covering, sealers, mastics and adhesives) with flamespread index of 25 or less, and smoke-developed index of 50 or less, as tested by ASTM E 84 (NFPA 255) method. Exception: Outdoor mechanical insulation may have flame spread index of 75 and smoke developed index of 150. The insulation shall be manufactured by Armstrong, Knauf, OwensCorning or approved equivalent.

3.) Jacket: Kraft paper bonded to aluminum foil reinforced with fiberglass yarn and a self sealing lap. The maximum permeability of the jacket shall be 0.02 perms. Outdoor Piping & Indoor piping at traffic level shall be covered with .015 thick PVC jacket. The jacket shall be outdoor grade, premolded one piece and UV resistant. Joints shall be sealed with silicone caulking.

REGISTERS, GRILLES AND DIFFUSERS:

Furnish and install diffusers, registers and grilles for supply, return and exhaust outlets of size, type and design as shown and scheduled on the drawings. Equipment shall be tested and rated per ASHRAE 91-70. Equipment shall handle air quantities at operating velocities.

1. With maximum diffusion within the space supplied or exhausted.
2. Without objectionable air movement.
3. With sound pressure level not to exceed NC 30.

TESTING, ADJUSTING & BALANCING:

The General Contractor shall obtain the services of an independent NEBB or AABC certified balancing and testing subcontractor engineer to balance all new and/or existing equipment and air distribution systems as herein specified.

The TAB Contractor shall include all sheave changes if required.

The balancing shall be conducted in accordance with NEBB TAB Procedural Standards. Unit designation, manufacture, model number, and serial number shall be recorded for each piece of equipment.

Test and Balance for Mechanical Equipment:
Balancer shall record design vs actual for the following:
Fan Motors: Fan Motor HP, Fan Motor RPM, Fan Motor Amperage (rated & operating), Fan Motor Voltage/Phase/Hz
Pump Motors: Pump Motor HP, Pump Motor BHP, Pump Motor RPM, Pump Motor Amperage (rated & operating), Pump Motor Voltage/Phase/HZ.
Airside: Airflow (primary & total), Static Pressure (external, discharge & suction), Air Temperature (entering & leaving)
Waterside: Water Flow, Pressure Drop, Water Temperature (entering & leaving), % Propylene Glycol

Test and Balance for Registers, Grilles and Diffusers::
Balancer shall record design vs actual airflow and percent off from design. Record RGD designation, neck size and volume damper type (in duct damper or opposed blade damper at register).

PIPING, VALVES & FITTINGS:

Materials: All chilled water and hot water piping greater than 2-1/2" shall be schedule 40 black steel, ASTM Grade B, A-53; seamless or elect. res. Welded (ERW) for pipes 4" and under, and seamless for pipes greater than 4". Type L hard drawn tempered copper tubing conforming to ASTM B-88 shall be used for chilled water, hot water and condensate water piping 2-1/2" or smaller.

A safe and substantial means of support for all parts of the HVAC equipment and systems shall be provided. All piping and equipment shall be hung from the building structure and shall conform to the recommendations of the manufacturer. Hanging from existing or new pipes, ducts and equipment will not be permitted.

Dissimilar Metals: All connections between ferrous and nonferrous pipes and/or accessories shall be made with approved dielectric fittings.

All new piping shall be cleaned and thoroughly flushed to remove all scale, cutting oil, other debris, and cleaning chemicals prior to connecting to existing systems.

Provide factory fabricated valves recommended by manufacturer for use in the service indicated. Valves shall be of the types and pressure ratings indicated. Provide proper selection as determined by the contractor, to comply with the installation requirements. Provide end connections that properly mate with pipe, tube and equipment connections. Where more than one type is indicated, the selection is the contractor's option.

Ball Valves: (2-1/2" and smaller); Bronze body, stainless steel ball, threaded or flanged ends, pressure rating to match the requirements of the adjoining pipe. (3" and larger); Cast iron body, bronze mounted, stainless steel ball, flanged ends, pressure rating to match the requirements of the adjoining pipe. Ball valves shall be manufactured by Jenkins or approved equal.

Swing Check Valves: (2-1/2" and smaller); Threaded ends, bronze body, bronze disk, integral seat, swing check, pressure rating to match the adjoining pipe (3" and larger); Flanged ends, iron body, bronze mounted, bolted cover, bronze regrindable or renewable disk and seat ring, swing check, pressure rating to match the requirements of the adjoining pipe. Check valves shall be manufactured by Jenkins or approved equal.

Globe or Angle Valves: (2-1/2" and smaller); threaded ends, bronze body, union bonnet, stainless steel plug. (3" and larger); Flanged ends, OS&Y rising stem, iron body, union bronze mounted, renewable or regrindable bronze disk and seat ring, pressure rating to match the requirements of the adjoining pipe. Globe and angle valves shall be manufactured by Jenkins or approved equal.

Hose End Drain Valves: Bronze, solid wedge, non-rising stem, gate or angle type, female NPT inlet, male hose thread outlet, 150 psig. Furnish with bronze cap and chain. Drain valves shall be manufactured by Jenkins or approved equal.

Vent Valves: Provide vent valves designed to vent automatically by the float principle. Valves shall have stainless steel floats and cast iron bodies with pressure ratings to match the requirements of the adjoining pipe. All sizes shall have NPT inlet and outlet connections. Provide gate valve, for isolation, and test cock. Vent valves shall be manufactured by Hoffman or approved equal.

DUCTSOX HOOPS (IHS) WITH SEDONA-XM:

1.1 MANUFACTURER:
- A. DuctSox® Corporation
- B. Approved Equal

1.2 TEXTILE AIR DISPERSION SYSTEM:
- A. Hoops (IHS) System: Air diffusers shall be constructed with internal retention system.
  1. System shall consist of an internal 360 degree hoop system, spaced 5' on center.
  2. System shall be installed with a one row suspension system located 1.5" above top-dead-center of the textile system.
  3. System attachment to cable or U-Track shall be made using Gliders spaced 12 inches.
  4. Available for diameters from 8" - 48".
  5. One row suspension options
     - a. Cable suspension hardware to include cable, eye bolts, thimbles, cable clamps, and turnbuckle(s) as required.
  1. Cable suspension options
     - a. Galvanized steel cable
  2. Support lengths available in 5'(standard), 10', 15', & 30'.
     - b. U-Track suspension hardware to include 8' sections of aluminum track, aluminum splice connectors, track endcaps and vertical cable support kits - consisting of a length of cable with cable connectors. Radius aluminum track must be included for all horizontal/flat radius applications.
- B. TEXTILE
  1. Sedona-Xm
     - a. Textile Construction: Filament/filament twill polyester treated with a machine washable anti-microbial agent by the fabric manufacturer, fire retardant in accordance with UL 2518. Non-linting filament yarn to meet the requirements of ISO Class 3 environment.
     - b. Air Permeability: 2 (+2/-1) CFM/ft2 per ASTM D737, Frazier
     - c. Weight: 6.8 oz. /yd2 per ASTM D3776
     - d. Warranty: 10 years
  2. Textile Color
     - a. Standard: white
- C. TEXTILE SYSTEM FABRICATION REQUIREMENTS
  1. Textile system to be constructed in modular lengths (zippered) with proper radial securing clips along the length of the system.
  2. Integrated air dispersion shall be specified and approved by manufacturer. (select only those that apply)
     - a. Linear Vents
       1. Air dispersion accomplished by linear vent and permeable fabric. Linear vents must be sized in 1 CFM per linear foot increments (based on .5" SP), starting a 1 CFM through 90 CFM per linear foot. Linear vent is to consist of an array of open orifices rather than a mesh style vent to reduce maintenance requirements of mesh style vents. Linear vents should also be designed to minimize dusting on fabric surface.
       2. Size of vent openings and location of linear vents to be specified and approved by manufacturer
     - b. Orifices - 2" & 3" SG's (Sewn-in Grommets)
       1. Air dispersion and extended throws are accomplished by reinforced orifices and permeable fabric. Reinforced orifices are to be installed to keep integrity of opening and withstand laundry processes.
       2. Diameter, quantity, and location of reinforced orifices to be specified and approved by manufacturer.
  3. Provide with inline adjustable flow devices.
- D. DESIGN PARAMETERS:
  1. Textile air diffusers shall be designed from 0.25" water gage minimum to 3.1" maximum, with 0.5" as the standard.
  2. Textile air diffusers shall be limited to design temperatures between 0 degrees F and 180 degrees F (-17.8 degrees C and 82 degrees C).
  3. System overall design; diameter, length, airflow, operating static pressure and dispersion shall be designed or approved by the manufacturer.
  4. Do not use textile diffusers in concealed locations.
  5. Use textile air dispersion systems only for positive pressure air distribution components of the mechanical ventilation system.

INSTALLATION

2.1 INSTALLATION OF TEXTILE AIR DISPERSION SYSTEM:
- A. Install chosen suspension system in accordance with the requirements of the manufacturer. Instructions for installation shall be provided by the manufacturer with product.

2.2 CLEANING AND PROTECTION:
- A. Clean air handling unit and ductwork prior to the DuctSox system unit-by-unit as it is installed. Clean external surfaces of foreign substance which may cause corrosive deterioration of facing.
- B. Temporary Closure: At ends of ducts which are not connected to equipment or distribution devices at time of ductwork installation, cover with polyethylene film or other covering which will keep the system clean until installation is completed.
- C. If DuctSox systems become soiled during installation, they should be removed and cleaned following the manufacturers standard terms of laundry.

INSTRUCTIONS AND MANUALS:

This contractor shall provide printed instructions covering operations and maintenance of each major item of equipment to the owner. Upon completion of the work and after all tests are completed, a time designated by the owner and it's engineer shall be set in which the contractor shall instruct a representative of the owner in proper operation and maintenance of the new air conditioning system. Both verbal and written instructions shall be furnished in detail. Written sets shall make reference to each item and describe it's proper functioning, adjustment, and maintenance. Provide five sets of bound and indexed manuals with instructions and include all shop drawing equipment and manufacturer's maintenance and operating instructions for each piece of equipment. Also include manufacturers parts list for each piece of equipment's operating characteristics, fan curves, etc.

AUTOMATIC TEMPERATURE CONTROLS:

The Automatic Temperature Control (ATC) system will consist of all required electronic controllers, sensors, control valves, dampers, actuators, control wiring, etc. necessary for a complete and operable control system to achieve the control sequences as defined herein.

Controls contractor to provide the owner with training on all new controls. Existing Building Management System(BMS) by Honeywell. New equipment shall be provided with components for interlocking with the BMS. New humidity sensors shall be 1% NIST certified.

The control system shall consist of all thermostats, temperature transmitters, controller, automatic valves, switches and other accessory equipment along with a complete system of electrical wiring to fill the intent of the specification and provide for a complete and operable system.

All equipment shall be monitored and controlled by the existing honeywell building automation system. The existing BMS shall be expanded for new equipment. Graphics shall be provided for all major equipment. Contractor shall coordinate with Honeywell for integration of controls with all new HVAC equipment.

All interlocking, wiring and installation of control devices associated with the HVAC equipment shall be provided under this contract. When the ATC system is fully installed and operational, the ATC Subcontractor and representatives of the owner will review the operation and check out the system. At this time the ATC Subcontractor will demonstrate to all present the operation of the system and prove that it complies with the intent of the drawings and specifications.

All electronic equipment shall conform to the requirements of F.C.C. Regulation Part 15, Section 15 governing radio frequency electromagnetic interference and any other applicable statutes with respect to radiation and conduction of radio frequency interference and be so labeled.

Work By Others: The following incidental work shall be furnished by the designated subcontractor under the scope of work of the ATC Subcontractor: The HVAC Contractor shall provide all magnetic starters and furnish all configurations. The HVAC Contractor shall provide access doors or other approved means of access through ducts, ceilings or walls for service to any required brackets, structural platforms, etc., to fan housings or structural systems required by the ATC Subcontractor for acceptable mounting platforms or brackets for the mounting of ATC components. The Electrical Subcontractor shall provide all required power wiring to motors, controllers, devices and panels.

Electrical Wiring: All low voltage control wiring, wiring connections and all interlocking required for the installation of the temperature control system, as herein specified, shall be provided by the ATC Subcontractor unless specifically shown on the electrical drawings or called for in the electrical specifications. All wiring shall comply with all applicable codes and standards.

Damper Operators/Actuators: All damper operators shall be electronic modulating or 2-position type as required in the sequence of operation. Operators shall be quiet in operation and shall have ample power to overcome friction of damper linkage and air pressure. The damper operator mounting arrangement shall be outside the air-stream wherever possible. The operator shall have external adjustable stops to limit the stroke in either direction. The operator linkage arrangement shall be such as to permit normally open or normally closed positions of the dampers as required. All damper operators exposed to weather shall have waterproof enclosures.

Dampers: The ATC Contractor shall furnish all automatic dampers. The automatic dampers shall be multiple gasketed, low leakage, opposed blade type. The sheet metal subcontractor, under the supervision of the ATC Subcontractor, shall install dampers. All blank-off plates and conversions necessary to install smaller or larger than duct size dampers shall be the responsibility of the sheet metal subcontractor. Dampers shall be manufactured by Ruskin or approved equal.

Automatic Control Valves: All automatic control valves shall be fully proportioning with modulating plug or V-port inner guides, unless otherwise specified. The valves shall be quiet in operation and fail-safe in either normally open or normally closed position in the event of control failure. All valves shall be capable of operating in sequence when required by the sequence of operation. All control valves shall be suitable for the pressure conditions and shall close against the differential pressure involved. Valve operators shall be of the molded synthetic rubber diaphragm type. All chilled water valves, 1" and larger shall be 200 psig minimum (not a commercial grade valve).

Smoke Detection System: The HVAC Contractor shall install smoke detectors in return air & exhaust air systems with a design capacity greater than 2000 CFM. The smoke detectors shall be located upstream of any filters, exhaust air connections or outdoor air connections. Smoke detectors shall be installed in accordance with NFPA 72. Smoke detectors are supplied by the Electrical Contractor and installed by the Mechanical Contractor. Interlocking to building fire alarm system shall be by the Electrical Contractor. Interlocking to the automatic control system shall be by the ATC Contractor. Smoke damper to be interlocked with the supply fan.

SEQUENCE OF OPERATION:

GAS/ELEC ROOF TOP UNITS: (RTU-2-1, 2-3)

General: RTU shall be controlled via the BMS with a wall mounted temperature sensor as noted on the plan.

The RTU supply fan shall run continuously during occupied mode. When the unit is commanded on, first the outside air damper shall open to its minimum position then the supply fan shall start. When the unit is commanded off, the fan shall stop and the outside air damper shall close.

Economizer Mode:
During occupied cooling mode of operation, the Economizer module shall check if the outside air is suitable for free cooling via the outside air enthalpy sensor. Whenever the outside air enthalpy is appropriate for free cooling, the the economizer shall be used first to attempt to satisfy cooling. When the outside air is proved to be unsuitable for free cooling, the outside air damper shall be at its minimum position and the mechanical cooling shall operate.

On a call for occupied cooling via wall-mounted thermostat, if economizer is not available, the cooling section shall energize to maintain room air temperature setpoint of 72°F (Adj.)

On a call for unoccupied cooling via wall-mounted thermostat, if economizer is not available, the cooling section shall energize to maintain room air temperature setpoint of 80°F (Adj.)

On a call for occupied heating via wall-mounted thermostat, the heating section shall modulate to maintain room air temperature setpoint of 70°F (Adj.)

On a call for unoccupied heating via wall-mounted thermostat, the heating section shall modulate to maintain room air temperature setpoint of 65°F (Adj.)

Dehumidification: (Humidi-Mizer)
On a call for dehumidification via wall mounted thermidistat, first the compressor shall start to maintain room relative humidity setpoint of 50%RH(adjustable), then the hot gas reheat shall modulate to maintain space temperature setpoint of 72°F(adjustable) . When the thermidistat is satisfied, the unit shall return to normal cooling/heating operation.

Room Pressure Control:
A pressure transducer shall be used to measure and report space static pressure. As the economizer opens and the space pressure rises, the barometric relief damper shall open.

Upon detection of smoke, via duct mounted smoke detector, dampers shall close, unit shall shut down and an alarm shall be sent to the fire alarm control panel.

VAV ROOF TOP UNITS: (RTU-2-2)

The RTU's shall be under the control of the on board controls and interlocked and monitored by the BAS.

Whenever the RTU is commanded on, first the Outside Air Damper shall open and then the fan shall start. Whenever the RTU is commanded off, the fan shall stop and the Outside Air Damper shall close.

Cooling/Economizer:
During occupied cooling mode of operation, the economizer and mechanical cooling shall be used to control the supply air temperature. Whenever the outside air enthalpy is below the return air enthalpy, the economizer shall be used first to attempt to satisfy the supply air temperature setpoint. At outdoor air enthalpy above the return air enthalpy, mechanical cooling only shall be used and the outside air dampers shall remain at the minimum position.

On a call for cooling via duct temperature sensor, the outside air damper shall close to its minimum design position and the cooling section shall cycle to maintain discharge supply air temperature setpoint of 55°F (Adj.)

On a call for heating via duct temperature sensor, the outside air damper shall close to its minimum design position and the heating section shall modulate to maintain discharge supply air temperature setpoint of 55°F (Adj.)

Static Pressure Control:
A pressure transducer located 2/3 down main duct stream shall measure duct statuc pressure and shall modulate the supply fan to maintain set point defined by the balancing contractor.

Building Pressure Control:
A pressure transducer shall be used to measure and report direct building static pressure. See plans for location of pressure sensor. The control parameters used in the control scheme shall be space static pressure set point and deadband. As the economizer opens and the building pressure rises, the unit power exhaust shall energize.

VAV TERMINALS: (VAV- 2-1 & 2-2)

The VAV Terminals shall be monitored by the BMS. ATC Contractor shall furnish pressure independent electronic controls complete with 24V transformer and wall-mounted thermostat.

The wall-mounted thermostat will electronically signal the VAV to maintain room temperature setpoint.

On a call for heat the primary air damper shall modulate closed to it's minimum position and the hot water control valve shall open to maintain 70°F (Adj.) set-point.

On a call for cooling the primary air damper shall modulate open to maintain 72°F (Adj.) set-point. When the thermostat is satisfied, the primary air damper shall modulate to its minimum position.

HOT WATER BOILER: (B - 2-1 & 2-2)

The Boilers shall be controlled by an on-board controller. The BMS shall monitor and allow setpoint adjustments of the boiler. Refer to the boiler schematic on sheet M1.3.

The boilers shall sequence via on board controls to maintain a discharge water temperature setpoint of 160°F via a temperature sensor. The boiler circulator pump shall maintain a minimum flow rate during operation as specified by the manufacturer. A flow switch shall prove flow before energizing the boilers.

HOT WATER PUMPS: (P - 2-2 & 2-3)

With HOA switches in the automatic position, pumps shall be under control of the central panel interlocked with the BMS. Only one pump shall be allowed to run at one time. The second pump shall act as stand-by to the primary pump. Pumps shall automatically alternate duty on a lead/lag basis for equal wear based on a set schedule determined by the building management (or two weeks) or manually (by operator). If the primary pump is calling to be on and no flow is sensed at flow switch, an alarm shall sound and the stand-by pump shall be started automatically.

The system pump VFD shall modulate to maintain differential pressure setpoint from a differential pressure sensor ⅔ downstream from the pump.

The pumps shall maintain a minimum flow as determined by pump manufacturer. A hot water bypass valve is provided to maintain minimum flow setpoint of pumps.

SEQUENCE OF OPERATION:

AIR COOLED RECIPROCATING CHILLER: (CH-2-1)

Chilled water temperature control shall be maintained by internal controls on the chiller and interlocked with the existing honeywell BMS for monitoring and set point adjustments. Chilled water supply temperature shall be set at 42 degrees F (Adjustable). Refer to the Chiller schematic on sheet M1.3.

Chilled water supply and return temperatures shall be monitored at control panel via temperature transmitters located in the supply and return piping.

A flow switch located in the return water pipe shall enable the chiller, whenever water flow is sensed, and stop the chiller when no water flow is sensed.

CHILLED WATER PUMPS: (P - 2-3 & 2-4)

With HOA switches in the automatic position, pumps shall be under control of the central panel interlocked with the BMS. Only one pump shall be allowed to run at one time. The second pump shall act as stand-by to the primary pump. Pumps shall automatically alternate duty on a lead/lag basis for equal wear based on a set schedule determined by the building management (or two weeks) or manually (by operator). If the primary pump is calling to be on and no flow is sensed at flow switch, an alarm shall sound and the stand-by pump shall be started automatically.

The system pump VFD shall modulate to maintain differential pressure setpoint from a differential pressure sensor ⅔ downstream from the pump.

The pumps shall maintain a minimum flow of --- gpm. A chilled water bypass valve is provided to maintain minimum flow setpoint of pumps.

AIR HANDLING UNIT: (AHU - #)

General: Air handling unit will be controlled electronically via the central DDC system. The AHU shall be started/stopped via BMS. The on-board controls shall then control all other AHU functions. Setpoints shall be adjustable via the BMS.

Required control points for each system will include:
- a. Supply fan start/stop/status/alarm
- b. Space temperature
- c. Space relative humidity
- d. Supply air temperature
- e. Supply air setpoint
- f. Mixed air temperature
- g. Control valve position
- h. Outside air damper position
- i. Return air damper position
- j. Freeze stat alarm
- k. Smoke stat alarm
- l. Chilled water return temperature
- m. Supply static pressure
- n. Chilled water supply temperature
- o. Hot water return temperature
- m. Hot water supply temperature

Supply fan will start and stop in accordance with a predetermined schedule. The supply fan shall run continuously. Occupied and Unoccupied schedules shall coincide with room lighting schedule. Lights on shall be considered Occupied and Lights off shall be considered Unoccupied. On supply fan failure, a signal shall be sent to the BMS for alarm.

Grow room setpoints shall be 75°F(adj.) and 50%RH(adj.) during Occupied mode, and 68°F(adj.) and 50%RH(adj.) during Unoccupied mode.

2 Dry room setpoints shall be 68°F(adj.) and 50%RH(adj.)

Vault room setpoints shall be 70°F(adj.) and 50%RH(adj.)

Occupied Cooling:

On a call for cooling, the chilled water control valve will modulate open to maintain a constant supply air temperature of 47°F (adj) and room air temperature setpoint of 75°F(adj.) The hot water control valve shall be closed.

Occupied Heating:

On a call for heating, the hot water control valve shall will modulate open to maintain a constant supply air temperature of 77°F (adj) and room air temperature setpoint of 75°F(adj.) The chilled water control valve shall be closed.

Occupied Dehumidification:

On a call for dehumidification, the chilled water control valve shall will modulate open to maintain a constant supply air temperature of 47°F (adj.) and the hot water control shall valve shall modulate to maintain a constant supply air temperature of 75°F (adj.) to maintain space relative humidity setpoint of 50%RH(adj.)

Unoccupied Cooling:

On a call for cooling, the chilled water control valve will modulate open to maintain a constant supply air temperature of 47°F (adj) and room air temperature setpoint of 68°F(adj.) The hot water control valve shall be closed.

Unoccupied Heating:

On a call for heating, the hot water control valve shall will modulate open to maintain a constant supply air temperature of 70°F (adj) and room air temperature setpoint of 68°F(adj.) The chilled water control valve shall be closed.

Unoccupied Dehumidification:

On a call for dehumidification, the chilled water control valve shall will modulate open to maintain a constant supply air temperature of 47°F (adj.) and the hot water control shall valve shall modulate to maintain a constant supply air temperature of 68°F (adj.) to maintain space relative humidity setpoint of 50%RH(adj.).The outside air damper shall be closed.

CO2 Purge:

When the CO2 purge exhaust fan associated with the room the AHU serves is commanded on, the outside air damper shall open to the minimum position. When the exhaust fan is commanded off, the damper shall close.

Smoke:

When smoke had been detected, the fan shall stop and an alarm shall be sent to the BMS.

Freeze stat:

When freeze stat is triggered, the fan shall stop and an alarm shall be sent to the BMS.

Filter:

When filter pressure drop exceeds setpoint of 0.3 in. wg, for 10 minutes, the unit controller shall send a signal to the BMS.

ELECTRIC STEAM HUMIDIFIERS: (H-1, 2)

General: Units shall be provided with remote humidistat.

On a call for humidification via wall-mounted humidistat, the steam humidifier shall energize to maintain space humidity setpoint of 30% RH (adjustable). When the space humidity rises above 50%RH (adjustable), the unit shall shut down.

ELECTRIC DEHUMIDIFIERS: (DH-1, 2, 3)

General: Units shall be controlled via the BMS. DH-3 fan shall run continuously.

On a call for dehumidification via remote humidistat, half of the corresponding rooms dehumidifiers shall energize to maintain space RH% setpoint of 45%(adjustable). On a further call for dehumidification, the remaining dehumidifiers shall energize to maintain setpoint. When the humidistat is satisfied the units shall de-energize.

SCRUBBER UV LIGHT: (UV-1)

General: Units shall be controlled via an end switch linked with the exhaust fan.

When the exhaust fan starts, the UV light shall energize.

GROW ROOM PURGE EXHAUST FANS: (EF-2-2 TO 2-4)

Exhaust fan shall be controlled via a CO2 monitoring control panel, interlocked with CO2 sensors and man

CHILLED WATER/HOT WATER AIR HANDLING UNIT

AHU #

SYMBOL	SERVICE	SUPPLY FAN DATA: CO2 PURGE O.A. CFM	TOTAL CFM	T.S.P. (IN. WG.)	E.S.P. (IN. WG.)	RPM	BHP	HP	MIN. H.P.	ELECTRICAL DATA: V	PH	HZ	MCA	MOCP	COOLING COIL DATA: SENSIBLE MBH	TOTAL MBH	ENT. AIR °F DB	ENT. AIR °F WB	LVG. AIR °F DB	LVG. AIR °F WB	30% PG GPM	EWT	LWT	ΔP FT.	ROWS	MODEL	SECTION SIZE	HEATING COIL DATA: TOTAL MBH	ENT. AIR °F DB	ENT. AIR °F WB	LVG. AIR °F DB	LVG. AIR °F WB	WATER GPM	EWT	LWT	ΔP FT.	ROWS	MODEL	DOOR/COIL SIDE	OPERATING WEIGHT (LBS)	MODEL No.	PLASMA AIR BAR MODEL#	REMARKS
AHU-2-1	DRY ROOM	--	2250	2.0	1.0	1142	1.2	1.5	--	460	3	60	4.1	15	31.5	31.5	68.0	53.0	55.0	47.2	7.0	42	52	1.4	6	R	--	35.8	55.0	--	70.0	--	1.8	160	120	0.1	1	R	RIGHT	340	BCHD054G	--	①④⑤
AHU-2-2	FLOWER 210	--	10250	3.93	2.0	1593	8.1	10	--	460	3	60	17.5	30	404.5	315.0	75.0	61.5	47.0	46.9	87.6	42	52	15.5	8	3U	MED. L.	333.5	47.0	--	77.0	--	22.3	160	130	1.0	1	5W	LEFT	3540	CSAA025	PB-054	①②③④
AHU-2-3	VEG RM	--	5000	4.1	2.0	1740	4.8	5	--	460	3	60	8.4	15	197.3	154.0	75.0	61.5	47.0	46.9	42.7	42	52	7.7	8	3U	MED.	162.7	47.0	--	77.0	--	11.0	160	130	0.4	1	5W	LEFT	2335	CSAA012	PB-036	①②③④
AHU-2-4	FLOWER 209	--	10250	3.93	2.0	1593	8.1	10	--	460	3	60	17.5	30	404.5	315.0	75.0	61.5	47.0	46.9	87.6	42	52	15.5	8	3U	MED. L.	333.5	47.0	--	77.0	--	22.3	160	130	1.0	1	5W	LEFT	3540	CSAA025	PB-054	①②③④
AHU-2-5	FLOWER 208	--	10250	3.93	2.0	1593	8.1	10	--	460	3	60	17.5	30	404.5	315.0	75.0	61.5	47.0	46.9	87.6	42	52	15.5	8	3U	MED L.	333.5	47.0	--	77.0	--	22.3	160	130	1.0	1	5W	RIGHT	3540	CSAA025	PB-054	①②③④
AHU-2-6	VEG RM	--	5000	4.1	2.0	1740	4.8	5	--	460	3	60	8.4	15	197.3	154.0	75.0	61.5	47.0	46.9	42.7	42	52	7.7	8	3U	MED.	162.7	47.0	--	77.0	--	11.0	160	130	0.4	1	5W	RIGHT	2335	CSAA012	PB-036	①②③④
AHU-2-7	FLOWER 220	--	10900	4.12	2.0	1509	9.5	10	--	460	3	60	26.3	45	430.2	334.8	75.0	61.5	47.0	46.9	93.1	42	52	17.5	8	3U	MED. L.	331.0	47.0	--	77.0	--	22.1	160	130	1.0	1	5W	LEFT	4150	CSAA025	PB-054	①②③④
AHU-2-8	FLOWER 207	--	10250	3.93	2.0	1593	8.1	10	--	460	3	60	17.5	30	404.5	315.0	75.0	61.5	47.0	46.9	87.6	42	52	15.5	8	3U	MED. L.	333.5	47.0	--	77.0	--	22.3	160	130	1.0	1	5W	RIGHT	3540	CSAA025	PB-054	①②③④
AHU-2-9	FLOWER 206	--	7800	4.46	2.0	1593	8.9	9	--	460	3	60	17.5	30	307.7	239.6	75.0	61.5	47.0	46.9	66.6	42	52	14.1	8	W	E. MED.	253.8	47.0	--	77.0	--	17.0	160	130	0.8	1	5W	RIGHT	2900	CSAA017	PB-042	①②③④
AHU-2-10	MOTHER	--	4000	4.31	2.0	2328	4.3	4.5	--	460	3	60	10.3	15	157.9	122.9	75.0	61.5	47.0	46.9	34.2	42	52	6.0	8	3U	MED.	130.1	47.0	--	77.0	--	8.7	160	130	0.3	1	5W	RIGHT	2000	CSAA010	PB-024	①②③④
AHU-2-11	FLOWER 223	--	10900	4.12	2.0	1509	9.5	10	--	460	3	60	26.3	45	430.2	334.8	75.0	61.5	47.0	46.9	93.1	42	52	17.5	8	3U	MED. L.	331.0	47.0	--	77.0	--	22.1	160	130	1.0	1	5W	RIGHT	4150	CSAA025	PB-054	①②③④
AHU-2-12	FLOWER 202	--	7800	4.46	2.0	1593	8.9	9	--	460	3	60	17.5	30	307.7	239.6	75.0	61.5	47.0	46.9	66.6	42	52	14.1	8	W	E. MED.	253.8	47.0	--	77.0	--	17.0	160	130	0.8	1	5W	RIGHT	2900	CSAA017	PB-042	①②③④
AHU-2-13	FLOWER 201	--	8800	4.91	2.0	1613	11.2	11.5	--	460	3	60	26.3	45	395.3	304.2	75.0	61.5	47.0	46.9	73.4	42	52	16.9	8	3U	E. MED.	315.8	47.0	--	77.0	--	18.3	160	130	0.8	1	5W	RIGHT	2600	CSAA017	PB-042	①②③④
AHU-2-14	2ND VAULT	--	300	0.5	1.1	1247	0.1	1/2	--	460	3	60	1.6	15	8.2	6.5	70.0	60.0	50.2	50.0	3.1	42	48	4.8	6	R	--	8.1	50.0	--	77.0	--	0.4	160	130	0.1	1	R	RIGHT	108	BCHD012G	--	①④⑤

NOTES:
① SELECTIONS BASED ON TRANE OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH 2 POSITION LOW-LEAKAGE OUTDOOR AIR DAMPER WITH ACTUATOR , VERTICAL DISCHARGE AND RETURN, DOUBLE WALL CONSTRUCTION, ROOF CURB, MERV13 FILTER, SUPPLY FAN VFD, GASKETED SERVICE DOORS AT 1.5X ESP, RETURN SMOKE DETECTOR, EXTERNAL JUNCTION BOX FOR VFD CONNECTION, SAME SIDE DOOR AND COIL CONNECTIONS .
③ FURNISH AND INSTALL WITH PLASMA AIR BAR NEEDLEPOINT IONIZER. DEVICE SHALL BE INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS (BEFORE COOLING COIL IN UNIT).
④ DISCONNECT SWITCH SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
⑤ FURNISH AND INSTALL WITH HORIZONTAL DISCHARGE AND RETURN, DOUBLE WALL CONSTRUCTION, VIBRATION ISOLATORS, MERV13 FILTER, ECM MOTORS, SAME SIDE DOOR AND COIL CONNECTIONS .

GAS FIRED BOILER

B #

SYMBOL	SERVICE	LOCATION	GAS INPUT MBH	GAS INPUT IN. W.G.	OUTPUT MBH	MIN. GAS PRESSURE	GPM	EWT	LWT	ΔP FT.	ELECTRICAL DATA: VOLTS	PH	HZ	AMPS	MOCP	UNIT WEIGHT (LBS)	MODEL No.	REMARKS
B-2-1	REHEAT	MECH RM	999	4.0"	960	4.0"	65	130	160	7.0	120	1	60	<12	--	1838	FBN1001	①②
B-2-2	REHEAT	MECH RM	999	4.0"	960	4.0"	65	130	160	7.0	120	1	60	<12	--	1838	FBN1001	①②

NOTES:
① SELECTION BASED ON LOCHINVAR OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH CONDENSATE TRAP, ACID NEUTRALIZATION KIT, BELL AND GOSSETT ECM VARIABLE BOILER PUMP, MODBUS COMMUNICATION, BACNET MSTP, CONCENTRIC VENT KIT,

SYSTEM PUMPS

P #

SYMBOL	SERVICE	LOCATION	DESIGN POINT GPM	DESIGN POINT FT. HD.	DESIGN POINT BHP	MOTOR MAX. H.P.	MOTOR RPM	MOTOR VOLT	MOTOR PH	MOTOR HZ	MODEL No.	REMARKS
P-2-1	HW LOOP	MECH ROOM	125	50	2.5	5.0	1169	230	3	60	E-80 3x3x11B	①②
P-2-2	HW LOOP	MECH ROOM	125	50	2.5	5.0	1169	230	3	60	E-80 3x3x11B	①②
P-2-3	CHW LOOP	MECH ROOM	700	85	19.2	25	1731	230	3	60	E-1510 4EB	①②
P-2-4	CHW LOOP	MECH ROOM	700	85	19.2	25	1731	230	3	60	E-1510 4EB	①②

NOTES:
① SELECTION BASED ON BELL AND GOSSETT OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH VFD.

EXPANSION TANK

SYMBOL	SERVICE	LOCATION	VOLUME GAL	WORKING PRESSURE	DIA.	HEIGHT	CONN. SIZE	MODEL No.	WEIGHT (LBS)	REMARKS
--	CHW LOOP	MECH RM	22	125	16"	34"	1"	B-85LA	270	①②
--	HW LOOP	MECH RM	34	125	20"	34"	1"	B-130LA	410	①③

NOTES:
① SELECTIONS BASED ON BELL&GOSSETT OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH BELL&GOSSETT R-8F AIR SEPARATOR. REFER TO PLANS FOR LOCATION. FULLY INSULATE AIR SEPARATOR.
③ FURNISH AND INSTALL WITH BELL&GOSSETT R-3F AIR SEPARATOR. REFER TO PLANS FOR LOCATION. FULLY INSULATE AIR SEPARATOR.

EXHAUST FAN

EF #

SYMBOL	SERVICE	CFM	S.P. IN H2O	FAN RPM	DRIVE	MOTOR RPM	MOTOR H.P.	ELECTRICAL DATA: VOLT	PH	HZ	MODEL No.	REMARKS
EF-2-1	2ND FLR RESTROOMS	675	0.5	1521	DIRECT	1725	0.25	115	1	60	SUP-692-VG	①④⑤
EF-2-2	CO2 CONTROL	1000	1.0	3500	DIRECT	3500	0.50	230	3	60	AX-36-160-0411	①③
EF-2-3	CO2 CONTROL	1300	1.1	3500	DIRECT	3500	0.50	230	3	60	AX-36-160-0406	①③
EF-2-4	CO2 CONTROL	1700	1.2	3500	DIRECT	3500	1.00	230	3	60	AX-41-190-0406	①③
EF-2-5	2ND CLOSET	180	0.4	1720	DIRECT	1725	0.75	115	1	60	G-060-VG	①④⑤
EF-2-6	ELECTRIC ROOM	300	0.4	1550	DIRECT	1550	150W	115	1	60	SUP-A300	①④⑤
EF-1-1	1ST FLOOR GROW	1140	1.1	1325	DIRECT	1550	0.75	115	1	60	CUE-141-VG	①②⑤
EF-1-2	1ST FLOOR GROW	870	1.15	1334	DIRECT	1550	0.75	115	1	60	CUE-141-VG	①②⑤
EF-1-3	1ST FLOOR GROW	870	1.15	1334	DIRECT	1550	0.75	115	1	60	CUE-141-VG	①②⑤
EF-1-4	1ST FLOOR GROW	970	1.25	1395	DIRECT	1550	0.75	115	1	60	CUE-141-VG	①②⑤
EF-1-5	LAB FUME HOOD	1260	1.25	1421	DIRECT	1550	0.75	115	1	60	CUE-141-VG	①②⑤

NOTES:
① SELECTIONS BASED ON GREENHECK OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH END SWITCH, ROOF CURB, MOTORIZED DAMPER, TOGGLE ON/OFF SWITCH AND VARIGREEN MOTOR CONTROLLER.
③ FURNISH AND INSTALL WITH END SWITCH, MOTORIZED DAMPER, TOGGLE ON/OFF SWITCH.
④ FURNISH AND INSTALL WITH VIBRATION ISOLATORS, REMOTE THERMOSTAT.
⑤ FAN SHALL REPLACE EXISTING FANS TO BE REMOVED IN SAME LOCATION.

ELECTRIC DEHUMIDIFIER

DH #

SYMBOL	SERVICE	MODEL No.	CAPACITY (LB./HR)	ELECTRICAL DATA: VOLT	PH	HZ	W	AMPS	MCA	MOCP	REMARKS
DH-1	GROW ROOMS	506	22.0	230	1	60	2700	13.6			①②
DH-2	SMALL DRY RM	205	5.0	115	1	60	1520	13.2			①②
DH-3	VAULT	70	3.0	115	1	60	680	5.1			①②

NOTES:
① SELECTION BASED ON QUEST OR APPROVED EQUAL.
② PROVIDE WITH MODULATING CONTROL, CONDENSATE PUMP, DRAIN PAN, HUMIDISTAT, AND WALL MOUNTING KIT.

HOT WATER - UNIT HEATER

UH #

SYMBOL	LOCATION	CFM	S.P. IN H2O	FAN MOTOR DATA: RPM	BHP	HP	ELECTRICAL DATA: VOLTS	PH	HZ	AMPS	MOCP	OUTPUT (MBH)	GPM	EWT (°F)	LWT (°F)	OPERATING WEIGHT	MODEL No.	REMARKS
UH-1	IRRIGATION ROOM	370	0.1	1550	--	1/25	115	1	60	1.6	--	11.6	1.7	160	140	25	HC24SB01SA	①②
UH-2	ABOVE CEILING	370	0.1	1550	--	1/25	115	1	60	1.6	--	11.6	1.7	160	140	25	HC24SB01SA	①②

NOTES:
① SELECTIONS BASED ON MODINE OR APPROVED EQUAL.
② PROVIDE ALL ACCESSORIES FOR MOUNTING AND PROPER INSTALLATION.

CIRCULATION FAN

CF #

SYMBOL	SERVICE	CFM	S.P. IN H2O	FAN RPM	DRIVE	MOTOR RPM	MOTOR H.P.	ELECTRICAL DATA: VOLT	PH	HZ	MODEL No.	REMARKS
CF-1	WALL FANS	3150	--	1400	DIRECT	1400	240 W	230	1	60	T4E40A6M80100	①②
CF-2	WALL FANS	5260	--	1380	DIRECT	1380	390 W	230	1	60	T4E50AAM80100	①②

NOTES:
① SELECTIONS BASED ON VOSTERMANS OR APPROVED EQUAL.
② FURNISH WITH MANUAL WALL SWITCH WITH VARIABLE SPEED CONTROL, WALL BRACKET MOUNTED AT 80" A.F.F.

GAS - ELECTRIC ROOFTOP UNITS

RTU #

SYMBOL	SERVICE	LOCATION	NOM. TONS	MODEL No.	OPER. WEIGHT (LBS)	MIN. O.A. CFM	TOTAL CFM	FAN DATA: RPM	ESP (IN H2O)	BHP	HP	ELECTRICAL: VOLTS	PH	HZ	MCA	MOCP	NATURAL GAS: MAX INPUT (MBH)	OUTPUT (MBH)	COOLING COIL: TOTAL (MBH)	SENSIBLE (MBH)	EAT (°F) DB	EAT (°F) WB	LAT (°F) DB	LAT (°F) WB	REMARKS
RTU-2-1	STORAGE	ROOF	3	YHC036E4	767	200	1000	1012	1.0	0.53	--	460	3	60	10	15	60	48	35.8	24.3	77.4	65.2	54.9	53.7	①②④⑤
RTU-2-2	TRIM ROOM	ROOF	3	YZC036E4	767	200	1000	1012	1.0	0.53	--	460	3	60	10	15	60	48	35.8	24.3	77.4	65.2	54.9	53.7	①③④⑤
RTU-2-3	OFFICE	ROOF	3	YHC036E4	767	200	1000	1012	1.0	0.53	--	460	3	60	10	15	60	48	35.8	24.3	77.4	65.2	54.9	53.7	①②④⑤

NOTES:
① SELECTIONS BASED ON TRANE OR APPROVED EQUAL.
② FURNISH WITH ROOF CURB, CONVENIENCE OUTLET, WALL MOUNTED PROGRAMMABLE THERMOSTAT, VERTICAL/VERTICAL CONFIGURATION, HOT GAS REHEAT COIL, ENTHALPY ECONOMIZER, BACNET INTERFACE, AND BAROMETRIC RELIEF.
③ FURNISH WITH ROOF CURB, CONVENIENCE OUTLET, TRUE VAV SUPPLY FAN, BACNET INTERFACE, VERTICAL/VERTICAL CONFIGURATION, ENTHALPY ECONOMIZER , AND POWER EXHAUST.
④ DISCONNECT SWITCH SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
⑤ FURNISH WITH 5 YEAR COMPRESSOR WARRANTY.

AIR COOLED RECIPROCATING CHILLER

CH #

SYMBOL	SERVICE	CAPACITY (TONS)	EAT (°F)	EWT (°F)	LWT (°F)	GPM	ΔPD	%PG	ELECTRICAL DATA: MCA	MOCP	V	PH	HZ	No. OF STAGES	No. OF CIRCUITS	REFRIGERANT	MODEL		REMARKS
CH-1	1ST FLOOR	225	95	54	44	445	33.5	30	-	-	460	3	60	-	-	R410A	RTAC225		①②
CH-2	2ND FLOOR	310	95	52	42	700	24.2	30	599	700	460	3	60	VARIABLE	2	R134A	RTAF310EU--H		①②

NOTES:
① SELECTIONS BASED ON TRANE OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH HIGH EFFICIENCY CONSTRUCTION, TURBOLATORS, SINGLE POINT POWER, NON-FUSED DISCONNECT, VARIABLE COMPRESSORS, BACNET COMMUNCATIONS, VARIABLE CONDENSER FANS,

ELECTRIC STEAM HUMIDIFIER

H #

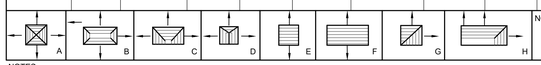
SYMBOL	SERVICE	HUMIDIFIER MODEL No.	CAPACITY (LB./HR)	ELECTRICAL DATA: VOLT	PH	HZ	KW	AMPS	MCA	MOCP	DISPERSION MODEL No.	REMARKS
H-1	DRY ROOM	VM-6	17.0	460	3	60	9	10.8			SDU	①②
H-2	VAULT	865	4.0	120	1	60	-	11.5	--	--	850	③④

NOTES:
① EQUIPMENT PROVIDED FROM BUILDING STOCK.
② PROVIDE WITH MODULATING CONTROL, SSR, CONDENSATE PUMP, BACNET COMMUNICATION, HUMIDISTAT, ON-OFF HIGH LIMIT, SPACE DISTRIBUTION UNIT DRAW CONTROL WALL MOUNTING KIT.
③ SELECTION BASED ON APRILAIRE OR APPROVED EQUAL.
④ FURNISH AND INSTALL WITH APRILAIRE 850 BLOWER PACK, HIGH LIMIT SWITCH, DIVERSATECH CP 22 PUMP, AND WALL MOUNTED HUMIDISTAT.

REGISTERS, GRILLES, & DIFFUSERS

SD-1(A1) ← PATTERN
CFM

SYMBOL	SERVICE	MODEL	MODULE SIZE	NECK SIZE	TRANSITION TO ROUND NECK SIZE	CFM RANGE	MAX PD (IN. WG.)	MAX NC	OBD YES	OBD NO	MATERIAL	FINISH	REMARKS
SG-1	SUPPLY	520	6x6	6x6	--	0-100	--	25		•	STEEL	WHITE	①②③④
SG-2	SUPPLY	520	12x6	12x6	--	101-200	--	25		•	STEEL	WHITE	①②③④
SD-1	SUPPLY	SCD	24x24	6"Ø	--	0-100	--	25		•	STEEL	WHITE	①②③④
SD-2	SUPPLY	SCD	24x24	8"Ø	--	101-225	--	25		•	STEEL	WHITE	①②③④
SD-3	SUPPLY	SCD	24x24	10"Ø	--	226-350	--	25		•	STEEL	WHITE	①②③④
RG-1	RETURN	PDDR	24x24	6"Ø	--	0-100	--	25		•	STEEL	WHITE	①②③④
RG-2	RETURN	PDDR	24x24	8"Ø	--	101-225	--	25		•	STEEL	WHITE	①②③④
RG-3	RETURN	PDDR	24x24	10"Ø	--	226-350	--	25		•	STEEL	WHITE	①②③④
RG-4	RETURN	PDDR	24x24	12"Ø	--	351-600	--	25		•	STEEL	WHITE	①②③④
RG-5	RETURN	PDDR	24x24	14"Ø	--	601-900	--	25		•	STEEL	WHITE	①②③④
RG-6	RETURN	PDDR	24x24	18x18	--	901-1300	--	25		•	STEEL	WHITE	①②③④
RG-7	RETURN	530	6x6	6x6	--	0-100	--	25		•	STEEL	WHITE	①②③④
RG-8	RETURN	530	14x6	14x6	--	101-250	--	25		•	STEEL	WHITE	①②③④
RG-9	RETURN	530	12x10	12x10	--	251-350	--	25		•	STEEL	WHITE	①②③④
EG-1	EXHAUST	630	6x6	6x6	--	0-100	--	25		•	STEEL	WHITE	①②③④
EG-2	EXHAUST	630	8x8	8x8	--	0-200	--	25		•	STEEL	WHITE	①②③④



NOTES:

SD-EX ← NOTE
CFM

NOTES:
① SELECTIONS BASED ON PRICE OR APPROVED EQUAL.
② BORDER TYPES SHALL BE COMPATIBLE WITH ARCHITECTURAL CEILING TYPE FOR THE ROOM IN WHICH THE AIR DEVICE IS LOCATED.
③ REFER TO PLANS FOR LOCATION AND AIR QUANTITIES OF EACH AIR DEVICE AND REQUIRED FLOW PATTERN.
④ PROVIDE SQUARE TO ROUND TRANSITION WITH DIFFUSER, MINIMUM OF 3" HEIGHT.

VAV TERMINAL

VAV #

SYMBOL	SERVICE	CFM MIN.	CFM MAX.	INLET SIZE	REHEAT COIL: OUTPUT, MBH	GPM	EWT (°F)	LWT (°F)	ROWS	ELECTRICAL: VOLTS	PH	HZ	MCA	MOCP	PHASE	MODEL	OPERATING WEIGHT	REMARKS
VAV-2-1	TRIM	200	600	8"Ø	12.4	1.25	160	140	2	--	--	--	--	--	--	VCWF	24	①
VAV-2-2	SMALL DRY	140	400	6"Ø	6.0	0.6	160	140	1	--	--	--	--	--	--	VCWF	21	①

NOTES:
① SELECTION BASED ON TRANE OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH ELECTRONIC ACTUATOR, HOT WATER REHEAT COIL.

UV ODOR CONTROL

UV #

SYMBOL	SERVICE	O3 OUTPUT MG/HR	ELECTRICAL DATA: VOLT	PH	HZ	MODEL No.	REMARKS
UV-1	EXHAUST	5800	115	1	60	CD-1200	①②

NOTES:
① SELECTIONS BASED ON UVONAIR OR APPROVED EQUAL.
② FURNISH WITH MOUNTING HARDWARE,

UDA ARCHITECTS
486 HIGH PLAIN STREET
WALPOLE, MASSACHUSETTS 02081
P. 508-734-5236 F. 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 Lexington Street, Suite 207
Woburn, MA 01801
Tel. (781) 569-6525 Fax (781) 569-6526

InLine Mechanical
HVAC CONTRACTORS
226 Lowell Street, Suite A3, Wilmington, MA 01887
Phone: 978.909.3100 / Fax: 978.447.1197 / Email: info@inlinehvacr.com

COMMONWEALTH OF MASSACHUSETTS
WILLIAM C. CREED
MECHANICAL
No. 34759
REGISTERED PROFESSIONAL ENGINEER

DRAWING STATUS:

2	REVISION #2 – 1ST FLOOR ODOR MITIGATION EQPM. 7-09-2019
1	REVISION #1-CHILLER RELOCATION 6-06-2019

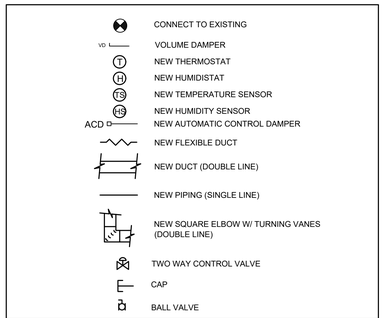
CLIENT:
COMMONWEALTH CANNABIS COMPANY

PROJECT:
SECOND FLOOR FIT-OUT

DRAWING:
MECHANICAL SCHEDULES

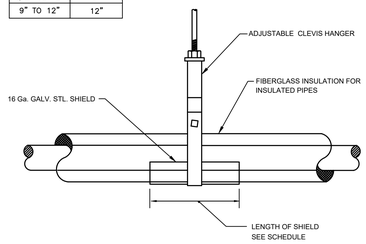
Scale:
Date: 05/14/2019 | Job #: 219022
Drawn by: BPM | Checked by: WCC

M1.1

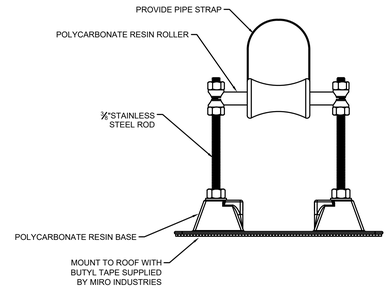


LEGEND — NTS — -

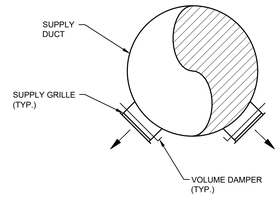
SHIELD SCHEDULE	
PIPE SIZE	LENGTH OF SHIELD
1/2" TO 5"	8"
9" TO 12"	12"



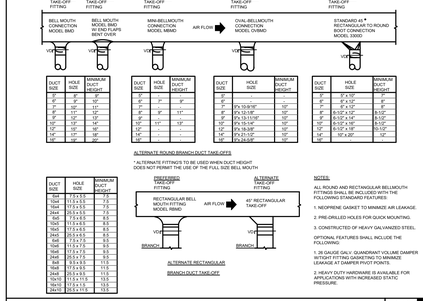
TYPICAL PIPE HANGER DETAIL — NTS — 1



ROOF PIPING SUPPORT DETAIL — NTS — 2



ROUND DUCT W/ SUPPLY GRILLES — NTS — 3



DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
4"	8"	10"
5"	10"	11"
6"	11"	12"
7"	12"	13"
8"	13"	14"
9"	14"	15"
10"	15"	16"
12"	17"	18"
14"	19"	20"
16"	21"	22"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
4"	7"	9"
5"	8"	10"
6"	9"	11"
7"	10"	12"
8"	11"	13"
9"	12"	14"
10"	13"	15"
12"	15"	17"
14"	17"	19"
16"	19"	21"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
4"	7"	9"
5"	8"	10"
6"	9"	11"
7"	10"	12"
8"	11"	13"
9"	12"	14"
10"	13"	15"
12"	15"	17"
14"	17"	19"
16"	19"	21"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
4"	7"	9"
5"	8"	10"
6"	9"	11"
7"	10"	12"
8"	11"	13"
9"	12"	14"
10"	13"	15"
12"	15"	17"
14"	17"	19"
16"	19"	21"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
4"	7"	9"
5"	8"	10"
6"	9"	11"
7"	10"	12"
8"	11"	13"
9"	12"	14"
10"	13"	15"
12"	15"	17"
14"	17"	19"
16"	19"	21"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
4"	7" x 10-9/16"	10"
5"	8" x 12-1/8"	10"
6"	9" x 13-11/16"	10"
7"	10" x 15-1/4"	10"
8"	11" x 16-3/8"	10"
9"	12" x 17-1/2"	10"
10"	13" x 18-5/8"	10"
12"	15" x 20-7/8"	10"
14"	17" x 21-1/2"	10"
16"	19" x 24-3/8"	10"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
4"	7" x 10"	8"
5"	8" x 12"	8"
6"	9" x 14"	8"
7"	10" x 16"	8-1/2"
8"	11" x 18"	9-1/2"
9"	12" x 20"	10-1/2"
10"	13" x 22"	11-1/2"
12"	15" x 26"	13"
14"	17" x 28"	14"
16"	19"	15"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
6x4	11 1/2 x 5 5/8	7.5
8x4	13 1/2 x 5 5/8	7.5
10x4	15 1/2 x 5 5/8	7.5
24x4	29 1/2 x 5 5/8	7.5
6x5	11 1/2 x 6 5/8	8.5
10x5	15 1/2 x 6 5/8	8.5
12x5	17 1/2 x 6 5/8	8.5
24x5	29 1/2 x 6 5/8	8.5
6x6	11 1/2 x 7 5/8	9.5
10x6	15 1/2 x 7 5/8	9.5
14x6	19 1/2 x 7 5/8	9.5
24x6	29 1/2 x 7 5/8	9.5
8x8	13 1/2 x 9 5/8	11.5
10x8	15 1/2 x 9 5/8	11.5
14x8	19 1/2 x 9 5/8	11.5
16x8	21 1/2 x 9 5/8	11.5
20x8	25 1/2 x 9 5/8	11.5
24x8	29 1/2 x 9 5/8	11.5
10x10	15 1/2 x 11 5/8	13.5
12x10	17 1/2 x 11 5/8	13.5
16x10	21 1/2 x 11 5/8	13.5

NOTES:

ALL ROUND AND RECTANGULAR BELLMOUTH FITTINGS SHALL BE INCLUDED WITH THE FOLLOWING STANDARD FEATURES:

1. NEOPRENE GASKET TO MINIMIZE AIR LEAKAGE.

2. PRE-DRILLED HOLES FOR QUICK MOUNTING.

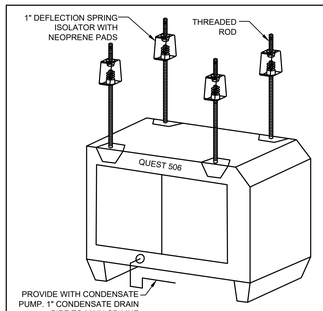
3. CONSTRUCTED OF HEAVY GALVANIZED STEEL.

OPTIONAL FEATURES SHALL INCLUDE THE FOLLOWING:

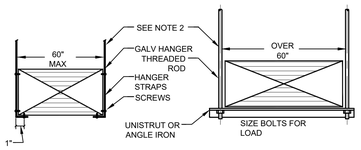
1. 26 GAUGE GALV. QUANDRANT VOLUME DAMPER WITH SEALED BEARINGS TO MINIMIZE LEAKAGE AT DAMPER PIVOT POINTS.

2. HEAVY DUTY HARDWARE IS AVAILABLE FOR APPLICATIONS WITH INCREASED STATIC PRESSURE.

BRANCH DUCT TAKE-OFF — NTS — 4



QUEST DEHUMIDIFIER SUPPORT — NTS — -

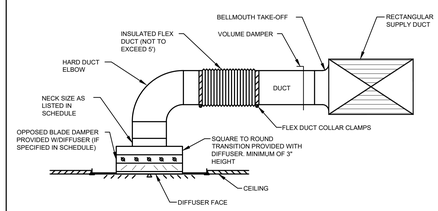


NOTES:

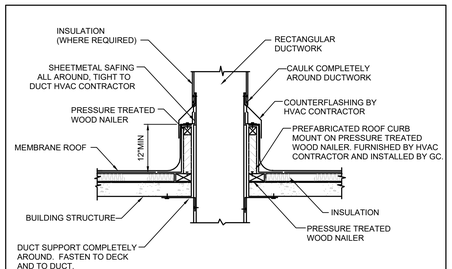
1. ON DUCTS OVER 48" WIDE, BOTTOM SHALL BE BRACED BY ANGLE. FOR CROSS SECTION AREAS MORE THAN 8 SQ FT, DUCT SHALL BE BRACED BY ANGLES ON ALL FOUR SIDES.

2. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA STANDARDS.

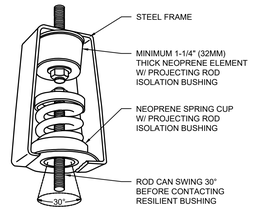
DUCT HANGER SUPPORT — NTS — 5



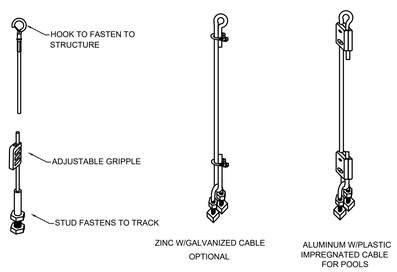
SUPPLY DIFFUSER CONNECTION — NTS — 6



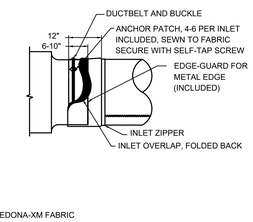
DUCT PENETRATION THROUGH ROOF DETAIL — NTS — 7



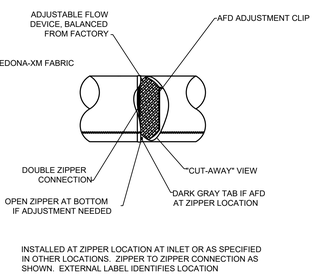
FCU & EF VIBRATION ISOLATOR DETAIL — NTS — 8



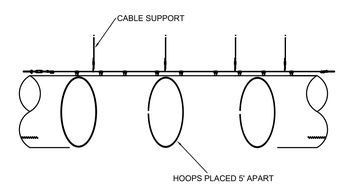
DUCTSOX U-TRACK SUPPORT DETAIL — NTS — 9



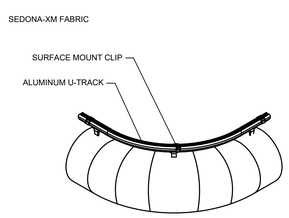
DUCTSOX INLET ATTACHMENT DETAIL — NTS — 10



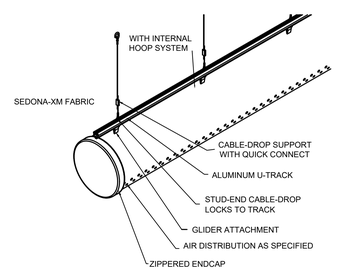
DUCTSOX ADJUSTABLE FLOW DEVICE — NTS — 11



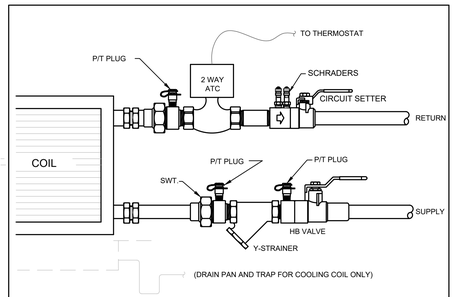
HOOPS (IHS) SUSPENSION DETAIL — NTS — 12



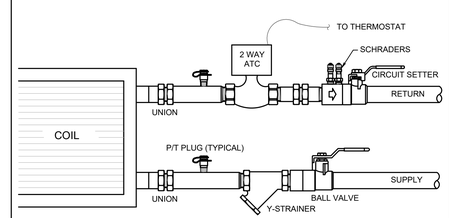
RADIUS U-TRACK SUPPORT CABLE DETAIL — NTS — 13



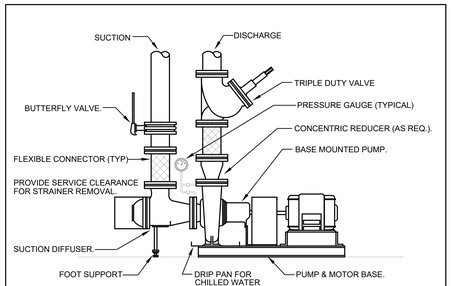
HOOPS (IHS) SUSPENSION CABLE DETAIL — NTS — 14



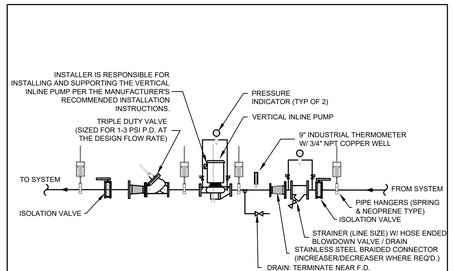
FAN COIL UNIT COOLING COIL — NTS — 15



FAN COIL UNIT HEATING COIL — NTS — 16

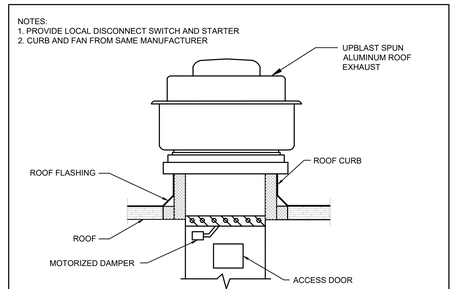


BASE MOUNTED END SUCTION PUMP — NTS — 17

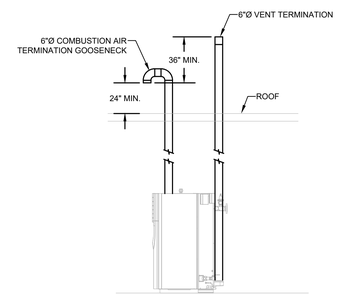


INLINE PUMP DETAIL — NTS — 18

NOTES:
1. PROVIDE LOCAL DISCONNECT SWITCH AND STARTER
2. CURB AND FAN FROM SAME MANUFACTURER



CENTRIFUGAL UPBLAST ROOF EXHAUST FAN DETAIL — NTS — 19



BOILER VENTING DETAIL — NTS — 20

UDA ARCHITECTS
486 HIGH PLAIN STREET
WALPOLE, MASSACHUSETTS 02081
P. 508-734-5236 F. 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 Lexington Street, Suite 207
Woburn, MA 01801
Tel. (781) 569-6525 Fax (781) 569-6526

InLine Mechanical
HVAC CONTRACTORS
226 Lowell Street, Suite A3, Wilmington, MA 01887
Phone: 978.909.3100 / Fax: 978.447.1197 / Email: info@inlinehvacr.com

COMMONWEALTH OF MASSACHUSETTS
WILLIAM C. CREED
MECHANICAL
No. 34778
REGISTERED PROFESSIONAL ENGINEER

DRAWING STATUS:

2	REVISION #2 – 1ST FLOOR ODOR MITIGATION EQPM. 7-11-2019
1	REVISION #1-CHILLER RELOCATION 6-06-2019

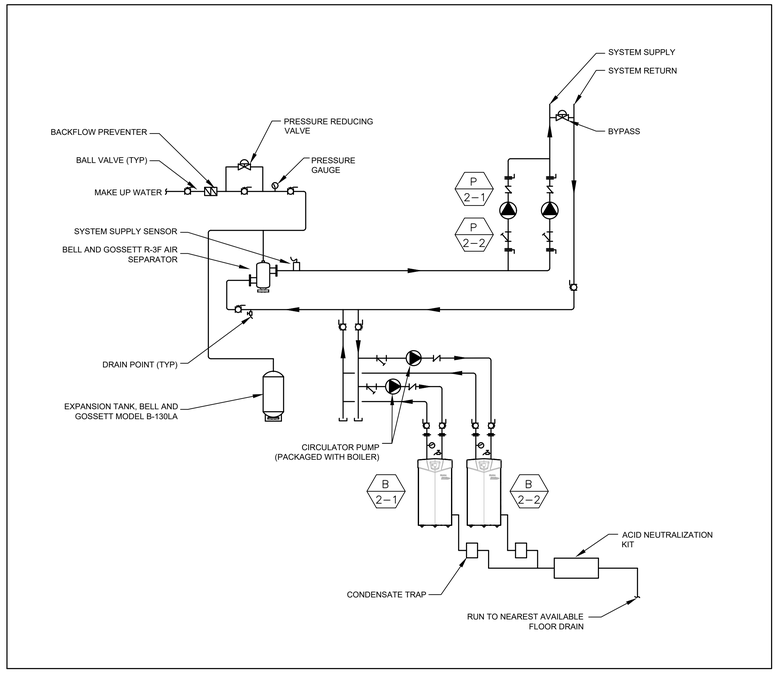
CLIENT:
COMMONWEALTH CANNABIS COMPANY

PROJECT:
SECOND FLOOR FIT-OUT

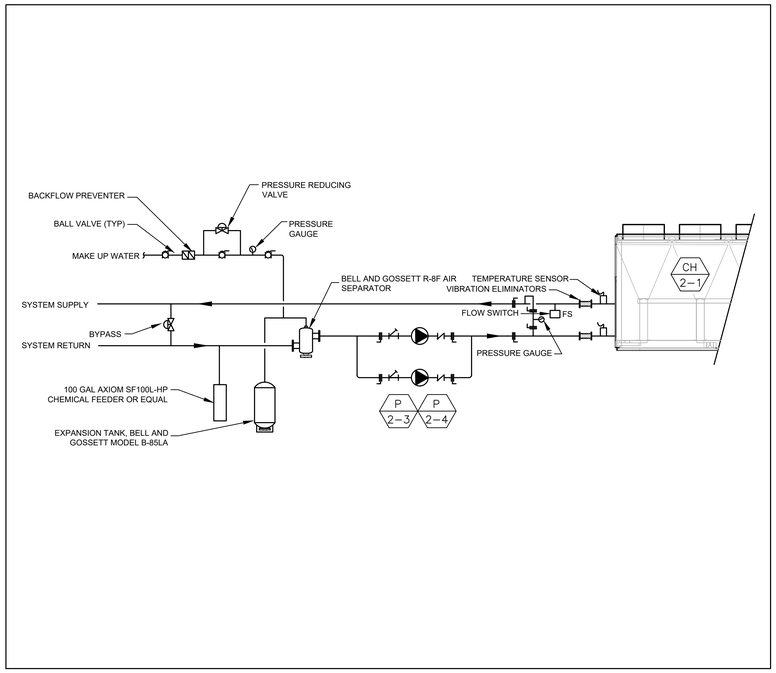
DRAWING:
MECHANICAL DETAILS

Scale:
Date: 05/14/2019 | Job #: 219022
Drawn by: BPM | Checked by: WCC

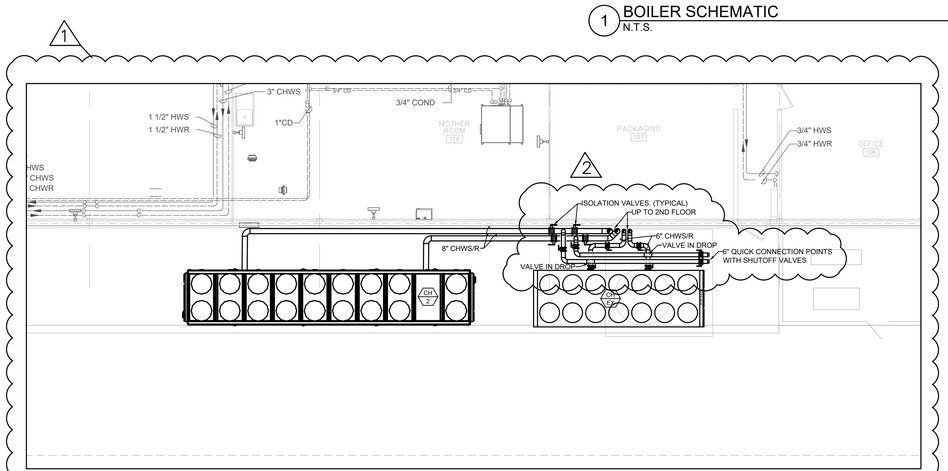
M1.2



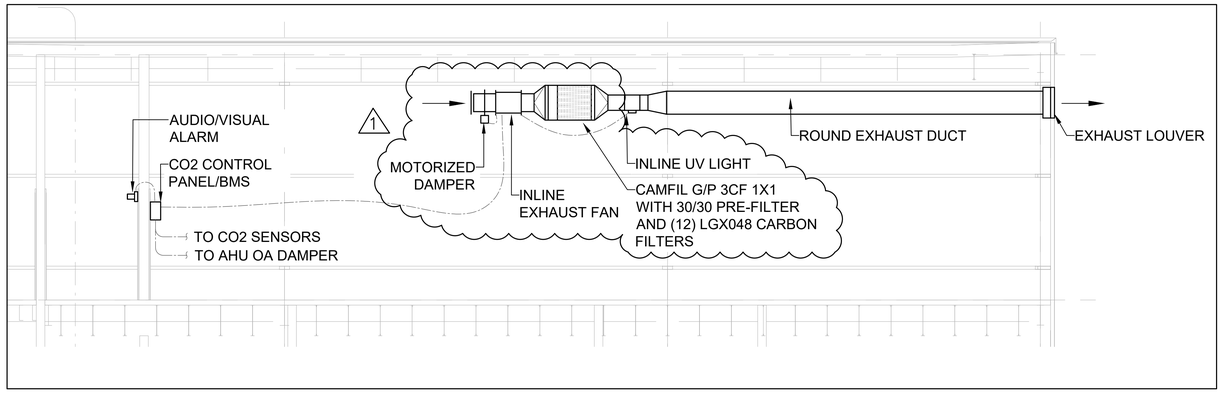
1 BOILER SCHEMATIC
N.T.S.



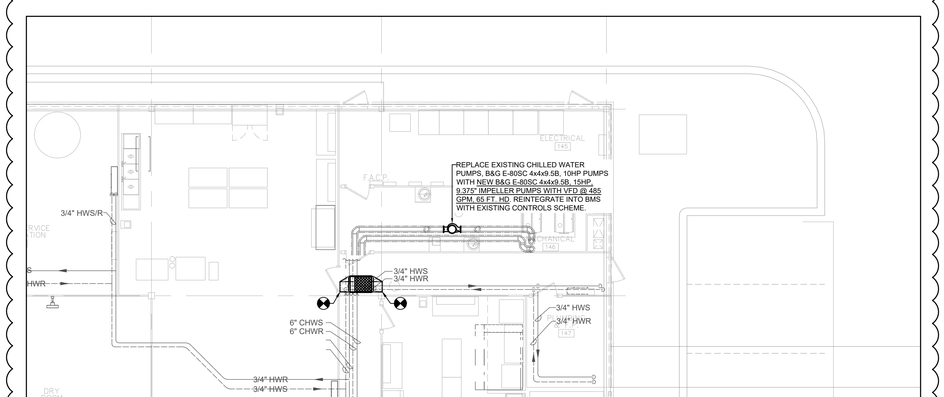
2 CHILLER SCHEMATIC
N.T.S.



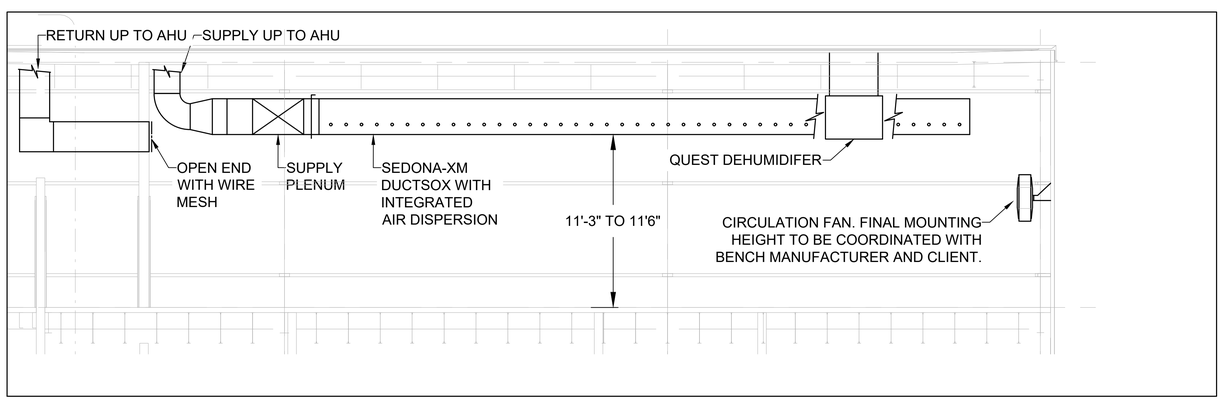
3 CHILLER LOCATION AND EXTERIOR PIPING
1/8" = 1'-0"



4 GROW ROOM EXHAUST ELEVATION DETAIL
1/4" = 1'-0"



5 1ST FLOOR MECHANICAL ROOM PUMP REPLACEMENT
1/8" = 1'-0"



6 GROW ROOM AHU SUPPLY ELEVATION DETAIL
1/4" = 1'-0"

UDA ARCHITECTS
486 HIGH PLAIN STREET
WALPOLE, MASSACHUSETTS 02081
P. 508-734-5236 F. 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 Lexington Street, Suite 207
Woburn, MA 01801
Tel. (781) 569-6525 Fax (781) 569-6526

InLine Mechanical
HVAC CONTRACTORS
226 Lowell Street, Suite A3, Wilmington, MA 01887
Phone: 978.909.3100 / Fax: 978.447.1197 / Email: info@inlinehvacr.com

COMMONWEALTH OF MASSACHUSETTS
WILLIAM C. CREED
MECHANICAL
No. 30708
REGISTERED PROFESSIONAL ENGINEER

DRAWING STATUS:

2	REVISION #2 – 1ST FLOOR ODOR MITIGATION EQPM. 7-11-2019
1	REVISION #1-CHILLER RELOCATION 6-06-2019

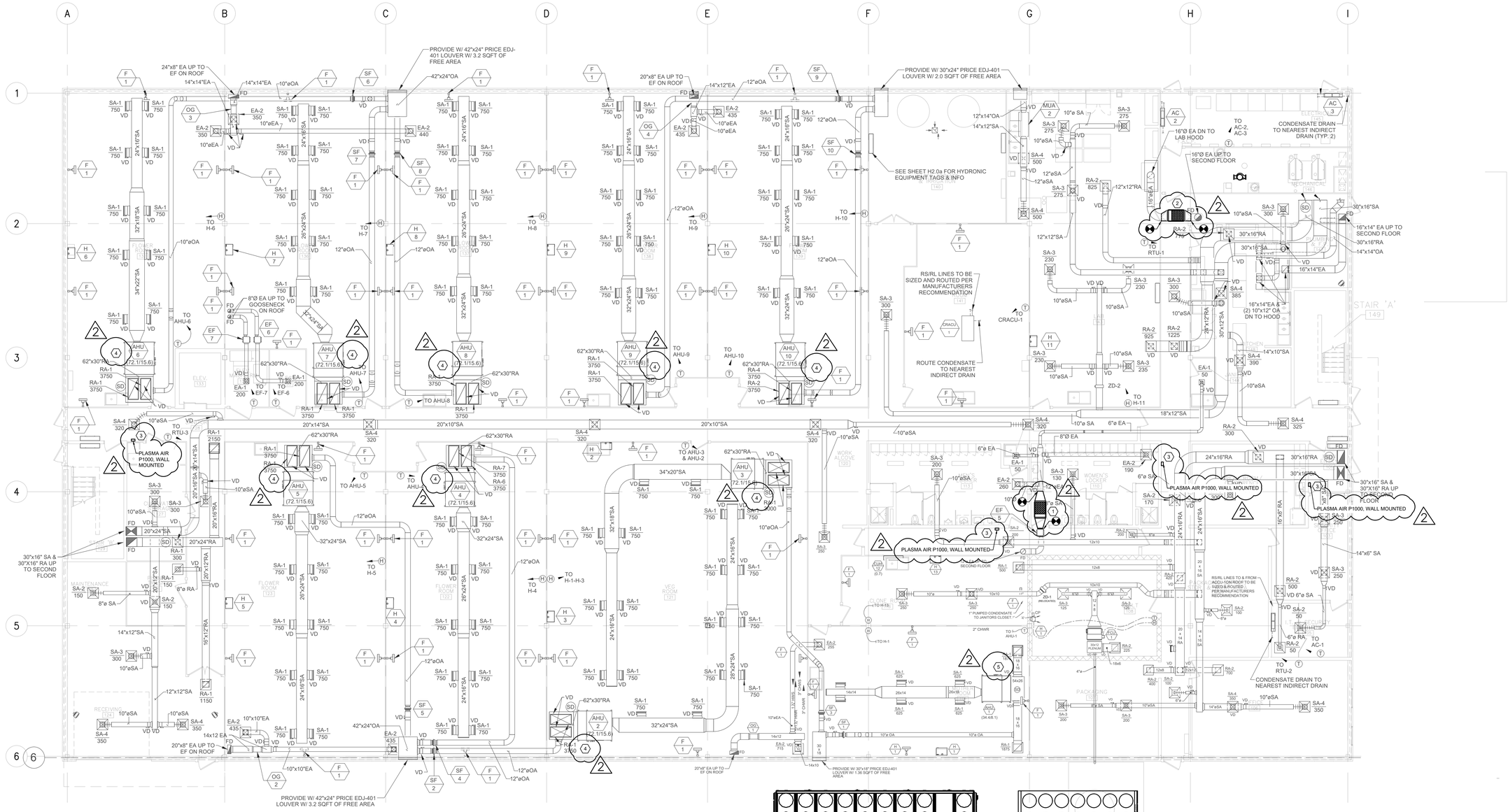
CLIENT:
COMMONWEALTH CANNABIS COMPANY

PROJECT:
SECOND FLOOR FIT-OUT

DRAWING:
MECHANICAL DETAILS & ELEVATIONS

Scale:
Date: 05/14/2019 | Job #: 219022
Drawn by: BPM | Checked by: WCC

M1.4



HVAC FIRST FLOOR PLAN

1/8" = 1'-0" 0' 4' 8' 16'

CONSTRUCTION NOTES:

1. CAMFIL G/P 3CF 0.5X1 WITH 30/30 PRE-FILTER AND 12 LGX048 CARBON FILTERS
2. CAMFIL G/P 3CF 1X1 WITH 30/30 PRE-FILTER AND 12 LGX048 CARBON FILTERS
3. PROVIDE NEW WALL-MOUNTED PLASMA AIR P-1000 RECIRCULATION UNITS.
4. PROVIDE NEW PLASMA BAR MODEL PB-036 WITHIN AIR HANDLING UNITS RETURN SECTION.
5. PROVIDE NEW PLASMA BAR MODEL PB-018 WITHIN AIR HANDLING UNITS RETURN SECTION.

UDA ARCHITECTS
486 HIGH PLAIN STREET
WALPOLE, MASSACHUSETTS 02081
P. 508-734-5236 F. 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 Lexington Street, Suite 207
Woburn, MA 01801
Tel. (781) 569-6525 Fax (781) 569-6526

InLine Mechanical
HVAC CONTRACTORS
226 Lowell Street, Suite A3, Wilmington, MA 01887
Phone: 978.909.3100 / Fax: 978.447.1197 / Email: info@inlinehvacr.com

COMMONWEALTH OF MASSACHUSETTS
WILLIAM C. CREED
MECHANICAL
No. 34759
REGISTERED PROFESSIONAL ENGINEER

DRAWING STATUS:

2	REVISION #2 – 1ST FLOOR ODOR MITIGATION EQPM. 7-11-2019
1	REVISION #1-CHILLER RELOCATION 6-06-2019

CLIENT:
COMMONWEALTH CANNABIS COMPANY

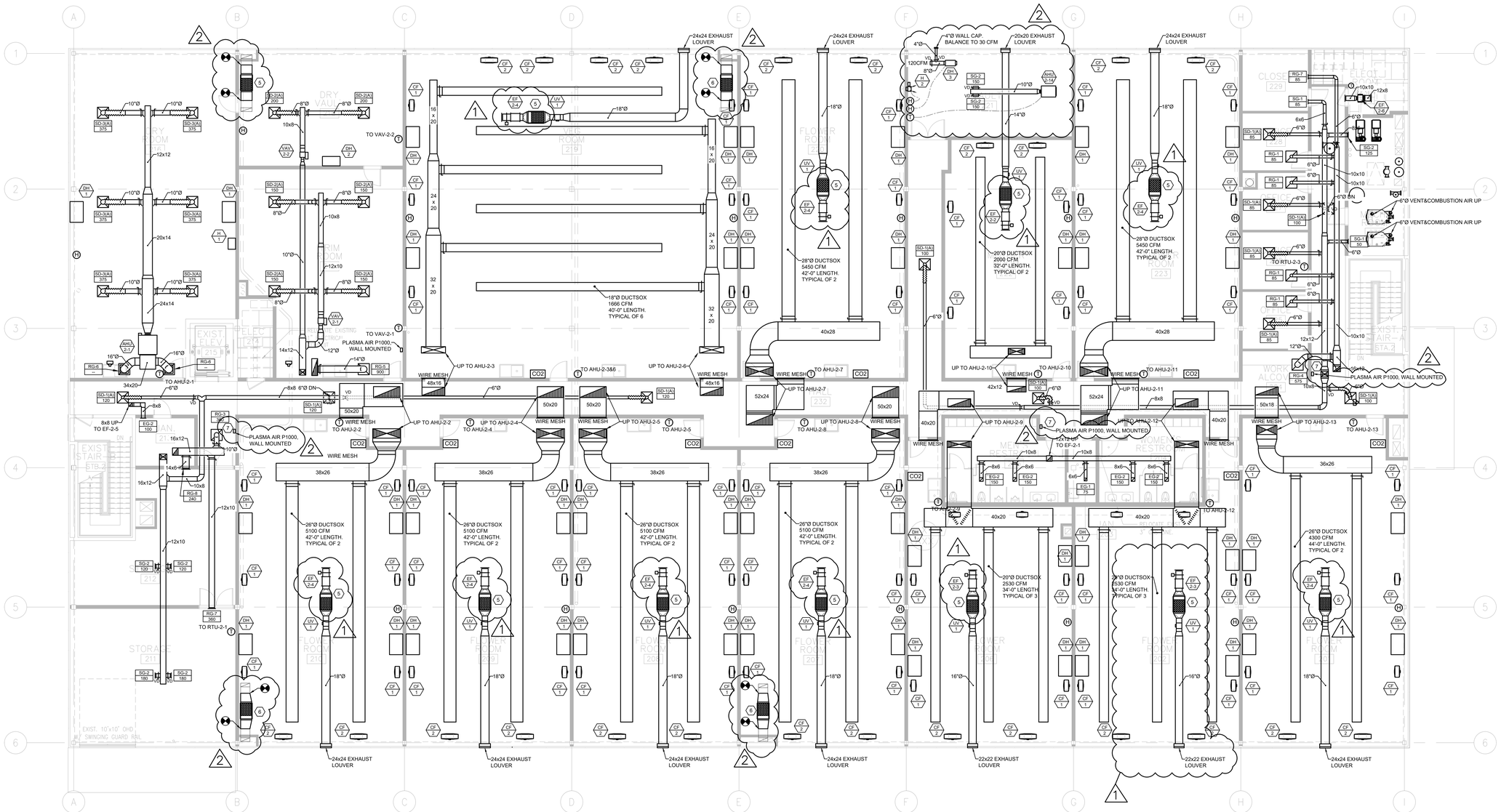
PROJECT:
SECOND FLOOR FIT-OUT

DRAWING:
1st FLOOR PLAN, MECHANICAL DUCTWORK

Scale:

Date: 05/14/2019	Job #: 219022
Drawn by: BPM	Checked by: WCC

M2.0



CONSTRUCTION NOTES:

1. PROVIDE CONDENSATE PUMPS FOR ALL NEW DEHUMIDIFIERS, HUMIDIFIERS, AND AHU-2-1.
2. CONTRACTOR SHALL WALL MOUNT ALL CIRCULATION FANS. FINAL LOCATIONS AND MOUNTING HEIGHT SHALL BE COORDINATED WITH RACKS
3. GROW ROOM SUPPLY DUCTWORK SHALL BE MOUNTED SUCH THAT THE MAXIMUM HEIGHT ABOVE FINISHED FLOOR IS ACHIEVED.
4. REFER TO HANGERS AND SUPPORTS DETAIL ON SHEET M-3 FOR MOUNTING INSTRUCTIONS.
5. CAMFIL G/P 3CF 1X1 WITH 30/30 PRE-FILTER AND 12 LGX048 CARBON FILTERS
6. CAMFIL G/P 3CF 0.5X1 WITH 30/30 PRE-FILTER AND 12 LGX048 CARBON FILTERS
7. PROVIDE NEW WALL-MOUNTED PLASMA AIR P-1000 RECIRCULATION UNITS.

UDA ARCHITECTS
486 HIGH PLAIN STREET
WALPOLE, MASSACHUSETTS 02081
P. 508-734-5236 F. 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 Lexington Street, Suite 207
Woburn, MA 01801
Tel. (781) 569-6525 Fax (781) 569-6526

InLine Mechanical
HVAC CONTRACTORS
226 Lowell Street, Suite A3, Wilmington, MA 01887
Phone: 978.909.3100 / Fax: 978.447.1197 / Email: info@inlinehvacr.com

COMMONWEALTH OF MASSACHUSETTS
WILLIAM C. CREED
MECHANICAL
No. 34759
REGISTERED PROFESSIONAL ENGINEER

DRAWING STATUS:

2	REVISION #2 – 1ST FLOOR ODOR MITIGATION EQPM. 7-11-2019
1	REVISION #1-CHILLER RELOCATION 6-06-2019

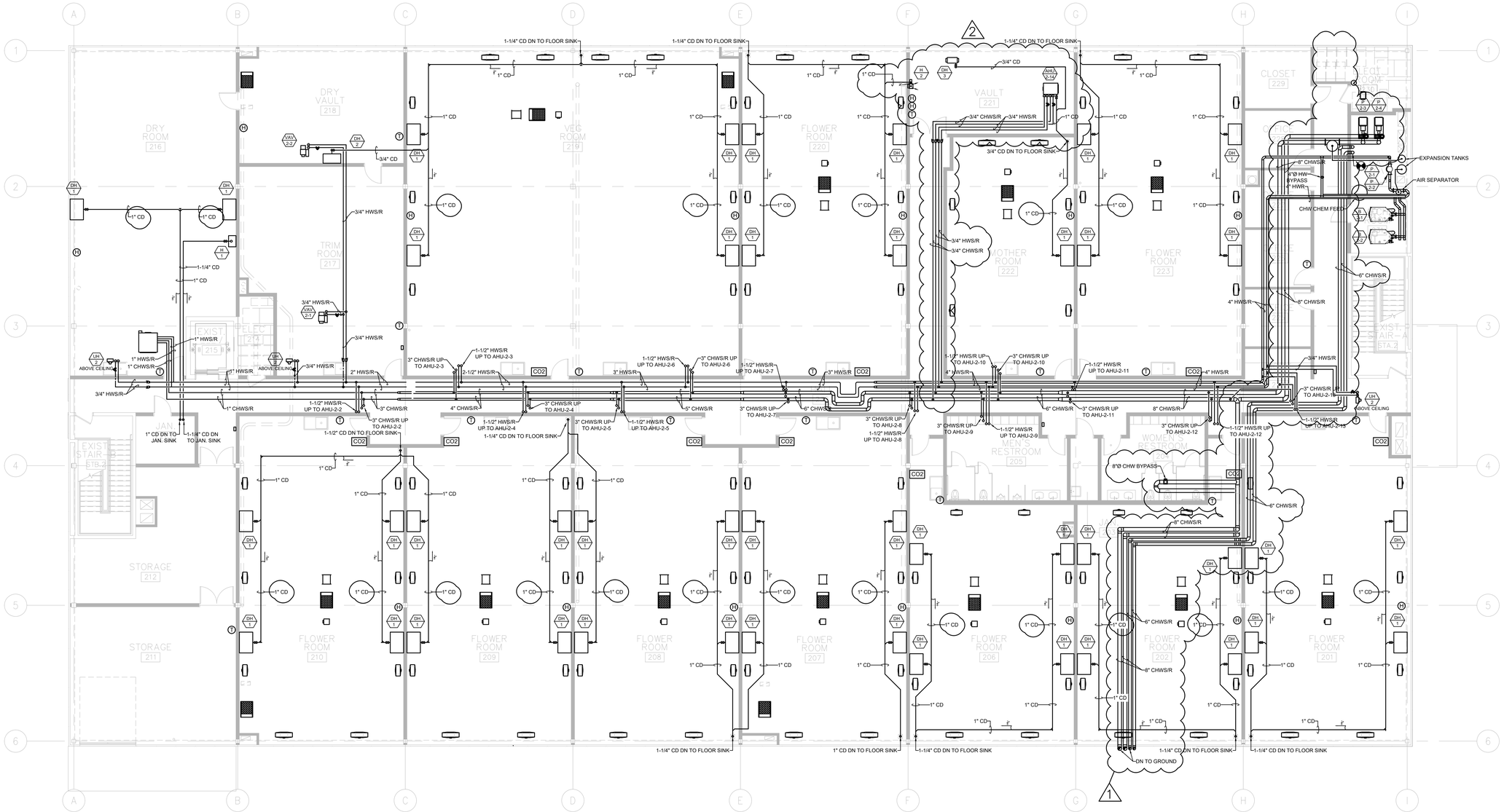
CLIENT:
COMMONWEALTH CANNABIS COMPANY

PROJECT:
SECOND FLOOR FIT-OUT

DRAWING:
2nd FLOOR PLAN, MECHANICAL DUCTWORK

Scale:	
Date: 05/14/2019	Job #: 219022
Drawn by: BPM	Checked by: WCC

M3.0



CONSTRUCTION NOTES:

1. PROVIDE CONDENSATE PUMPS FOR ALL NEW DEHUMIDIFIERS, HUMIDIFIERS, AND AHU-2-1.
2. CONTRACTOR SHALL WALL MOUNT ALL CIRCULATION FANS. FINAL LOCATIONS AND MOUNTING HEIGHT SHALL BE COORDINATED WITH RACKS
3. GROW ROOM SUPPLY DUCTWORK SHALL BE MOUNTED SUCH THAT THE MAXIMUM HEIGHT ABOVE FINISHED FLOOR IS ACHIEVED.
4. REFER TO HUMIDIFIER MOUNTING DETAIL ON SHEET M1.3 FOR MOUNTING INSTRUCTIONS.

UDA ARCHITECTS
486 HIGH PLAIN STREET
WALPOLE, MASSACHUSETTS 02081
P. 508-734-5236 F. 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 Lexington Street, Suite 207
Woburn, MA 01801
Tel. (781) 569-6525 Fax (781) 569-6526

InLine Mechanical
HVAC CONTRACTORS
226 Lowell Street, Suite A3, Wilmington, MA 01887
Phone: 978.909.3100 / Fax: 978.447.1197 / Email: info@inlinehvacr.com

COMMONWEALTH OF MASSACHUSETTS
WILLIAM C. CREED
MECHANICAL
No. 34798
REGISTERED PROFESSIONAL ENGINEER

DRAWING STATUS:

2	REVISION #2 – 1ST FLOOR ODOR MITIGATION EQPM. 7-11-2019
1	REVISION #1-CHILLER RELOCATION 6-06-2019

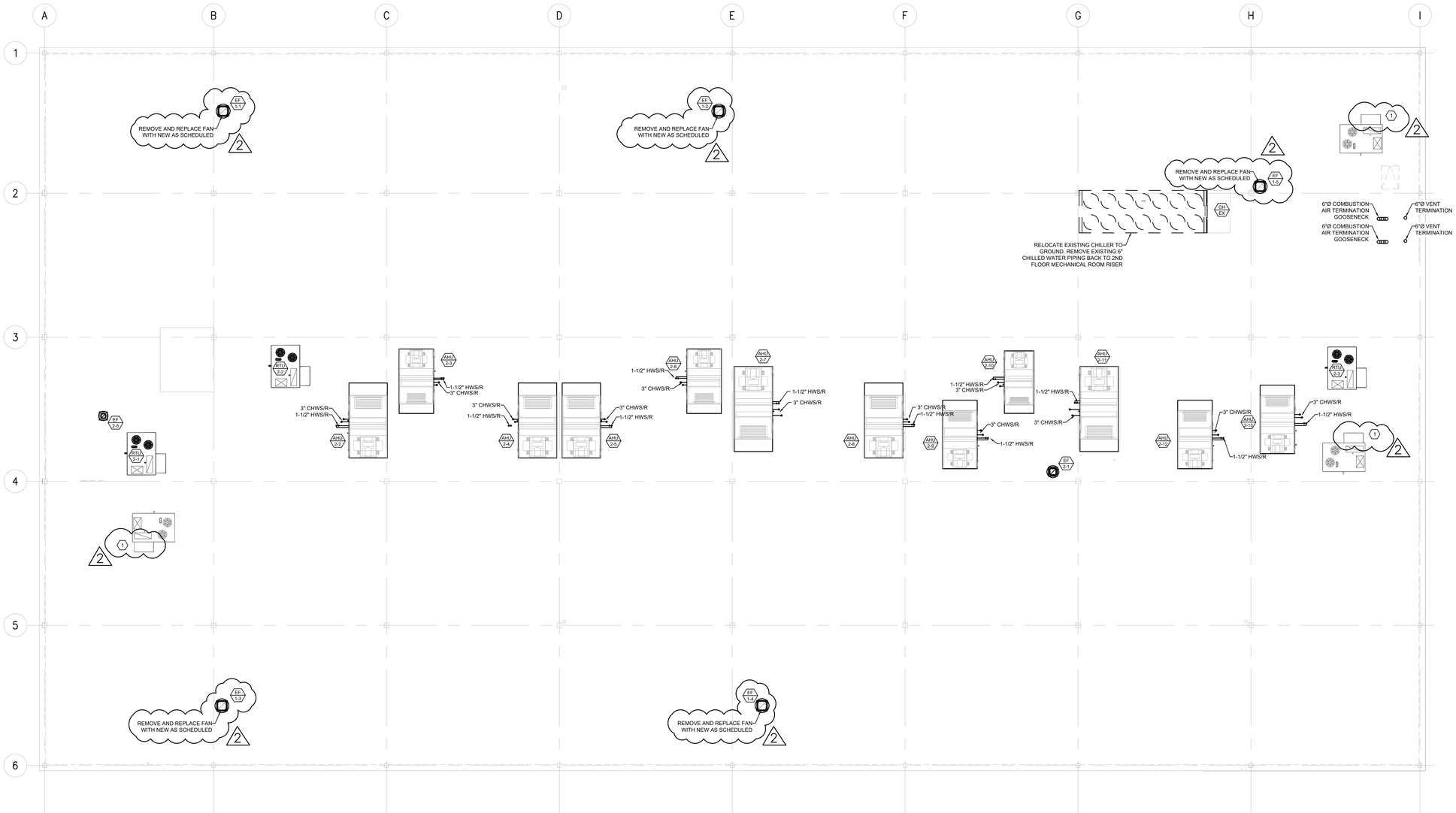
CLIENT:
COMMONWEALTH CANNABIS COMPANY

PROJECT:
SECOND FLOOR FIT-OUT

DRAWING:
2nd FLOOR PLAN, MECHANICAL PIPING

Scale:	
Date: 05/14/2019	Job #: 219022
Drawn by: BPM	Checked by: WCC

M3.1



CONSTRUCTION NOTES:

1. PROVIDE NEW PLASMA BAR MODEL PB-018 WITHIN EXISTING PACKAGED ROOFTOP UNITS RETURN SECTION.

UDA ARCHITECTS
486 HIGH PLAIN STREET
WALPOLE, MASSACHUSETTS 02081
P. 508-734-5236 F. 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 Lexington Street, Suite 207
Woburn, MA 01801
Tel. (781) 569-6525 Fax (781) 569-6526

InLine Mechanical
HVAC CONTRACTORS
226 Lowell Street, Suite A3, Wilmington, MA 01887
Phone: 978.909.3100 / Fax: 978.447.1197 / Email: info@inlinehvacr.com

COMMONWEALTH OF MASSACHUSETTS
WILLIAM C. CREED
MECHANICAL
No. 34798
REGISTERED PROFESSIONAL ENGINEER

DRAWING STATUS:

2	REVISION #2 – 1ST FLOOR ODOR MITIGATION EQPM. 7-11-2019
1	REVISION #1-CHILLER RELOCATION 6-06-2019

CLIENT:
COMMONWEALTH CANNABIS COMPANY

PROJECT:
SECOND FLOOR FIT-OUT

DRAWING:
ROOF PLAN, MECHANICAL WORK

Scale:	
Date: 05/14/2019	Job #: 219022
Drawn by: BPM	Checked by: WCC

M4.0

Appendix I: Proposed Expansion Mechanical Plans

GENERAL:

The Work covered by this Section of the Specifications (the "Project") consists of providing all labor, equipment, appliances and materials, and in performing all operations in connection with the installation of the new heating, ventilating and air conditioning systems in the project.

Installation of the systems shall conform to the requirements of the Massachusetts State Building Code Ninth Edition, National Electric Code, International Energy Conservation Code, NFPA, all aplicable codes and laws of the city of Medway and other agencies having jurisdiction, SMACNA HVAC Duct Construction Standards, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the American Conference of Governmental Industrial Hygienists.

Scope of Work shall include labor, premium time, materials, tools, equipment, transportation, scaffolding, hoisting and rigging, etc. to perform the work as herein specified for a complete installation.

Intent: It is the intention of these specifications and drawings to require the equipment to be furnished complete in every respect, and this contractor shall furnish all equipment needed and usually furnished in connections with such systems. Equipment, materials and articles incorporated in the work shall be new and in the best grade of their respective kinds for the type of work involved.

Quality Assurance: Comply with all applicable federal and state laws and all local codes, by-laws and ordinances. Where provisions of the Contract Documents conflict with any codes, rules and regulations, the latter shall govern. Where the contract requirements are in excess of applicable codes, rules and regulations, the contract provisions shall govern unless the Engineer rules otherwise. Request inspections from authorities having jurisdiction, obtain all permits and pay for all fees and inspection certificates as applicable and/or required. All permits and certificates shall be turned over to the owners at the completion of the work.

Guarantee/Warranty: The HVAC Contractor shall submit manufacturer's warranties for new products as specified in this section. The HVAC Contractor shall warrant entire system for one year from owner's acceptance. All warranties shall be submitted to the owner prior to final payment.

Record Drawings: Provide record "as-built" drawings on AutoCad-2000 or higher. Furnish one set of electronic files and one set of reproducible drawings that neatly and accurately document the installation.

Equipment Submittals: Submit for approval, copies of descriptive literature giving performance data, physical size, wiring diagrams, capacity, materials, etc. for all materials and equipment specified herein and on the drawings.

Substitutions: Substitutions of equipment and materials other than those shown on the drawings or named in the specifications may be made only with the written approval of the engineer whom reserves the right to require adequate proof of the quality of the substitute before permitting its use.

Where a contractor proposes to use an item of equipment other than that specified or detailed on the drawings, which requires any redesign of the structure, partitions, foundations, wiring, piping, or any other part of the mechanical, electrical, or architectural layout, all such redesign and all new drawings and detailing required therefore shall, with the approval of the engineer and architect, be prepared by this contractor at his own expense.

Where such approved deviation requires a different quantity and arrangement of piping, wiring, conduit and equipment from that specified or indicated on the drawings, with the approval of the engineer and architect, contractor shall furnish and install any such piping, structural supports, insulation, controllers, motors, starters, electrical wiring and conduit, and any other additional equipment required by the system, at no additional cost to the owner.

SEISMIC RESTRAINT:

All piping, ductwork and equipment shall be installed and certified to remain in place when subjected to a seismic force not less than 0.5" gravity acceleration. All work shall comply to the International Building Code, Earthquake Control.

Applicability:
1. All ducts of a cross sectional area of 6 square ft. and larger
2. All roof mounted equipment
3. All gas piping of 1" diameter and larger
4. All runs of piping and ductwork at 40 feet and longer having a hanger length of 12" or more on any portion of the run

Bracing: Piping and ductwork in excess of 40 feet of straight run and having a hanger length of 12" or more on any part of the straight run shall have traverse braces at the rate of one brace per 40 feet of straight run.

Piping and ductwork in excess of 80 feet of straight run and having a hanger length of 12" or more on any part of the run shall have traverse braces at the rate of one brace per 40 feet of straight run and longitudinal braces at the rate of one brace per 80 feet of straight run.

Roof mounted equipment shall be secured to the curb and/or structure on all sides.

DUCTWORK:

DUCT SYSTEM	MATERIAL	DESIGN PRESS. (IN wc)	INSULATION TYPE & THICKNESS
CONCEALED SUPPLY DUCTWORK	GALV STEEL	2.0"	2" WRAP
CONCEALED O.A. DUCTWORK	GALV STEEL	2.0"	2" WRAP
RETURN/EXHAUST DUCTWORK	GALV STEEL	2.0"	NONE
EXPOSED DUCTWORK	GALV STEEL	2.0"	NONE

NOTES

1.) Work under this section includes but is not limited to providing ducts, volume and fire dampers, access doors, diffusers, registers, grilles and all auxiliary work of any kind necessary to make the air distribution systems throughout the building complete and ready for satisfactory operation.

2.) All ductwork shall be constructed in conformance with SMACNA duct construction standards for the pressures indicated in the schedule.

3.) NFPA Compliance: Comply with ANSI/NFPA 90A "Standard for the Installation of Air-Conditioning and Ventilating Systems" and ANSI/NFPA 90B "Standard for the Installation of Warm Air Heating and Air-Conditioning Systems".

4.) Longitudinal joints and fittings shall be made of Pittsburgh Lock Joints, unless specified otherwise. Increase in duct dimensions in the direction of air flow shall be made with transitions not exceeding 1 in 7"; decreases not exceeding 1 in 4"; Supply duct panels over 12" wide are to be cross broken for stiffness. Cross breaking of negative pressure exhaust and return air ducts is not permitted.

5.) Duct Sealant: Duct sealant shall be of a non-hardening, nonflammable vinyl acrylic material. Sealant must be UL approved for use in low pressure ductwork. All ductwork shall be sealed completely; according to SMACNA standards, at all transverse joints and longitudinal seams.

6.) Duct Cement: Non-hardening migrating mastic or liquid neoprene based cement (type applicable for fabrication/installation detail) as compounded and recommended by manufacturer specifically for cementing fitting components or longitudinal seams in ductwork.

7.) Flexible ductwork shall be limited to 5'-0" in length for final connections to registers, grilles and diffusers.

8.) Refer to "Ductwork Insulation Specifications" for insulation materials & methods.

EQUIPMENT IDENTIFICATION:

Identification shall be applied to all new equipment within the scope of work for this project.

Furnish and attach plastic equipment tags onto every major piece of equipment. Tags are to be placed on equipment open to sight below ceilings. Tags shall be 1½" high x a minimum of 5" long plastic laminate with ¾" high lettering. Characters shall be black embossed on a white background. Each tag shall be secured to the equipment with a minimum of two stainless steel screws.

Furnish and attach plastic equipment tags on all roof mounted equipment. Tags shall be 6" high x a minimum of 8" long plastic laminate with 4" high lettering. Characters shall be black embossed on a white background. Each tag shall be secured to the equipment with a minimum of two stainless steel screws.

Markers shall be manufactured by Seton Name Plate Co.. or approved equal.

INSULATION:

PIPING INSULATION

FLUID TEMPERATURE RANGE (F)	INSULATION CONDUCTIVITY: CONDUCTIVITY (Btu*in/F*hr*sf)	INSULATION CONDUCTIVITY: MEAN RATING TEMP (F)	NOMINAL PIPE OR TUBE SIZE (IN): <1	1 TO <1-1/2	1-1/2 TO <4	4 TO <8
COOLING SYSTEMS (CHILLED WATER, BRINE, AND REFRIGERANT)						
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0
BELOW 40	0.20-0.26	75	0.5	1.0	1.0	1.0
COOLING CONDENSATE RETURN/CONDENSATE DRAIN						
ALL	0.21-0.27	75	0.5	0.5	1.0	1.0

NOTES

1.) Insulation Material: Molded rigid fiberglass sectional pipe insulation rated to 500 °F. The insulation shall have a minimum density of 3.5 lbs. per cu. ft.

2.) Materials shall be fire retardant as follows: Flame/Smoke Ratings: Provide composite mechanical insulation (insulation, jackets, covering, sealers, mastics and adhesives) with flamespread index of 25 or less, and smoke-developed index of 50 or less, as tested by ASTM E 84 (NFPA 255) method. Exception: Outdoor mechanical insulation may have flame spread index of 75 and smoke developed index of 150. The insulation shall be manufactured by Armstrong, Knauf, OwensCorning or approved equivalent.

3.) Jacket: Kraft paper bonded to aluminum foil reinforced with fiberglass yarn and a self sealing lap. The maximum permeability of the jacket shall be 0.02 perms. Outdoor Piping & Indoor piping at traffic level shall be covered with .015 thick PVC jacket. The jacket shall be outdoor grade, premolded one piece and UV resistant. Joints shall be sealed with silicone caulking.

DUCTWORK INSULATION (FLEXIBLE WRAP)

1.) Materials: Interior ductwork insulation shall be R6 (installed value, assuming 25% compression) flexible fiberglass ASTM C 553, Type I - resilient, flexible; Class B-2 - 0.75 lbs/ft3 with aluminum vapor proof jacket. Exterior ductwork insulation shall be R12 rigid insulation. Insulation shall be manufactured by Knauf, Armstrong, Owens Corning, or approved equivalent.

2.) Flame/Smoke Ratings: Provide composite mechanical insulation (insulation, jackets, coverings, sealers, plastics and adhesives) with flamespread index of 25 or less, and smoke-developed index of 50 or less, as tested by ASTM E 84 (NFPA 255) method. Exception: Outdoor mechanical insulation may have flame spread index of 75 or less, and smoke developed index of 150 or less.

3.) Ductwork Insulation Accessories: Provide staples, bands, wires, tape, anchors, corner angles and similar accessories as recommended by the insulation manufacturer for applications indicated. Ductwork Insulation Compounds: Provide cements, adhesives, coatings, sealers, protective finishes and similar compounds as recommended by the insulation manufacturer for applications indicated.

DUCTWORK INSULATION (ACOUSTICAL LINING)

1.) Materials: Interior ductwork insulation shall be R6 acoustical lining ASTM C 1071, Standard Specification for Thermal and Acoustical Insulation (Glass Fiber, Duct Lining Material), ASTM G 21, Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi (fungi resistance section only), ASTM G 22, Practice for Determining Resistance of Plastics to Bacteria (bacteria resistance section only). Exterior ductwork insulation shall be R12 rigid insulation. Insulation shall be manufactured by Owens Corning, QuietRTM, AcoustiTEX™, or approved equivalent.

2.) Flame/Smoke Ratings: Provide composite mechanical insulation (insulation, jackets, coverings, sealers, plastics and adhesives) with flamespread index of 25 or less, and smoke-developed index of 50 or less, as tested by ASTM E 84 (NFPA 255) method. Exception: Outdoor mechanical insulation may have flame spread index of 75 or less, and smoke developed index of 150 or less.

3.) Ductwork Insulation Accessories: Provide staples, bands, wires, tape, anchors, corner angles and similar accessories as recommended by the insulation manufacturer for applications indicated. Ductwork Insulation Compounds: Provide cements, adhesives, coatings, sealers, protective finishes and similar compounds as recommended by the insulation manufacturer for applications indicated.

PIPING, VALVES & FITTINGS:

Materials: Type L hard drawn tempered copper tubing conforming to ASTM B-88, PVC, or CPVC shall be used for condensate water piping 2-1/2" or smaller. All refrigeration piping shall be type "L" copper ACR with brazed joints. Piping connections to condensing unit shall include sight glass, filter-drier.

A safe and substantial means of support for all parts of the HVAC equipment and systems shall be provided. All piping and equipment shall be hung from the building structure and shall conform to the recommendations of the manufacturer. Hanging from existing or new pipes, ducts and equipment will not be permitted.

Dissimilar Metals: All connections between ferrous and nonferrous pipes and/or accessories shall be made with approved dielectric fittings.

All new piping shall be cleaned and thoroughly flushed to remove all scale, cutting oil, other debris, and cleaning chemicals prior to connecting to existing systems.

Install piping as required to compensate for thermal expansion.

Provide factory fabricated valves recommended by the manufacturer for use in the service indicated. Valves shall be of the types and pressure ratings indicated. Provide proper selection as determined by the contractor, to comply with the installation requirements. Provide end connections that properly mate with pipe, tube and equipment connections. Where more than one type is indicated, the selection is the contractor's option.

Ball Valves: (2-1/2" and smaller); Bronze body, stainless steel ball, threaded or flanged ends, pressure rating to match the requirements of the adjoining pipe. (3" and larger); Cast iron body, bronze mounted, stainless steel ball, flanged ends, pressure rating to match the requirements of the adjoining pipe. Ball valves shall be manufactured by Jenkins or approved equal.

Globe or Angle Valves: (2-1/2" and smaller); threaded ends, bronze body, union bonnet, stainless steel plug. (3" and larger); Flanged ends, OS&Y rising stem, iron body, union bronze mounted, renewable or regrindable bronze disk and seat ring, pressure rating to match the requirements of the adjoining pipe. Globe and angle valves shall be manufactured by Jenkins or approved equal.

Hose End Drain Valves: Bronze, solid wedge, non-rising stem, gate or angle type, female NPT inlet, male hose thread outlet, 150 psig. Furnish with bronze cap and chain. Drain valves shall be manufactured by Jenkins or approved equal.

Vent Valves: Provide vent valves designed to vent automatically by the float principle. Valves shall have stainless steel floats and cast iron bodies with pressure ratings to match the requirements of the adjoining pipe. All sizes shall have NPT inlet and outlet connections. Provide gate valve, for isolation, and test cock. Vent valves shall be manufactured by Hoffman or approved equal.

ELECTRIC MOTORS:

Furnish high efficiency motors for mechanical equipment as noted herein. All motors shall conform to the requirements as specified in the ELECTRICAL DIVISION of this application.

Motor Starters and Disconnects: All motor starters and disconnects shall be furnished by the HVAC Contractor and installed by the Electrical Contractor.

INSTRUCTIONS AND MANUALS:

This contractor shall provide printed instructions covering operations and maintenance of each major item of equipment to the owner. Upon completion of the work and after all tests are completed, a time designated by the owner and it's engineer shall be set in which the contractor shall instruct a representative of the owner in proper operation and maintenance of the new air conditioning system. Both verbal and written instructions shall be furnished in detail. Written sets shall make reference to each item and describe it's proper functioning, adjustment, and maintenance. Provide two printed and one digital sets of bound and indexed manuals with instructions and include all shop drawing equipment and manufacturer's maintenance and operating instructions for each piece of equipment. Also include manufacturers parts list for each piece of equipment's operating characteristics, fan curves, etc.

REGISTERS, GRILLES AND DIFFUSERS:

Furnish and install diffusers, registers and grilles for supply, return and exhaust outlets of size, type and design as shown and scheduled on the drawings. Equipment shall be tested and rated per ASHRAE 70-06. Equipment shall handle air quantities at operating velocities.

1. With maximum diffusion within the space supplied or exhausted.
2. Without objectionable air movement.
3. With sound pressure level not to exceed NC 30.

Supply, return and exhaust outlets shall have upstream volume dampers located in the duct unless otherwise noted. Where used, opposed blade dampers shall be operable from the front face of the outlet. Supply registers shall have two sets of directional control blades. Diffusers within the same room or area shall be of the same type and style to provide architectural uniformity.

Registers, grilles and diffusers shall be manufactured by Price or approved equal.

AUTOMATIC TEMPERATURE CONTROLS:

The Automatic Temperature Control (ATC) system will consist of all required electronic controllers, sensors, control valves, dampers, actuators, control wiring, etc. necessary for a complete and operable control system to achieve the control sequences as defined herein.

The control system shall consist of all thermostats, temperature transmitters, controller, automatic valves, switches and other accessory equipment along with a complete system of electrical wiring to fill the intent of the specification and provide for a complete and operable system.

The new VRF and split system equipment shall be controlled and monitored by a new packaged Mitsubishi M-Net Control system that is connected to a AE-200 central control panel. The M-Net control system shall be connected to the existing Honeywell BMS.

All interlocking, wiring and installation of control devices associated with the HVAC equipment shall be provided under this contract. When the ATC system is fully installed and operational, the ATC Subcontractor and representatives of the owner will review the operation and check out the system. At this time the ATC Subcontractor will demonstrate to all present the operation of the system and prove that it complies with the intent of the drawings and specifications.

All electronic equipment shall conform to the requirements of F.C.C. Regulation Part 15, Section 15 governing radio frequency electromagnetic interference and any other applicable statutes with respect to radiation and conduction of radio frequency interference and be so labeled.

Work By Others: The following incidental work shall be furnished by the designated subcontractor under the scope of work of the ATC Subcontractor: The HVAC Contractor shall provide all magnetic starters and furnish all configurations. The HVAC Contractor shall provide access doors or other approved means of access through ducts, ceilings or walls for service to any required brackets, structural platforms, etc., to fan housings or structural systems required by the ATC Subcontractor for acceptable mounting platforms or brackets for the mounting of ATC components. The Electrical Subcontractor shall provide all required power wiring to motors, controllers, devices and panels.

Electrical Wiring: All low voltage control wiring, wiring connections and all interlocking required for the installation of the temperature control system, as herein specified, shall be provided by the ATC Subcontractor unless specifically shown on the electrical drawings or called for in the electrical specifications. All wiring shall comply with all applicable codes and standards.

Damper Operators/Actuators: All damper operators shall be electronic modulating or 2-position type as required in the sequence of operation. Operators shall be quiet in operation and shall have ample power to overcome friction of damper linkage and air pressure. The damper operator mounting arrangement shall be outside the air-stream wherever possible. The operator shall have external adjustable stops to limit the stroke in either direction. The operator linkage arrangement shall be such as to permit normally open or normally closed positions of the dampers as required. All damper operators exposed to weather shall have waterproof enclosures.

Dampers: The ATC Contractor shall furnish all automatic dampers. The automatic dampers shall be multiple gasketed, low leakage, opposed blade type. The sheet metal subcontractor, under the supervision of the ATC Subcontractor, shall install dampers. All blank-off plates and conversions necessary to install smaller or larger than duct size dampers shall be the responsibility of the sheet metal subcontractor. Dampers shall be manufactured by Ruskin or approved equal.

Automatic Control Valves: All automatic control valves shall be fully proportioning with modulating plug or V-port inner guides, unless otherwise specified. The valves shall be quiet in operation and fail-safe in either normally open or normally closed position in the event of control failure. All valves shall be capable of operating in sequence when required by the sequence of operation. All control valves shall be suitable for the pressure conditions and shall close against the differential pressure involved. Valve operators shall be of the molded synthetic rubber diaphragm type. All chilled water valves, 1" and larger shall be 200 psig minimum (not a commercial grade valve).

SEQUENCE OF OPERATION:

VRF SYSTEM: (CU - 1, FCU-#)

Indoor Unit Sequence of Operations:

On/Off Control: the indoor units can be commanded ON/OFF either by a schedule in the Central Controller, at the Remote Controller, or by the BMS. If all indoor units are off, the outdoor unit shall turn off. With the Night Setback Function/Mode, the system shall cycle on during unoccupied periods as needed to maintain unoccupied temperature set point.

Space Temperature Control: the indoor unit shall modulate its internal linear expansion valve (LEV) to maintain the temperature set point via the indoor unit's internal controls.

The set point is adjustable at the remote controller, central controller, or through a BMS interface. The temperature set point can also be scheduled at the remote controller or the central controller.

Mode Control:

Auto Mode:

The indoor unit shall determine whether it should be in auto-heat mode or auto-cool mode based on space temperature relative to temperature set point. If the indoor unit is in auto heat mode, the indoor unit control board shall follow the heat mode sequence. If the indoor unit is in auto cool mode, the indoor unit control board shall follow the cool mode sequence.

The indoor unit shall switch from AutoHeat to AutoCool when the space temperature rises above and remains above the temperature set point plus the dead band for 3 minutes.

The indoor unit will switch from AutoCool to AutoHeat when the space temperature drops below and remains below the temperature set point minus the dead band for 3 minutes.

Heating Mode: the indoor unit shall modulate its linear expansion valve (LEV) to maintain temperature set point of 70°F (adj.). The unoccupied mode space temperature set-point shall be 60°F (adj.).

Cooling Mode: the indoor unit shall modulate its linear expansion valve (LEV) to maintain temperature set point 72°F (adj.). The unoccupied mode space temperature set-point shall be 80°F (adj.).

Fan/Vane Control: fan speed and vane direction (if applicable) shall be adjustable by the user at the remote controller and/or the central controller.

ENERGY RECOVER VENTILATOR: (ERV-1)

General: The ERVs shall be interlocked with the existing Honeywell BMS. The ERVs shall be started/stopped via a 7-day programmable schedule within the BMS.

Occupied: On a change to occupied mode via time clock, the outside air and exhaust air motorized dampers (MD-1&MD-2) shall open, ERV supply and exhaust fans shall start. Fans shall run continually during occupied mode.

Unoccupied: On a change to unoccupied mode via time clock, the ERV supply and exhaust fans shall stop, and the outside air and exhaust air motorized dampers (MD-1&MD-2) shall close.

Dirty filter switch: the factory furnished dirty filter switch shall energize a light with nameplate for each fan in the ERV.

ELECTRIC UNIT HEATERS: (UH-#)

On a call for heating via wall-mounted thermostat, the fan shall start and electric heat shall stage on to maintain space temperature setpoint of 60°F(adjustable). When the thermostat is satisfied, the unit shall stage off.

VARIABLE REFRIGERANT FLOW SYSTEM

A. The VRF system shall be selected based upon Mitsubishi or approved equivalent.

B. Outdoor Units: The N Generation R2-Series system shall consist of a PURY outdoor unit with HyperHeat, BC (Branch Circuit) Controller, multiple indoor units, and M-NET DDC (Direct Digital Controls, BACnet compatible).

1. Each indoor unit or group of indoor units shall be capable of operating in any mode independently of other indoor units or groups. System shall be capable of changing mode (cooling to heating, heating to cooling) with no interruption to system operation.
2. Each indoor unit or group of indoor units shall be independently controlled and capable of changing mode automatically when zone temperature strays 1.8 degrees F from set point for ten minutes. The sum of connected capacity of all indoor air handlers shall range from 50% to 150% of outdoor rated capacity.
3. Both refrigerant lines from the outdoor unit to the BC (Branch Circuit) Controller (Single or Main) shall be insulated.
4. The outdoor unit shall have a high pressure safety switch, over-current protection, crankcase heater and DC bus protection.
5. The outdoor unit shall be capable of operating in heating mode down to -14F ambient temperatures or cooling mode down to 23F ambient temperatures, without additional low ambient controls. If an alternate manufacturer is selected, any additional material, cost, and labor to meet low ambient operating condition and performance shall be incurred by the contractor.
6. The outdoor unit shall be capable of operating in cooling mode down to -10F with optional manufacturer supplied low ambient kit.
7. R410A refrigerant shall be required for PURY-E(H)P***YSNU-A outdoor unit systems.

C. The BC (Branch Circuit) Controllers shall include multiple branches to allow simultaneous heating and cooling by allowing either hot gas refrigerant to flow to indoor unit(s) for heating or subcooled liquid refrigerant to flow to indoor unit(s) for cooling. Refrigerant used for cooling must always be subcooled for optimal indoor unit LEV performance; alternate branch devices with no subcooling risk bubbles in liquid supplied to LEV and are not allowed.

1. The BC (Branch Circuit) Controllers shall be specifically used with R410A R2-Series systems. These units shall be equipped with a circuit board that interfaces to the M-NET controls system and shall perform all functions necessary for operation. The unit shall have a galvanized steel finish. The BC Controller shall be completely factory assembled, piped and wired. Each unit shall be run tested at the factory. This unit shall be mounted indoors, with access and service clearance provided for each controller. The sum of connected capacity of all indoor air handlers shall range from 50% to 150% of rated capacity.

D. Indoor Units:

1. The PEFY shall be a ceiling-concealed ducted indoor fan coil design that mounts above the ceiling with a 2-position, field adjustable return and a fixed horizontal discharge supply and shall have a modulating linear expansion device. The PEFY shall be used with the R2-Series outdoor unit and BC Controller.
2. The PLFY-P**NEMU-E shall be a 24x24 four-way cassette style indoor fan coil design that recesses into the ceiling with a ceiling grille and shall have a modulating linear expansion device. The PLFY-P**NEMU-E shall be used with the R2-Series outdoor unit and BC Controller.
2. The PLFY-EP**NEMU-E shall be a 33x33 four-way cassette style indoor fan coil design that recesses into the ceiling with a ceiling grille and shall have a modulating linear expansion device. The PLFY-EP**NEMU-E shall be used with the R2-Series outdoor unit and BC Controller.

E. Units shall use controls provided by Mitsubishi Electric Cooling & Heating to perform functions necessary to operate the system. A central AE-200 Controller shall be provided for all VRF equipment and other dedicated split system units.

F. The units shall be covered by the manufacturer's limited warranty for a period of one (1) year from date of installation.

SYSTEM START UP & FINAL INSPECTION:

This contractor shall start up and place all equipment into service. Equipment manufacturer's standard startup procedures shall be followed.

When all work under this contract has been completed as indicated on the drawings and specified herein, an inspection shall be made by the engineer. At this time the HVAC Subcontractor shall demonstrate that the requirements of these specifications have been met.

TESTING, ADJUSTING & BALANCING:

The General Contractor shall obtain the services of an independent NEBB or AABC certified balancing and testing subcontractor engineer to balance all new and/or existing equipment and air distribution systems as herein specified.

The balancing contractor shall provide all necessary sheave changes as required.

The balancing shall be conducted in accordance with NEBB TAB Procedural Standards. Unit designation, manufacture, model number, and serial number shall be recorded for each piece of equipment.

Test and Balance for Mechanical Equipment:
Balancer shall record design vs actual for the following:
Fan Motors: Fan Motor HP, Fan Motor RPM, Fan Motor Amperage (rated & operating), Fan Motor Voltage/Phase/Hz
Airside: Airflow (primary & total), Static Pressure (external, discharge & suction), Air Temperature (entering & leaving)

Test and Balance for Registers, Grilles and Diffusers::
Balancer shall record design vs actual airflow and percent off from design. Record RGD designation, neck size and volume damper type (in duct damper or opposed blade damper at register).

JDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 LEXINGTON STREET, WOBURN, MA 01801
(781) 569-6525, FAX (781) 569-6526

Drawing Status:

Client:
Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:
Grow Facility Addition
2 Marc Rd.
Medway, MA

Drawing:
HVAC SPECIFICATIONS

Scale:
Date: 9/8/2022
Job Number: 21052
Drawn By:
Checked By: WCC

M0.1

ENERGY RECOVERY VENTILATOR

ERV #

SYMBOL	SUPPLY FAN				EXHAUST FAN				ENERGY WHEEL COOLING								ENERGY WHEEL HEATING								DX COOLING				DX HEATING			HEAT PIPE DATA(SUMMER)					UNIT ELECTRICAL DATA						MODEL	OPER. WEIGHT (LBS)	REMARKS
									EFFICIENCY		RETURN TEMP.		ENT. AIR		LVG. AIR		EFFICIENCY		RETURN TEMP.		ENT. AIR		LVG. AIR		TOTAL MBH	SENS. MBH	EAT	LAT	TOTAL MBH	EAT	LAT	TOTAL MBH	ENT. AIR		LVG. AIR		VAC	PH	HZ	FLA	MCA	MOP			
	CFM	ESP	HP	KW	CFM	ESP	HP	KW	SENS.	LAT.	°F DB	°F WB	°F DB	° F WB	°F DB	°F WB	SENS.	LAT.	°F DB	° F WB	°F DB	°F DB	°F DB	°F WB			°F DB/WB	°F DB/WB		°F DB/WB	°F DB/WB		°F DB	°F WB	°F DB	°F WB										
ERV-1	2800	0.75	--	1.18	2800	0.75	--	1.50	66.5	46.7	75.0	62.5	91.0	73.0	80.4	67.6	66.5	46.7	70	52.9	2	47.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	460	3	60	10.9	12.3	15	NOVA ERV - C30IN	775	①②

NOTES:
① SELECTION BASED ON OXYGEN8 OR APPROVED EQUAL
② FURNISH w/ OPTIONAL VERTICAL OA/EA CONNECTIONS, DOUBLE WALL CONSTRUCTION, BASE RAILS, FROST CONTROL, LOW LEAKAGE DAMPERS, MERV 13 OA FILTERS, BACNET CAPABILITY.

VRF FAN COIL UNITS

FCU #

SYMBOL	FAN DATA							MINIMUM O.A.	DX COOLING COIL						DX HEATING COIL						MODEL No.	REMARKS
	CFM	S.P. (IN.WG)	ELEC. DATA						TOTAL MBH	SENS. MBH	EAT (°F)		LAT (°F)		TOTAL MBH	EAT (°F)		LAT (°F)				
			VOLTS	PH	HZ	MCA	MOCP				DB	%RH	DB	WB		DB	WB	DB	WB			
FCU-1	1200	0.5	208/230	1	60	2.88	15	SEE PLANS	33.3	27.3	75.0	50	55.0	54.7	21.0	70.0	-	101.2	-	PEFY-P36NMAU-E	①②④
FCU-2	620	0.5	208/230	1	60	2.94	15	SEE PLANS	16.6	13.2	75.0	50	55.5	55.3	10.5	70.0	-	99.9	-	PEFY-P18NMHU-E	①②
FCU-3	1200	0.5	208/230	1	60	2.88	15	SEE PLANS	33.3	27.3	75.0	50	55.0	54.7	21.0	70.0	-	101.2	-	PEFY-P36NMAU-E	①②④
FCU-4	775	0.6	208/230	1	60	2.94	15	SEE PLANS	22.2	18.5	75.0	50	53.5	53.5	14.2	70.0	-	101.9	-	PEFY-P24NMHU-E	①②
FCU-5	1500	0.5	208/230	1	60	4.38	15	SEE PLANS	44.4	32.5	75.0	50	55.2	55.0	28.4	70.0	-	103.0	-	PEFY-P48NMAU-E	①②④
FCU-6	1200	0.5	208/230	1	60	2.88	15	SEE PLANS	33.3	27.3	75.0	50	55.0	54.7	21.0	70.0	-	101.2	-	PEFY-P36NMAU-E	①②④
FCU-7	990	0.5	208/230	1	60	2.88	15	SEE PLANS	27.8	20.9	75.0	50	55.6	55.4	18.0	70.0	-	101.5	-	PEFY-P30NMAU-E	①②④
FCU-8	300	--	208/230	1	60	0.19	15	SEE PLANS	11.1	7.8	75.0	50	54.7	54.0	7.1	70.0	-	101.9	-	PKFY-P12NLMU-E	①②③
FCU-9	300	--	208/230	1	60	0.19	15	SEE PLANS	11.1	7.8	75.0	50	54.7	54.0	7.1	70.0	-	101.9	-	PKFY-P12NLMU-E	①②③
FCU-10	1200	0.5	208/230	1	60	2.88	15	SEE PLANS	33.3	27.3	75.0	50	55.0	54.7	21.0	70.0	-	101.2	-	PEFY-P36NMAU-E	①②④
FCU-11	1200	0.5	208/230	1	60	2.88	15	SEE PLANS	33.3	27.3	75.0	50	55.0	54.7	21.0	70.0	-	101.2	-	PEFY-P36NMAU-E	①②④
FCU-12	300	--	208/230	1	60	0.19	15	SEE PLANS	11.1	7.8	75.0	50	54.7	54.0	7.1	70.0	-	101.9	-	PKFY-P12NLMU-E	①②③
FCU-13	1200	0.5	208/230	1	60	2.88	15	SEE PLANS	33.3	27.3	75.0	50	55.0	54.7	21.0	70.0	-	101.2	-	PEFY-P36NMAU-E	①②④
FCU-14	1200	0.5	208/230	1	60	2.88	15	SEE PLANS	33.3	27.3	75.0	50	55.0	54.7	21.0	70.0	-	101.2	-	PEFY-P36NMAU-E	①②④

NOTES:
① SELECTION BASED ON MITSUBISHI OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH WIRED WALL MOUNTED THERMOSTAT, BACNET INTERFACE.
③ FURNISH AND INSTALL WITH INTERNAL CONDENSATE PUMP.
④ FURNISH AND INSTALL WITH DUCT MOUNTED ATMOSAIR FC400-FM IONIZATION DEVICE. SEE PLANS.

VRF OUTDOOR CONDENSING UNIT

ODU #

SYMBOL	SERVICE	LOCATION	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EER	IEER	COP	SCHE	HSPF	REFRIGERANT	ELECTRICAL DATA					MODEL	OPERATING WEIGHT (LBS)	REMARKS
											VOLTS	PH	HZ	MCA	MOCP			
CU-1	HEAT/COOL	ROOF	384	402	10.2	16.9	3.22	20.4	--	R410A	460	3	60	30+30	50+50	PURY-EP384YSNU-A	1836	①②

NOTES:
① SELECTIONS BASED ON MITSUBISHI OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH 24" QUICKSLING SUPER STAND.

BRANCH CONTROLLER UNIT

BC #

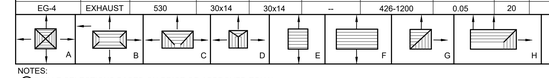
SYMBOL	LOCATION	CONNECTABLE CAPACITY (MBH)	BRANCHES	REFRIGERANT	ELECTRICAL DATA					MODEL	OPERATING WEIGHT (LBS)	REMARKS
					VOLTS	PH	HZ	MCA	MOCP			
BC-1	SEE PLANS	72-432	16	R410A	230	1	60	1.82	15	CMB-P1016NU-KA1	153	①②

NOTES:
① SELECTIONS BASED MITSUBISHI OR APPROVED EQUAL.
② FURNISH AND INSTALL WITH BV SERIES BALL VALVES.

REGISTERS, GRILLES, & DIFFUSERS

SD-1(A) — PATTERN
CFM

SYMBOL	SERVICE	MODEL	MODULE SIZE	NECK SIZE	TRANSITION TO ROUND NECK SIZE	CFM RANGE	MAX PD (IN. WG.)	MAX NC	OBD		MATERIAL	FINISH	REGISTER BOX		REMARKS
									YES	NO			MODEL	DAMPER	
SD-1	SUPPLY	SMD	24x24	6x6	6"Ø	0-100	0.05	30		•	STEEL	BY ARCH	--	--	①③④⑤
SD-2	SUPPLY	SMD	24x24	9x9	8"Ø	101-220	0.05	30		•	STEEL	BY ARCH	--	--	①③④⑤
SD-3	SUPPLY	SMD	24x24	12x12	10"Ø	221-350	0.05	30		•	STEEL	BY ARCH	--	--	①③④⑤
SG-1	SUPPLY	520	6x6	6x6	--	0-100	0.05	30		•	STEEL	BY ARCH	--	--	①③④⑤
SG-2	SUPPLY	520	14x6	14x6	--	101-225	0.05	30		•	STEEL	BY ARCH	--	--	①③④⑤
SG-3	SUPPLY	520	14x10	14x10	--	226-400	0.05	30		•	STEEL	BY ARCH	--	--	①③④⑤
RG-1	RETURN	PFRF	24x24	--	--	0-1800	0.05	25		•	STEEL	BY ARCH	--	--	①③④⑤
EG-1	EXHAUST	530	8x8	8x8	--	0-125	0.05	20		•	STEEL	BY ARCH	--	--	①③④⑤
EG-2	EXHAUST	530	10x10	10x10	--	126-250	0.05	20		•	STEEL	BY ARCH	--	--	①③④⑤
EG-3	EXHAUST	530	12x12	12x12	--	251-425	0.05	20		•	STEEL	BY ARCH	--	--	①③④⑤
EG-4	EXHAUST	530	30x14	30x14	--	426-1200	0.05	20		•	STEEL	BY ARCH	--	--	①③④⑤



NOTES:
① GRILLE SELECTIONS BASED ON PRICE OR APPROVED EQUAL.
② REGISTER BOX AND DAMPER SELECTIONS BASED ON ALDES OR APPROVED EQUAL.
③ BORDER TYPES SHALL BE COMPATIBLE WITH ARCHITECTURAL CEILING TYPE FOR THE ROOM IN WHICH THE AIR DEVICE IS LOCATED.
④ REFER TO PLANS FOR LOCATION AND AIR QUANTITIES OF EACH AIR DEVICE AND REQUIRED FLOW PATTERN.
⑤ PROVIDE SQUARE TO ROUND TRANSITION WITH DIFFUSER, MINIMUM OF 3" HEIGHT.

ELECTRIC UNIT HEATER

UH #

SYMBOL	SERVICE	LOCATION	FAN DATA							ELECTRIC HEAT							MODEL No.	OPERATING WEIGHT	REMARKS
			CFM	S.P. (IN. H2O)	HP	RPM	VOLTS	PH	HZ	KW	TOTAL MBH	EAT (°F)	LAT (°F)	VOLTS	PH	HZ			
UH-1	GARAGE DOOR	SEE PLANS	830	--	1/15	1050	230	1	60	15	51.2	50	107	460	3	60	HER 150C 3301	75	①②
UH-2	GARAGE DOOR	SEE PLANS	1300	--	1/15	1050	230	1	60	20	68.2	50	99	460	3	60	HER 200C 3301	97	①②
UH-3	EXTERIOR DOOR	SEE PLANS	100	--	--	--	230	1	60	3	10.3	50	143	230	1	60	CWH3407F	22	③④

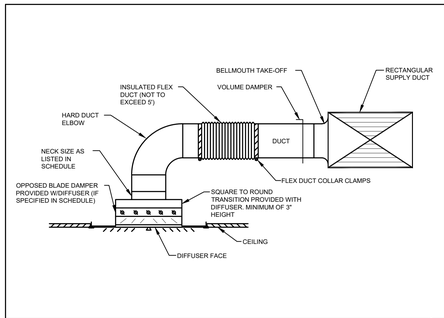
NOTES:
① SELECTIONS BASED ON MODINE OR APPROVED EQUAL.
② PROVIDE ALL ACCESSORIES FOR MOUNTING AND PROPER INSTALLATION.
③ SELECTIONS BASED ON MARLEY OR APPROVED EQUAL.
④ PROVIDE ALL ACCESSORIES FOR RECESS MOUNTING AND PROPER INSTALLATION.

SOUND ATTENUATOR

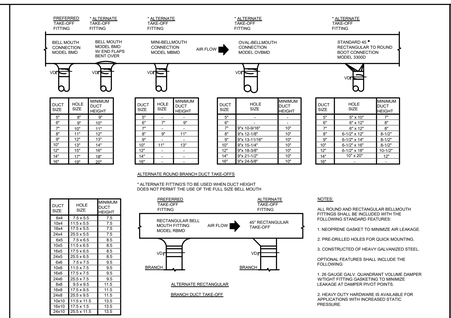
SA #

SYMBOL	SERVICE	LOCATION	CFM	MAXP.D. (in. w.g.)	MAX FPM	WIDTH	HEIGHT	LENGTH	INSERTION LOSS								GENERATED NOISE								MODEL No.	OPERATING WEIGHT	REMARKS
									63	125	250	500	1000	2000	4000	8000	63	125	250	500	1000	2000	4000	8000			
SA-1	ERV-1 EA	SEE PLANS	2800	0.11	1050	24"	16"	36"	0	5	10	18	23	21	10	6	52	47	40	38	39	40	38	36	16 KCRS-F/3	60	①②
SA-2	ERV-1 OA	SEE PLANS	2800	0.11	1050	24"	16"	36"	0	5	10	18	23	21	10	6	52	47	40	38	39	40	38	36	16 KCRS-F/3	60	①②

NOTES:
① SELECTIONS BASED ON KINETICS OR APPROVED EQUAL.
② PROVIDE WITH FLANGED INLET AND OUTLET DUCT CONNECTIONS.



SUPPLY DIFFUSER CONNECTION — NTS - — 1



DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
6"	8"	10"
8"	10"	10"
7"	10"	11"
8"	11"	12"
9"	12"	13"
10"	13"	14"
12"	15"	16"
14"	17"	18"
16"	19"	20"

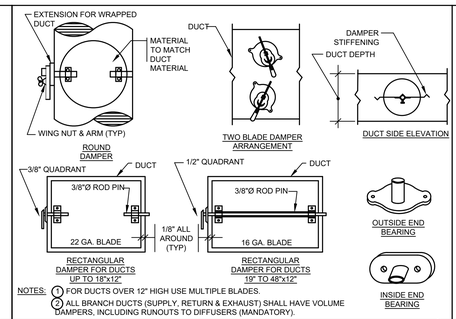
DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
6"	8"	9"
8"	10"	9"
7"	9"	11"
8"	9"	11"
9"	11"	12"
10"	12"	13"
12"	--	--
14"	--	--
16"	--	--

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
6"	--	--
8"	--	--
7"	6"x 10-18"8"	10"
8"	6"x 13-1/8"	10"
9"	6"x 13-13/16"	10"
10"	6"x 14-1/2"	10"
12"	6"x 15-3/8"	10"
14"	6"x 21-1/2"	10"
16"	6"x 24-5/8"	10"

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
6"	6" x 10"	--
8"	6" x 10"	8"
7"	6" x 12"	8"
8"	6-1/2" x 12"	8-1/2"
9"	6-1/2" x 14"	8-1/2"
10"	6-1/2" x 14"	8-1/2"
12"	6-1/2" x 14"	10-1/2"
14"	10" x 20"	12"
16"	--	--

DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
6x4	7.5 x 5.5	7.5
10x4	11.5 x 5.5	7.5
12x4	13.5 x 5.5	7.5
14x4	15.5 x 5.5	7.5
6x5	7.5 x 6.5	8.5
10x5	11.5 x 6.5	8.5
12x5	13.5 x 6.5	8.5
14x5	15.5 x 6.5	8.5
6x6	7.5 x 7.5	9.5
10x6	11.5 x 7.5	9.5
12x6	13.5 x 7.5	9.5
14x6	15.5 x 7.5	9.5
8x8	9.5 x 9.5	11.5
10x8	11.5 x 9.5	11.5
12x8	13.5 x 9.5	11.5
14x8	15.5 x 9.5	11.5
10x10	11.5 x 11.5	13.5
12x10	13.5 x 11.5	13.5
14x10	15.5 x 11.5	13.5
16x10	17.5 x 11.5	13.5
20x10	21.5 x 11.5	13.5

BRANCH DUCT TAKE-OFF DETAIL — NTS - — 2

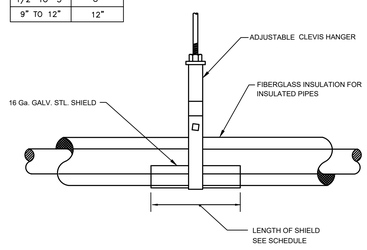


NOTES:
① FOR DUCTS OVER 12" HIGH USE MULTIPLE BLADES.
② ALL BRANCH DUCTS (SUPPLY, RETURN & EXHAUST) SHALL HAVE VOLUME DAMPERS, INCLUDING RUNOUTS TO DIFFUSERS (MANDATORY).

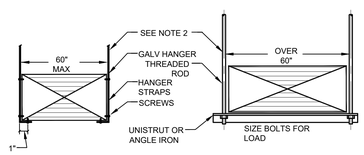
VOLUME DAMPER (SINGLE BLADE) — NTS - — 3

SHIELD SCHEDULE

PIPE SIZE	LENGTH OF SHIELD
1/2" TO 5"	8"
9" TO 12"	12"



TYPICAL PIPE HANGER DETAIL — NTS - — 4



NOTES:

1. ON DUCTS OVER 48" WIDE, BOTTOM SHALL BE BRACED BY ANGLE. FOR CROSS SECTION AREAS MORE THAN 8 SQ FT, DUCT SHALL BE BRACED BY ANGLES ON ALL FOUR SIDES.

2. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA STANDARDS.

DUCT HANGER SUPPORT — NTS - — 5

JDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 LEXINGTON STREET, WOBURN, MA 01801
(781) 569-6525, FAX (781) 569-6526

Drawing Status:

Client:
Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:
Grow Facility Addition
2 Marc Rd.
Medway, MA

Drawing:
HVAC SCHEDULES AND DETAILS

Scale:
Date: 9/8/2022
Job Number: 21052
Drawn By:
Checked By: WCC

M0.2

This drawing is schematic in nature. Final routing of piping & wiring shall be determined by the installing contractor and/or designer of record

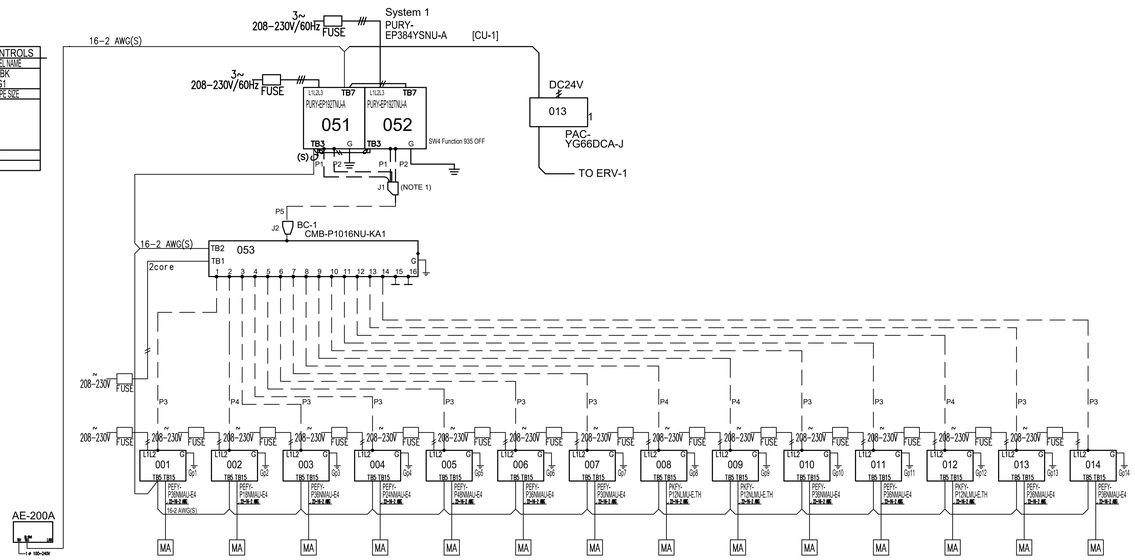
Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.

1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—//—	POWER WIRE
————	CONTROL WIRE
————	REF. PIPE

CONT.No		PAGE	

PIPING AND CONTROLS	
SYMBOL	BRANCH PIPE MODEL NAME
J1	CMY-R300NCBK
J2	CMY-R302B-G1
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	7/8 / 1
P2	1/2 / 5/8
P3	3/8 / 5/8
P4	1/4 / 1/2
P5	1/4 / 5/8
SYMBOL	MODEL NUMBER
MA	PAR-21MAA



TRIM RM	BREAK RM	TRIM RM	FLOWER P	OFFICES	FLOWER P	OFFICES	VAULT	VAULT	SODA FCT	SODA FCT	MAINTEN.	WAREHOU.	WAREHOU.
FCU-1	FCU-2	FCU-3	FCU-4	FCU-5	FCU-6	FCU-7	FCU-8	FCU-9	FCU-10	FCU-11	FCU-12	FCU-13	FCU-14

JDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 LEXINGTON STREET, WOBURN, MA 01801
(781) 569-6525, FAX (781) 569-6526

Drawing Status:

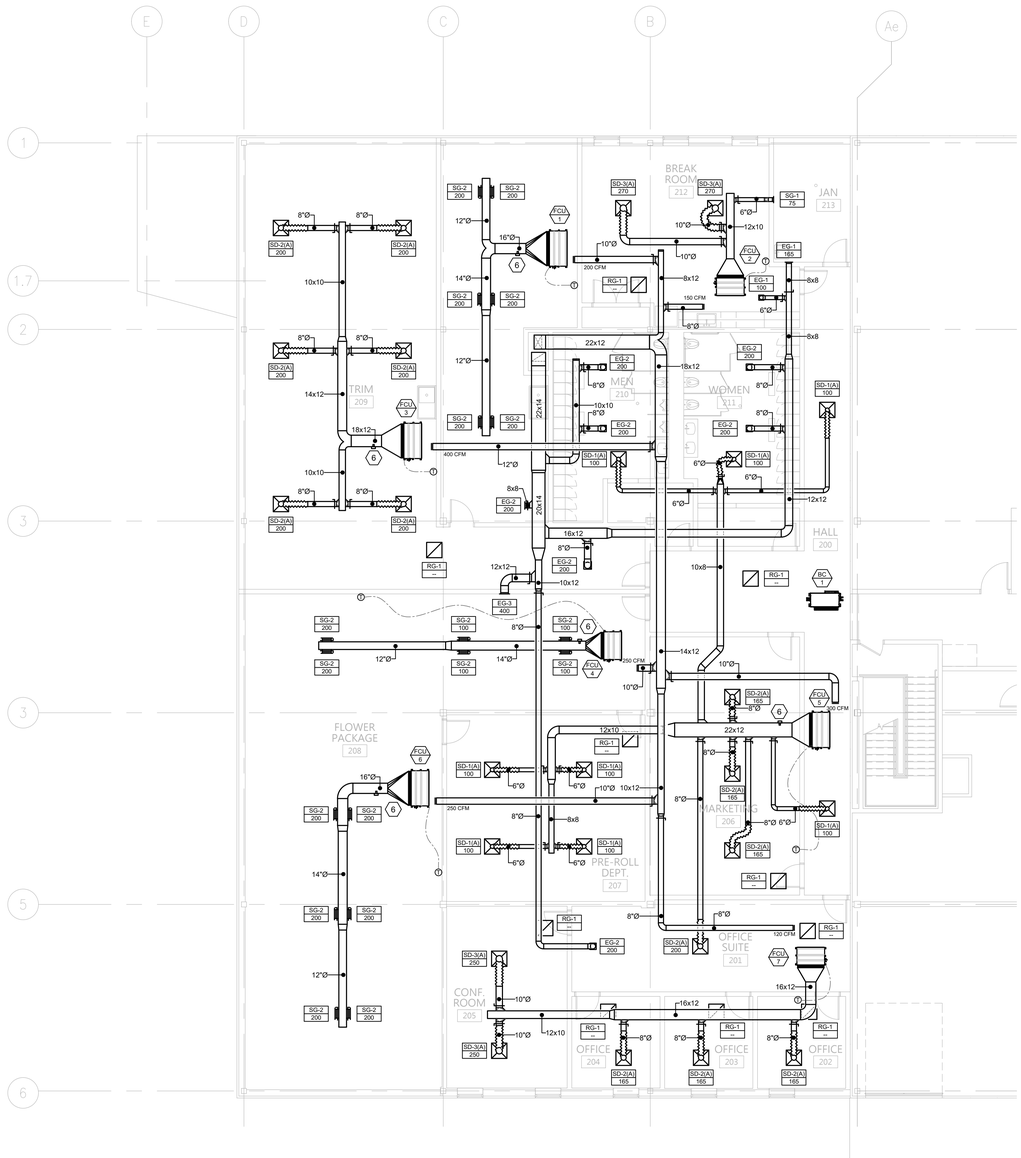
Client:
Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:
Grow Facility Addition
2 Marc Rd.
Medway, MA

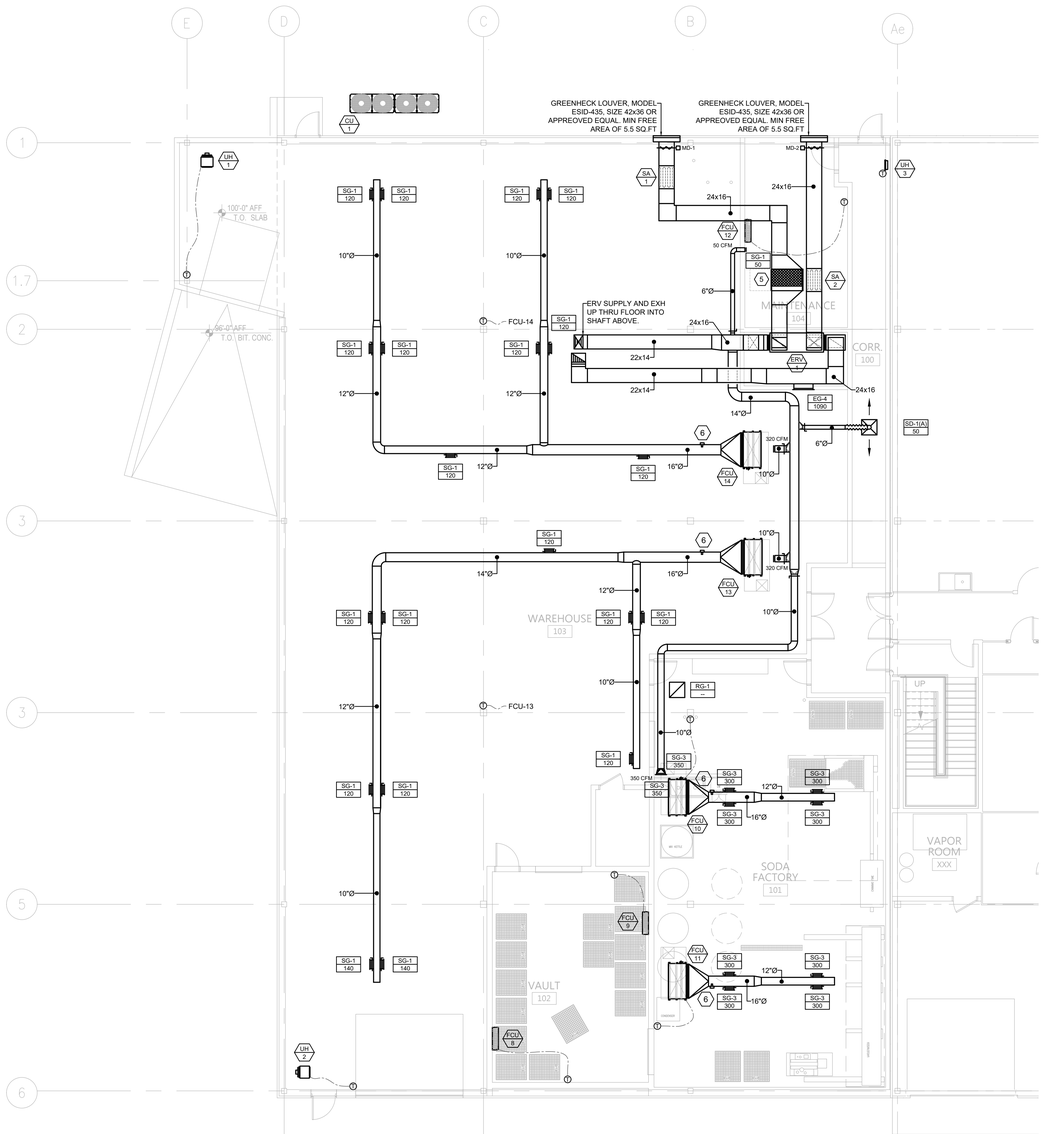
Drawing:
VRF SCHEMATIC

Scale:
Date: 9/8/2022
Job Number: 21052
Drawn By:
Checked By: WCC

M0.3



2 2ND FLOOR HVAC DUCTWORK PLAN
1/8" = 1'-0"



1 1ST FLOOR HVAC DUCTWORK PLAN
1/8" = 1'-0"

JDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 LEXINGTON STREET, WOBURN, MA 01801
(781) 569-6525, FAX (781) 569-6526

LEGEND

- DUCT RISING UP
- DUCT DROPPING DOWN
- FLEXIBLE CONNECTION
- EXISTING DUCT
- ROUND DUCT UP THROUGH ROOF
- ROUND DUCT DOWN
- FLEXIBLE DUCTWORK (INSULATED)
- ACOUSTICAL DUCT LINING
- FD FIRE DAMPER
- VD VOLUME DAMPER (MANUAL)
- MD MOTORIZED DAMPER
- RETURN OR EXHAUST AIR FLOW
- SUPPLY / RETURN AIR FLOW
- CP CONDENSATE PUMP
- CD CONDENSATE DRAIN PIPE
- T NEW THERMOSTAT
- TS NEW TEMPERATURE SENSOR
- S NEW SWITCH

CONSTRUCTION NOTES:

1. BALANCE OA TO EACH FAN COIL UNIT TO AIRFLOWS NOTED ON SCHEDULES ON SHEET M-2.
2. GAS-FIRED UNIT HEATERS SHALL BE MOUNTED AT MIN. 11'0" ABOVE FINISHED FLOOR. COORDINATE FINAL LOCATION WITH OVERHEAD DOORS.
3. ALL NEW SUPPLY DUCTS SHALL BE MOUNTED TIGHT TO UNDERSIDE OF JOIST IN EXPOSED AREAS AND SODA FACTORY.
4. ALL NEW CONDENSATE DRAIN PIPING SHALL BE PITCHED DOWN TOWARDS DRAINS AT 1/8" PER 1'0".
5. CAMFIL G/P 3CF 2X1 WITH 30/30 PRE-FILTER AND 12 LGX048 CARBON FILTERS
6. PROVIDE ATMOSAIR FC400-FM DUCT MOUNTED IONIZATION DEVICE.

Drawing Status:

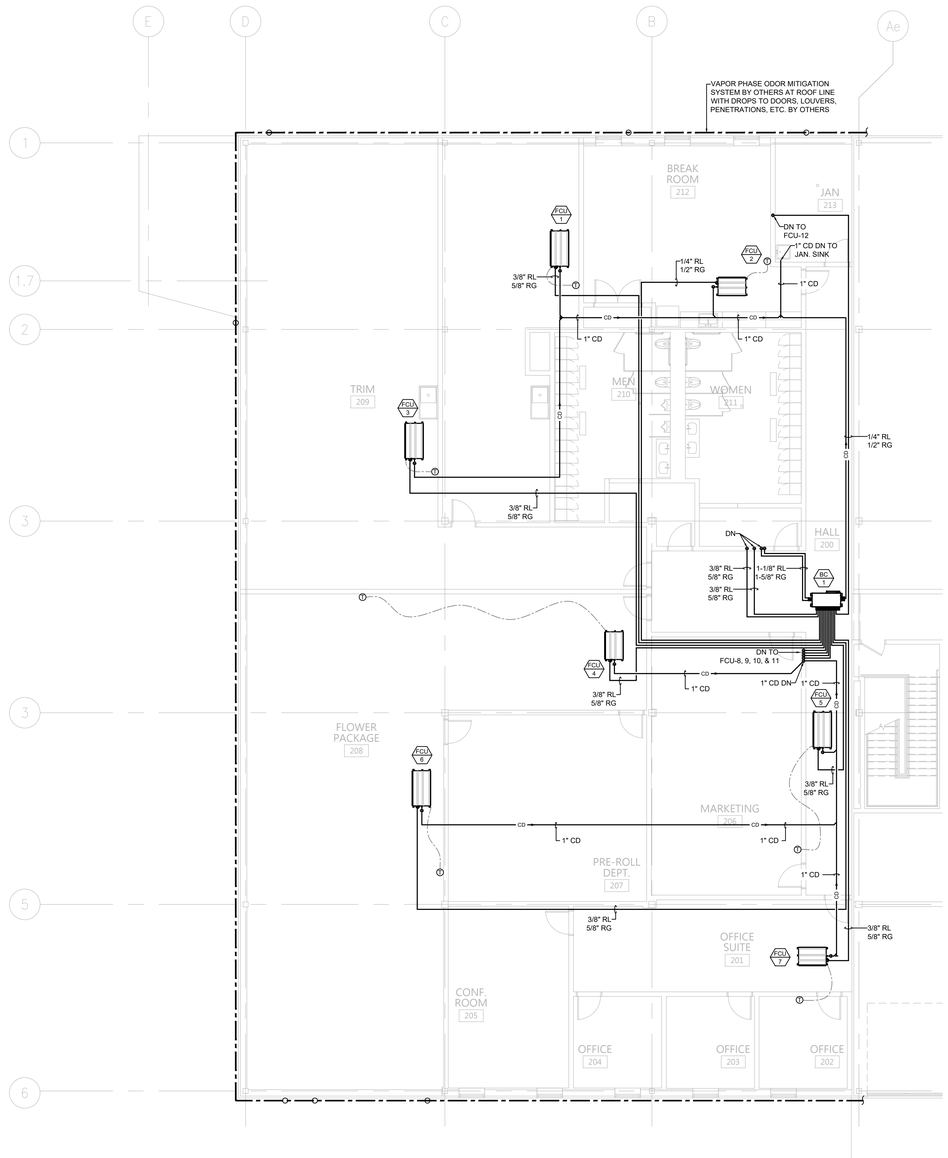
Client:
Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:
Grow Facility Addition
2 Marc Rd.
Medway, MA

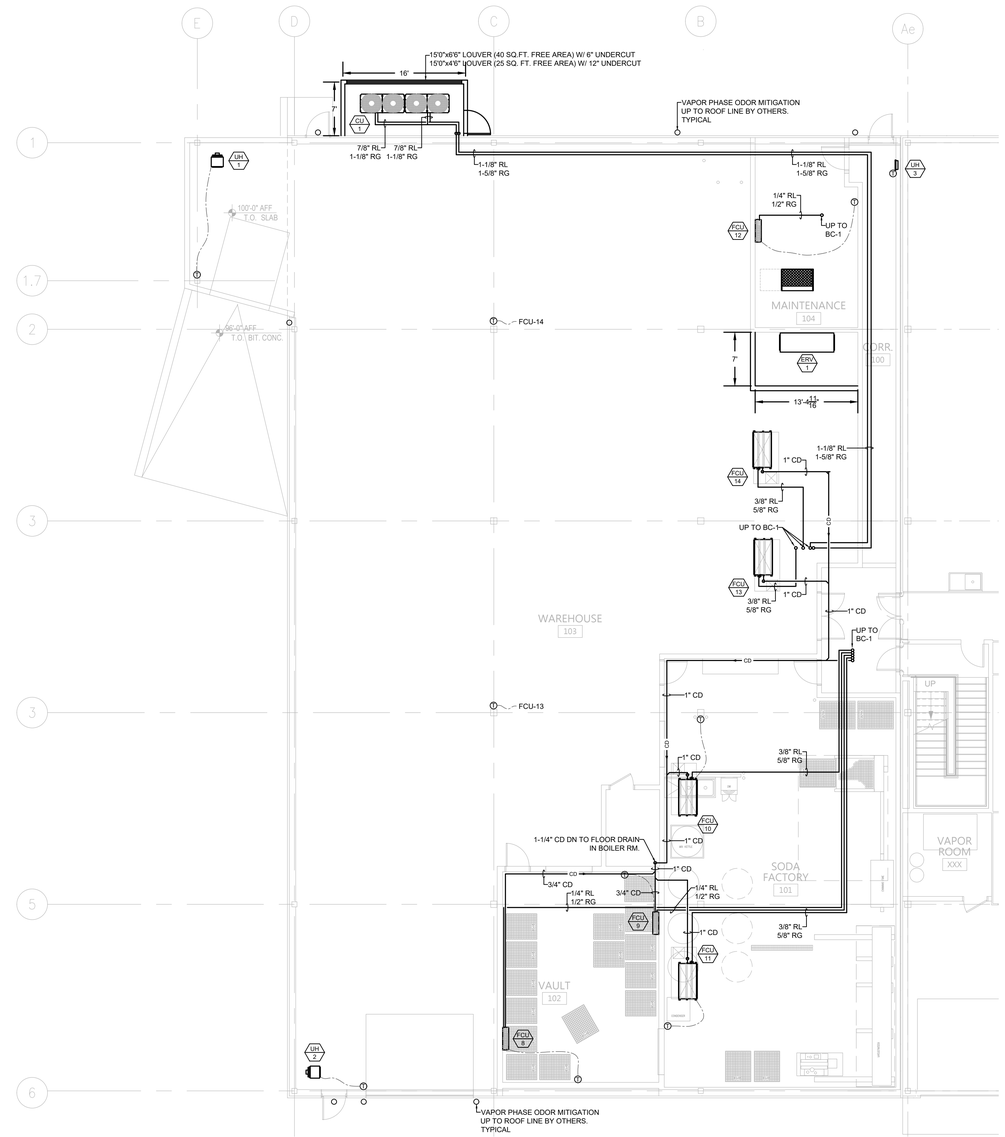
Drawing:
1ST AND 2ND FLOOR HVAC NEW DUCTWORK PLAN

Scale:
Date: 9/8/2022
Job Number: 21052
Drawn By:
Checked By: WCC

M1.1



2 2ND FLOOR HVAC PIPING PLAN
1/8" = 1'-0"



1 1ST FLOOR HVAC PIPING PLAN
1/8" = 1'-0"

JDA ARCHITECTS
486 High Plain Street
Walpole, MA 02081
Phone: 508-734-5236
Fax: 508-734-5256

ENGINEERED SYSTEMS, INC.
CONSULTING ENGINEERS
237 LEXINGTON STREET, WOBURN, MA 01801
(781) 569-6525, FAX (781) 569-6526

LEGEND

- DUCT RISING UP
- DUCT DROPPING DOWN
- FLEXIBLE CONNECTION
- EXISTING DUCT
- ROUND DUCT UP THROUGH ROOF
- ROUND DUCT DOWN
- FLEXIBLE DUCTWORK (INSULATED)
- ACOUSTICAL DUCT LINING
- FD FIRE DAMPER
- VD VOLUME DAMPER (MANUAL)
- MD MOTORIZED DAMPER
- RETURN OR EXHAUST AIR FLOW
- SUPPLY / RETURN AIR FLOW
- CP CONDENSATE PUMP
- CD CONDENSATE DRAIN PIPE
- T NEW THERMOSTAT
- TS NEW TEMPERATURE SENSOR
- S NEW SWITCH

CONSTRUCTION NOTES:

1. PROVIDE LOW POINT DRAIN FROM FLUE PIPING TO MAIN CONDENSATE DRAIN LINE.
2. --
3. ALL NEW CONDENSATE DRAIN PIPING SHALL BE PITCHED DOWN TOWARDS DRAINS AT 1/8" PER 1'0".

Drawing Status:

Client:
Commonwealth Cannabis Company
2 Marc Rd.
Medway, MA

Project:
Grow Facility Addition
2 Marc Rd.
Medway, MA

Drawing:
1ST AND 2ND FLOOR HVAC NEW PIPING PLAN

Scale:
Date: 9/8/2022
Job Number: 21052
Drawn By:
Checked By: WCC

M1.2

Straughan Forensic, LLC
Forensic Mechanical Engineering

September 2, 2022

Susan Affleck - Childs
Planning and Economic Development Coordinator
Town of Medway
155 Village Street
Medway, MA 02053
508-533-3291
Email: sachilds@townofmedway.org

Re: 2 Marc Road Cultivation Facility - Addition, Review of Odor Mitigation Plan

Dear Ms. Affleck - Childs:

This letter documents the findings from my review of the Odor Mitigation Plan for the 20,000 SF Addition to the cannabis cultivation and processing facility at 2 Marc Road in Medway, Massachusetts. The following documents were reviewed:

- 2 Marc Road Site Narrative, Legacy Engineering, 2-28-2022, 6 pp.
- Site Plan P-2 Marc Road, Merrikin Engineering, 2-28-2022, 12 pp.
- Building Mechanical Systems Odor Mitigation Report, Engineered Systems, 6-10-2022, 42 pp.
- Town of Medway Zoning Bylaw, Section 7.3. D. 4 Odors, 5-09-2022

I offer the following comments from my review of the Odor Mitigation Report by Engineered Systems Consulting Engineers:

1. No description of the odor producing activities that will take place in each room of the addition have been provided.

2. Page 5, 2-STORY BUILDING EXPANSION (NEW):

    a. AtmosAir Bi-Polar Ionization equipment is not specified in the drawings and the locations where this equipment is to be installed are not shown.

    b. Molecular filtration equipment (carbon filters) is not specified in the drawings and the locations where this equipment is to be installed are not shown.

    c. Ecosorb Vapor Phase system is detailed in the submittal drawings, but this system is not referenced anywhere in the mechanical drawing set.

    d. Ozone generators were installed in the existing building. Why is this equipment not planned for the new addition?

    e. It appears that no odor mitigation at all is planned for the Warehouse exhaust, since the Ionization system is only indicted in the plan narrative on Page 3 to go in supply air ducts. Note that the Warehouse connects directly to the Vault, which will generate a significant amount of odor if it includes exposed plants.

3. Pages 17 - 19, Appendix E: Ecosorb Vapor Phase 2400:

    a. What is the schedule for this equipment to run? Or is the plan for it to run continuously?

    b. How does this system avoid freezing up when it operates during sub-freezing outside air temperatures?

    c. How susceptible to wind is the spray coverage? In a typical weather year, how often would the wind be expected to adversely affect the coverage of the spray?

4. Pages 23 - 26, Appendix G: Ecosorb Odor Control System Layout Plans. Why doesn't the system cover the exhaust outlets on the rooftop equipment? The only exhaust outlets for the entire building addition are in the RTU and the ERV on the roof.

5. Pages 36 - 42, Appendix I: Proposed Expansion Mechanical Plans:

    a. Drawing M1.1 2nd Floor HVAC Ductwork Plan. Flag note 4 near the main exhaust duct going to the ERV appears to be mislabeled. Is this intended to be indicated to be a carbon filter?

    b. Drawing M1.1. Construction note 5 related to carbon filters. The locations of these filters are not indicated anywhere on the drawings.

    c. No exhaust system is shown for the Soda Factory. Is no exhaust intended for this area?

    d. No exhaust system is shown for the Vault. Is no exhaust intended for this area?

    e. No exhaust system is shown for the room between the Trim Room and the Men's Room. Is no exhaust intended for this area?

    f. No exhaust system is shown for Pre Roll Dept Room 207. Is no exhaust intended for this area?

    g. Is the planned 400 CFM of exhaust for Trim Room 209 sufficient? This seems minimal considering the large amount of odor generation that typically occurs in trimming rooms.

    h. Is the planned 400 CFM of exhaust for Flower Package Room 208 sufficient? This seems minimal considering the large size of the room and the potential for odor.

Feel free to contact me with any questions or concerns.

Sincerely,

Bruce Straughan

Bruce Straughan, PE
Straughan Forensic, LLC

Anna Rice

From: bastraughan@comcast.net
Sent: Thursday, September 22, 2022 2:38 PM
To: 'Daniel Merrikin'
Cc: Susan Affleck-Childs; Anna Rice
Subject: [External] RE: 2 Marc Road Addition - Odor Mitigation Review

All,

I have reviewed the revised documents and am satisfied that all of my original comments have been addressed except for one, as follows:

The submittal drawings for the Ecosorb Vapor Phase system do not show coverage for the new exhaust air outlet in the east exterior wall of the building addition, even though all the exhaust outlets in the exterior walls of the original building are shown to be covered by this system. Also, due to the lack of north arrows on the drawings, it appears that Ecosorb incorrectly assumed north to be the upward direction on the drawings, but this is actually east. So the view they call the East Elevation is actually the South Elevation. In order to show the new exhaust outlet for the addition, they would have to show the elevation of the actual east side.

Thank you,

Bruce Straughan, PE
Straughan Forensic, LLC
(720) 525-9378

From: Daniel Merrikin <dan@legacy-ce.com>
Sent: Monday, September 12, 2022 7:23 AM
To: bastraughan@comcast.net
Cc: Susan Affleck-Childs <sachilds@townofmedway.org>; Anna Rice <arice@townofmedway.org>
Subject: Re: 2 Marc Road Addition - Odor Mitigation Review

Susy, Anna and Bruce,

Attached is a response memo and an updated odor plan for Bruce's review.

Dan

Daniel J. Merrikin, P.E.
President

Legacy Engineering LLC
730 Main Street
Suite 2C
Millis, MA 02054

www.legacy-ce.com

dan@legacy-ce.com
508-376-8883(office)
508-868-8353(cell)

On Fri, Sep 2, 2022 at 4:38 PM <bastraughan@comcast.net> wrote:

> Susy,
>
> My review comments are attached. Feel free to reach out with any questions or concerns.
>
> Thank you,
>
> **Bruce Straughan, PE**
>
> **Straughan Forensic, LLC**
>
> Forensic Mechanical Engineering
>
> Arvada, Colorado
>
> (720) 525-9378

Susan Affleck-Childs

From: bastraughan@comcast.net
Sent: Monday, October 17, 2022 6:28 PM
To: Susan Affleck-Childs; 'Daniel Merrikin'
Cc: Anna Rice
Subject: RE: [External] Re: 2 Marc Road Addition - Odor Mitigation Review

All,

I confirmed that the Ecosorb drawings have been revised to address this. So I believe that covers it. Thanks

Bruce Straughan, PE
Straughan Forensic, LLC
(720) 525-9378

From: Susan Affleck-Childs <sachilds@townofmedway.org>
Sent: Wednesday, October 12, 2022 10:58 AM
To: Daniel Merrikin <dan@legacy-ce.com>; bastraughan@comcast.net
Cc: Anna Rice <arice@townofmedway.org>
Subject: RE: [External] Re: 2 Marc Road Addition - Odor Mitigation Review

Thanks very much.

Bruce, kindly review and provide a brief response to us at your earliest convenience. Thanks.

Susan E. Affleck-Childs
Planning and Economic Development Coordinator
Town of Medway
155 Village Street
Medway, MA 02053
508-533-3291

From: Daniel Merrikin <dan@legacy-ce.com>
Sent: Wednesday, October 12, 2022 12:56 PM
To: bastraughan@comcast.net
Cc: Susan Affleck-Childs <sachilds@townofmedway.org>; Anna Rice <arice@townofmedway.org>
Subject: [External] Re: 2 Marc Road Addition - Odor Mitigation Review

Hi Bruce and Susy,

Attached is an updated odor plan that should address Bruce's last comment.

Dan

Daniel J. Merrikin, P.E.
President

Legacy Engineering LLC
730 Main Street
Suite 2C
Millis, MA 02054

www.legacy-ce.com

dan@legacy-ce.com
508-376-8883(office)
508-868-8353(cell)

On Sun, Sep 25, 2022 at 7:36 AM Daniel Merrikin <dan@legacy-ce.com> wrote:

> Thanks Bruce. I will have this revised and will resubmit it.
>
> Dan
>
> Daniel J. Merrikin, P.E.
> President

> Legacy Engineering LLC
> 730 Main Street
> Suite 2C
> Millis, MA 02054

www.legacy-ce.com

dan@legacy-ce.com
508-376-8883(office)
508-868-8353(cell)

On Thu, Sep 22, 2022 at 2:38 PM <bastraughan@comcast.net> wrote:

> All,

I have reviewed the revised documents and am satisfied that all of my original comments have been addressed except for one, as follows:

The submittal drawings for the Ecosorb Vapor Phase system do not show coverage for the new exhaust air outlet in the east exterior wall of the building addition, even though all the exhaust outlets in the exterior walls of the original building are shown to be covered by this system. Also, due to the lack of north arrows on the drawings, it appears that Ecosorb incorrectly assumed north to be the upward direction on the drawings, but this is actually east. So the view they call the East Elevation is actually the South Elevation. In order to show the new exhaust outlet for the addition, they would have to show the elevation of the actual east side.

Thank you,

Bruce Straughan, PE

Straughan Forensic, LLC

(720) 525-9378

From: Daniel Merrikin <dan@legacy-ce.com>
Sent: Monday, September 12, 2022 7:23 AM
To: bastraughan@comcast.net
Cc: Susan Affleck-Childs <sachilds@townofmedway.org>; Anna Rice <arice@townofmedway.org>
Subject: Re: 2 Marc Road Addition - Odor Mitigation Review

Susy, Anna and Bruce,

Attached is a response memo and an updated odor plan for Bruce's review.

Dan

Daniel J. Merrikin, P.E.

President

To help protect your privacy, Microsoft Office prevented automatic download of this picture from this Internet.

Legacy Engineering LLC

730 Main Street

Suite 2C

Millis, MA 02054

www.legacy-ce.com

dan@legacy-ce.com

508-376-8883(office)

508-868-8353(cell)

On Fri, Sep 2, 2022 at 4:38 PM <bastraughan@comcast.net> wrote:

Susy,

My review comments are attached. Feel free to reach out with any questions or concerns.

Thank you,

Bruce Straughan, PE

Straughan Forensic, LLC

Forensic Mechanical Engineering

Arvada, Colorado

(720) 525-9378

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Bethany A. Card
Secretary

Martin Suuberg
Commissioner

Ellen Rosenfeld
President
CommCan, Inc..
2 Marc Road
Medway, MA 02053

Re: **NOTICE OF NONCOMPLIANCE**
Enforcement Document Number: 00014011

Noncompliance with M.G.L. Chapter 111 and 310 CMR 7.00

At: CommCan, Inc.
2 Marc Road
Medway, MA 02053

MassDEP Facility ID #633308

Dear Ms. Rosenfeld:

Massachusetts Department of Environmental Protection ("MassDEP") personnel have observed or determined that on August 24, 2022, activity occurred at CommCan, Inc. located at 2 Marc Road in Medway, in noncompliance with one or more laws, regulations, orders, licenses, permits, or approvals enforced by MassDEP.

Enclosed please find a Notice of Noncompliance, an important legal document describing the activities that are in noncompliance and a Presence Inspection Worksheet.

Additionally, this letter contains general information on possible options to reduce the quantity, toxicity and/or global warming potential of the materials used by your facility, which if implemented, may assist in correcting the violations described in the enclosed document(s).

OPPORTUNITIES FOR REDUCING THE FACILITY'S ENVIRONMENTAL IMPACT

By modifying the facility's processes and/or waste generation practices, you may be able to reduce or eliminate the environmental regulatory requirements and fees that apply to this facility, including requirements to:

- notify MassDEP;
- obtain MassDEP permits or other approvals;
- manage wastes in specific ways; and
- file reports on your operations with the agency.

Potential modifications may include:

- reducing the quantity and/or toxicity and/or global warming potential of waste that requires disposal;
- eliminating or reducing the use of toxic or greenhouse gas emitting chemicals by the facility; and
- increasing energy efficiency.

In addition, these modifications may improve your product quality and/or process efficiency, and save money.

Tracking the facility's hazardous substances use and greenhouse gas emissions and reviewing that data periodically may lead to the identification of additional opportunities to reduce the quantity and toxicity of materials used, of greenhouse gases emitted, and of hazardous wastes generated.

For information on reducing hazardous chemical use, greenhouse gas emissions, and/or waste generated, you may contact:

- The Office of Technical Assistance (OTA) (617-626-1060) for free, CONFIDENTIAL technical assistance including on-site assessments, phone and email consultations, for toxic use reduction opportunities, water conservation, and energy efficiency options, and other resources. OTA can also help you meet the requirements of the enclosed document(s), and will not discuss matters with MassDEP or any other regulating agency.
- The Toxics Use Reduction Institute (TURI) (978-934-3275) for information and research on green cleaning, pollution prevention grants and "Toxics Use Reduction Planners" certification courses.
- MassDEP's Toxics Use Reduction Program (617-292-5982) for guidance material on the Toxics Use Reduction Act requirements.
- The MA Department of Energy Resources, (617-626-7300) for further information on energy efficiency programs.
- The Recycling Works in Massachusetts program (888-254-5525) or (http://recyclingworksma.com/) for source reduction, reuse and/or recycling that

decrease the quantity of solid waste requiring disposal. In many cases waste reduction of these materials provides overall cost-saving opportunities.

- For MassDEP sponsored assistance programs go to: http://www.mass.gov/eea/agencies/massdep/recycle/reduce/assistance-for-businesses.html.

If you have any questions regarding this matter, please contact Stephen Klosz of this office at (508) 849-4022 or Stephen.Klosz@mass.gov.

Sincerely,

September 14, 2022
Date

Giles T. Steele-Perkins
Section Chief, Compliance & Enforcement
Bureau of Air and Waste

GS-P/SK

Enclosure

ecc: James Cain, MA Office of Technical Assistance
Jack Mee, Building Commissioner, Town of Medway
Derek Kwok, Health Director, Town of Medway

NOTICE OF NONCOMPLIANCE

THIS IS AN IMPORTANT NOTICE. FAILURE TO TAKE ADEQUATE ACTION IN RESPONSE TO THIS NOTICE COULD RESULT IN SERIOUS LEGAL CONSEQUENCES.

Based on the Massachusetts Department of Environmental Protection's (the "Department" or "MassDEP") investigation on August 24, 2022, noncompliance occurred or was observed at CommCan, Inc. located at 2 Marc Road in Medway, in violation of one or more laws, regulations, orders, licenses, permits or approvals enforced by MassDEP.

This Notice of Noncompliance describes (1) the requirement violated, (2) the date and place on which MassDEP asserts the requirement was violated, (3) either the specific actions which must be taken in order to return to compliance or direction to submit a written proposal describing how and when you plan to return to compliance, and (4) the deadline for taking such actions or submitting such a proposal.

If the required actions are not completed by the deadlines specified below, an administrative penalty may be assessed for every day after the date of receipt of this Notice that the noncompliance occurs or continues. MassDEP reserves its rights to exercise the full extent of its legal authority in order to obtain full compliance with all applicable requirements, including, but not limited to, criminal prosecution, civil action including court-imposed civil penalties, or administrative action, including administrative penalties imposed by MassDEP.

NAME OF ENTITY IN NONCOMPLIANCE:

CommCan, Inc., Facility ID #633308
(hereinafter referred to as the "Company")

LOCATION WHERE NONCOMPLIANCE OCCURRED OR WAS OBSERVED:

2 Marc Road
Medway, MA 02053

DATE WHEN NONCOMPLIANCE OCCURRED OR WAS OBSERVED:

August 24, 2022

DESCRIPTION OF NONCOMPLIANCE:

The Department's investigation shows that the Company had the following violations:

A. Air Pollution Control:

1. Operating a facility in such a way as to generate odor and thereby causing or contributing to a condition of air pollution, in violation of 310 CMR 7.01(1) and 310 CMR 7.09(1). Specifically, MassDEP personnel detected cannabis odor escaping the Company's manufacturing process on Marc Road and in the industrial park on August 24, 2022. The regulation, 310 CMR 7.01(1), states:

> "No person owning, leasing, or controlling the operation of any air contamination source shall willfully, negligently, or through failure to provide necessary equipment or to take necessary precautions, permit any emission from said air contamination source or sources of such quantities of air contaminants which will cause, by themselves or in conjunction with other air contaminants, a condition of air pollution."

The regulation, 310 CMR 7.09(1), states:

> "No person having control of any dust or odor generating operations such as, but not limited to asphalt batching plants, asphalt roofing materials manufacturing plants, asphalt blowing plants, foundries, chemical products manufacturing plants, incinerators, fuel utilization facilities, petroleum products manufacturing plants, aggregate manufacturing plants, food preparation or processing facilities, wood products plants, dry cleaning establishments, paint and varnish manufacturing plants, paper manufacturing plants, leather manufacturing plants, concrete batching plants, metal coating and treating plants, land clearing operations, construction work, dump operations, agricultural operations and street sweeping shall permit emissions there from which cause or contribute to a condition of air pollution."

ACTIONS TO BE TAKEN AND THE DEADLINE FOR TAKING SUCH ACTIONS:

The following actions to be taken have individual deadlines associated with them. The Company shall take the necessary steps to correct the violations within the specified deadlines as noted and shall return to compliance with the requirements described below. MassDEP's regulations at 310 CMR 5.09 presume that you receive this Notice of Noncompliance, if delivered by regular mail, three business days after it was issued (i.e., the date of the cover letter).

A. Air Pollution Control:

1. Within thirty (30) days from the date of receipt of this Notice, operate the facility in such a way as to not cause or contribute to a condition of air pollution through the generation of odor, in compliance with 310 CMR 7.01(1) and 310 CMR 7.09(1). Please note also that if solvent emissions are greater than one ton or more per year, a Limited Air Plan approval will be required. Please contact MassDEP's Air Quality Permitting Section Chief, Tom Hannah, at (508) 767-2845 or via email at Thomas.Hannah@mass.gov for permitting requirements. Additional information may be found here: https://www.mass.gov/guides/massdep-air-plan-approval-applications.

B. General:

2. Within thirty (30) days of the date of receipt of this Notice, the Company shall submit to MassDEP a written description of each of the actions taken to correct the violations noted above as well as a status report of any corrective actions planned or being taken to achieve or maintain compliance. Any and all supporting documentation shall be included with the response to MassDEP.

Please address your reply to this Notice of Noncompliance to Giles Steele-Perkins at this office (Giles.Steele-Perkins@mass.gov) with an ecc. to Stephen Klosz (Stephen.klosz@mass.gov).

September 14, 2022
Date

Giles T. Steele-Perkins
Section Chief, Compliance & Enforcement
Bureau of Air and Waste

GS-P/SK

Company Name: CommCan, Inc.
Address: 2 Marc Road Medway, MA 02053
Contact/Phone #: Ellen Rosenfeld / (508) 376-2041
Date of Inspection: August 24, 2022
Inspector: Stephen Klosz

PRESENCE INSPECTION WORKSHEET

1) Inspection Preparation: A complaint was received concerning a marijuana cultivation facility and odor coming from their processes.

2) Company Overview: The Company conducts marijuana cultivation and production at their facility on 2 Marc Road in Medway. A lab is operated on-site that performs solvent and CO2 extraction of marijuana to produce marijuana resins/oils to be used in baked goods or to be packaged as such.

3) Is the facility currently registered with the Department in any program? The Company is not registered with the Department for any programs.

4) Conduct a brief facility tour. MassDEP personnel responded to odor complaints being made against CommCan, Inc.. on Wednesday August 24, 2022 and requested to see the air misting system that uses Eco-Sorb in an effort to mitigate odors coming from their manufacturing processes. The Company had run out of Eco-Sorb product to feed the air misting system and had stated that the representative for Eco-Sorb had caught COVID-19 in a foreign country and was having issues returning to the U.S., which prevented them from obtaining more Eco-Sorb. I took photos of the air misting system to ensure it had been installed at the request of the Town of Medway. Company personnel were able to confirm that they conduct solvent and CO2 extraction of marijuana so a brief tour of the lab commenced.

A. Hazardous Waste: **No applicable activities observed _____**

What types of Hazardous Waste are generated? Used solvent from marijuana extraction operations.

Is Waste Oil generated? No.

How is HW/WO accumulated/stored? I observed used solvent being stored in 55-gallon containers in the lab next to the machinery that performs the extraction.

Is HW/WO properly recycled/disposed of? Company personnel stated that used solvent is drummed and collected for transportation by Cannagas Supply. It is unsure if Cannagas Supply is a registered and licensed hazardous waste hauler.

Is documentation available? Hazardous waste manifests were not requested by the inspector.

B. Air Pollution Control: **No applicable activities observed _____**

Is coating/spray painting performed? No **Do processes exhaust outside?** Yes

Is there potential for nuisance conditions (dust, noise, odor)? Potential for odor nuisance.

What type of fuel burning equipment does the facility have? This information was not requested during the facility tour.

C. Industrial Wastewater: **No applicable activities observed _____**

Is water used in any process? Yes, water is needed to grow the marijuana plants.

Is wastewater recycled or treated/pretreated? IWW was not discussed during the facility tour.

Is documentation available? IWW was not discussed during the facility tour.

Does wastewater discharge to the ground, surface water, and/or sanitary sewer? IWW was not discussed during the facility tour.

Are there floor drains? IWW was not discussed during the facility tour.

D. Toxic Use Reduction Act: **No applicable activities observed ___X___**

List the significant toxic substances or chemicals used (over 10,000 lbs/yr, including PACs)

SIC Code _____ **Number of FTEs _____**

5) Observations/Comments on activities at the facility: MassDEP personnel responded to an odor complaint that was confirmed on-site at the facility as well as beyond their property boundaries, specifically when turning onto the road to the industrial park and when turning onto Marc Road.

The Company conducts solvent and CO2 extraction, which also make them a regulated interest for MassDEP since they produce VOC emissions from their lab as well as hazardous waste from the same operation. Water is also used in their process although this was not the focus of the facility tour.

6) Noncompliance identified: 310 CMR 7.01(1) and 7.09(1) for conducting odorous operations affecting the surrounding environment.

Anna Rice

From: Susan Affleck-Childs
Sent: Thursday, October 6, 2022 1:58 PM
To: Anna Rice
Subject: FW: [External] FW: Enforcement Doc#00014011- 2 marc road
Attachments: Medway Cultivation Facility HVAC Odor Mitigation Report 9-8-22.pdf

Hi Anna,

Please turn this email from Ellen Rosenfeld into a pdf and include in the packet. Also include the attached odor mitigation report dated 9-8 but list it as a separate item on the cover sheet.

ALSO, please add the odor mitigation report to the project folder under Odor.

Thanks.

From: ellen rosenfeld-law.com <ellen@rosenfeld-law.com>
Sent: Tuesday, October 4, 2022 3:42 PM
To: Susan Affleck-Childs <sachilds@townofmedway.org>; Barbara Saint Andre <bsaintandre@townofmedway.org>; hayes7000@msn.com
Cc: Daniel Merrikin <dan@legacy-ce.com>
Subject: [External] FW: Enforcement Doc#00014011

See below message
ellen

730 Main Street
Suite 2A
Millis, MA 02054
Office: 508-376-2041
Cell: 508-294-2002

From: ellen rosenfeld-law.com
Sent: Wednesday, September 28, 2022 2:46 PM
To: Klosz, Stephen (DEP) <stephen.klosz@state.ma.us>
Subject: RE: Enforcement Doc#00014011

Stephen
Please see our Odor Management Plan attached in response to the Notice of Non-Compliance dated 09/14/22 .
Please confirm receipt.
Thanks
ellen

730 Main Street
Suite 2A
Millis, MA 02054
Office: 508-376-2041
Cell: 508-294-2002

From: Klosz, Stephen (DEP) <stephen.klosz@state.ma.us>
Sent: Wednesday, September 14, 2022 4:21 PM
To: ellen rosenfeld-law.com <ellen@rosenfeld-law.com>
Subject: MassDEP Visit Follow Up

Good Afternoon Ellen,

This email is a follow up to my visit I made to CommCan, Inc. located at 2 Marc Road on Wednesday August 24, 2022. Based on the information I provided to my boss about my visit to the facility that day, the decision was made to issue a Notice of Noncompliance (NON). This document is the lowest level of enforcement that we use as a state agency and carries no monetary fine. A digital copy of the notice is attached to the email and a physical copy was sent in the mail today to the 2 Marc Road in Medway address so you guys should receive the physical copy in the next few days. An additional document is attached to the email, which is a presence inspection worksheet and basically outlines observations I made and what was evaluated during my visit. No action is required of the facility pertaining to the inspection worksheet, this document is for reference only and was also sent out in the mail today. Action items in the notice outline avenues of response for the facility as well as deadlines for responses. I appreciate your time and letting me tour areas of the facility that day.

Regards,
Stephen Klosz
Environmental Analyst
MassDEP Central Regional Office
8 New Bond Street
Worcester, MA 01606
Office: (508)-849-4022
Mobile: (781)-540-4850

Susan Affleck-Childs

From: Steele-Perkins, Giles (DEP) <giles.steele-perkins@state.ma.us>
Sent: Wednesday, October 19, 2022 3:56 PM
To: Susan Affleck-Childs
Cc: Klosz, Stephen (DEP)
Subject: FW: [External] FW: MA DEP Enforcement Doc#00014011 - 2 Marc Road Medway
Attachments: Medway Cultivation Facility HVAC Odor Mitigation Report 9-8-22.pdf; 2022-10-13 Site Plan_P - 2 Marc Road.pdf

Good afternoon, Ms. Affleck-Childs.
To follow up on your email to Stephen Klosz below, MassDEP did reply to CommCan's response letter to the NON to confirm that the odor control equipment and compound are operating/in-use. The Company president stated they are and that the new building addition will not be for cannabis cultivation, but odor control equipment will be installed if needed. MassDEP hasn't received any more complaints and isn't expecting at this time to require further action.

Please let me know if you would like to discuss further.

Sincerely,

Giles T. Steele-Perkins
Section Chief, Compliance & Enforcement
BAW/MassDEP/CERO
8 New Bond Street
Worcester, MA 01606
(508) 767-2767

From: Susan Affleck-Childs <sachilds@townofmedway.org>
Sent: Tuesday, October 18, 2022 5:34 PM
To: Klosz, Stephen (DEP) <Stephen.Klosz@mass.gov>
Cc: Matthew Hayes <hayes7000@msn.com>; Jonathan Ackley <jackley@townofmedway.org>; Erika Robertson <erobertson@townofmedway.org>
Subject: FW: [External] FW: MA DEP Enforcement Doc#00014011 - 2 Marc Road Medway

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Stephen,

The marijuana cultivation facility at 2 Marc Road (CommCan) is before the Medway Planning and Economic Development Board for a modification to their previously approved site plan to authorize a 20,000 sq. ft. expansion of their facility and for various additional site improvements (parking and stormwater management). See attached site plan.

The Board is aware of the recent MA DEP Notice of Noncompliance pertaining to your site inspection in August and Ms. Rosenfeld's response to you on 10-4-22 in which she provided their Odor Mitigation Plan dated 9-8-22.

The Board is very concerned about the odor issues on the premises and approving a site plan for an expanded project when the odor issues are ongoing.

Have you responded to Ms. Rosenfeld's 10-4-22 email to you? Are there any further remedies MA DEP will be requiring of the facility? We would appreciate any update you can provide.

I would be glad to speak with you about this at your convenience.

Thanks for your help.

Best regards,

Susan E. Affleck-Childs
Planning and Economic Development Coordinator
Town of Medway
155 Village Street
Medway, MA 02053
508-533-3291

From: ellen rosenfeld-law.com <ellen@rosenfeld-law.com>
Sent: Tuesday, October 4, 2022 3:42 PM
To: Susan Affleck-Childs <sachilds@townofmedway.org>; Barbara Saint Andre <bsaintandre@townofmedway.org>; hayes7000@msn.com
Cc: Daniel Merrikin <dan@legacy-ce.com>
Subject: [External] FW: Enforcement Doc#00014011

See below message
ellen

730 Main Street
Suite 2A
Millis, MA 02054
Office: 508-376-2041
Cell: 508-294-2002

From: ellen rosenfeld-law.com
Sent: Wednesday, September 28, 2022 2:46 PM
To: Klosz, Stephen (DEP) <stephen.klosz@state.ma.us>
Subject: RE: Enforcement Doc#00014011

Stephen
Please see our Odor Management Plan attached in response to the Notice of Non-Compliance dated 09/14/22 .
Please confirm receipt.
Thanks
ellen

730 Main Street
Suite 2A
Millis, MA 02054
Office: 508-376-2041
Cell: 508-294-2002

From: Klosz, Stephen (DEP) <stephen.klosz@state.ma.us>
Sent: Wednesday, September 14, 2022 4:21 PM
To: ellen rosenfeld-law.com <ellen@rosenfeld-law.com>
Subject: MassDEP Visit Follow Up

Good Afternoon Ellen,

This email is a follow up to my visit I made to CommCan, Inc. located at 2 Marc Road on Wednesday August 24, 2022. Based on the information I provided to my boss about my visit to the facility that day, the decision was made to issue a Notice of Noncompliance (NON). This document is the lowest level of enforcement that we use as a state agency and carries no monetary fine. A digital copy of the notice is attached to the email and a physical copy was sent in the mail today to the 2 Marc Road in Medway address so you guys should receive the physical copy in the next few days. An additional document is attached to the email, which is a presence inspection worksheet and basically outlines observations I made and what was evaluated during my visit. No action is required of the facility pertaining to the inspection worksheet, this document is for reference only and was also sent out in the mail today. Action items in the notice outline avenues of response for the facility as well as deadlines for responses. I appreciate your time and letting me tour areas of the facility that day.

Regards,
Stephen Klosz
Environmental Analyst
MassDEP Central Regional Office
8 New Bond Street
Worcester, MA 01606
Office: (508)-849-4022
Mobile: (781)-540-4850

NCE JOB MEMO 2022-015

TO: Susan Affleck-Childs

CC:

COMPANY: Town of Medway

FROM: Jeffrey Komrower

DATE: 13-October-2022

SUBJECT: CommCan Expansion Noise Plan Review – 2 Marc Road

BACKGROUND

A two-story addition is being proposed to the rear of the existing CommCan marijuana cultivating facility located at 2 Marc Road in Medway, MA. Noise predictions were developed by Acentech to see if predicted noise levels from equipment associated with the expansion will meet the Town of Medway and MassDEP noise requirements. Based on the more restrictive Town of Medway noise regulation, if the facility meets these requirements, they will meet the MassDEP requirements. The existing equipment consists of (2) Trane air-cooled scroll chillers. The new equipment which will be installed with the expansion consists of an energy recovery ventilator located within the expansion building, and a condensing unit located near the NE corner of the expansion. A recent update to the Medway noise bylaw was adopted in November 2021 and resulted in more restrictive noise requirements to which this CommCan expansion must meet. This revised bylaw contains a combination of fixed and relative sound level limits. The following tables define the fixed sound level limits at commercial and industrial property lines:

<u>Industrial Zoned Property to Industrial Zoned Property</u>

	Daytime 7:00 a.m. – 7:00 p.m. @ Property Line	**Evening 7:00 pm – 11:00 pm @ Property Line**	**Nighttime 11:00 p.m. – 7:00 a.m. @ Property Line**
Overall Level (dBA)	55	55	55

Industrial or Commercial Zoned Property to Commercial Zoned Property

	Daytime 7:00 a.m. – 7:00 p.m. @ Property Line	**Evening 7:00 p.m. – 11:00 p.m. @ Property Line**	**Nighttime 11:00 p.m. – 7:00 a.m. @ Property Line**
Overall Level (dBA)	50	50	50

From industrial or commercial property to residential receivers, a combination of relative and fixed sound level limits apply:

Industrial or Commercial Zoned Property to Residential Zoned Property

- The introduction of any potential new noise sources cannot result in an increase in broadband sound pressure levels of more than 2 dB above the existing ambient conditions at the nearest residential property line or any Sensitive Receptor; and

- The introduction of any potential noise sources cannot result in overall noise levels that exceed the following:

	Daytime 7:00 a.m. – 7:00 p.m. @ any Residential Property Line	**Evening 7:00 pm – 11:00 pm @ any Residential Property Line**	**Nighttime 11:00 p.m. – 7:00 a.m. @ any Residential Property Line**	**Evening & Nighttime 7:00 p.m. – 7:00 a.m. @ Sensitive Receptors**
Maximum Overall Noise Level (dBA)	47	45	42	32

In addition to the criteria above, there is a one-third octave band pure tone requirement.

NOISE MODEL PREDICTIONS

Ambient Noise Levels

Ambient noise levels in the vicinity of the CommCan facility have previously been established in connection with the neighboring Neo-Organics development and is a part of public record which is documented in a report dated 11-April, 2022. The lowest ambient sound level of 28 dB(A) was observed at 2:00 am on March 12th and is taken to be the background noise level. NCE agrees that this is a reasonable level.

Computer Model Predictions

Noise predictions by Acentech were developed using the CadnaA acoustical software which is the accepted standard in the industry. Inputs to the model included published sound power source levels for all proposed equipment (provided by equipment vendor), distances from source to receiver, absorption factors of sound for atmosphere and porous ground as well as source and

receiver heights. Possible effects of terrain were also included and one order of reflection to account for effects of any barriers or buildings was assumed. NCE agrees that all these assumptions are reasonable and consistent with standard practices for this type of model and location.

Noise Mitigation Controls

Noise controls were employed in the model to reduce any noise coming from the noise sources. A ten-foot high three-sided noise barrier wall was used around the condensing units. Both types of noise barriers referenced in the Acentech memo should provide significant noise reduction. Additionally, silencers in the inlet and exhaust ducts were input into the model.

Noise Predictions

Predictions were made at 16 industrial-to-industrial property lines and 9 industrial-residential property lines as well as at 10 sensitive receptors. Results showed that all fixed noise level limits at all industrial and residential property lines were met. The highest noise level predicted at the industrial-to-industrial property line was 48 dB(A), well under the 55 dB(A) limit. At the industrial-to-residential property lines, the highest level predicted was 26 dB(A), also well below the most stringent (nighttime) level of 42 dB(A) limit. At sensitive receptors, the highest predicted noise level of 24 dB(A) was below the 32 dB(A) nighttime criteria and the maximum predicted increase in noise levels was 2 dB which meets the relative criteria.

CONCLUSIONS

Based on the review of the CadnaA model as described by Acentech in their memo of 25-August-2022, and all associated assumptions, NCE agrees with the model results showing that all noise criteria for the CommCan expansion at 2 Marc Road as described in the updated Town of Medway Zoning Bylaws should be met. NCE also agrees with the conclusion that it is unlikely that the additional equipment of the expansion will violate the pure tone requirement, however, after construction, this should be verified.

RECEIVED
JUN 29 2016
TOWN CLERK

TOWN OF MEDWAY
Planning & Economic Development Board

155 Village Street
Medway, Massachusetts 02053

Andy Rodenhiser, Chairman
Robert K. Tucker, Vice-Chairman
Thomas A. Gay, Clerk
Matthew J. Hayes, P.E.
Richard Di Iulio

June 28, 2016

SPECIAL PERMITS and SITE PLAN DECISION
Ellen Realty Trust/CommCan – 2 Marc Road
APPROVED with Waivers and Conditions

Decision Date:	June 28, 2016
Name/Address of Applicant:	Ellen Realty Trust 730 Main Street, Suite 2A Millis, MA 02054
Name/Address of Property Owner:	Ellen Realty Trust 730 Main Street, Suite 2A Millis, MA 02054
Engineer:	Merrikin Engineering, LLP 730 Main Street, Suite 2C Millis, MA 02054
Site Plan:	*2 Marc Road Site Plan of Land in Medway, MA* Dated March 30, 2016, last revised June 7, 2016
Location:	2 Marc Road, 19 Jayar Road and 21 Jayar Road
Assessors' Reference:	33-001, 24-015 and 24-016
Zoning District:	Industrial I and Groundwater Protection District

Telephone: 508-533-3291 *Fax*: 508-321-4987
planningboard@townofmedway.org

I. PROJECT DESCRIPTION – The applicant proposes to construct a two story, 60,000 sq. ft. industrial facility and associated infrastructure on three parcels comprising 6.92 acres at 2 Marc Road, and 19 & 21 Jayar *(Medway Assessors' Parcels 33-001, 24-015 and 24-016)* on the north side of Marc Road in the Industrial I zoning district. A portion of the site includes wetlands resources within the jurisdiction of the Medway Conservation Commission. The property is also located within a groundwater protection district; the northern boundary of the property is approximately 600' from a Town of Medway public water supply well. The properties are owned by Ellen Realty Trust of Millis, MA.

The applicant proposes to develop the site and use the building to contain a registered medical marijuana cultivation and processing facility. That use requires a special permit, the location requires a groundwater protection district special permit, and the overall project requires site plan review and approval. The *2 Marc Road Site Plan of Land in Medway, MA* is dated March 30, 2016 and was prepared by Merrikin Engineering, LLP of Millis, MA. Building elevations were prepared by Keenan & Kenny Architects, LTD of Falmouth, MA.

Access and egress to the development will be from Marc Road which runs westerly off of Industrial Park Road which is off Main ST/Route 109. Proposed site work includes construction of the access/egress driveways, curbing, 35 off-street parking spaces, landscaping, lighting, sidewalk, installation of stormwater drainage facilities, connection to municipal sewer, and reconstruction of the privately owned portions of Marc Road.

II. VOTE OF THE BOARD – After reviewing the application and information gathered during the public hearing and review process, the Medway Planning and Economic Development Board, on June 28, 2016, on a motion made by Matthew Hayes and seconded by Richard Di Iulio, ***voted to GRANT with CONDITIONS a groundwater protection special permit and a registered medical marijuana dispensary special permit and to APPROVE with WAIVERS and CONDITIONS*** as specified herein, a site plan for the construction of a medical marijuana cultivation and processing facility and associated site improvements at 2 Marc Road as shown on *2 Marc Road Site Plan of Land in Medway, MA*, dated March 30, 2016, last revised June 7, 2016 to be further revised as specified herein.

The vote was approved by a vote of four in favor and one opposed.

Planning & Economic Development Board Member	***Vote***
Richard Di Iulio	Yes
Matthew Hayes	Yes
Thomas A. Gay	Yes
Andy Rodenhiser	Yes
Robert Tucker	NO

III. PROCEDURAL HISTORY

A. April 4, 2016 – Special permit and site plan applications and associated materials filed with the Medway Planning & Economic Development Board and the Medway Town Clerk

B. April 11, 2016 – Public hearing notice filed with the Town Clerk and posted at the Town of Medway web site.

C. April 11, 2016 - Public hearing notice mailed to abutters by certified sent mail

D. April 11, 2016 – Site plan information distributed to Town boards, committees and departments for review and comment.

E. April 12 and April 19, 2016 - Public hearing notice advertised in *Milford Daily News.*

F. April 26, 2016 - Public hearing commenced. The public hearing was continued to May 10, May 24, June 14, and June 28, 2016 when the hearing was closed and a decision rendered.

IV. INDEX OF SITE PLAN DOCUMENTS

A. The site plan and special permit applications for the proposed CommCan medical marijuana cultivation and processing facility included the following plans, studies and information that were provided to the Planning and Economic Development Board at the time the application was filed:

1. Site Plan Application dated April 1, 2016 and special permit application dated April 4, 2016 with Project Description and Development Impact Statement, property ownership documentation, and certified abutters' list.
2. *2 Marc Road Site Plan of Land in Medway, MA*, dated January 26, 2016, prepared by Merrikin Engineering of Millis, MA
3. *Stormwater Report for 2 Marc Road* including an operations and maintenance plan, dated March 30, 2016 prepared by Merrikin Engineering
4. *Requests for Waivers* from the *Medway Site Plan Rules and Regulations*, received April 4, 2016 prepared by Merrikin Engineering
5. Building Elevation (undated) and Floor Plans dated November 24, 2015 by Keenan and Kenney Architects, Ltd.

B. During the course of the review, a variety of other materials were submitted to the Board by the applicant and its representatives:

1. Supplemental Request for Waiver of the *Medway Site Plan Rules and Regulations*, prepared by Merrikin Engineering dated May 5, 2016 - Section 205-6 Curbing
2. *2 Marc Road Site Plan of Land in Medway, MA*, dated January 26, 2016, REVISED May 18, 2016, prepared by Merrikin Engineering of Millis, MA
3. Merrikin Engineering letter dated May 4, 2016 with varied attachments in response to the PGC review letter dated April 22, 2016 and comments received during the April 26, 2016 public hearing.
4. Merrikin Engineering letter dated May 19, 2016 with varied attachments in response to Tetra Tech review letter dated May 5, 2016.
5. *2 Marc Road Site Plan of Land in Medway, MA*, dated January 26, 2016, REVISED May 18, 2016, prepared by Merrikin Engineering of Millis, MA

6. *2 Marc Road Site Plan of Land in Medway, MA*, dated January 26, 2016, REVISED June 7, 2016, prepared by Merrikin Engineering of Millis, MA
7. Merrikin Engineering letter dated June 7, 2016 with varied attachments in response to public hearing discussions.
8. Supplemental Request for Waiver of the *Medway Site Plan Rules and Regulations*, prepared by Merrikin Engineering dated May 25, 2016 - Section 205-6.G.1 Parking Spaces/Stalls
9. Revised building elevation from Keenan and Kenney Architects, Ltd. – not dated
10. Odor Management Info – Letter dated May 3, 2016 from CSI Engineering of Portsmouth, NH.
11. Proposed design - CommCan free-standing sign prepared by Signarama Walpole, undated
12. Water and Wastewater Management – Letter dated May 3, 2016 from CSI Engineering, Portsmouth, NH.
13. Cut sheet of a proposed bike rack by ULINE.
14. Business Entity Summary of CommCan Inc. from the Corporations Division of the Secretary of the Commonwealth of Massachusetts.
15. June 10, 2016 email communication from Building Commissioner Jack Mee indicating that the parking plan for the 2 Marc Road building meets the zoning requirements.
16. June 17, 2016 letter/Provisional Certificate of Registration for a Registered Medical Marijuana Dispensary from the Massachusetts Department of Public Health issued to CommCan, Inc. of Millis, MA.

C. Other Documentation

1. Mullins Rule Certification dated April 28, 2016 for Richard Di Iulio for the April 26, 2016 hearing
2. Mullins Rule Certification dated May 3, 2016 for Robert Tucker for the April 26, 2016 hearing
3. Mullins Rule Certification dated June 8, 2016 for Thomas Gay for the May 24, 2016 hearing
4. Host Community Agreement dated May 16 2016 between the Town of Medway and CommCan, Inc.
5. Review letter dated May 18, 2016 from the Medway Design Review Committee

V. *TESTIMONY* - In addition to the site plan application materials as submitted and provided during the course of our review, the Planning and Economic Development Board heard and received verbal or written testimony from:

- Sean Reardon, P.E. of Tetra Tech, Inc., the Town's Consulting Engineer – Site plan review letters dated May 5, 2016 and May 24, 2016
- Steve Bouley of Tetra Tech - Commentary throughout the public hearing process.
- Gino Carlucci, PGC Associates, the Town's Consulting Planner – Site plan review letter dated April 20, 2016 and commentary throughout the public hearing process.

- Ellen Rosenfeld, applicant
- Dan Merrikin, P.E. of Merrikin Engineering, engineer for the applicant
- Valerio Romano, VGR Law Firm, attorney for the applicant
- Antonia Kenny, Keenan & Kenny Architects, architect for the applicant
- Resident Charlie Myers, 9 Curtis Lane
- Resident Ann St. Vrain, 1 Causeway Street

VI. ***FINDINGS*** – The Planning and Economic Development Board must determine whether the proposed project constitutes a suitable development based on conformance with the various site development standards and criteria set forth in the *Site Plan Rules and Regulations.*

The Planning and Economic Development Board, at its meeting on June 28, 2016, on a motion made by Robert Tucker and seconded by Richard Di Iulio, voted to approve the following ***FINDINGS*** regarding the site plan and special permit applications for CommCan for 2 Marc Road. The motion was approved by a vote of five in favor and none opposed.

SITE PLAN RULES AND REGULATIONS FINDINGS – The Planning and Economic Development Board shall determine whether the proposed development is in conformance with the standards and criteria set forth in the *Rules and Regulations,* unless specifically waived. In making its decision, the Planning and Economic Development Board shall determine the following:

(1) Has internal circulation, queuing and egress been designed such that traffic safety is protected, access via minor streets servicing residential areas is minimized, and traffic backing up into the public way is minimized?

The site has been designed with 360-degree circulation. The parking lot in front is of a standard design that is judged to be adequate for serving industrial and commercial uses. The site is within an industrial park with access directly from Route 109 so there is no access through minor streets serving residential areas. The entrance and exit drives are separate from the parking lot so there is no backing onto a public way.

(2) Does the site plan show designs that minimize any departure from the character, materials, and scale of buildings in the vicinity as viewed from public ways and places?

The proposed building and site are of an industrial style, with the scale and materials similar to other buildings within the industrial park. While the design of the building is constrained by requirements specific to the proposed use as medical marijuana facility, the original design has been revised based on comments from the Design Review Committee so that its aesthetic impact has been improved.

(3) Is reasonable use made of building location, grading and vegetation to reduce the visible intrusion of structures, parking areas, outside storage or other outdoor

service areas *(e.g. waste removal)* from public views or from (nearby) premises residentially used and zoned.

The building is replacing an earth processing and storage operation. The site is taking advantage of existing swales on the property as part of its stormwater management system. The proposed building and site work will be more stable. The parking area is at the front of the building to promote security. There is no outside storage or either materials or waste. While vegetation close to the building is limited by state imposed security requirements, six trees will be added around the parking lot and other low vegetation will be added to improve the site's aesthetics from the street and nearby residences.

(4) Is adequate access to each structure for fire and service equipment provided?

The building has 360-degree circulation for access around its entire perimeter. The plans have been reviewed by the Fire Chief and found to be adequate, subject to the installation of an additional water hydrant to the rear of the site.

(5) Will the design and construction minimize, to the extent reasonably possible, the following environmental impacts?

a) the volume of cut and fill;
b) the number of trees to be removed with particular care taken with mature trees and root systems;
c) the visual prominence of man-made elements not necessary for safety;
d) the removal of existing stone walls;
e) the visibility of building sites from existing streets;
f) the impacts on waterways and environmental resource areas;
g) soil pollution and erosion;
h) noise.

The site is currently used as an earth processing and storage facility. It is relatively flat so cuts and fills are minimal. There are no trees to be removed. There are no prominent man-made elements or stone walls on the site. The building design is similar to other buildings within the industrial park and typical for such buildings. The aesthetics of the original building design have been improved with the addition of windows and striping. The stormwater management system is making use of existing swales and is treating runoff from the parking lot and driveways to minimize impacts on waterways. The site plan has been reviewed by the Town's Consulting Engineer. Soil pollution and erosion will be reduced as the site will be stabilized with the proposed construction. Noise will also be reduced as the entire operations of the facility will be inside the building as opposed to the exterior operation currently on the site.

(6) Is pedestrian and vehicular safety both on the site and egressing from it maximized?

Vehicular safety on and near the site has been maximized through a design with a driveway separate from the parking lot. There is no significant pedestrian use anticipated since no public access to the building is allowed. Pedestrian safety

within the parking lot is standard and is adequate due to minimal vehicular traffic.

(7) Does the design and will the construction incorporate, to the maximum extent possible, the visual prominence of natural and historic features of the site?

There are no historic features on site. The construction does incorporate existing swales on the site into its stormwater management system.

(8) Does the lighting of structures and parking area avoid glare on adjoining properties and minimize light pollution within the town?

A photometric plan has been submitted that demonstrates that there is no light trespass or glare off site. The fixtures are also shielded to minimize light pollution.

(9) Is the proposed limit of work area reasonable and does it protect sensitive environmental and/or cultural resources? The site plan as designed should not cause substantial or irrevocable damage to the environment, which damage could be avoided or ameliorated through an alternative development plan or mitigation measures.

The limit of work is reasonable. It makes use of an already disturbed site and stabilizes it thus reducing damage to the environment.

GROUNDWATER PROTECTION DISTRICT SPECIAL PERMIT FINDINGS

(10) New construction is a permitted use, subject to certain restrictions, within the Groundwater Protection District. As conditioned, and as noted below, the project will comply with those restrictions.

(11) Storage of hazardous materials is prohibited unless in a free standing container within a building. The applicant has provided a list of hazardous materials that will be used in the facility and states that all storage and use will be contained within the building. Any accidental spillage will also be contained within the building and any that enters the sewer system will be treated prior to being discharged to the municipal sewer system.

(12) Commercial fertilizers will be used for the growing of marijuana plants but all storage and use will be contained within the building.

(13) The facility will handle toxic and hazardous materials. All use of hazardous materials will be contained within the building and as the risk of spillage during deliveries is low, the facility qualifies for a special permit. Operation and maintenance procedures are in place to prevent any accidental outdoor spillage from reaching groundwater.

(14) Water control devices are prohibited unless they can be shown to prevent adverse impacts on groundwater. The stormwater management plans have been reviewed by the Town's Consulting Engineer to ensure that no adverse impacts will result.

(15) The facility will render more than 2,500 square feet of the site impervious. The Town's Consulting Engineer has reviewed the stormwater management plan to ensure that groundwater recharge does not degrade groundwater quality.

(16) As required by Section 5.6.F. of the Zoning Bylaw, the plans have been reviewed by the Board of Health, Conservation Commission, Water and Sewer Commission, and Department of Public Services to ensure that no adverse impacts on the quality or quantity of water available within the Groundwater Protection District, and that disturbance of the soils, topography, drainage, vegetation and other characteristics is minimized. The site is currently cleared and used for storing and processing earth materials and has no current drainage system. The proposed facility will reduce impacts on the quality of water available within the Groundwater Protection District.

REGISTERED MEDICAL MARIJUANA DISPENSARY SPECIAL PERMIT FINDINGS

(17) The proposed facility, as conditioned, is designed to minimize any adverse visual or economic impacts on abutters and other parties in interest.

(18) As conditioned, the proposed facility will meet all the permitting requirements of all applicable agencies within the Commonwealth of Massachusetts and will be in compliance with all applicable state laws and regulations.

(19) The applicant has satisfied all of the conditions and requirements of Sections 8.9 and 3.4 of the Zoning Bylaw.

(20) The facility will be in a standalone building with no doctor's offices or other uses.

(21) As proposed, the facility will operate 12 hours per day between 8:00 AM and 8:00 PM.

(22) None of the uses listed in Section 8.9.E.5 of the Zoning Bylaw are located within 500 feet of the site of the proposed facility.

(23) No drive-through service is proposed (and no public service of any kind is proposed).

(24) The proposed signage is in compliance with Section 8.9.F. of the Zoning Bylaw

(25) The applicant has provided the contact information for management staff and key holders.

(26) The facility will be constructed and operated in strict compliance with Massachusetts Department of Public Health regulations, and thus not create nuisances to abutters.

(27) The proposed facility complies with the openness of premises requirements of Section 8.9 I of the Zoning Bylaw since it is not open to the public and all operations are within the restricted building.

(28) As conditioned, copies of required licenses and permits issued by the Commonwealth as well as individual names of owners, shareholders, partners, members, managers, directors, officers, or other similarly-situated individuals and entities will be provided.

(29) Security measures including lighting, fencing, gates and alarms have been reviewed and approved by the Police Chief.

(30) As conditioned, a copy of the policies/procedures for the transfer, acquisition, or sale of medical marijuana between approved RMD's will be provided.

GENERAL SPECIAL PERMIT FINDINGS

(31) *The use is in harmony with the general purpose and intent of this Zoning Bylaw.*

The Registered Marijuana Dispensary section of the Zoning Bylaw was first adopted by the Town with the specific intent of allowing this type of facility in Medway. The stated purpose of Section 8.9 of the Zoning Bylaw is to address possible adverse public health and safety consequences and impacts on the quality of life related to this type of facility by providing for them in an appropriate place and under strict conditions, which are met by the proposed facility. Therefore, it meets the purpose of the Zoning Bylaw.

(32) *The use is in an appropriate location and is not detrimental to the neighborhood and does not significantly alter the character of the zoning district.*

The proposed location for the facility is within the Industrial I district, in which the use is allowed by special permit. The site is not within 500 feet of any of the uses from which such facilities are prohibited. The design is an industrial style similar to other buildings within that district so the Board finds that it is in an appropriate location, does not alter the character of the zoning district, and the adverse effects of the development have been suitably addressed to reduce the impacts to the neighborhood.

(33) *Adequate and appropriate facilities will be provided for the operation of the proposed use.*

As documented in the findings under *Site Plan Rules and Regulations* above, adequate and appropriate facilities have been provided for the operation of the facility. Its internal roadway system and stormwater management system have been reviewed by Town's Public Safety and Public Services staff and the Board's Consulting Engineer and found to be adequate.

(34) *The proposed use will not be detrimental or otherwise offensive to the adjoining zoning districts and neighboring properties due to the effects of lighting, odors, smoke, noise, sewage, refuse materials, or visual or other nuisances.*

The building is replacing an earth processing and storage operation. The site is taking advantage of existing swales on the property as part of its stormwater management system. The proposed building and site work will be more stable. The parking area is at the front of the building to promote security. There is no outside storage or either materials or waste. While vegetation close to the building is limited by security requirements, six trees will be added around the parking lot and other low vegetation will be added to improve aesthetics from the public way and nearby residences. The applicant has supplied information about their odor management system. The Board finds that this criterion is met.

(35) *The proposed use will not cause undue traffic congestion in the immediate area.*

The proposed facility is expected to have 30 employees and there is no public access so traffic is minimal and the industrial park road system is adequate to handle it. Furthermore, access is from Route 109 so there is no traffic impact on local residential roadways.

(36) *The proposed use is consistent with the Medway Master Plan.*

The proposed facility is in compliance with Goals 1 and 6 of the Economic Development Goals and Objectives as follows: Goal 1: Maximize the area's economic resources and Goal 6: Attract new (and retain existing) businesses and increase the industrial/manufacturing base.

VII. WAIVERS – At its June 28, 2016 meeting, the Planning and Economic Development Board, on a motion made by Robert Tucker and seconded by Richard Di Iulio, voted to grant waivers from the following provisions of the *Rules and Regulations for the Submission and Approval of Site Plans, as amended December 3, 2002.* The Planning and Economic Development Board's action and reasons for granting each waiver request are listed below. All waivers are subject to the *Special and General Conditions of Approval*, which follow this section. The motion was approved by a vote of five in favor and none opposed.

SUBMITTAL REQUIREMENTS/PLAN CONTENTS

1. **Section 204 – 3.A.7.a. Traffic Impact Assessment** – A traffic impact report is required if a development project involves the addition of 30 or more parking spaces.

   The applicant has proposed 35 parking spaces for the site and has requested that the requirement for a traffic impact assessment be waived as the project's scope will generate only employee and delivery traffic. Based on information from the Institute for Traffic Engineers, the expected average weekday trip generation is 65 trips at full operation. As the facility will only be involved in cultivation and processing without any retail sales, it will not generate any consumer traffic. The preparation of a traffic impact assessment is not expected to reveal any useful

information related to the site or the project's impacts. Therefore, the Board APPROVES this waiver request.

2. **Section 204-5 C. 3. Existing Landscape Inventory -** An *Existing Landscape Inventory* shall be prepared by a Professional Landscape Architect licensed in the Commonwealth of Massachusetts. This inventory shall include a *"mapped"* overview of existing landscape features and structures and a general inventory of major plant species including the specific identification of existing trees with a diameter of one (1) foot or greater at four (4) feet above grade.

   The applicant has requested a waiver from this requirement as the site has been used for many years as a contractor's yard and to process earthen materials and is generally devoid of any landscape features and materials. There is no value in preparing an inventory of the existing landscape given the existing condition of the site with little landscape features to preserve. Therefore, the Board APPROVES this waiver request.

3. **Section 204-5 D. 7. Proposed Landscape Design** – A *Landscape Architectural Plan* shall be prepared by a Landscape Architect licensed in the Commonwealth of Massachusetts. This *Plan* shall be prepared as an overlay of the existing conditions sheets and shall incorporate, whenever possible, the significant features of the existing site and topography, particularly existing trees with a diameter of one (1) foot or greater at four (4) feet above grade. The *Landscape Architectural Plan* shall indicate the areas slated for excavation; any woodlands, trees or other existing features or structures to be retained; all new plantings by common and Latin name including their proposed locations and sizes at the time of installation. Plan graphics for tree canopies shall reflect, as closely as possible, the actual canopy dimension of proposed tree plantings at the time of installation with a "lesser" intensity graphic used to represent potential canopy at maturity.

   The applicant has requested a waiver from this requirement and has provided a more limited landscape design instead. Any registered medical marijuana facility is subject to a permit from the Massachusetts Department of Public Health which has strict requirements that prohibit shrubs and trees from being planted in proximity to medical marijuana buildings in order to promote safety in and around the facility. Therefore, the Board APPROVES this waiver request.

DEVELOPMENT STANDARDS

4. **Section 205-6 G. 3) a) Parking Spaces/Stalls** - Car parking spaces/stalls shall be ten (10) feet by twenty (20) feet, except that handicap stalls shall be in accordance with the current ADA; standards.

   The applicant has requested a waiver from this requirement and proposes instead to use a 9' by 18' size parking space which is compliant with Section 7.1.1.E 3. a. of the Medway Zoning Bylaw. This is an instance where the Site Plan Rules and Regulations are not consistent with the Zoning Bylaw. In those cases, the Zoning Bylaw prevails. Therefore, the Board APPROVES this waiver request.

5. **Section 205-6 H. Curbing** – The perimeter of the parking area shall be bounded with vertical granite curb or similar type of edge treatment to delineate the parking lot.

   The applicant has requested a waiver from this requirement and proposes the use of Cape Cod berm instead. The applicant believes the proposed alternative curbing material is an appropriate method to delineate the boundary of the proposed parking lot and is consistent with the general industrial park area. The Board concurs with this assessment and APPROVES this waiver request.

VIII. CONDITIONS

The *Special and General Conditions* included in this Decision shall assure that the Board's approval of this site plan is consistent with the *Site Plan Rules and Regulations*, that the comments of various Town boards and public officials have been adequately addressed, and that concerns of abutters and other town residents which were aired during the public hearing process have been carefully considered

SPECIFIC CONDITIONS OF APPROVAL

A. ***Plan Endorsement*** - Within sixty (60) days after the Board has filed its *Decision* with the Town Clerk, the site plan set for 2 Marc Road dated March 30, 2016, last revised June 7, 2016, prepared by Merrikin Engineering shall be further revised to reflect all Conditions and required revisions, including those as follows, and shall be submitted to the Planning and Economic Development Board to review for compliance with the Board's *Decision. (Said plan is hereinafter referred to as the Plan).* Upon approval, the Applicant shall provide a Mylar set of the revised Plan in its final form to the Board for its signature/endorsement. All Plan sheets shall be bound together in a complete set.

B. ***Cover Sheet Revisions*** – Prior to plan endorsement, the cover sheet of the June 7, 2016 site plan set shall be revised as follows:
   1. list the APPROVED Requests for Waivers from the *Site Plan Rules and Regulations*
   2. add the building elevation plan by Keenan and Kenney to the Plan Index
   3. add the photometric plan to the Plan Index
   4. include a revision date

C. ***Other Plan Revisions*** – Prior to plan endorsement, the following plan revisions shall be made to the June 7, 2016 Site Plan set.
   1. Add a detail for one bike rack to be located on site to accommodate two bicycles.
   2. The building elevation plan shall be revised as follows and added to the plan set:
      a) to be consistent with the site plan, in particular, with the landscaping plan and to not show a sidewalk in front of the building.
      b) to specify materials
      c) to modify the colors of the awning over the front entrance and the horizontal stripe at the top of the building so they are more noticeably different in color from that of the main building façade.
      d) to include the name of the architectural firm and plan date

3. Add the photometric plan to the plan set
4. Revise the site plan notes to indicate that any planned chain link fencing shall be black, vinyl coated.
5. Light pole fixtures shall be noted as being black.

D. ***Odor Management*** – An effective odor management system shall be maintained at all times such that odors from the cultivation and processing of marijuana on the premises shall comply with the provisions of Section 7.3 D of the Zoning Bylaw and shall not be evident off-site of the subject property.

E. ***Off-Site Mitigation*** – The Applicant has agreed to the following:

1. To initiate actions to install a Development Sign on the property located at 8 Main Street (Parcel 33-007) owned by the Applicant. This sign shall specify the name of the industrial park and may include the names of businesses located within the park on Industrial Park Road, Jayar Road and Marc Road. The Medway Design Review Committee shall be consulted in the development of the proposed sign design. Any such sign is subject to and shall comply with the Section 7.2 of the Medway Zoning Bylaw. "Initiating actions" shall mean developing a design concept and securing a price quote for the sign, and contacting the business owners within the industrial park to contribute reasonably to the expense of construction, installation and future maintenance of the sign. If reasonably feasible, the Applicant shall coordinate the installation of said sign. In order to demonstrate that the sign installation is not reasonably feasible, the Applicant must provide documentation that all property owners within the industrial park were contacted in writing and that more than half have refused to contribute to the cost of the sign. This condition is also contingent on the Conservation Commission granting any necessary approvals for the sign installation, if necessary.

2. To provide a 50' roadway and utility easement along the entire length of the property line between parcel 32-027 (9 Marc Road) and parcel 32-026 (4 Marc Road) to its end at the Old County Layout, a north/south right of way running between Coffee Street and Green Valley Road. Prior to plan endorsement, the Applicant shall provide an easement plan and a proposed grant of easement document to the Town for review.

3. By June 30, 2017, the Applicant shall bring the property at 0 Marc Road (Parcel 32-007) to a neat and orderly condition with trash and debris removed and all materials removed from the street right-of-way.

F. Prior to plan endorsement, the applicant and the Medway Department of Public Services shall come to a resolution on the method of cross connection control for the operation of public and private water supplies within the medical marijuana cultivation and processing facility.

G. Limitations – This medical marijuana dispensary special permit is limited to the operation of a cultivation and processing facility only. This permit does not authorize operation of a retail outlet for the sale of medical marijuana products.

GENERAL CONDITIONS OF APPROVAL

A. ***Fees*** - Prior to site plan endorsement by the Planning and Economic Development Board, the Applicant shall pay:

1. the balance of any outstanding plan review fees owed to the Town for review of the site plan by the Town's engineering, planning or other consultants; and
2. any construction inspection fee that may be required by the Planning and Economic Development Board; and
3. any other outstanding expenses or obligations due the Town of Medway pertaining to this property, including real estate and personal property taxes and business licenses.

The Applicant's failure to pay these fees in their entirety shall be reason for the Planning and Economic Development Board to withhold plan endorsement.

B. ***Other Permits*** – This permit does not relieve the applicant from its responsibility to obtain, pay and comply with all other required federal, state and Town permits. The contractor for the applicant or assigns shall obtain, pay and comply with all other required Town permits.

C. ***Document/Plan Recording*** - Within thirty (30) days of recording the Decision and the associated Plan, the Applicant or his assign shall provide the Board with a receipt from the Norfolk County Registry of Deeds indicating that all documents have been duly recorded, or supply another alternative verification that such recording has occurred.

D. ***Restrictions on Construction Activities*** – During construction, all local, state and federal laws shall be followed regarding noise, vibration, dust and blocking of town roads. The applicant and its contractors shall at all times use all reasonable means to minimize inconvenience to abutters and residents in the general area. The following specific restrictions on construction activity shall apply.

1. *Construction Time* - Construction work at the site and in the building and the operation of construction equipment including truck/vehicular and machine start-up and movement shall commence no earlier than 7 a.m. and shall cease no later than 6 p.m. Monday – Saturday. No construction shall take place on Sundays or legal holidays without the advance approval of the Inspector of Buildings.

2. The applicant shall take all measures necessary to ensure that no excessive dust leaves the premises during construction including use of water spray to wet down dusty surfaces.

3. There shall be no tracking of construction materials onto any public way. Daily sweeping of roadways adjacent to the site shall be done to ensure that any loose gravel/dirt is removed from the roadways and does not

create hazardous or deleterious conditions for vehicles, pedestrians or abutting residents. In the event construction debris is carried onto a public way, the Applicant shall be responsible for all clean-up of the roadway which shall occur as soon as possible and in any event within twelve (12) hours of its occurrence.

4. The Applicant is responsible for having the contractor clean-up the construction site and the adjacent properties onto which construction debris may fall on a daily basis.

5. All erosion and siltation control measures shall be installed by the Applicant prior to the start of construction and observed by the Planning and Economic Development Board's consulting engineer and maintained in good repair throughout the construction period.

6. *Construction Traffic/Parking* – During construction, adequate provisions shall be made on-site for the parking, storing, and stacking of construction materials and vehicles. All parking for construction vehicles and construction related traffic shall be maintained on site. No parking of construction and construction related vehicles shall take place on adjacent public or private ways or interfere with the safe movement of persons and vehicles on adjacent properties or roadways.

7. *Noise* - Construction noise shall not exceed the noise standards as specified in the *Medway Zoning Bylaw*, SECTION V. USE REGULATIONS, Sub-Section B. Area Standards, Paragraph 2. b).

E. ***Landscape Maintenance***

1. The site's landscaping shall be maintained in good condition throughout the life of the facility and to the same extent as shown on the endorsed Plan. Any shrubs, trees, bushes or other landscaping features shown on the Plan that die shall be replaced by the following spring.

2. Within 60 days after two years after the occupancy permit is issued, the Town's Consulting Engineer or the Inspector of Buildings shall conduct an initial inspection of the landscaping to determine whether and which landscape items need replacement or removal and provide a report to the Board. At any time subsequent to this initial inspection, the Town's Consulting Engineer or the Inspector of Buildings may conduct further inspections of the landscaping to determine whether and which landscaping items need replacement or removal and provide a report to the Board. The Board may seek enforcement remedies with the Inspector of Buildings/Zoning Enforcement Officer to ensure that the comprehensive landscaping plan is maintained.

F. ***Snow Storage and Removal***

1. On-site snow storage shall not encroach upon nor prohibit the use of any parking spaces required by the zoning bylaw.

2. Accumulated snow which exceeds the capacity of the designated snow storage areas on–site shall be removed from the premises within 24 hours after the conclusion of the storm event.

G. ***Construction Oversight***

1. Construction Account

   a) Inspection of infrastructure and utility construction, installation of site amenities including landscaping, and the review of legal documents by Town Counsel is required. Prior to plan endorsement, the applicant shall establish a construction account with the Planning and Economic Development Board. The funds may be used at the Board's discretion to retain professional outside consultants to perform the items listed above as well as the following other tasks - inspect the site during construction/installation, identify what site plan work remains to be completed, prepare a bond estimate, conduct other reasonable inspections until the site work is completed and determined to be satisfactory, review as-built plans, and advise the Board as it prepares to issue a *Certificate of Site Plan Completion*).

   b) Prior to plan endorsement, the Applicant shall pay an advance toward the cost of these services to the Town of Medway. The advance amount shall be determined by the Planning and Economic Development Board based on an estimate provided by the Town's Consulting Engineer.

   c) Depending on the scope of professional outside consultant assistance that the Board may need, the Applicant shall provide supplemental payments to the project's construction inspection account, upon invoice from the Board.

   d) Any funds remaining in the applicant's construction inspection account after the *Certificate of Site Plan Completion* is issued shall be returned to the applicant.

2. Planning and Economic Development Board members, its staff, consultants or other designated Town agents and staff shall have the right to inspect the site at any time, for compliance with the endorsed site plan and the provisions of this Decision.

3. The Department of Public Services will conduct inspections for any construction work occurring in the Town's right-of way in conjunction with the Town of Medway Street Opening/Roadway Access Permit.

4. The applicant shall have a professional engineer licensed in the Commonwealth of Massachusetts conduct progress inspections of the construction of the approved site improvements. Inspections shall occur at least on a monthly basis. The engineer shall prepare a written report of

each inspection and provide a copy to the Planning and Economic Development Board within 5 days of inspection.

H. ***Plan Modification***

1. This Site Plan Approval is subject to all subsequent conditions that may be imposed by other Town departments, boards, agencies or commissions. Any changes to the site plan that may be required by the decisions of other Town boards, agencies or commissions shall be submitted to the Planning and Economic Development Board for review as site plan modifications.

2. Any work that deviates from an approved site plan shall be a violation of the *Medway Zoning Bylaw*, unless the Applicant requests approval of a plan modification pursuant to Section 3.5.2.A.3.c. and such approval is provided in writing by the Planning and Economic Development Board.

3. Whenever additional reviews by the Planning and Economic Development Board, its staff or consultants are necessary due to proposed site plan modifications, the Applicant shall be billed and be responsible for all supplemental costs including filing fees, plan review fees and all costs associated with another public hearing including legal notice and abutter notification. If the proposed revisions affect only specific limited aspects of the site, the Planning and Economic Development Board may reduce the scope of the required review and waive part of the filing and review fees.

I. ***Plan Compliance***

1. The Applicant shall construct all improvements in compliance with the approved and endorsed site plan and any modifications thereto.

2. The Planning and Economic Development Board or its agent(s) shall use all legal options available to it, including referring any violation to the Building Commissioner/Zoning Enforcement Officer for appropriate enforcement action, to ensure compliance with the foregoing Conditions of Approval.

3. The Conditions of Approval are enforceable under Section 3.1. F. of the *Medway Zoning Bylaw* (non-criminal disposition) and violations or non-compliance are subject to the appropriate fine.

J. ***Performance Security***

1. No occupancy permit shall be granted until the Planning and Economic Development Board has provided a written communication to the Inspector of Buildings/Zoning Enforcement Officer that the project, as constructed, conforms completely and fully to the approved site plan and that any conditions including construction of any required on and off-site improvements, have been satisfactorily completed OR that suitable security/performance guarantee has been provided to the Town of Medway, to the Planning and Economic Development Board's satisfaction, to cover the cost of all remaining work.

2. The applicant shall propose a form of performance security which shall be of a source and in a form acceptable to the Planning and Economic Development Board, the Treasurer/Collector and Town Counsel. The Board may require that the performance guarantee be accompanied by an agreement which shall define the obligations of the developer and the performance guarantee company including:

   a) the date by which the developer shall complete construction
   b) a statement that the agreement does not expire until released in full by the Planning and Economic Development Board
   c) procedures for collection upon default.

3. The amount of the performance guarantee shall be equal to 100% of the amount that would be required for the Town of Medway to complete construction of the site infrastructure including installation of stormwater management facilities, utilities, services, pedestrian facilities and all site amenities as specified in the Site Plan that remain unfinished at the time the performance guarantee estimate is prepared if the developer failed to do so.

4. The security amount shall be approved by the Planning and Economic Development Board based on an estimate provided by the Town's Consulting Engineer based on the latest weighted average bid prices issued by the Mass Highway Department. The estimate shall reflect the cost for the Town to complete the work as a public works project which may necessitate additional engineering, inspection, legal and administrative services, staff time and public bidding procedures. The estimate shall also include the cost to maintain the infrastructure in the event the developer fails to adequately perform such and the cost for the development of as-built plans. In determining the amount, the Board shall be guided by the following formula in setting the sum: estimate of the Town's Consulting Engineer of the cost to complete the work plus a twenty-five percent (25%) contingency.

5. Final release of performance security is contingent on project completion.

K. ***Project Completion***

1. Site plan approval shall lapse after one (1) year of the grant thereof if substantial use has not commenced except for good cause. Approved site plans shall be completed by the applicant or its assignees within two (2) years of the date of plan endorsement. Upon receipt of a written request by the applicant filed at least thirty (30) days prior to the date of expiration, the Planning and Economic Development Board may grant an extension for good cause. The request shall state the reasons for the extension and also the length of time requested. If no request for extension is filed and approved, the site plan approval shall lapse and may be reestablished only after a new filing, hearing and decision.

2. Prior to issuance of a final occupancy permit, the Applicant shall secure a ***Certificate of Site Plan Completion*** from the Planning and Economic Development Board and provide the ***Certificate*** to the Inspector of Buildings. The ***Certificate*** serves as the Planning and Economic Development Board's confirmation that the completed work conforms to the approved site plan and any conditions and modifications thereto, including the construction of any required on and off-site improvements. The ***Certificate*** also serves to release any security/performance guarantee that has been provided to the Town of Medway. To secure a ***Certificate*** of Site Plan Completion, the applicant shall:

   a) provide the Planning and Economic Development Board with written certification from a Professional Engineer registered in the Commonwealth of Massachusetts that all building and site work has been completed in strict compliance with the approved and endorsed site plan, and any modifications thereto; and

   b) submit an electronic version of an As-Built Plan, prepared by a registered Professional Land Surveyor or Engineer registered in the Commonwealth of Massachusetts, to the Planning and Economic Development Board for its review and approval. The As-Built Plan shall show actual as-built locations and conditions of all buildings and site work shown on the original site plan and any modifications thereto. The final As-Built Plan shall also be provided to the Town in CAD/GIS file format per MASS GIS specifications.

L. ***Construction Standards*** - All construction shall be completed in full compliance with all applicable local, state and federal laws, including but not limited to the Americans with Disabilities Act and the regulations of the Massachusetts Architectural Access Board for handicap accessibility.

M. ***Conflicts*** – If there is a conflict between the site plan and the Decision's Conditions of Approval, the Decision shall rule. If there is a conflict between this Decision and/or site plan and the Medway Zoning Bylaw, the Bylaw shall apply.

IX. APPEAL – Appeals if any, from this Decision shall be made to the court within twenty (20) days of the date the Decision is filed with the Town Clerk.

After the appeal period has expired, the applicant must obtain a certified notice from the Town Clerk that no appeals have been made and provide such certification to the Planning and Economic Development Board before plan endorsement.

###

Medway Planning and Economic Development Board
SITE PLAN and SPECIAL PERMITS DECISION
Ellen Realty Trust/CommCan – 2 Marc Road

Approved by the Medway Planning & Economic Development Board: 6-28-2016

AYE:

NAY:

ATTEST: Susan E. Affleck-Childs 6-28-2016

Susan E. Affleck-Childs
Planning & Economic Development Coordinator

Date

COPIES TO: Michael Boynton, Town Administrator
Michelle Grenier, Interim Conservation Agent
Donna Greenwood, Assessor
Beth Hallal, Health Agent
Tom Holder, Department of Public Services
Jeff Lynch, Fire Chief
Jack Mee, Inspector of Buildings and Zoning Enforcement Officer
Stephanie Mercandetti, Director of Community and Economic Development
Joanne Russo, Treasurer/Collector
Jeff Watson, Police Department
Ellen Rosenfeld, Ellen Realty Trust
Dan Merrikin, Merrikin Engineering
Steven Bouley, Tetra Tech
Gino Carlucci, PGC Associates

TOWN OF MEDWAY

Planning & Economic Development Board
155 Village Street
Medway, Massachusetts 02053

Andy Rodenhiser, Chairman
Robert K. Tucker, Vice-Chairman
Thomas A. Gay, Clerk
Matthew J. Hayes, P.E.
Richard Di Iulio

February 26, 2019

SPECIAL PERMIT DECISION
Adult Recreational Marijuana Establishment
Ellen Realty Trust – 2 Marc Road
APPROVED with Conditions

Decision Date: February 26, 2019

Name/Address of Applicant: Ellen Realty Trust
730 Main Street, Suite 2A
Millis, MA 02054

Name/Address of Property Owner: Ellen Realty Trust
730 Main Street, Suite 2A
Millis, MA 02054

Location: 2 Marc Road, 19 Jayar Road and 21 Jayar Road

Assessors' Reference: 33-001, 24-015 and 24-016

Zoning District: East Industrial

RECEIVED
FEB 27 2019
TOWN CLERK

Telephone: 508-533-3291 *Fax*: 508-321-4987
planningboard@townofmedway.org

I. PROJECT DESCRIPTION **–** The Applicant seeks a Special Permit pursuant to sub-section 8.10 of the Medway *Zoning Bylaw* to use a two story, 60,000 sq. ft. industrial facility at 2 Marc Road, and 19 & 21 Jayar Road *(Medway Assessors' Parcels 33-001, 24-015 and 24-016)* (collectively "2 Marc Road"*)* on the north side of Marc Road in the East Industrial zoning district for the cultivation, processing and manufacturing of marijuana for adult recreational use by CommCan, Inc. The property is already subject to a medical marijuana special permit issued June 28, 2016 by the Planning and Economic Development Board ("the Board") and an approved site plan endorsed on July 26, 2016 (the "2016 Approval"). This proposal pertains to the fit-out of the second floor of the building to allow for the expanded operation to produce marijuana for adult recreational use. The current special permit application does not include the retail sales of medical or adult recreational marijuana.

II. VOTE OF THE BOARD – After reviewing the application and information gathered during the public hearing and review process, including statements of the Applicant and its representatives and comments offered by the public, the Medway Planning and Economic Development Board, on February 26, 2019, on a motion made by Bob Tucker and seconded by Rich Di Iulio, voted to APPROVE with CONDITIONS as specified herein a recreational marijuana establishment special permit for 2 Marc Road in Medway, MA.

The vote was approved by a vote of four in favor and none opposed.

Planning & Economic Development Board Member	***Vote***
Richard Di Iulio	Yes
Matthew Hayes	Absent
Thomas A. Gay	Yes
Andy Rodenhiser	Yes
Robert Tucker	Yes

III. PROCEDURAL HISTORY

A. October 9, 2018 – Special permit application filed with the Board; filed with the Town Clerk on October 11, 2018.

B. October 11, 2018 – Public hearing notice filed with the Town Clerk and posted at the Town of Medway web site.

C. October 15, 2018 - Public hearing notice mailed to abutters by certified sent mail.

D. October 29 and November 6, 2018 - Public hearing notice advertised in *Milford Daily News.*

E. November 13, 2018 - Public hearing commenced. The public hearing was continued to November 27 and December 11, 2018 and to January 8, 22, 29 and February 12 and 26, 2019 when the hearing was closed and a decision rendered.

IV. INDEX OF DOCUMENTS

A. The special permit application materials for the proposed use of the building at 2 Marc Road for an adult recreational marijuana establishment included the following information that was provided to the Board at the time the application was filed:

1. *2 Marc Road Site Plan of Land in Medway, MA*, dated January 26, 2016, last revised July 18, 2016, prepared by Merrikin Engineering of Millis, MA – ENDORSED July 26, 2016.
2. Sworn statement of ownership of CommCan, Inc. dated October 8, 2018.
3. Special permit application submittal letter from Daniel J. Merrikin, P.E. dated October 9, 2018 as official representative of the Applicant.
4. Policy and Procedures document titled *Transportation of Marijuana for CommCan*, received October 9, 2018.
5. Floor plan of the CommCan facility, dated May 2, 2016 by Keenan & Kenney Architects, Ltd.

B. During the course of the review, a variety of other materials were submitted to the Board by the Applicant, its representatives, Town staff, and the Town's consultants:

1. Results of Noise Study by Acentech, Inc. provided November 13, 2018.
2. Noise Survey by Noise Control Engineering, LLC dated November 27, 2018.
3. Host Community Agreement between CommCan and the Town of Medway dated May 16, 2016 and the associated amendment dated April 17, 2018.
4. Email communications dated October 23, 2018 from the MA Cannabis Control Commission acknowledging receipt of CommCan's applications for recreational marijuana cultivation and product manufacturing licenses.
5. Medical marijuana special permit decision dated June 28, 2016 for 2 Marc Road and final site plan endorsed by the Board on July 26, 2016.
6. Gino Carlucci, PGC Associates, the Town's Consulting Planner – Special permit review letter dated November 7, 2018 and commentary throughout the public hearing process.
7. Email dated January 16, 2019 from Ron Dempsey of Noise Control Engineering, the Town's noise consultant, converting the existing and long-standing noise measurement standards from the *Zoning Bylaw* to the current, modern noise measurement standards.
8. Marijuana Odor Control Plan Template for Denver, Colorado.
9. *Cannabis-Related Odor Mitigation @1073 Main Street*, Millis, MA by GroThink, Oasis Spring, LLC, and Lynch Associates for the Millis Planning Board.
10. Exelon expansion project site plan decision dated July 26, 2016.
11. Letter dated February 12, 2019 from Michael Lannan, of TechEnvironmental, Inc., the Board's odor consultant and email communications dated February 20, 2019 between Planning and Economic Development Coordinator Susan Affleck-Childs and Michael Lannan of TechEnvironmental.
12. Uvonair_CD_Brochure 2017 (existing air filtration system at 2 Marc Road)

C. Other Documentation

1. Mullins Rule Certification dated November 27, 2018 for Board member Andy Rodenhiser for the November 13, 2018 hearing.
2. Mullins Rule Certification dated December 5, 2018 for Board member Robert Tucker for the November 27, 2018 hearing.
3. Mullins Rule Certification dated December 5, 2018 for Board member Thomas Gay for the November 27, 2018 hearing.

V. TESTIMONY - In addition to the special permit application materials as submitted and provided during the course of our review, the Board heard and received verbal or written testimony from:

- Gino Carlucci, PGC Associates, the Town's Consulting Planner
- Ellen Rosenfeld, Applicant.
- Dan Merrikin, Legacy Engineering, project engineer for the Applicant – Commentary throughout the public hearing process and comments on multiple drafts of the draft special permit decision.
- Andy Carballeria, Acentech Inc., acoustic sound consultant for the Applicant.
- Ron Dempsey, Noise Control Engineering LLC, acoustic sound consultant for the Town.
- Resident and abutter John Lally, 35 Coffee Street – Emails (some with attachments) dated November 5, November 16, November 26, December 10, 2018 and January 22 and 29, 2019 about noise; emails dated December 16 and 21, 2018 and January 22, 2019 about odor; email dated February 19, 2019; and regular attendance and commentary throughout the public hearing process.
- Email communications dated December 10, 2018 between Susan Affleck-Childs and Ron Dempsey of Noise Control Engineering, LLC, the Town's noise engineering consultant.
- Email communication with attachments dated January 3, 2019 between Ron Dempsey of Noise Control Engineering and Andy Carballeira of Acentech.
- Email communication dated January 29, 2019 from Ron Dempsey of Noise Control Engineering, LLC in response to January 23, 2019 email from resident Leigh Knowlton.
- Emails dated December 17 and 27, 2018 between Susan Affleck-Childs and Ellen Rosenfeld about odor.
- Resident, Leany Oliveria, 402 Village Street.
- Resident Jane Studennie, address unknown.
- Resident Heidi Sia, 8 Main Street, emails dated January 10 and 22, 2019.
- Resident Phil Giangarra, 24 Green Valley Road.
- Resident Leigh Knowlton, 11 Green Valley Road - Email dated January 22, 2019 with attachments; email dated January 23, 2019 with attachment; emails dated February 26, 2019 with attachments; and regular attendance and commentary throughout the public hearing process.
- Resident Jeanette Gibson, 45 Coffee Street.
- Selectman Dennis Crowley.
- Town Administrator Michael Boynton.
- Email from attorney Susan Murray dated January 29, 2019
- Michael Lannan, TechEnvironmental, Inc., odor consultant for the Board.

VI. FINDINGS

The Planning and Economic Development Board, at its meeting on February 26, 2019, on a motion made by Bob Tucker and seconded by Rich Di Iulio, voted to approve the following ***FINDINGS*** regarding the special permit application for adult recreational marijuana establishment for 2 Marc Road. The motion was approved by a vote of four in favor and none opposed.

FINDINGS from PUBLIC HEARING TESTIMONY

(1) CommCan, Inc., currently operates a medical marijuana cultivation and manufacturing business at 2 Marc Road as authorized by the Massachusetts Department of Public Health and pursuant to a medical marijuana special permit issued by the Board on June 28, 2016. CommCan, Inc. is a tenant in the 2 Marc Road building owned by Ellen Realty Trust and will continue to operate that use at this location. The Applicant now seeks to secure a special permit pursuant to section 8.10 of the Medway *Zoning Bylaw* to also use the facility to grow and process marijuana for adult recreational use. Ellen Rosenfeld, Trustee of Ellen Realty Trust, is one of three owners and shareholders of CommCan, Inc.

(2) NOISE ISSUES

A. Pursuant to Section 7.3.C.2. of the *Zoning Bylaw*, the "Maximum permissible sound pressure levels measured at the property line nearest to the noise source for noise radiated continuously from the noise source between 10 PM and 7 AM shall be as follows."

Frequency Band (Cycles per Second)	**Sound Pressure Level (Decibels 43 0.0002 Dyne/CM2)**
2-72	69
75-150	54
150-300	47
300 - 600	41
600 – 1,200	37
1,200 – 2,400	34
2,400 - 4,800	31
4,800 – 10,000	28

"For noise levels between 7 A.M. and 10 P.M., and if the noise is not smooth and continuous, the following corrections shall be added to each of the decibel levels given above:

- Daytime operation only: +5
- Noise source operated at less than20% of any 1-hour period: +5"

B. In response to complaints to the Applicant about noise emanating from the existing marijuana production and processing operation, the Applicant retained sound consultant Acentech to evaluate the noise levels at the 2 Marc Road facility and recommend mitigation measures to address the noise produced by a large air-cooled chiller installed on the building's roof which runs 24 hours a day, 7 days per week. Acentech conducted sound measurements at five locations on May 15, 2018 during the period of 12:00 am thru 2:00 am. Acentech found that the chiller did not result in conditions that violated the Massachusetts Department of Environmental Protection (DEP) Noise Policy but recommended mitigation measures to lessen emitted sound from the chiller, namely, the installation of noise control blankets on select components of the chiller. Those blankets were installed at the end of August 2018. Acentech concluded that the noise had been reduced by 7-10 dB

(depending on the frequency being measured) following the installation of the blankets.

C. In response to complaints to the Town about excessive noise emanating from the 2 Marc Road facility, the Town retained Noise Control Engineering, LLC (NCE) to evaluate the noise levels at the 2 Marc Road property under the DEP Noise Policy. NCE conducted attended noise measurements on the night of October 31, 2018 at several locations approximating the property lines of the 2 Marc Road property; these are known as source measurements. NCE also conducted attended noise measures from the street in front of two nearby residences (14 Green Valley Road and 45 Coffee Street); these are referred to as residential receiver locations. Measurements were also taken at 18 Henry Street to determine a reasonable background noise level. At the approximated north, west and south property line positions around the facility, noise levels were within the 10dB of the background noise levels measured at 18 Henry Street. The measured noise levels at the subject property's boundaries with abutting residential properties were within allowable levels with respect to the Mass DEP Noise Policy and do not reach the level of noise pollution per those standards.

   NCE did find there was a noticeable tonal noise originating from the southeast corner of the building, near the location of the building's emergency generator. The highest noise level on a property line was at the property line closest to that generator. However, because the abutter to the east is an industrial facility, the high tonal noise at this location does not come under the scope of the Mass DEP Noise Policy.

D. Both professional sound consultants have agreed that the frequency band range form of noise measurement specified in the *Zoning Bylaw* is outdated. The consultants concur that noise measurements in accordance with the *Zoning Bylaw's* standards are neither ideal nor typical today. The Board acknowledges that frequency band ranges presently included in the *Zoning Bylaw* do not accurately reflect contemporary sound measurement standards and provide challenges to interpretation and enforcement of the applicable provisions of the *Zoning Bylaw*. The Board is willing to allow a conversion to more modern standards, but only as long as the conversion is more, not less restrictive.

E. Although the DEP Noise Policy is often used as a maximum noise standard and the Applicant must comply with that Policy, the Board must look to the frequency band range noise standards included in the Section 7.3.C.2 of the *Zoning Bylaw* as it considers this application.

   The Town asked NCE to convert the noise levels as measured by NCE to the standards in the *Zoning Bylaw*. NCE estimated an adjustment factor to be applied to their data, to facilitate comparison to the Medway *Zoning Bylaw*. The method used is based on the frequency span of the octave bands and is consistent with the conversion documented in the 1980 EPA document *905-R-80-117 Noise Legislation Trends and Implications*. The table below shows the

conversion of the *Bylaw's* frequency band noise standards to the modern octave band noise standards.

Octave Band Center Frequency (Hz)	Medway Zoning Bylaw Sound Pressure Level, (dB re 20 micro-Pa)
63	67
125	55
250	48
500	42
1000	38
2000	35
4000	32
8000	28

NCE's report and conversion data were reviewed by Acentech. Acentech provided an alternative conversion of the measurements and criteria which results in lower noise levels and partial compliance with the *Zoning Bylaw*. Both sound consultants concur that there is no way to directly convert the measurements between the two standards. However, their shared conclusion is that the measured sound levels on-site and near the facility's industrial property lines are in excess of the *Zoning Bylaw*, irrespective of how the data are viewed.

F. The Board is in receipt of written and verbal testimony of abutters and nearby residents in the vicinity of 2 Marc Road expressing serious concerns and objections to excessively loud and irritating noise emanating from the existing facility's operation as a medical marijuana cultivation and processing establishment. The Board, therefore, addressed this issue with the Applicant in conjunction with its request for a special permit expanded marijuana cultivation.

G. As specified in the conditions of approval and as stated during the public hearing, the Applicant has agreed to install additional noise mitigation systems within the facility to address the above referenced noise concerns. The Applicant stated that the existing chiller equipment on the roof of the 2 Marc Road facility will be removed and relocated to the ground on the premises within a structure.

(3) ODOR ISSUES

A. Pursuant to Section 7.3.D. of the *Zoning Bylaw*, "In all districts, no emissions of odorous gases or odoriferous matter in such quantities as to be discernible outside the property line shall be permitted. Any industrial process which may involve the creation and/or emission of any odors shall be provided with a secondary safeguard system. No objectionable odor greater than that caused by 0.001201 oz. per thousand cubic feet of hydrogen sulfide or any odor threshold as defined in Table III in Chapter 5 of Air Pollution Abatement

Manual (copyright 1951 by manufacturing Chemists Assoc., Inc., Washington, DC) shall be permitted."

B. The Board is in receipt of written and verbal testimony of abutters and nearby residents in the vicinity of 2 Marc Road expressing serious concerns and objections to offensive odors emanating from the existing facility's operation as a medical marijuana cultivation and processing establishment. The Board, therefore, addressed this issue with the Applicant in conjunction with its request for a special permit expanded marijuana cultivation. The Board sought and received advice from TechEnvironmental, Inc. in a letter dated February 12, 2019.

C. As specified in the conditions of approval and as stated during the public hearing, the Applicant has agreed to install additional odor mitigation systems within the facility to address the above referenced odor concerns.

(4) Hours of operation – As a marijuana growing facility, the establishment operates 24 hours a day/7 days a week. Occupancy of the facility by employees is generally limited to the hours of 7 am to 8 pm, Sunday – Saturday.

RECREATIONAL MARIJUANA ESTABLISHMENT SPECIAL PERMIT FINDINGS (Sub-section 8.10 of the Zoning Bylaw)

(1) The recreational marijuana establishment will operate inside the existing medical marijuana cultivation and processing facility at 2 Marc Road, a permanent, standalone building with no doctor's offices or other uses. The site includes driveways, parking areas, utility systems, and stormwater management facilities.

(2) None of the uses listed in Section 8.10 E. 4. of the *Zoning Bylaw* are located within 500 feet of the site of the proposed facility.

(3) Smoking, burning and consumption of marijuana products on the premises is not allowed.

(4) No drive-through service is proposed. It is not needed as a retail operation is not planned for the site nor does the *Zoning Bylaw* allow for a drive-through facility.

(5) The proposed signage is in compliance with Section 8.10 E. of the *Zoning Bylaw*

(6) The Applicant has previously provided the contact information for management staff and key holders of the facility.

(7) As conditioned herein, the Board finds that the recreational marijuana establishment will not create a nuisance to abutters or to the surrounding area or create any hazard. Both the Applicant and the Town have contracted with noise consultants to monitor noise from the facility and both found the operation to be within DEP noise regulations. The Board is requiring the Applicant to prepare and implement a noise mitigation plan. Further, the Board is also requiring the Applicant to prepare and implement an odor control plan. The Building Commissioner, in consultation with the Health Agent, and the Town's consultant(s), will confirm compliance with the noise and odor requirements of

the *Zoning Bylaw* after the required noise and odor mitigation measures are installed.

(8) The existing building meets the requirements for "openness of premises" since no activities within the building or displays of products are visible from the exterior of the building and the front of the building, which includes the primary entrance to the facility, is fully visible from the street. All operations are within the restricted building and there is no direct consumer access as no retail sales are allowed.

(9) The special permit authorizes only the following adult recreational marijuana establishment activities: cultivation, manufacturing, processing and packaging of marijuana and marijuana products and the transport and delivery of such to other recreational marijuana establishments. Retail sales are not allowed.

(10) As conditioned herein, copies of required licenses and permits issued by the Commonwealth will be provided upon approval by the Massachusetts Cannabis Control Commission. The recreational marijuana operation will be operated in strict compliance with Massachusetts Cannabis Control Commission regulations.

(11) The Applicant, Ellen Realty Trust, is the owner of record of the subject property and building as shown on the Medway Assessor's records. Accordingly, the Applicant has the right to use the site for a registered marijuana establishment.

(12) A sworn statement disclosing the owner's or other similarly situated individuals' interest in the registered marijuana establishment has been provided.

(13) A certified list of all abutter and parties of interest was provided. The Planning and Economic Development office coordinated the production and mailing of the required public hearing notice for the Special Permit application.

(14) No changes are needed or proposed to the 2016 approved site plan. A detailed floor plan of the premises showing the functional areas of the facility has been provided. Security measures including lighting, fencing, gates and alarms were previously reviewed and approved by the Police Chief during the 2016 Approval process.

(15) A copy of the policies and procedures for the transfer, acquisition, or sale of adult recreational marijuana between approved marijuana establishments has been provided.

(16) The required public hearing and review process for this special permit application has been followed.

(17) The adult recreational marijuana establishment, as conditioned herein, has been designed to minimize any adverse visual or economic impacts on abutters and other parties in interest. No changes in the existing building or site are proposed other than additional measures to further mitigate noise and odor impacts.

(18) As conditioned herein, the proposed facility will meet all the permitting requirements of all applicable agencies within the Commonwealth of

Massachusetts and will be in compliance with all applicable state laws and regulations.

(19) As conditioned herein, the Applicant has satisfied the conditions and requirements of this Section 8.10 and Section 3.4 of the *Zoning Bylaw*.

(20) The Town of Medway and CommCan, Inc. entered into a Host Community Agreement in May 2016 for the medical marijuana operation. The HCA was amended in April 2018 in anticipation of this application for a recreational marijuana establishment.

GENERAL SPECIAL PERMIT FINDINGS (Sub-section 3.4 of the Zoning Bylaw)

(1) *The proposed site is an appropriate location for the proposed use.*

Section 8.10 of the *Zoning Bylaw*, Recreational Marijuana, specifies that recreational marijuana establishments are allowed by special permit in the East and West Industrial Zoning Districts. The subject site at 2 Marc Road is located within the East Industrial and is therefore an eligible location. The site is not within 500 feet of any of the uses from which such facilities are prohibited (existing public or private school serving students in grades K-12). Pursuant to the 2016 Approval, there is already a medical marijuana cultivation and manufacturing facility on the site.

(2) *Adequate and appropriate facilities will be provided for the operation of the proposed use.*

The recreational marijuana cultivation and manufacturing uses are being added to the previously approved use of the facility for medical marijuana cultivation and manufacturing as provided in the 2016 Approval. The current activities in the building will essentially remain unchanged; the only difference is that more product will be produced and processed for recreational purposes. No changes are proposed to the 2016 Approval. Due to that 2016 Approval, adequate and appropriate facilities have been provided for the operation of the facility.

(3) *The proposed use as developed will not create a hazard to abutters, vehicles, pedestrians or the environment.*

The existing site contains suitable driveways, parking areas and stormwater management systems. Reasonable noise and odor mitigation measures are included as Conditions herein.

(4) *The proposed use will not cause undue traffic congestion or conflicts in the immediate area.*

The proposed facility is expected to have 30 employees, and because the retail sale of marijuana products is not permitted, other traffic to the site will be minimal. The Industrial Park Road system is adequate to handle the traffic. The Applicant previously reconstructed Marc Road as part of the approval of the 2016 Approval so the roadway quality is excellent. Furthermore, the site's access is

from Main Street/Route 109, a major east-west arterial roadway, so there is no traffic impact on local residential roadways.

(5) *The proposed use will not be detrimental to the adjoining properties due to lighting, flooding, odors, dust, noise, vibration, refuse materials, or other undesirable visual, site or operational attributes of the proposed use.*

The proposed marijuana production and processing uses are not detrimental to adjoining properties, however, the operation of the rooftop HVAC equipment periodically generates conspicuous noise of concern to some residential abutters and nearby neighbors. Noise evaluation reports were provided by consultants for the Applicant (Acentech) and the Town (Noise Control Engineering). Throughout the permitting process, the Applicant has demonstrated a strong commitment to address and mitigate the noise issues as experienced by the residential abutters. The Applicant will supplement existing noise mitigation systems as part of the build-out of the second floor after a thorough evaluation process by sound and mechanical engineers to identify additional measures. As conditioned herein, the Board finds that suitable monitoring and mitigation measures will be taken to comply with the Town's *Zoning Bylaw* with respect to noise.

Testimony was also provided about offensive odors emanating from the existing facility. The Board has discussed the need for the Applicant to institute more aggressive odor control measures. The Applicant intends to supplement existing odor mitigation systems as part of the build-out of the second floor after the preparation of an odor mitigation plan. As conditioned herein, the Board finds that suitable mitigation measures will be taken to comply with the Town's *Zoning Bylaw* with respect to odors.

There is no outside storage of either materials or waste. While vegetation close to the building is limited by the State's security requirements for marijuana establishments, six trees have been planted around the parking lot and other low vegetation has been added as part of the 2016 Approval to improve aesthetics from the public way and nearby residences.

(6) *The proposed use as developed will not adversely affect the surrounding neighborhood or significantly alter the character of the zoning district.*

The proposed use is manufacturing and is therefore consistent with the character of the East Industrial Zoning District in which the subject property is located. This application proposes to produce marijuana for adult recreational use within the existing building which is currently limited to the production and processing of medical marijuana. This expansion of use was expected at the time the 2016 Approval. The Board finds that the proposed expanded use will not significantly alter the character of the East Industrial zoning district.

The Board heard testimony from residential abutters and neighbors about adverse noise and odor conditions emanating from the 2 Marc Road facility which are negatively impacting the enjoyment of their property and quality of life. The Applicant made repeated verbal commitments during the public hearing that she will address their concerns through reasonable noise and odor mitigation

measures. The Board incorporates its findings under (5) above. The Applicant will be held to the environmental standards included in Section 7.3 of the *Zoning Bylaw*. As conditioned herein, the Board finds that reasonable measures will be taken such that this particular industrial use will not adversely affect the surrounding neighborhood.

(7) *The proposed use is in harmony with the general purpose and intent of this Zoning Bylaw.*

The Recreational Marijuana section of the *Zoning Bylaw* (Section 8.10) was adopted by the Town in May 2018 with the specific intent of allowing the limited establishment of non-retail recreational marijuana establishments in Medway. The stated purpose of Section 8.10 is to address possible adverse public health and safety consequences and impacts on the quality of life related to this type of facility by providing for them in an appropriate places and under strict conditions, therefore, it meets the purpose of the *Zoning Bylaw*.

(8) *The proposed use is consistent with the goals of the Medway Master Plan.*

The existing facility and the expanded use of the facility is in compliance with Goals 1 and 6 of the Economic Development Goals and Objectives section of the Medway Master Plan as follows:

- Goal 1: Maximize the area's economic resources
- Goal 6: Attract new (and retain existing) businesses and increase the industrial/manufacturing base.

(9) *The proposed use will not be detrimental to the public good.*

As a facility in compliance with state and local law, consistent with the goals of the *Medway Master Plan*, and as conditioned herein, the proposed use will not be detrimental to the public good.

VIII. CONDITIONS The *Special and General Conditions* included in this Decision shall assure that the Board's approval of this special permit is consistent with the *Zoning Bylaw* and that the comments of various Town boards and public officials have been adequately addressed, and that concerns of abutters and other town residents which were aired during the public hearing process have been carefully considered. These conditions are binding on the Applicant.

SPECIFIC CONDITIONS OF APPROVAL

A. All standard requirements included in Section 8.10 Recreational Marijuana of the *Zoning Bylaw* apply to this special permit. These include but are not limited to:

1. Upon approval and prior to commencing operations on the property to cultivate and process marijuana for adult recreational use, the Applicant shall provide the Building Commissioner, Health Agent, Fire Chief, Police Chief, and the Board with a copy of the applicable state adult recreational marijuana establishment licenses, permits, and approvals from the Massachusetts Cannabis Control Commission.

2. The Applicant shall provide an annual report of CommCan's operations to the Board and other Town officials no later than January 31st of each year, including a copy of all current state licenses and demonstrating continued compliance with the conditions of this special permit. Any change in ownership of CommCan, Inc. or change in management staff and key holders shall also be reported.

3. This special permit is not transferrable to another party. It shall remain exclusively with the Applicant, Ellen Realty Trust, as the owner of the premises and shall be considered to include the operation of the facility's tenant, CommCan, Inc.

4. Smoking, burning and consumption of marijuana or marijuana infused products on the premises is prohibited.

B. ***Noise Management***

1. The Applicant shall install and maintain at all times effective noise reduction equipment. The Applicant will complete this through industry best practices and suitable noise abatement measures. The Applicant shall ensure proper maintenance of all noise abatement equipment to ensure maximum efficiency and effectiveness.

2. As indicated by the Applicant during the hearing, buildout of the second floor is expected to commence in the near future. As part of that effort, the Applicant has indicated that the existing rooftop chiller may be modified, replaced, retrofitted, or repositioned in some manner to address the noise concerns expressed by residents of property in proximity to the subject facility. The Applicant is in the process of investigating and evaluating these issues in order to develop a noise abatement and management plan to remedy the existing noise issues as part of that buildout. Within four months of the filing of this special permit decision with the Town Clerk, the applicant shall provide the Building Commissioner, the Board of Health agent, and the Planning Board with a plan to mitigate any existing noise issues associated with the existing facility. That plan shall identify the specific mechanical systems that will be implemented to mitigate noise violations.

3. Any new or altered mechanical equipment installed on the property shall be designed to comply with applicable regulations, including the provisions of Section 7.3 of the *Zoning Bylaw*.

4. Prior to the issuance of an occupancy permit for the second floor, the Applicant shall provide the Building Commissioner, Health Agent, and Board a noise study measuring ambient sound levels without the external mechanical equipment in operation and the sound at each of the property boundaries during full operating conditions. All sound measurements shall be conducted by a qualified acoustical consultant (INCE board certification or equivalent experience) in accordance with industry best practices confirming that external mechanical noises have been addressed to comply with the applicable provisions of the *Zoning Bylaw*.

The sound measurements will consist of:

- Attended night time noise measurements at the facility property line and the residential receivers OR/
- Unattended noise monitoring for a period of at least one week at the facility property line and the residential receivers.

If the equipment is expected to produce higher noise levels at operating conditions other than full load, those conditions shall be measured as well.

With respect to nearby residential uses, measurements shall be taken at the nearest residential line to the north, south (behind the Coffee Street residents), southwest (near 35 Coffee Street), and west (on the County Layout/private way that abuts the industrial park to the west of 4 Marc Road).

Measurement instrumentation shall comply with class 1 in accordance with IEC 61678, and should be capable of measuring A-weighted and octave-band sound levels. The acoustic descriptor for reporting shall be the L90 sound level, to minimize the influence of transient sound. Sound level meters shall be provided with windscreens and their calibration shall be field-checked before and after the measurements. Measurements shall be conducted during periods of worst-case impacts, which is typically at night after midnight when ambient sound levels are lower. If possible, ambient conditions shall be measured for at least 10 minutes with the roof chiller turned off. If operational constraints make measuring ambient noise levels at the site impractical, said measurements shall be taken in a similar environment away from the facility. Measurements of operational conditions shall be taken and compared to the ambient noise levels and an analysis provided addressing the DEP Noise Policy and Section 7.3 of the *Zoning Bylaw*.

The Board may forward the noise study to the Town's noise consultant for peer review and comment, at the Applicant's expense. The Board may require the Applicant to implement additional noise mitigation measures if the facility continues to be non-compliant with the Bylaw.

5. Approximately six months after beginning operations under this Special Permit, the Applicant shall provide a supplemental noise study. These measurements shall be carried out to the same standards and methods as the initial study.

   The intent of this second study is to assess the impact of seasonal changes. The scope and methods of the study shall be the same as in the initial study described above.

   The Applicant shall submit that study to the Building Commissioner, Health Agent and Board so as to determine continued compliance with the conditions set forth herein as to noise. The Board may forward the plan to the Town's noise consultant for review and comment, at the Applicant's

expense. The Board may require the Applicant to implement additional noise mitigation measures if the facility continues to be non-compliant with the Bylaw.

6. For each of the two successive years following occupancy of the second floor, the Applicant shall annually submit a certification by a registered professional mechanical engineer that there are no changes in the installed mechanical equipment which may impact the noise emanating from the facility. Such certification shall be provided to the Building Commissioner, Health Agent and the Board.

7. The Building Commissioner, in enforcing the conditions contained herein, may require the Applicant to provide additional noise studies by a qualified noise consultant and/or implement additional mitigation measures should legitimate concerns or complaints develop in the future about noise generation from the facility. The Applicant may further be required to address such issues with the Board to its satisfaction.

C. ***Odor Management***

1. The Applicant is required to comply with the provisions of Section 7.3.D of the *Zoning Bylaw*.

2. The Applicant shall install and maintain at all times effective odor control technology to remove odors from the facility's exhaust system. The Applicant will complete this through industry best practices and suitable building filtration systems including a secondary safeguard system as required by the *Zoning Bylaw*. The Applicant shall ensure proper maintenance of all odor migration equipment to ensure maximum efficiency and effectiveness.

3. Within four months of the filing of this special permit decision with the Town Clerk, the applicant shall provide the Building Commissioner, the Board of Health agent, and the Board with a plan to enhance the odor control systems for the existing facility. That plan shall identify the specific mechanical systems that will be implemented to enhance the odor control systems in the facility. The applicant shall also provide an odor control plan which shall describe the proposed mechanical improvements along with associated operational and maintenance programs that will be implemented.

4. Prior to the issuance of an occupancy permit for the second floor, the Applicant shall review the updated odor control system as installed with the Building Commissioner and demonstrate that the measures specified in the odor control, abatement and mitigation plan including the secondary safeguard system have been implemented. The Applicant shall provide a certification made by a licensed engineer that the odor mitigation measures included in the plan have been installed. Additional odor mitigation measures may be required if determined to be required by the Building Commissioner.

5. For each of the two successive years following occupancy of the second floor, the Applicant shall annually submit a certification by a registered professional engineer that there have been no changes in the mechanical equipment that has been installed to reduce the odor emanating from the facility. Such certification shall be provided to the Building Commissioner, Health Agent and the Board.

6. The Building Commissioner, in enforcing the conditions herein, may require additional odor investigations and/or odor mitigation measures should legitimate concerns and complaints develop in the future about odor generation from the facility. The Applicant may further be required to address such issues with the Board to its satisfaction.

D. The permit holder shall notify the Building Commissioner, Health Agent, Fire Chief, Police Chief, and the Board in writing within forty-eight hours of the cessation of operation of the marijuana business or the expiration or termination of the license holder's certificates or registration with the Massachusetts Cannabis Control Commission.

E. There shall be a valid Host Community Agreement in effect at all times during the operation of the marijuana establishment.

F. Limitations - This special permit is limited to the operation of a recreational marijuana cultivation and processing facility at 2 Marc Road. This permit does not authorize operation of a retail outlet for the sale of adult recreational marijuana products or the operation of a testing facility on the premises.

G. All applicable conditions of the previous site plan approval for the site and the 2016 Approval shall also apply to this special permit.

GENERAL CONDITIONS OF APPROVAL

A. ***Fees*** - Prior to filing the special permit decision with the Town Clerk, the Applicant shall pay:

1. the balance of any outstanding project review fees owed to the Town for review of the application by the Town's engineering, planning, noise, odor or other consultants;

2. an advance on fees for continued outside noise and odor consultants as approved by the Planning and Economic Development Board;

3. any other outstanding expenses or obligations due the Town of Medway pertaining to this property, including real estate and personal property taxes and business licenses.

B. ***Other Permits*** – This special permit does not relieve the Applicant from its responsibility to apply for, obtain, pay for, and comply with all other required federal, state and Town permits, licenses and approvals. The Applicant or agent shall apply for, obtain, pay for, and comply with all other required Town permits.

C. ***Recording*** **-** Within thirty days of recording the Decision, the Applicant shall provide the Board and the Building Commissioner with a receipt from the Norfolk County Registry of Deeds indicating that the Decision has been duly recorded, or supply another alternative verification that such recording has occurred.

D. ***Conflicts*** –If there is a conflict between this Decision and the *Zoning Bylaw*, the *Bylaw* shall apply.

IX. APPEAL – Appeals if any, from this Decision shall be made to a court of competent jurisdiction within twenty days of the date the Board files the Decision with the Town Clerk in accordance with the provisions of G. L. Chapter 40A, Section 17.

After the appeal period has expired and before this special permit takes effect, the Applicant must obtain a certified notice from the Town Clerk that no appeals have been made and provide such certification to the Board before the decision and certificate are recorded. Proof of recording the certificate of no appeal must be delivered to the Building Commissioner and the Board.

###

- **TT 9/9/22 Update: The proposed gravel driveway intersection may still be an issue for motorists exiting the driveway to the main portion of the site. We recommend a "no left turn" sign, "one way" sign, and/or right turn only pavement markings to clarify the one-way circulation.**
  - *LEL 10/13/22 Response: A no left turn sign has been added to the plans as requested.*
    - **TT 10/19/22 Update: In our opinion, this comment is resolved.**

ADDITIONAL COMMENTS

18. The transition from the existing driveway apron at the west end of the proposed gravel driveway may lead to confusion. We recommend striping or adjustment of the existing curbline in the apron to ensure vehicles use the gravel driveway as intended.
    - *LEL 10/13/22 Response: The revised plans call for the existing pavement to be tapered to meet the gravel driveway by removing some paved areas.*
      - **TT 10/19/22 Update: In our opinion, this comment is resolved.**
19. The Applicant appears to be proposed a depressed area at the low point of the gravel driveway to allow runoff to enter the vegetated area to the north of the driveway. This area may become iced over in freeze-thaw cycles and become an issue for pedestrians using the sidewalk.
    - *LEL 10/13/22 Response: The design has been revised to allow stormwater to flow under the sidewalk through small-diameter pipes.*
      - **TT 10/19/22 Update: In our opinion, this comment is resolved.**
20. A proposed snow storage area is located over an existing irrigation well adjacent to southwest end of proposed gravel driveway.
    - *LEL 10/13/22 Response: We have removed this snow storage area from the plans.*
      - **TT 10/19/22 Update: In our opinion, this comment is resolved.**
21. Provide detail for proposed cape cod berm/sidewalk in existing asphalt apron.
    - *LEL 10/13/22 Response: New sidewalk and driveway details have been added to sheets C-7 and C-8. A second wall and guard rail have been added to the south side of the culvert crossing.*
      - **TT 10/19/22 Update: In our opinion, this comment is resolved.**

These comments are offered as guides for use during the Town's review and additional comments may be generated during the course of review. The Applicant shall be advised that any absence of comment shall not relieve them of the responsibility to comply with all applicable local, state and federal regulations for the Project. If you have any questions or comments, please feel free to contact us at (508) 786-2200.

Very truly yours,

Steven M. Bouley, P.E.
Project Manager

Bradley M. Picard, E.I.T.
Civil Engineer

P:\21583\143-21583-22008 (PEDB 2 MARC RD MOD)\DOCS\2 MARC RD MOD_PEDBREV(2022-10-19).DOCX