
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

RULE 13e-3 TRANSACTION STATEMENT UNDER SECTION 13(e) OF THE
SECURITIES EXCHANGE ACT OF 1934
(Amendment No. 2)

Dynasil Corporation of America

(Name of the Issuer and Name of Person Filing Statement)

Common Stock, \$0.0005 par value per share
(Title of Class of Securities)

268102100
(CUSIP Number of Class of Securities)

Peter Sulick
President and Chief Executive Officer
Dynasil Corporation of America
313 Washington Street, Suite 403
Newton, MA 02458
(617) 668-6855

(Name, Address and Telephone Number of Persons Authorized to
Receive Notices and Communications on Behalf of Persons Filing Statement)

Copies to:
Matthew J. Gardella, Esq.
Matthew W. Tikonoff, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
One Financial Center
Boston, Massachusetts 02111
(617) 542-6000

This statement is filed in connection with (check the appropriate box):

- a. The filing of solicitation materials or an information statement subject to Regulation 14A, Regulation 14C, or Rule 13e-3(c) under the Securities Exchange Act of 1934.
- b. The filing of a registration statement under the Securities Act of 1933.
- c. A tender offer.
- d. None of the above.

Check the following box if the soliciting materials or information statement referred to in checking box (a) are preliminary copies:

Check the following box if the filing is a final amendment reporting the results of the transaction:

Calculation of Filing Fee

Transaction Valuation (*)	Amount of Filing Fee (**)
\$2,160,000.00	\$261.79

(*) Calculated solely for purposes of determining the filing fee. This amount assumes the acquisition of approximately 1,878,260 shares of common stock for \$1.15 per share in cash in lieu of issuing fractional shares to holders of less than 8,000 shares of common stock after the proposed reverse/forward stock split.

(**) The filing fee is calculated in accordance with Rule 0-11 under the Securities Exchange Act of 1934, as amended, and Fee Rate Advisory #1 for Fiscal Year 2019, issued August 24, 2018, by multiplying the Transaction Valuation of \$2,160,000.00 by 0.0001212.

Check the box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: 261.79
Form or Registration No.: Schedule 13E-3
Filing Party: Dynasil Corporation of America
Date Filed: May 16, 2019

RULE 13e-3 TRANSACTION STATEMENT

INTRODUCTION

This Amendment No. 2 (this “**Amendment No. 2**”) amends and supplements the Rule 13e-3 Transaction Statement on Schedule 13E-3 (the “**Schedule 13E-3**”) initially filed with the Securities and Exchange Commission (the “**SEC**”) on May 16, 2019 pursuant to Section 13(e) of the Securities and Exchange Act of 1934, as amended (the “**Exchange Act**”), by Dynasil Corporation of America (the “**Company**”), a Delaware corporation. This Amendment No. 2 is being filed pursuant to Rule 13e-3(d)(3) as a final amendment to the Schedule 13E-3 to report the results of the stock split transactions described below.

On August 7, 2019, the Company held a special meeting of stockholders (the “**Special Meeting**”). At the Special Meeting, the holders of a majority of the Company’s issued and outstanding shares of common stock entitled to vote approved amendments to the Company’s certificate of incorporation, as amended, to effect a 1-for-8,000 reverse stock split of the Company’s common stock (the “**Reverse Stock Split**”), followed immediately by a 8,000-for-1 forward stock split of the Company’s common stock (the “**Forward Stock Split**,” and together with the Reverse Stock Split, the “**Transaction**”). The amendments were approved with (i) 14,256,235 shares of common stock voting in favor of the Reverse Stock Split, 1,137,124 shares voting against the Reverse Stock Split and 846 shares abstaining, and (ii) 14,256,223 shares of common stock voting in favor of the Forward Stock Split, 1,137,137 shares voting against the Forward Stock Split and 846 shares abstaining.

As a result of the Transaction, each share of the Company’s common stock held by a stockholder of record who owned immediately prior to the effective time of the Transaction fewer than 8,000 shares was converted into the right to receive \$1.15 in cash, without interest, and such stockholders are no longer stockholders of the Company. Stockholders of record who owned 8,000 or more shares immediately prior the effective time of the Transaction (“**Continuing Stockholders**”) are not be entitled to receive any cash for their fractional share interests resulting from the Reverse Stock Split, if any. The Forward Stock Split, which immediately followed the Reverse Stock Split, reconverted whole shares and fractional share interests held by the Continuing Stockholders back into the same number of shares of the Company’s common stock held by such Continuing Stockholders immediately prior to the effective time. As a result of the Forward Stock Split, the total number of shares of the Company’s common stock held by a Continuing Stockholder did not change as a result of the Transaction.

The primary purpose of the Transaction is to enable the Company to maintain the number of its record holders of common stock below 300. The Transaction was undertaken as part of the Company’s plan to terminate the registration of the Company’s common stock under Section 12(g) of the Exchange Act and suspend the Company’s duty to file periodic reports and other information with the SEC under Section 13(a) thereunder, and to delist the Company’s common stock from the Nasdaq Capital Market.

On June 25, 2019, the Company filed a definitive proxy statement on Schedule 14A (the “**Proxy Statement**”) pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended. The information contained in the Proxy Statement, including all annexes thereto, is expressly incorporated herein by reference and the responses to each item of this Schedule 13E-3 are qualified in their entirety by reference to the information contained in the Proxy Statement. Capitalized terms used and not otherwise defined herein have the meanings ascribed to such terms in the Proxy Statement.

Item 1. Summary Term Sheet

The information set forth in the Proxy Statement under the caption “SUMMARY TERM SHEET” is incorporated herein by reference.

Item 2. Subject Company Information

- (a) *Name and Address.* The name of the subject company is Dynasil Corporation of America, a Delaware corporation. The Company’s principal executive offices are located at 313 Washington Street, Suite 403, Newton, MA 02458. The Company’s telephone number is (617)-668-6855.
- (b) *Securities.* The subject class of equity securities to which the Schedule 13E-3 (as amended hereby) relates is the Company’s common stock, \$0.0005 par value per share, of which 17,561,300 shares were outstanding as of May 31, 2019.
- (c) *Trading Market and Price.* The information set forth in the Proxy Statement under “INFORMATION ABOUT THE COMPANY — Market Price of Common Stock” is incorporated herein by reference.

(d) *Dividends.* The information set forth in the Proxy Statement under “INFORMATION ABOUT THE COMPANY — Dividends” is incorporated herein by reference.

(e) *Prior Public Offerings.* The Company has not made an underwritten public offering of its Common Stock for cash during the three years preceding the date of the filing of the Schedule 13E-3 (as amended hereby).

(f) *Prior Stock Purchases.* The Company has not purchased any subject securities during the two years preceding the date of the filing of this Schedule 13E-3.

Item 3. Identity and Background of Filing Person

(a) *Name and Address.* The filing person, the Company, is also the subject company, with its address and telephone number provided in Item 2(a) above. The name of each director and executive officer is set forth below.

Name	Position
Mr. Craig Dunham	Director
Mr. Lawrence Fox	Director
Dr. William Hagan	Lead Director
Mr. David Kronfeld	Director
Mr. Thomas Leonard	Director
Mr. Alan Levine	Director
Mr. Peter Sulick	Chairman, Chief Executive Officer & President
Mr. Robert Bowdring	Chief Financial Officer

The address of each director and executive officer of the Company is c/o Dynasil Corporation of America, 313 Washington Street, Suite 403, Newton, Massachusetts 02458.

(b) *Business and Background of Entities.* Not applicable.

(c) *Business and Background of Natural Persons.* The information set forth in the Proxy Statement under “INFORMATION ABOUT THE COMPANY — Directors and Executive Officers” is incorporated herein by reference.

Neither the Company nor to the Company’s knowledge, none of the Company’s directors or executive officers has been convicted in a criminal proceeding during the past five years (excluding traffic violations or similar misdemeanors) or has been a party to any judicial or administrative proceeding during the past five years (except for matters that were dismissed without sanction or settlement) that resulted in a judgment, decree or final order enjoining the person from future violations of, or prohibiting activities subject to, federal or state securities laws, or a finding of any violation of federal or state securities laws.

Each of the Company’s directors and executive officers is a citizen of the United States.

Item 4. Terms of the Transaction

- (a) *Material Terms.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET” and “SPECIAL FACTORS” is incorporated herein by reference.
- (c) *Different Terms.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — The Transaction,” “— Effects of the Transaction,” “— Fairness of the Transaction,” “— Treatment of Beneficial Holders (Stockholders Holding Shares in “Street Name”),” and “— Material Federal Income Tax Consequences;” and SPECIAL FACTORS — Effects of the Transaction,” “— Fairness of the Transaction,” and “— Material Federal Income Tax Consequences” is incorporated herein by reference.
- (d) *Appraisal Rights.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — No Appraisal or Dissenters’ Rights;” and “SPECIAL FACTORS — No Appraisal or Dissenters’ Rights” is incorporated herein by reference.
- (e) *Provisions for Unaffiliated Security Holders.* The information set forth in the Proxy Statement under “SPECIAL FACTORS — Fairness of the Transaction” is incorporated herein by reference.
- (f) *Eligibility for Listing or Trading.* Not applicable.

Item 5. Past Contracts, Transactions, Negotiations and Agreements

- (a) *Transactions.* Not Applicable.
- (b) *Significant Corporate Events.* Not applicable.
- (c) *Negotiations or Contacts.* Not applicable.
- (e) *Agreements Involving the Subject Company’s Securities.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Potential Conflicts of Interests of Officers, Directors, and Certain Affiliated Persons;” and “— Vote Required for Approval of the Transaction and the Adjournment Proposal At the Special Meeting;” and “SPECIAL FACTORS — Potential Conflicts of Interests of Officers, Directors, and Certain Affiliated Persons,” “and “— Stockholder Approval” is incorporated herein by reference.

Item 6. Purposes of the Transaction and Plans or Proposals

- (b) *Use of Securities Acquired.* The information set forth in the Proxy Statement under “SPECIAL FACTORS — Effective Date” is incorporated herein by reference.
- (c) *Plans.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Purpose of and Reasons for the Transaction,” “— Effects of the Transaction;” and “SPECIAL FACTORS — Purpose of and Reasons for the Transaction,” “— Background of the Transaction,” “— Effects of the Transaction,” “— Nasdaq Capital Market Listing; OTC Pink Market,” and “— Fairness of the Transaction,” is incorporated herein by reference.

Item 7. Purposes, Alternatives, Reasons and Effects

- (a) *Purposes.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Purpose of and Reasons for the Transaction;” and “SPECIAL FACTORS — Purpose of and Reasons for the Transaction” and “— Background of the Transaction” is incorporated herein by reference.
- (b) *Alternatives.* The information set forth in the Proxy Statement under “SPECIAL FACTORS — Background of the Transaction,” and “— Alternatives to the Transaction” is incorporated herein by reference.
- (c) *Reasons.* The information set forth in the Proxy Statement under SUMMARY TERM SHEET — Purpose of and Reasons for the Transaction;” and “SPECIAL FACTORS — Purpose of and Reasons for the Transaction,” “— Background of the Transaction,” “— Alternatives to the Transaction,” and “— Fairness of the Transaction” is incorporated herein by reference.
- (d) *Effects.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — The Transaction,” “— Effects of the Transaction,” and “— Material Federal Income Tax Consequences;” and “SPECIAL FACTORS — Purpose and Reasons for the Transaction,” “— Effects of the Transaction,” “— Nasdaq Capital Market Listing; OTC Pink Market,” and “— Material Federal Income Tax Consequences” is incorporated herein by reference.

Item 8. Fairness of the Transaction

- (a) *Fairness.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Special Committee and Board of Directors Recommendations of the Transaction,” and “— Fairness of the Transaction;” and “SPECIAL FACTORS — Background of the Transaction,” and “— Fairness of the Transaction” is incorporated herein by reference.
- (b) *Factors Considered in Determining Fairness.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Purpose of and Reasons for the Transaction,” “— Special Committee and Board of Directors Recommendations of the Transaction,” “— Reservation of Rights,” and “— Fairness of the Transaction;” and “SPECIAL FACTORS — Purpose of and Reasons for the Transaction,” “— Background of the Transaction,” “— Alternatives to the Transaction,” “— Fairness of the Transaction,” and “— Fairness Opinion of Financial Advisor” is incorporated herein by reference.
- (c) *Approval of Security Holders.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Potential Conflicts of Interest of Officers, Directors, and Certain Affiliated Persons,” and “— Vote Required for Approval of the Transaction and the Adjournment Proposal At the Special Meeting;” and “SPECIAL FACTORS — Fairness of the Transaction,” “— Potential Conflicts of Interests of Officers, Directors, and Certain Affiliated Persons,” and “— Stockholder Approval” is incorporated herein by reference.
- (d) *Unaffiliated Representatives.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Fairness of the Transaction;” and “SPECIAL FACTORS — Background of the Transaction,” “— Fairness of the Transaction,” and “— Fairness Opinion of Financial Advisor” is incorporated herein by reference.
- (e) *Approval of Directors.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Special Committee and Board of Directors Recommendations of the Transaction,” and “— Fairness of the Transaction;” and “SPECIAL FACTORS — Background of the Transaction,” and “— Fairness of the Transaction” is incorporated herein by reference.
- (f) *Other Offers.* None.

Item 9. Reports, Opinions, Appraisals and Negotiations

(a) *Report, Opinion or Appraisal.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Special Committee and Board of Directors Recommendations of the Transaction” and “— Fairness of the Transaction;” and “SPECIAL FACTORS — Background of the Transaction,” “— Fairness of the Transaction,” and “— Fairness Opinion of Financial Advisor” is incorporated herein by reference.

(b) *Preparer and Summary of the Report, Opinion or Appraisal.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Special Committee and Board of Directors Recommendations of the Transaction” and “— Fairness of the Transaction;” and “SPECIAL FACTORS — Background of the Transaction,” “— Fairness of the Transaction,” and “— Fairness Opinion of Financial Advisor” is incorporated herein by reference.

(c) *Availability of Documents.* The full text of the fairness opinion of Mirus Securities, Inc. (“**Mirus**”) dated May 1, 2019, is attached as Annex C to the Proxy Statement. The fairness opinion of Mirus and the Valuation Presentations of Mirus dated April 19, 2019, April 26, 2019 and May 1, 2019 are each available for inspection and copying at the Company’s principal executive offices, 313 Washington Street, Suite 403, Newton, MA 02458.

Item 10. Source and Amounts of Funds or Other Consideration

(a) *Source of Funds.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Financing for the Transaction;” and “SPECIAL FACTORS — Effects of the Transaction” and “— Source of Funds and Expenses” is incorporated herein by reference.

(b) *Conditions.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Financing for the Transaction;” and “SPECIAL FACTORS — Effects of the Transaction” and “— Source of Funds and Expenses” is incorporated herein by reference.

(c) *Expenses.* The information set forth in the Proxy Statement under “SPECIAL FACTORS — Source of Funds and Expenses” is incorporated herein by reference.

(d) *Borrowed Funds.* The information set forth in the Proxy Statement under “SPECIAL FACTORS — Source of Funds and Expenses” is incorporated herein by reference.

On August 5, 2019, the Company entered into a Loan Document Modification Agreement with Middlesex Savings Bank (“**Middlesex**”) to modify the Loan and Security Agreement dated May 1, 2014, by and between the Company and Middlesex (the “**Loan Agreement**”), to change the definitions used to calculate the Debt Service Coverage Ratio and the Maximum Leverage Ratio (each as defined in the Loan Agreement) to add back up to \$750,000 of certain transaction expenses related to the Transaction from the quarter ended June 30, 2019 and the quarter ending September 30, 2019.

In connection with the Transaction, on August 6, 2019, the Company entered into a subordinated Note Purchase Agreement (the “**MCRC Note**”) pursuant to which the Company borrowed an additional \$2,000,000 from Massachusetts Capital Resource Company (“**MCRC**”) and consolidated \$865,216 of existing debt owed to MCRC. The MCRC Note carries an interest rate of 8.0% and a maturity date of July 31, 2026. The MCRC Note will be interest only until August 31, 2022 and has a 2% prepayment penalty until August 31, 2020 and a 1% prepayment penalty until August 31, 2021.

Item 11. Interest in Securities of the Subject Company

(a) *Securities Ownership.* The information set forth in the Proxy Statement under “INFORMATION ABOUT THE COMPANY — Security Ownership of Certain Beneficial Owners” is incorporated herein by reference.

(b) *Securities Transactions.* None.

Item 12. The Solicitation or Recommendation

(d) *Intent to Tender or Vote in a Going Private Transaction.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Effects of the Transaction,” “—Potential Conflicts of Interests of Officers, Directors, and Certain Affiliated Persons,” and “— Vote Required for Approval of the Transaction and the Adjournment Proposal At the Special Meeting;” “SPECIAL FACTORS — Effects of the Transaction,” “— Potential Conflicts of Interests of Officers, Directors, and Certain Affiliated Persons,” and “— Stockholder Approval” is incorporated herein by reference.

(e) *Recommendation of Others.* The information set forth in the Proxy Statement under “SUMMARY TERM SHEET — Potential Conflicts of Interests of Officers, Directors, and Certain Affiliated Persons,” and “— Vote Required for Approval of the Transaction and the Adjournment Proposal At the Special Meeting;” and “SPECIAL FACTORS — Background of the Transaction,” and “— Fairness of the Transaction” is incorporated herein by reference.

Item 13. Financial Statements

(a) *Financial Information.* The audited financial statements and unaudited interim financial statements are incorporated by reference in the Proxy Statement from the Company’s Annual Report on Form 10-K for the year ended September 30, 2018, and the Company’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2019. The information set forth in the Proxy Statement under “FINANCIAL INFORMATION — Summary Historical Financial Information” is incorporated herein by reference.

(b) *Pro forma Information.* The information set forth in the Proxy Statement under “FINANCIAL INFORMATION — Pro Forma Consolidated Financial Statements (Unaudited)” is incorporated herein by reference.

(c) *Summary Information.* The information set forth in the Proxy Statement under “FINANCIAL INFORMATION — Summary Historical Financial Information” is incorporated herein by reference.

Item 14. Persons/Assets, Retained, Employed, Compensated or Used

(a) *Solicitation or Recommendation.* The information set forth in the Proxy Statement under “MEETING AND VOTING INFORMATION — Solicitation” is incorporated herein by reference.

(b) *Employees and Corporate Assets.* The information set forth in the Proxy Statement under “MEETING AND VOTING INFORMATION — Solicitation” is incorporated herein by reference.

Item 15. Additional Information

(b) Not applicable.

(c) *Other Material Information.* The information contained in the Proxy Statement, including all appendices attached thereto, is incorporated herein by reference.

Item 16. Exhibits

- (a)(i) Notice of Meeting and Definitive Proxy Statement of the Company (incorporated herein by reference to the Company's Schedule 14A filed with the Securities and Exchange Commission on June 25, 2019).
- (a)(ii) Annual financial statements for the years ended September 30, 2018 and September 30, 2017 of Dynasil Corporation of America appearing in the Annual Report on Form 10-K for the fiscal year ended September 30, 2018 (filed with the SEC on December 21, 2018 and incorporated herein by reference).
- (a)(iii) Interim financial statements for the three months ended December 31, 2018 of Dynasil Corporation of America appearing in the Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2018 (filed with the SEC on February 11, 2019 and incorporated herein by reference).
- (a)(iv) Interim financial statements for the nine months ended March 31, 2019 of Dynasil Corporation of America appearing in the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2019 (filed with the SEC on May 14, 2019 and incorporated herein by reference).
- (b)(i) Loan and Security Agreement by and between Middlesex Savings Bank, as Lender, and the Company, as Borrower, dated as of May 1, 2014, filed as Exhibit 10.1 to Form 8-K filed on May 2, 2014 and incorporated herein by reference.
- (b)(ii) Revolving Line of Credit by and between Middlesex Savings Bank, as Lender, and the Company, as Borrower, dated as of May 1, 2014, filed as Exhibit 10.2 to Form 8-K filed on May 2, 2014 and incorporated herein by reference.
- (b)(iii) Loan Document Modification Agreement between the Company and Middlesex Savings Bank, dated September 29, 2015, filed as Exhibit 10.04 to Form 10-K filed on December 17, 2015 and incorporated herein by reference.
- (b)(iv) Loan Document Modification Agreement between the Company and Middlesex Savings Bank, dated August 5, 2019.
- (b)(v) Note Purchase Agreement by and between Massachusetts Capital Resource Company, as Lender, and the Company, as Borrower, dated as of August 6, 2019.
- (c)(i) Opinion of Mirus dated May 1, 2019 (incorporated herein by reference to Annex C of the Proxy Statement).
- (c)(ii) Presentation dated April 19, 2019 of Mirus to the Board of Directors of the Company (previously filed with the Schedule 13E-3 filed on May 16, 2019).
- (c)(iii) Presentation dated April 26, 2019 of Mirus to the Board of Directors of the Company (previously filed with the Schedule 13E-3 filed on May 16, 2019).
- (c)(iv) Presentation dated May 1, 2019 of Mirus to the Board of Directors of the Company (previously filed with the Schedule 13E-3 filed on May 16, 2019).
- (d) Not applicable
- (f) Not applicable.
- (g) Not applicable.
- (h) Not applicable.

SIGNATURE

After reasonable inquiry and to the best of its knowledge and belief, the undersigned certifies that the information set forth in this statement is true, complete and correct.

DYNASIL CORPORATION OF AMERICA

By: /s/ Peter Sulick
Peter Sulick
President and Chief Executive Officer

Dated: August 9, 2019

LOAN DOCUMENT MODIFICATION AGREEMENT

This Loan Document Modification Agreement (this "**Agreement**") is made as of this 5th day of August, 2019, by and between Middlesex Savings Bank, a banking corporation organized and existing under the laws of Massachusetts, of 6 Main Street, Natick, Massachusetts 01760 (the "**Lender**"), and Dynasil Corporation of America of 313 Washington Street, Suite 403, Newton, Massachusetts 02458 (the "**Borrower**"); and Optometrics Corporation of 8 Nemco Way, Ayer, Massachusetts 01432, Radiation Monitoring Devices, Inc. of 44 Hunt Street, Watertown, Massachusetts 02472, RMD Instruments Corp. of 44 Hunt Street, Watertown, Massachusetts 02472, Evaporated Metal Films Corp. of 239 Cherry Street, Ithaca, New York 14850, and Dynasil Biomedical Corp. of 44 Hunt Street, Watertown, Massachusetts 02472 (collectively, the "**Guarantors**").

WHEREAS, on May 1, 2014 Lender made a loan (the "**Loan**") to Borrower evidenced by a Revolving Line of Credit Note dated May 1, 2014 from Borrower to Lender in the original principal amount of Four Million and 00/100 (\$4,000,000.00) Dollars (the "**LOC Note**");

WHEREAS, as security for the payment and performance of Borrower's obligations under the LOC Note, Borrower and Guarantors executed and delivered to Lender, (i) a Loan and Security Agreement dated May 1, 2014, by and between the Borrower and the Lender (the "**Loan Agreement**"), (ii) UCC-1 Financing Statements covering the Collateral described in the Loan Agreement and filed with the Secretary of State of the Commonwealth of Massachusetts, State of New York and State of Delaware (the "**UCC-1 Financing Statements**"), (iii) Entity Guaranty and Security Agreements, all dated May 1, 2014 from Guarantors to Lender (the "**Guaranties**"), (iv) a Stock Pledge Agreement by Borrower in favor of Lender dated May 1, 2014 (the "**Stock Pledge**"); and (v) a Subordination Agreement dated as of May 1, 2014 given by Massachusetts Capital Resource Company ("**MCRC**") to Lender (the "**MCRC Subordination**") by which all debt of Borrower to MCRC (the "**Junior Debt**") is subordinated to all Obligations of Borrower to Lender. Collectively, the Loan Agreement, the UCC-1 Financing Statements, the Guaranties, the Stock Pledge, and the MCRC Subordination are referred to, together with various other documents referred to therein, as the same may be amended from time to time, as the "**Security Instruments**";

WHEREAS, Borrower and Lender amended the terms of the Loan pursuant to a Loan Document Modification Agreement dated September 29, 2015, by adding or modifying certain financial covenants by Lender, granting to Borrower consent to pay-down or pay-off certain amounts of the Junior Debt, and by adding an option on the part of Borrower to term out a certain amount of Advances made to Borrower under the LOC Note;

WHEREAS, Borrower and Lender further amended the terms of the Loan pursuant to a Second Amendment of Loan Agreement dated December 2, 2016, to (i) provide for Borrower to pay dividends under certain circumstances, (ii) make a distribution to Dynasil Biomedical Corp. to invest in Xcede Technologies, and (iii) modify the debt service coverage covenant;

WHEREAS, Borrower and Lender further amended the terms of the Loan pursuant to a Loan Document Modification Agreement dated May 16, 2017, by modifying the Advance Period Termination Date as set forth therein, and providing for an equipment line of credit in favor of the Borrower (the "**Equipment Line of Credit**"), as evidenced by a certain Equipment Line of Credit Master Note (Non-Revolving) in the maximum principal amount of One Million and 00/100 (\$1,000,000.00) Dollars (the "**Equipment Line of Credit Note**"); and

WHEREAS, the Borrower and Lender further amended the terms of the Loan pursuant to a Loan Document Modification Agreement dated August 13, 2018 for the purposes of (i) renewing and modifying the Equipment Line of Credit and replacing the Equipment Line of Credit Note, and (ii) modifying the Maximum Funded Debt Ratio set forth in the Loan Agreement; and

WHEREAS, the Borrower and the Lender further amended the Loan Agreement Pursuant to a Loan Document Modification Agreement dated May 1, 2019 to increase the percentage of Eligible Accounts Receivable available for borrowing under the Revolving Line of Credit Note from 80% to 85% and to eliminate Eligible Unbilled Receivables as a category for the Borrower obtaining Advances under the Revolving Line of Credit; and

WHEREAS, pursuant to the terms set forth herein, the Loan Agreement shall be further amended to change the definitions used to calculate the Debt Service Coverage Ratio in Section 4.9 and the Maximum Leverage Ratio in Section 4.9A (to add back up to \$750,000 of certain Go-Dark Expenses) from the twelve (12) month testing periods ending June 30, 2019, September 30, 2019 and December 31, 2019.

NOW, THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, it is hereby agreed as follows:

1. Section 4.9 of the Loan Agreement is hereby deleted in its entirety and the following new Section 4.9 is substituted therefor, as follows:

"4.9 Debt Service Coverage. At the close of each fiscal quarter of Borrower, maintain a Debt Service Coverage ratio of at least 1.2 to 1.0 for the prior 12 month period. '**Debt Service Coverage**' as used herein shall be determined for the relevant period, and shall mean (i) EBITDA excluding non-cash and/or non-recurring expenditures, (including without limitation, up to \$750,000 of certain Go-Dark Expenditures incurred in the de-listing of certain of the Borrower's stock from NASDAQ) for the fiscal quarters ending June 30, 2019, September 30, 2019 and December 31, 2019 only, but effective for the subsequent three (3) fiscal quarters to give effect to the trailing twelve (12) month testing periods for this covenant, minus unfinanced capital expenditures, minus dividends and distributions, minus cash taxes paid for ongoing operations, divided by (ii) scheduled interest and principal payments made on all debt."

2. Section 4.9A of the Loan Agreement is hereby deleted in its entirety, and the following new Section 4.9A is substituted therefor:

"4.9A Maximum Leverage. At the close of each fiscal quarter of the Borrower, and on a trailing four (4) quarter basis, Borrower shall maintain Maximum Leverage of 2.5:1. For purposes of this Section 4.9A, the following terms shall have the defined meanings:

'Adjusted EBITDA' shall mean, EBITDA, excluding therefrom non-cash and/or recurring expenditures, including without limitation, up to \$750,000 of Certain Go-Dark Expenditures incurred in the de-listing of certain of the Borrower's stock from NASDAQ for the twelve (12) month testing periods ending June 30, 2019, September 30, 2019 and December 31, 2019 only, or gains (as permitted), and the operating income or loss of the Xcede joint venture that is consolidated into Borrower's financial results.

'Maximum Leverage' shall mean that quotient equal to (a) the sum of (i) Senior Secured Debt plus (ii) Subordinated Debt, divided by (b) Adjusted EBITDA."

3. The Equipment Line of Credit Note is hereby amended to extend the Conversion Date to April 30, 2020 and change the Maturity Date (upon conversion to a term loan) from April 30, 2019 to April 30, 2025.

4. Borrower and Guarantors confirm that the Security Instruments, as amended by or added to in connection with this Agreement, constitute the valid and enforceable obligations of Borrower and Guarantors, and that neither Borrower nor Guarantors has any existing claims, defenses or rights of setoff with respect thereto.

5. Borrower and Guarantors hereby warrant and represent that the statements set forth in the recitals above are true and correct, and that all representations and warranties made by Borrower and Guarantors in the Security Instruments continue to be true and correct in all material respects.

6. It is further agreed that this Agreement shall not, in any manner, release, relinquish, or otherwise affect the liens, security interests, and rights created by or arising under the Security Instruments or its priority over other liens, charges, or encumbrances affecting the Collateral referred to therein (except by extending such lien to secure, inter alia, any and all new obligations created hereby and pursuant to the Equipment Line of Credit Note and the Term Note) or Borrower's or Guarantors' liability thereunder; and all other terms, conditions and covenants therein contained which are not hereby amended, are hereby ratified and confirmed as previously written.

7. Borrower and Guarantors hereby acknowledge that there are and were no oral or written representations, warranties, understandings, stipulations, agreements or promises made by any party or by any agent, employee or other representative of any party, pertaining to the subject matter of this Agreement which have not been incorporated herein. No express or implied consent to any further modifications involving any of the matters set forth in the Security Instruments or herein shall be inferred or implied by Lender's execution of this Agreement. Any further modification of the Loan Agreement shall require the express written approval of Lender. No provision hereof shall be modified or limited except by a written instrument signed by the parties hereto, expressly referring hereto and to the provision so modified or limited.

8. Except as expressly amended and modified by this Agreement all of the terms and conditions of the Security Instruments shall remain in full force and effect.

[Signature Page to Follow]

Executed under seal this 5th day of August, 2019.

MIDDLESEX SAVINGS BANK

By: /s/ Tony Zhang
Tony Zhang, Senior Vice President

DYNASIL CORPORATION OF AMERICA
OPTOMETRICS CORPORATION
RADIATION MONITORING DEVICES, INC.
RMD INSTRUMENTS CORP.
EVAPORATED METAL FILMS CORP.
DYNASIL BIOMEDICAL CORP.

By: /s/ Robert Bowdring
Robert Bowdring, Chief Financial Officer of
each of the above named corporations

Massachusetts, ss.:

On this 5th day of August, 2019, before me, the undersigned notary public, personally appeared Robert Bowdring, Chief Financial Officer of each of the above-named corporations, proved to me to be the person whose name is signed on the preceding document, through satisfactory evidence of identification, namely, Robert Bowdring, and acknowledged to me that he signed it voluntarily for its stated purpose.

/s/ Mary Abud
Notary Public: Mary Abud
My Commission Expires: 07/01/2022

[Signature Page to Loan Modification Agreement]

Exhibit (b)(v)

Execution Copy

DYNASIL CORPORATION OF AMERICA

**Note Purchase Agreement
(as amended, restated and consolidated)**

Dated as of August 6, 2019

DYNASIL CORPORATION OF AMERICA

Note Purchase Agreement
(as amended, restated and consolidated)

Dated as of August 6, 2019

INDEX

	<u>Page</u>
BACKGROUND	5
ARTICLE I	5
PURCHASE, SALE AND TERMS OF NOTES	5
1.01. The Notes	5
1.02. Purchase and Sale of Notes	6
(a) The Closing	6
(b) Use of Proceeds	6
1.03. Payments and Endorsements	6
1.04. Redemptions	6
(a) Required Redemptions	6
(b) Optional Redemptions With Premium	7
(c) Notice of Redemptions; Pro rata Redemptions	7
1.05. Payment on Non-Business Days	7
1.06. Registration, etc	7
1.07. Transfer and Exchange of Notes	7
1.08. Replacement of Notes	8
1.09. Subordination	8
(a) Payment of Senior Debt	8
(b) No Payment on Notes Under Certain Conditions	9
(c) Payments Held in Trust	9
(d) Subrogation	9
(e) Scope of Section	9
(f) Survival of Rights	10
(g) Amendment or Waiver	10
(h) Senior Debt Defined	10
(i) Subordination Agreement	10
1.10. Representations by the Purchaser	11
1.11. Disclosure of Information by the Purchaser	11
ARTICLE II	12
CONDITIONS TO PURCHASER'S OBLIGATION	12

	<u>Page</u>
2.01. Representations and Warranties	12
2.02. Documentation at Closing	12
ARTICLE III	14
REPRESENTATIONS AND WARRANTIES	14
3.01. Organization and Standing	14
3.02. Corporate Action	14
3.03. Governmental Approvals	14
3.04. Litigation	15
3.05. Compliance with Other Instruments	15
3.06. Federal Reserve Regulations	15
3.07. Title to Assets, Patents	15
3.08. Financial Information	16
3.09. Taxes	16
3.10. ERISA	16
3.11. Transactions with Affiliates	17
3.12. Assumptions or Guaranties of Indebtedness of Other Persons	17
3.13. Investments in Other Persons	17
3.14. Equal Employment Opportunity	17
3.15. Status of Notes as Qualified Investments	18
3.16. Securities Act	18
3.17. Disclosure	18
3.18. No Brokers or Finders	19
3.19. Other Agreements of Officers	19
3.20. Capitalization; Status of Capital Stock	19
3.21. Labor Relations	19
3.22. Insurance	19
3.23. Books and Records	19
3.24. Foreign Corrupt Practices Act	20
3.25. Solvency, Etc	20
3.26. Prior Purchase Agreement	20
ARTICLE IV	20
COVENANTS OF THE COMPANY	20
4.01. Affirmative Covenants of the Company	20
(a) Punctual Payment	20
(b) Payment of Taxes and Trade Debt	20
(c) Maintenance of Insurance	21
(d) Preservation of Corporate Existence	21
(e) Compliance with Laws	21
(f) Visitation Rights	21
(g) Keeping of Records and Books of Account	21
(h) Maintenance of Properties, etc	22
(i) Compliance with ERISA	22

	Page
(j) Maintenance of Consolidated Maximum Leverage Ratio	22
(k) Maintenance of Debt Service Coverage	22
(l) Foreign Corrupt Practices Act	22
(m) Equal Employment Opportunity	22
(n) Status of Notes as Qualified Investments	23
(o) Compensation	23
(p) Compliance with Security Documents	23
(q) Additional Subsidiaries	23
4.02. Negative Covenants of the Company	24
(a) Liens	25
(b) Indebtedness	25
(c) Lease Obligations	25
(d) Assumptions or Guaranties of Indebtedness of Other Persons	25
(e) Mergers, Sale of Assets, etc	25
(f) Investments in Other Persons	26
(g) Distributions	26
(h) Dealings with Affiliates	27
(i) Maintenance of Ownership of Subsidiaries	27
(j) Change in Nature of Business	27
4.03. Reporting Requirements	27
ARTICLE V	28
EVENTS OF DEFAULT	28
5.01. Events of Default	28
5.02. Annulment of Defaults	30
ARTICLE VI	30
DEFINITIONS AND ACCOUNTING TERMS	30
6.01. Certain Defined Terms	30
6.02. Accounting Terms	34
ARTICLE VII	34
MISCELLANEOUS	34
7.01. No Waiver; Cumulative Remedies	34
7.02. Amendments, Waivers and Consents	34
7.03. Addresses for Notices, etc	35
7.04. Costs, Expenses and Taxes	35
7.05. Binding Effect; Assignment	36
7.06. Survival of Representations and Warranties	36
7.07. Prior Agreements	36
7.08. Severability	36
7.09. Governing Law; Construction; Forum Selection	36
7.10. Headings	37

	<u>Page</u>
7.11. Sealed Instrument	37
7.12. Counterparts	37
7.13. Further Assurances	37

EXHIBITS

1.01	Form of Notes
3.01	Schedule of Subsidiaries
3.05	Schedule of Indebtedness
3.07	Schedule of Mortgages, Pledges, etc.
3.10	Schedule of ERISA Plans
3.11	Schedule of Transactions with Affiliates

DYNASIL CORPORATION OF AMERICA
44 Hunt Street
Watertown, Massachusetts 02472

As of August 6, 2019

Massachusetts Capital Resource Company
420 Boylston Street
Boston, Massachusetts 02116

Re: Notes due 2026

Gentlemen:

Dynasil Corporation of America, a Delaware corporation (the "Company"), hereby agrees with **Massachusetts Capital Resource Company** (the "Purchaser") as follows:

BACKGROUND

The Company and the Purchaser are parties to that certain: (i) Note Purchase Agreement, dated as of July 31, 2012, as amended, (the "Prior Purchase Agreement") pursuant to which the Company issued to the Purchaser the Company Note, due November 30, 2021, in the original principal amount of \$3,000,000, which Note has a present outstanding principal balance of \$865,216 (the "Prior Note");

The Company has requested: (i) an additional loan of \$2,000,000 from the Purchaser, in accordance with the terms and conditions of this Agreement, and (ii) that the Prior Purchase Agreements be amended, restated and consolidated into one Purchase Agreement with the new loan and that the Prior Notes and the note presenting the new loan be consolidated into one Note which will be due July 31, 2026. The consolidated Note will be in the original aggregate principal amount of \$2,865,216, which will be issued for \$2,000,000 in cash and the exchange of the Prior Note which has an outstanding principal amount of \$865,216.

ARTICLE I

PURCHASE, SALE AND TERMS OF NOTES

1.01. The Notes. The Company has authorized the issuance and sale to the Purchaser of the Company's Notes, due 2026, in the original principal amount of \$2,865,216. The Notes shall be substantially in the form set forth in Exhibit 1.01 hereto and are herein referred to individually as a "Note" and collectively as the "Notes", which terms shall also include any notes delivered in exchange or replacement therefor.

1.02. Purchase and Sale of Notes.

(a) **The Closing.** The Company agrees to issue to the Purchaser, and, subject to and in reliance upon the representations, warranties, terms and conditions of this Agreement, the Purchaser agrees to purchase, the Notes for an aggregate purchase price of \$2,865,216. Such purchase and sale shall take place at a closing (the "Closing") to be held at the Law Office of George W. Thibeault, 60 State Street, Suite 700, Boston, Massachusetts, 02109 on August 6, 2019 at 1:00 P.M. or on such other date and at such time as may be mutually agreed upon. At the Closing the Company will initially issue one Note, payable to the order of the Purchaser, in the principal amount of \$2,865,216, and Purchaser shall tender a wire transfer to the Company in the amount of \$2,000,000, and the exchange of the Prior Note having an aggregate outstanding principal balance of \$865,216, all in payment of the full purchase price for the Notes. In addition, the Company will deliver to the Purchaser, at the Closing, a check or wire transfer for all accrued and unpaid interest on the Prior Note, calculated through the Closing

(b) **Use of Proceeds.** The Company agrees to use the full proceeds from the sale of the Notes solely to assist in a stock buyback and refinancing of existing indebtedness and for working capital and agrees that full proceeds from the sale of the Notes will be utilized for purposes which increase or maintain equal opportunity employment in the Commonwealth of Massachusetts.

1.03. Payments and Endorsements. Payments of principal, interest and premium, if any, on the Notes, shall be made directly by check duly mailed or delivered to the Purchaser at its address referred to in Section 7.03 hereof or, if requested by the Purchaser, by wire transfer to an account designated by the Purchaser, without any presentment or notation of payment, except that prior to any transfer of any Note, the holder of record shall endorse on such Note a record of the date to which interest has been paid and all payments made on account of principal of such Note.

1.04. Redemptions.

(a) **Required Redemptions.** Beginning on and with August 31, 2022, and on the last day of each calendar month thereafter through and including July 31, 2026, the Company will redeem, without premium, \$59,692.00 in principal amount of the Notes, or such lesser amount as may be then outstanding, together with all accrued and unpaid interest then due on the amount so redeemed. On the stated or accelerated maturity of the Notes, the Company will pay the principal amount of the Notes then outstanding together with all accrued and unpaid interest then due thereon. No optional redemption of less than all of the Notes shall affect the obligation of the Company to make the redemptions required by this subsection.

(b) Optional Redemptions With Premium. The Company may at any time redeem the Notes in whole or in part (in integral multiples of \$50,000) together with interest due on the amount so redeemed through the date of redemption, and a premium equal to the percentage of the principal amount of the Notes redeemed under this subsection applicable to the period in which such redemption is made, as follows:

<u>Period Ending</u>	<u>Premium</u>
August 31, 2020	2.0%
August 31, 2021	1.0%
thereafter	0%

(c) Notice of Redemptions; Pro rata Redemptions. Notice of any optional redemptions pursuant to subsection 1.04(b) shall be given to all registered holders of the Notes at least ten (10) business days prior to the date of such redemption. Each redemption of Notes pursuant to subsections 1.04(a) or (b) shall be made so that the Notes then held by each holder shall be redeemed in a principal amount which shall bear the same ratio to the total principal amount of Notes being redeemed as the principal amount of Notes then held by such holder bears to the aggregate principal amount of the Notes then outstanding.

1.05. Payment on Non-Business Days. Whenever any payment to be made shall be due on a Saturday, Sunday or a public holiday under the laws of the Commonwealth of Massachusetts, such payment may be made on the next succeeding business day, and such extension of time shall in such case be included in the computation of payment of interest due.

1.06. Registration, etc. The Company shall maintain at its principal office a register of the Notes and shall record therein the names and addresses of the registered holders of the Notes, the address to which notices are to be sent and the address to which payments are to be made as designated by the registered holder if other than the address of the holder, and the particulars of all transfers, exchanges and replacements of Notes. No transfer of a Note shall be valid unless made on such register for the registered holder or his executors or administrators or his or their duly appointed attorney, upon surrender thereof for exchange as hereinafter provided, accompanied by an instrument in writing, in form and execution reasonably satisfactory to the Company. Each Note issued hereunder, whether originally or upon transfer, exchange or replacement of a Note or Notes, shall be registered on the date of execution thereof by the Company and shall be dated the date to which interest has been paid on such Notes or Note. The registered holder of a Note shall be that Person in whose name the Note has been so registered by the Company. A registered holder shall be deemed the owner of a Note for all purposes of this Agreement and, subject to the provisions hereof, shall be entitled to the principal, premium, if any, and interest evidenced by such Note free from all equities or rights of setoff or counterclaim between the Company and the transferor of such registered holder or any previous registered holder of such Note.

1.07. Transfer and Exchange of Notes. The registered holder of any Note or Notes may, prior to maturity or prepayment thereof, surrender such Note or Notes at the principal office of the Company for transfer or exchange. Within a reasonable time after notice to the Company from a registered holder of its intention to make such exchange and without expense (other than transfer taxes, if any) to such registered holder, the Company shall issue in exchange therefor another Note or Note, in such denominations as requested by the registered holder, for the same aggregate principal amount as the unpaid principal amount of the Note or Notes so surrendered, and having the same maturity and rate of interest, containing the same provisions and subject to the same terms and conditions as the Note or Notes so surrendered. Each new Note shall be made payable to such Person or Persons, or registered assigns, as the registered holder of such surrendered Note or Notes may designate, and such transfer or exchange shall be made in such a manner that no gain or loss of principal or interest shall result therefrom.

1.08. Replacement of Notes. Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of any Note and, if requested in the case of any such loss, theft or destruction, upon delivery of an indemnity bond or other agreement or security reasonably satisfactory to the Company, or, in the case of any such mutilation, upon surrender and cancellation of such Note, the Company will issue a new Note, of like tenor and amount and dated the date to which interest has been paid, in lieu of such lost, stolen, destroyed or mutilated Note; provided, however, if any Note of which Massachusetts Capital Resource Company, its nominee, or any of its partners is the registered holder is lost, stolen or destroyed, the affidavit of the President, Treasurer or any Assistant Treasurer of the registered holder setting forth the circumstances with respect to such loss, theft or destruction shall be accepted as satisfactory evidence thereof, and no indemnification bond or other security shall be required as a condition to the execution and delivery by the Company of a new Note in replacement of such lost, stolen or destroyed Note other than the registered holder's written agreement to indemnify the Company.

1.09. Subordination. The Company, for itself, its successors and assigns, covenants and agrees, and the Purchaser and each successor holder of the Notes by its acceptance thereof, likewise covenants and agrees, that notwithstanding any other provision of this Agreement or the Notes, the payment of the principal of and interest on each and all of the Notes shall be subordinated in right of payment, to the extent and in the manner hereinafter set forth, to the prior payment in full of all Senior Debt (as hereinafter defined) at any time outstanding. The provisions of this Section 1.09 shall constitute a continuing representation to all Persons who, in reliance upon such provisions, become the holders of or continue to hold Senior Debt, and such provisions are made for the benefit of the holders of Senior Debt, and such holders are hereby made obligees hereunder the same as if their names were written herein as such, and they or any of them may proceed to enforce such provisions against the Company or against the holder of any Note without the necessity of joining the Company as a party.

(a) Payment of Senior Debt. In the event of any insolvency or bankruptcy proceedings, or any receivership, liquidation, reorganization or other similar proceedings in connection therewith, relative to the Company or to its property, or, in the event of any proceedings for voluntary liquidation, dissolution or other winding up of the Company or distribution or marshalling of its assets or any composition with creditors of the Company, whether or not involving insolvency or bankruptcy, then and in any such event all Senior Debt shall be paid in full before any payment or distribution of any character, whether in cash, securities or other property, shall be made on account of the Notes; and any such payment or distribution, except securities which are subordinated and junior in right of payment to the payment of all Senior Debt then outstanding in terms of substantially the same tenor as this Section 1.09, which would, but for the provisions hereof, be payable or deliverable in respect of the Notes shall be paid or delivered directly to the holders of Senior Debt (or their duly authorized representatives), in the proportions in which they hold the same, until all Senior Debt shall have been paid in full, and every holder of the Notes by becoming a holder thereof shall have designated and appointed the holder or holders of Senior Debt (and their duly authorized representatives) as his or its agents and attorney-in-fact to demand, sue for, collect and receive such Senior Debt holder's ratable share of all such payments and distributions and to file any necessary proof of claim therefor and to take all such other action in the name of the holders of the Notes or otherwise, as such Senior Debt holders (or their authorized representatives) may determine to be necessary or appropriate for the enforcement of this Section 1.09. The Purchaser and each successor holder of the Notes by its or his acceptance thereof agrees to execute, at the request of the Company, a separate agreement with any holder of Senior Debt on the terms set forth in this Section 1.09, and to take all such other action as such holder or such holder's representative may request in order to enable such holder to enforce all claims upon or in respect of such holder's ratable share of the Notes.

(b) No Payment on Notes Under Certain Conditions. In the event that any default occurs in the payment of the principal of or interest on any Senior Debt (whether as a result of the acceleration thereof by the holders of such Senior Debt or otherwise) and during the continuance of such default for a period up to one hundred twenty (120) days and thereafter if judicial proceedings shall have been instituted with respect to such defaulted payment, or (if a shorter period) until such payment has been made or such default has been cured or waived in writing by such holder of Senior Debt then and during the continuance of such event no payment of principal or interest on the Notes shall be made by the Company or accepted by any holder of the Notes who has received notice from the Company or from a holder of Senior Debt of such events.

(c) Payments Held in Trust. In case any payment or distribution shall be paid or delivered to any holder of the Notes before all Senior Debt shall have been paid in full, despite or in violation or contravention of the terms of this subordination, such payment or distribution shall be held in trust for and paid and delivered ratably to the holders of Senior Debt (or their duly authorized representatives), until all Senior Debt shall have been paid in full.

(d) Subrogation. Subject to the payment in full of all Senior Debt and until the Notes shall be paid in full, the holders of the Notes shall be subrogated to the rights of the holders of Senior Debt (to the extent of payments or distributions previously made to such holders of Senior Debt pursuant to the provisions of subsections (a) and (c) of this Section 1.09) to receive payments or distributions of assets of the Company applicable to the Senior Debt. No such payments or distributions applicable to the Senior Debt shall, as between the Company and its creditors, other than the holders of Senior Debt and the holders of the Notes, be deemed to be a payment by the Company to or on account of the Notes; and for the purposes of such subrogation, no payments or distributions to the holders of Senior Debt to which the holders of the Notes would be entitled except for the provisions of this Section 1.09 shall, as between the Company and its creditors, other than the holders of Senior Debt and the holders of the Notes, be deemed to be a payment by the Company to or on account of the Senior Debt.

(e) Scope of Section. The provisions of this Section 1.09 are intended solely for the purpose of defining the relative rights of the holders of the Notes, on the one hand, and the holders of the Senior Debt, on the other hand. Nothing contained in this Section 1.09 or elsewhere in this Agreement or the Notes is intended to or shall impair, as between the Company, its creditors other than the holders of Senior Debt, and the holders of the Notes, the obligation of the Company, which is unconditional and absolute, to pay to the holders of the Notes the principal of and interest on the Notes as and when the same shall become due and payable in accordance with the terms thereof, or to affect the relative rights of the holders of the Notes and creditors of the Company other than the holders of the Senior Debt, nor shall anything herein or therein prevent the holder of any Note from accepting any payment with respect to such Note or exercising all remedies otherwise permitted by applicable law upon default under such Note, subject to the rights, if any, under this Section 1.09 of the holders of Senior Debt in respect of cash, property or securities of the Company received by the holders of the Notes.

(f) Survival of Rights. The right of any present or future holder of Senior Debt to enforce subordination of the Notes pursuant to the provisions of this Section 1.09 shall not at any time be prejudiced or impaired by any act or failure to act on the part of the Company or any such holder of Senior Debt, including, without limitation, any forbearance, waiver, consent, compromise, amendment, extension, renewal, or taking or release of security of or in respect of any Senior Debt or by noncompliance by the Company with the terms of such subordination regardless of any knowledge thereof such holder may have or otherwise be charged with.

(g) Amendment or Waiver. The provisions of this Section 1.09 may not be amended or waived in any manner which is detrimental to any Senior Debt without the consent of the holders of all then existing Senior Debt.

(h) Senior Debt Defined. The term "Senior Debt" shall mean (i) all Indebtedness of the Company for money borrowed from banks or other institutional lenders, including without limitation Middlesex Savings Bank, including any extension or renewals thereof, whether outstanding on the date hereof or thereafter created or incurred, which is not by its terms subordinate and junior to or on a parity with the Notes and which is permitted hereby at the time it is created or incurred, and (ii) all guaranties by the Company which are not by their terms subordinate and junior to or on a parity with the Notes and which are permitted hereby at the time they are made, of Indebtedness of any Subsidiary if such Indebtedness would have been Senior Debt pursuant to the provisions of clause (i) of this sentence had it been Indebtedness of the Company. In making any loans which are (or the guaranties of which are) intended to be Senior Debt, the lenders or purchasers shall be entitled to rely as to the fact that such Indebtedness or guaranty is permitted hereby upon a certificate by the Company's chief financial officer purporting to show such Indebtedness or guaranty will not result in the Company's failure to comply with the provisions of Article IV hereof as of the date of the loan or guarantee.

(i) Subordination Agreement. For as long as there shall be any outstanding Liabilities (as such term is defined in that certain Subordination Agreement, dated as of May 1, 2014, between Middlesex Savings Bank, and the Company, as amended, modified or restated from time to time, the "Subordination Agreement") or any obligation of any nature on the part of Middlesex Savings Bank, or its successors or assigns, to extend credit, or make loans or advances to the Company or any Subsidiary, the terms and conditions of the Subordination Agreement shall supercede and replace all of the terms and conditions of this Section 1.09, except for clause (h) above and this clause (i).

1.10. Representations by the Purchaser. The Purchaser represents and warrants that:

- (a) Accredited Investor. Purchaser is an “accredited investor,” as defined in SEC Rule 501(a).
- (b) Notes not Registered. Purchaser acknowledges that the sale of the Notes has not been registered under the U.S. Securities Act of 1933 (the “Securities Act”) or any state securities law in reliance on Purchaser’s representations herein, and that no government agency has approved of the offering of the Notes.
- (c) Acquisition for Own Account. Purchaser is acquiring the Notes solely for its own account for investment and not with a view to or any present intention of selling, offering to sell, or otherwise disposing of or distributing the Notes or any portion thereof.
- (d) Availability of Information. Purchaser understands that the Notes are being sold without any particular prospectus or offering document, and that no government agency has approved of the adequacy or accuracy of the information provided to Purchaser. Purchaser has discussed the Company and its plans, technology, operations, financial condition, and prospects with its officers and/or directors. Purchaser has received satisfactory responses to all its inquiries and all such information as Purchaser deems necessary and appropriate to enable it to evaluate the risks inherent in making an investment in the Notes.
- (e) Investment Involves Substantial Risk and Illiquidity. Purchaser acknowledges that (i) the Company’s technology and business prospects are unproven, (ii) the acquisition of the Notes is a highly speculative investment involving substantial risk, (iii) there is not and may never be any market for the Notes, and (iv) it may be required to hold the Notes until maturity. Purchaser does not anticipate needing liquidity for the Notes, and it is able, without impairing its financial condition, to suffer a complete loss of its investment in the Notes.
- (f) Restrictions on Transfer. Purchaser understands that it may not sell, pledge or otherwise transfer any Notes unless the Company registers such Notes under the Securities Act and applicable state laws or unless an exemption from such registration requirements is available. Purchaser understands that the Company is under no obligation to register any transfer of the Notes by it unless such Notes are registered under the Securities Act and applicable state laws or unless an exemption from such registration requirements is available and that exemptions from registration may not be available or may not permit it to transfer or resell all or any Notes in the amounts or at the times proposed by Purchaser.

1.11. Disclosure of Information by the Purchaser. The Company understands that the Purchaser is a special purpose limited partnership organized under Chapter 109 of the General Laws of the Commonwealth of Massachusetts and Chapter 816 of the Acts and Resolves of 1977 of the Commonwealth of Massachusetts (the “Capital Resource Company Act”), and as such, in accordance with such provisions, the Purchaser, in order to obtain certain benefits for itself and its partners, is required to file certain reports and otherwise disclose information relating to the business, financial affairs, and future prospects of the Company and its affiliates (as defined in the aforesaid legislation) with the Clerk of the Senate and the Clerk of the House of Representatives of the General Court of the Commonwealth of Massachusetts, the Secretary of Manpower Affairs, the Commissioner of Insurance and the Department of Revenue of the Commonwealth of Massachusetts, and that such reports and other information may constitute “public records” within the purview of Section 7 of Chapter 4 of the General Laws of the Commonwealth of Massachusetts. In addition, information relating to the business, financial affairs and future prospects of the Company and its affiliates must be disclosed to others in order to obtain independent confirmation that financing on substantially similar terms to financing provided pursuant to this Agreement was not elsewhere available to the Company. The Company hereby authorizes the Purchaser to disclose all such information relating to the business, financial affairs and future prospects of the Company and its affiliates as has been or may in the future be presented to the Purchaser to all such persons as the Purchaser in good faith deems necessary or appropriate in order to fulfill its obligations under the Capital Resource Company Act. The Purchaser understands and has been advised that the provisions of SEC Regulation FD requires the public announcement of previously non-public material information if that information is disclosed to anyone who has not agreed to maintain the confidentiality of that information, and Purchaser agrees to take no action that would require the Company to make a public announcement pursuant to the requirements of Regulation FD, except as required by law, in which case Purchaser shall use reasonable efforts to give the Company written notice of the proposed action a reasonable time in advance of such proposed action; provided, however, that the Purchaser shall have no liability for failure to give such notice.

ARTICLE II

CONDITIONS TO PURCHASER'S OBLIGATION

The obligation of the Purchaser to purchase and pay for the Notes at the Closing is subject to the following conditions:

2.01. Representations and Warranties. Each of the representations and warranties of the Company set forth in Article III hereof shall be true in all material respects on the date of the Closing.

2.02. Documentation at Closing. The Purchaser shall have received prior to or at the Closing all of the following, each in form and substance satisfactory to the Purchaser and its counsel:

(a) The Company shall have executed and delivered to the Purchaser a Confirmation of the Security Agreement between the Company and the Purchaser, dated July 31, 2012 (as amended prior to the date hereof and as amended hereby, the "Company Security Agreement"), such Confirmation to be in form and substance acceptable to the Purchaser.

(b) Each Subsidiary shall have executed and delivered to the Purchaser a Confirmation of its Unconditional Guaranty, dated July 31, 2012 (as amended prior to the date hereof and as amended hereby, individually, a "Guaranty", and collectively, the "Guaranties"), each such Confirmation to be in form and substance acceptable to the Purchaser.

(d) Each Subsidiary shall have executed and delivered to the Purchaser a Confirmation of its Guarantor Security Agreement, dated July 31, 2012, (individually, “Guarantor Security Agreement”, and collectively, the “Guarantor Security Agreements”, and, together with the Company Security Agreement, the Guaranties, the “Security Documents”), each such Confirmation to be in form and substance acceptable to the Purchaser.

(e) The Company shall deliver to the Purchaser the consent of the Middlesex Savings Bank to this Agreement and the transactions contemplated herein, such consent being delivered pursuant to the Subordination Agreement.

(f) A certified copy of all charter documents of the Company and each Subsidiary, which have been amended on or after July 31, 2012; a certified copy of the resolutions of the Board of Directors and, to the extent required, the stockholders of the Company and each Subsidiary evidencing approval of this Agreement, the Notes, the Security Documents and other matters contemplated hereby; a certified copy of the By-laws of the Company and each Subsidiary, which have been changed on or after July 31, 2012; and certified copies of all documents evidencing other necessary corporate or other action and governmental approvals, if any, with respect to this Agreement, the Notes and the Security Documents.

(g) A favorable opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C, counsel for the Company and its Subsidiaries, similar to the opinion delivered in connection with the Prior Purchase Agreement.

(h) A certificate of the Secretary or an Assistant Secretary from the Company and each Subsidiary which shall certify the names of the officers of the Company and such Subsidiary authorized to sign this Agreement, the Notes, Confirmations of the Security Documents and the other documents or certificates to be delivered pursuant to this Agreement or the Security Documents by the Company and each Subsidiary, or any of its officers, together with the true signatures of such officers. The Purchaser may conclusively rely on such certificates until it shall receive a further certificate of the Secretary or an Assistant Secretary of the Company or such Subsidiary canceling or amending the prior certificate and submitting the signatures of the officers named in such further certificate.

(i) A certificate from a duly authorized officer of the Company stating that (i) the representations and warranties of the Company contained in Article III hereof and otherwise made by the Company and any Subsidiary in writing in connection with the transactions contemplated hereby are true and correct, (ii) each of the transactions contemplated in Section 2.02 has been fully consummated, and (iii) that no condition or event has occurred or is continuing or will result from execution and delivery of this Agreement, the Notes or the Confirmations of the Security Documents which constitute an Event of Default or would constitute an Event of Default but for the requirement that notice be given or time elapse or both.

(j) Payment for the costs, expenses, taxes and filing fees identified in Section 7.04 as to which the Purchaser gives the Company notice prior to the Closing.

ARTICLE III

REPRESENTATIONS AND WARRANTIES

The Company represents and warrants as follows:

3.01. Organization and Standing. The Company and each Subsidiary is a duly organized and validly existing corporation or limited liability company, as the case may be, in good standing under the laws of the jurisdiction in which it was organized and has all requisite power and authority for the ownership and operation of its properties and for the carrying on of its business as now conducted and as now proposed to be conducted. The Company and each Subsidiary is duly licensed or qualified and in good standing as a foreign corporation or limited liability company, as the case may be, authorized to do business in all jurisdictions wherein the character of the property owned or leased, or the nature of the activities conducted, by it makes such licensing or qualification necessary, except where the failure to be so qualified and in good standing would not reasonably be expected to have a material adverse effect on the Company and its Subsidiaries, taken as a whole. Attached hereto as Exhibit 3.01 is a schedule which correctly identifies all Subsidiaries of the Company as of the date hereof and shows with respect to each Subsidiary its jurisdiction of organization. All of the outstanding capital stock or membership interest of each Subsidiary has been duly authorized and validly issued, is fully paid and nonassessable, and is owned beneficially and of record by the Company or by another Subsidiary as indicated in Exhibit 3.01, free and clear of any lien, right, encumbrance or restriction of any nature, including, without limitation, any lien, right, encumbrance or restriction on transfer, except as is otherwise set forth in Exhibit 3.01.

3.02. Corporate Action. The Company and each Subsidiary has all necessary corporate power and has taken all corporate action required to make all the provisions of this Agreement, the Notes, the Security Documents and any other agreements and instruments executed by it in connection herewith and therewith the valid and enforceable obligations they purport to be. The issuance of the Notes is not subject to preemptive or other similar statutory or contractual rights and will not conflict with any provisions of any agreement or instrument to which the Company or any Subsidiary is a party or by which it is bound.

3.03. Governmental Approvals. No authorization, consent, approval, license, exemption of or filing or registration with any court or governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, is or will be necessary for, or in connection with, the offer, issuance, sale, execution or delivery by the Company or any Subsidiary of, or for the performance by it of its obligations under, this Agreement, the Notes or the Security Documents, except for filings required in connection with the grant of the security interests pursuant to the Security Documents .

3.04. Litigation. There is no litigation or governmental proceeding or investigation pending or, to the knowledge of the Company, threatened against the Company or any Subsidiary affecting any of its properties or assets, or against any officer, key employee or principal stockholder of the Company or any Subsidiary where such litigation, proceeding or investigation, either individually or in the aggregate, would have a material adverse effect on the Company and its Subsidiaries, taken as a whole, nor, to the knowledge of the Company, has there occurred any event or does there exist any condition on the basis of which any litigation, proceeding or investigation might properly be instituted. Neither the Company nor any Subsidiary, nor, to the knowledge of the Company, any officer or key employee of the Company or any Subsidiary, or principal stockholder of the Company or any Subsidiary, is in default with respect to any order, writ, injunction, decree, ruling or decision of any court, commission, board or other government agency affecting the Company or any Subsidiary. There are no actions or proceedings pending or threatened (or any basis therefor known to the Company) which might result, either in any case or in the aggregate, in any material adverse change in the business, operations, affairs or condition of the Company and its Subsidiaries, taken as a whole, or in any of its properties or assets, or which might call into question the validity of this Agreement, the Notes, the Security Documents or any action taken or to be taken pursuant hereto or thereto.

3.05. Compliance with Other Instruments. The Company and each Subsidiary is in compliance in all respects with the terms and provisions of this Agreement and of its charter, by-laws or operating agreement, as the case may be, and in all material respects with the terms and provisions of the mortgages, indentures, leases, agreements and other instruments and of all judgments, decrees, governmental orders, statutes, rules and regulations by which it is bound or to which its properties or assets are subject. There is no term or provision in any of the foregoing documents and instruments which materially adversely affects the business, assets or financial condition of the Company or any Subsidiary. Except for consent from Middlesex Savings Bank being obtained contemporaneously herewith, neither the execution and delivery of this Agreement, the Notes or the Security Documents, nor the consummation of any transactions contemplated hereby or thereby has constituted or resulted in or will constitute or result in a default or violation of any term or provision in any of the foregoing documents or instruments. A consolidated schedule of Indebtedness of the Company and each Subsidiary (including lease obligations required to be capitalized in accordance with applicable Statements of Financial Accounting Standards), as of the date of this Agreement, is attached as Exhibit 3.05.

3.06. Federal Reserve Regulations. Neither the Company nor any Subsidiary is engaged in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulation U of the Board of Governors of the Federal Reserve System), and no part of the proceeds of the Notes will be used to purchase or carry any margin security or to extend credit to others for the purpose of purchasing or carrying any margin security or in any other manner which would involve a violation of any of the regulations of the Board of Governors of the Federal Reserve System.

3.07. Title to Assets, Patents. Except as is set forth in Exhibit 3.07, the Company and each Subsidiary has good and clear record and marketable title in fee to such of its fixed assets as are real property, and good and merchantable title to all of its other assets, now carried on its books including those reflected in the most recent consolidated balance sheet of the Company and its Subsidiaries which forms a part of Exhibit 3.08 attached hereto, or acquired since the date of such balance sheet (except personal property disposed of since said date in the ordinary course of business) free of any mortgages, pledges, charges, liens, security interests or other encumbrances. The Company and each Subsidiary enjoys peaceful and undisturbed possession under all leases under which it is operating, and all said leases are valid and subsisting and in full force and effect. The Company and each Subsidiary, to the best of their knowledge at the time of execution, owns or has a valid right to use the patents, patent rights, licenses, permits, trade secrets, trademarks, trademark rights, trade names or trade name rights or franchises, copyrights, inventions and intellectual property rights being used to conduct its business as now operated and as now proposed to be operated; and the conduct of its business as now operated and as now proposed to be operated does not and will not conflict with valid patents, patent rights, licenses, permits, trade secrets, trademarks, trademark rights, trade names or trade name rights or franchises, copyrights, inventions and intellectual property rights of others. Neither the Company nor any Subsidiary has any obligation to compensate any Person for the use of any such patents or such rights nor has the Company or any Subsidiary granted to any Person any license or other rights to use in any manner any of such patents or such rights of the Company or any Subsidiary.

3.08. Financial Information. The consolidated financial statements of the Company and its Subsidiaries set forth in the Company's Form 10-K for its fiscal year ended September 30, 2018 (the "Form 10-K") and in its Form 10-Q for the quarter ended March 31, 2019 (the "Form 10-Q"), both as filed with the Securities and Exchange Commission (the "SEC"), present fairly in all material respects the consolidated financial position of the Company and its Subsidiaries as at the dates thereof and its results of operations for the periods covered thereby and have been prepared in accordance with GAAP. Neither the Company nor any Subsidiary has any liability contingent or otherwise not disclosed in the aforesaid financial statements or in the notes thereto that would reasonably be expected, together with all such other liabilities, materially affect the financial condition of the Company or any Subsidiary, nor does the Company have any reasonable grounds to know of any such liability. Since the date of said September 30, 2018 audited financial statements, except as has been disclosed in the Company's reports filed with the SEC and which are publicly available on the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system (the "SEC Reports"), (i) there has been no material adverse change in the business, assets or condition, financial or otherwise, operations or prospects, of the Company or any Subsidiary; (ii) neither the business, condition, operations or prospects of the Company or any Subsidiary nor any of their properties or assets has been adversely affected as a result of any legislative or regulatory change, any revocation or change in any franchise, license or right to do business, or any other event or occurrence, whether or not insured against; and (iii) neither the Company nor any Subsidiary has entered into any material transaction or made any distribution on its capital stock except as is set forth in the Form 10-K or Form 10-Q.

3.09. Taxes. The Company and each Subsidiary has accurately prepared in all material respects and filed all federal, state and other tax returns required by law to be filed by it, and all taxes shown to be due and all additional assessments have been paid or provision made therefor. The Company knows of no additional assessments or adjustments pending or threatened against the Company or any Subsidiary for any period, nor of any basis for any such assessment or adjustment.

3.10. ERISA. Except as is set forth in Exhibit 3.10, no employee benefit plan established or maintained, or to which contributions have been made, by the Company or any Subsidiary, which is subject to part 3 of Subtitle B of Title I of The Employee Retirement Income Security Act of 1974, as amended ("ERISA") had an accumulated funding deficiency (as such term is defined in Section 302 of ERISA) as of the last day of the most recent fiscal year of such plan ended prior to the date hereof, and no material liability to the Pension Benefit Guaranty Corporation has been incurred with respect to any such plan by the Company or any of its Subsidiaries.

3.11. Transactions with Affiliates. Except as is set forth in Exhibit 3.11, there are no loans, leases, royalty agreements or other continuing transactions between the Company or any Subsidiary and any Person owning five percent (5%) or more of any class of capital stock of the Company or any Subsidiary or other entity controlled by such stockholder or a member of such stockholder's family.

3.12. Assumptions or Guaranties of Indebtedness of Other Persons. Except for the Guaranties, neither the Company nor any Subsidiary has assumed, guaranteed, endorsed or otherwise become directly or contingently liable on (including, without limitation, liability by way of agreement, contingent or otherwise, to purchase, to provide funds for payment, to supply funds to or otherwise invest in the debtor or otherwise to assure the creditor against loss) any Indebtedness of any other Person.

3.13. Investments in Other Persons. Neither the Company nor any Subsidiary has made any loan or advance to any Person which is outstanding on the date of this Agreement, nor is the Company or any Subsidiary obligated or committed to make any such loan or advance, nor does the Company or any Subsidiary own any capital stock or assets comprising the business of, obligations of, or any interest in, any Person.

3.14. Equal Employment Opportunity. The Company has reviewed its employment practices and policies and those of each Subsidiary and, to its knowledge, the Company and each Subsidiary is in full compliance with (a) all applicable laws of the United States, of the Commonwealth of Massachusetts and of each other applicable jurisdiction, relating to equal employment opportunity (including, without limitation, Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. §000e-17), the Age Discrimination in Employment Act of 1967, as amended (29 U.S.C. §§621-634), the Equal Pay Act of 1963 (29 U.S.C. §206(d)), and any rules, regulations and administrative orders and Executive Orders relating thereto; Mass. Gen. Laws. c. 151B, Mass. Gen. Laws c. 149 §24A et seq. and §105A et seq., and any rules or regulations relating thereto; and (b) the applicable terms, relating to equal employment opportunity, of any contract, agreement or grant the Company or any Subsidiary has with, from, or relating (by way of subcontract or otherwise) to any other contract, agreement or grant of, any federal or state governmental unit ("Government Contract"), including, without limitation, any terms required pursuant to Federal Executive Order No. 11246 and Massachusetts Executive Order No. 74 (both as amended). To the Company's knowledge, it and each Subsidiary has kept all records required to be kept, and has filed all reports, affirmative action plans and forms (including, without limitation and where applicable, Form EEO-1) required to be filed pursuant to any such applicable law or the terms of any such Government Contract. Neither the Company nor any Subsidiary has been subject to any adverse final determination or order, with respect to any charge of employment discrimination made against it, by the United States Equal Employment Opportunity Commission, the Massachusetts Commission Against Discrimination or any other governmental unit (including, without limitation, any such governmental unit with which it has a Government Contract), and neither the Company nor any Subsidiary is presently, to the Company's knowledge, subject to any formal proceedings before, or investigations by, such commissions or governmental units.

3.15. Status of Notes as Qualified Investments. The Company has duly authorized the execution and delivery to the Purchaser on behalf of the Company of the certificate attached as Exhibit 3.15 hereto, setting forth such statements, information and related data as are necessary to permit the Purchaser to determine and demonstrate that the Notes issued pursuant to this Agreement will constitute "qualified investments" within the meaning of that term as set forth in the Capital Resource Company Act and that the full proceeds of the Notes will be used for purposes which will materially increase or maintain equal opportunity employment in the Commonwealth of Massachusetts. All such statements, information and related data presented in such certificate as are not based on estimates and projections of future events are true and correct as of the date of such certificate and all such statements, information and related data based upon estimates or projections of future events have been carefully considered and prepared on behalf of the Company.

3.16. Securities Act. Neither the Company nor anyone acting on its behalf has offered any of the Notes or similar securities, or solicited any offers to purchase or made any attempt by preliminary conversation or negotiations to dispose of the Notes or similar securities, to any Person other than the Purchaser or the institutions described in Exhibit 3.15. Neither the Company nor anyone acting on its behalf has offered or will offer to sell the Notes or similar securities to, or solicit offers with respect thereto from, or enter into any preliminary conversations or negotiations relating thereto with, any Person, so as to constitute "general solicitation" within the meaning of the Securities Act.

3.17. Disclosure. Neither this Agreement, the financial statements set forth in the Form 10-K and Form 10-Q, the notice of special meeting of stockholders to be held on August 7, 2019, and the related proxy statement as filed with the SEC on Schedule 14A, nor any other agreement, document, certificate or written statement furnished to the Purchaser or its counsel by or on behalf of the Company or any Subsidiary in connection with the transactions contemplated hereby contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein in light of the circumstances in which they were made, not misleading, it being understood and acknowledged by the Purchaser that the Form 10-K and the Form 10-Q and any other agreement, document, certificate or written statement furnished to the Purchaser or its counsel that provides information as of a previous date will be deemed in compliance with this Section 3.17 if it does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements contained herein or therein, in light of the circumstances in which they were made, not misleading, as of such prior date. There is no fact within the knowledge of the Company or any of its executive officers which has not been disclosed herein or in writing by them to the Purchaser and which materially adversely affects, or in the future in their opinion would reasonably be expected, insofar as they can now foresee, materially adversely affect the business, properties, assets or condition, financial or otherwise, of the Company and its Subsidiaries, taken as a whole.

3.18. No Brokers or Finders. No Person has or will have, as a result of the transactions contemplated by this Agreement, any right, interest or valid claim against or upon the Company or any Subsidiary for any commission, fee or other compensation as a finder or broker because of any act or omission by the Company or any Subsidiary or any agent of the Company or any Subsidiary.

3.19. Other Agreements of Officers. To the knowledge of the Company, no officer or key employee of the Company or any Subsidiary is a party to or bound by any agreement, contract or commitment, or subject to any restrictions, particularly but without limitation in connection with any previous employment of any such person, which materially and adversely affects, or in the future may (so far as the Company can reasonably foresee) materially and adversely affect, the business or operations of the Company or any Subsidiary or the right of any such person to participate in the affairs of the Company or any Subsidiary. To the knowledge of the Company, no officer or key employee has any present intention of terminating his employment with the Company or any Subsidiary and neither the Company nor any Subsidiary has any present intention of terminating any such agreement.

3.20. Capitalization; Status of Capital Stock. The Company has a total authorized and issued capitalization of the Company as set forth in the financial statements filed as part of the Form 10-Q, subject to changes based on compensatory equity grants and the exercise of compensatory stock options under the Company's equity incentive plans. All the outstanding shares of capital stock of the Company have been duly authorized, are validly issued and are fully paid and nonassessable. Except as otherwise indicated in the Form 10-Q, there are no options (other than compensatory options issued to employees, directors or consultants since March 31, 2012 under the Company's equity compensation plans), warrants or rights to purchase shares of capital stock or other securities of the Company authorized, issued or outstanding, nor is the Company obligated in any other manner to issue shares of its capital stock or other securities. The offer and sale of all shares of capital stock and other securities of the Company issued before the Closing complied with or were exempt from all federal and state securities laws.

3.21. Labor Relations. To the knowledge of the Company, no labor union or any representative thereof has made any attempt to organize or represent employees of the Company or any Subsidiary. There are no unfair labor practice charges, pending trials with respect to unfair labor practice charges, pending material grievance proceedings or adverse decisions of a Trial Examiner of the National Labor Relations Board against the Company or any Subsidiary. Furthermore, to the knowledge of the Company, relations with employees of the Company and each Subsidiary are good and there is no reason to believe that any labor difficulties will arise in the foreseeable future.

3.22. Insurance. The Company and each Subsidiary carries insurance covering its properties and business adequate and customary for the type and scope of the properties and business, but in any event in amounts sufficient to prevent the Company or any Subsidiary from becoming a co-insurer.

3.23. Books and Records. The books of account, ledgers, order books, records and documents of the Company and each Subsidiary accurately and completely reflect all material information relating to the business of the Company and each Subsidiary, the nature, acquisition, maintenance, location and collection of the assets of the Company and each Subsidiary, and the nature of all transactions giving rise to the obligations or accounts receivable of the Company and each Subsidiary.

3.24. Foreign Corrupt Practices Act. The Company has reviewed its practices and policies and that of each Subsidiary and to its knowledge and belief neither it nor any Subsidiary is engaged, nor has any officer, director, employee or agent of the Company or any Subsidiary engaged, in any act or practice which would constitute a violation of the Foreign Corrupt Practices Act of 1977, or any rules or regulations promulgated thereunder.

3.25. Solvency, Etc. After giving effect to the consummation of all of the transactions contemplated in this Agreement, the Company and its Subsidiaries, taken as a whole, (a) will be able to pay their debts as they become due, (b) will have funds and capital sufficient to carry on their business, and (c) will own property having a value both at fair valuation and at fair saleable value in the ordinary course of the Company's and its Subsidiaries' business greater than the amount required to pay their debts as they become due. The Company will not be rendered insolvent by the execution and delivery of this Agreement, the borrowing hereunder and/or the consummation of any transactions contemplated herein.

3.26. Prior Purchase Agreement. As of the date of the Closing, there will exist no Event of Default (which for this Section 3.26 shall mean that term as defined in the Prior Purchase Agreement) nor any event which, but for the requirement that notice be given or time elapse or both, would constitute an Event of Default under the Prior Purchase Agreement.

ARTICLE IV

COVENANTS OF THE COMPANY

4.01. Affirmative Covenants of the Company. Without limiting any other covenants and provisions hereof, the Company covenants and agrees that, as long as any of the Notes are outstanding, it will perform and observe the following covenants and provisions and will cause each Subsidiary to perform and observe such of the following covenants and provisions as are applicable to such Subsidiary:

(a) **Punctual Payment.** Pay the principal of, premium, if any, and interest on each of the Notes at the times and place and in the manner provided in the Notes and herein.

(b) **Payment of Taxes and Trade Debt.** Pay and discharge, and cause each Subsidiary to pay and discharge, all taxes, assessments and governmental charges or levies imposed upon it or upon its income or profits or business, or upon any properties belonging to it, prior to the date on which penalties attach thereto, and all lawful claims which, if unpaid, might become a lien or charge upon any properties of the Company or any Subsidiary, provided that neither the Company nor the Subsidiary shall be required to pay any such tax, assessment, charge, levy or claim which is being contested in good faith and by appropriate proceedings if the Company or Subsidiary concerned shall have set aside on its books adequate reserves with respect thereto. Pay and cause each Subsidiary to pay, when due, or in conformity with customary trade terms, all lease obligations, all trade debt, and all other Indebtedness incident to the operations of the Company or its Subsidiaries, except such as are being contested in good faith and by appropriate proceedings if the Company or Subsidiary concerned shall have set aside on its books adequate reserves with respect thereto.

(c) **Maintenance of Insurance.** Maintain, and cause each Subsidiary to maintain, insurance with responsible and reputable insurance companies or associations in such amounts and covering such risks as is usually carried by companies engaged in similar businesses and owning similar properties in the same general areas in which the Company or such Subsidiary operates, but in any event sufficient to prevent the Company or such Subsidiary from being a co-insurer.

(d) **Preservation of Corporate Existence.** Preserve and maintain, and cause each Subsidiary to preserve and maintain, its corporate existence, rights, franchises and privileges in the jurisdiction of its incorporation, and qualify and remain qualified, and cause each Subsidiary to qualify and remain qualified, as a foreign corporation in each jurisdiction in which such qualification is necessary or desirable in view of its business and operations or the ownership of its properties except where the failure to be so qualified or to remain qualified would not reasonably be expected to have a material adverse effect on the Company and its Subsidiaries, taken as a whole; **provided, however,** that nothing herein contained shall prevent any merger, consolidation or transfer of assets permitted by subsection 4.02(e). Preserve and maintain, and cause each Subsidiary to preserve and maintain, all licenses and other rights to use patents, processes, licenses, trademarks, trade names, inventions, intellectual property rights or copyrights owned or possessed by it and necessary to the conduct of its business except those licenses or other rights the failure to so preserve or maintain would not reasonably be expected to have a material adverse effect on the Company and its Subsidiaries, taken as a whole.

(e) **Compliance with Laws.** Comply, and cause each Subsidiary to comply, with all applicable laws, rules, regulations and orders of any governmental authority, noncompliance with which could materially adversely affect its business or condition, financial or other.

(f) **Visitation Rights.** At any reasonable time and from time to time, upon reasonable notice, permit the Purchaser or any agents or representatives thereof, to examine and make copies of and extracts from the records and books of account of, and visit and inspect the properties of, the Company and any Subsidiary, and to discuss the affairs, finances and accounts of the Company and any Subsidiary with any of their officers or directors and independent accountants.

(g) **Keeping of Records and Books of Account.** Keep, and cause each Subsidiary to keep, adequate records and books of account, in which complete entries will be made in accordance with generally accepted accounting principles consistently applied, reflecting all financial transactions of the Company and such Subsidiary, and in which, for each fiscal year, all proper reserves for depreciation, depletion, obsolescence, amortization, taxes, bad debts and other purposes in connection with its business shall be made.

(h) Maintenance of Properties, etc. Maintain and preserve, and cause each Subsidiary to maintain and preserve, all of its properties, necessary or useful in the proper conduct of its business, in good repair, working order and condition, ordinary wear and tear excepted.

(i) Compliance with ERISA. Comply, and cause each Subsidiary to comply, with all minimum funding requirements applicable to any pension or other employee benefit or employee contribution plans which are subject to ERISA or to the Internal Revenue Code of 1986, as amended (the "Code"), and comply, and cause each Subsidiary to comply, in all other material respects with the provisions of ERISA and the Code, and the rules and regulations thereunder, which are applicable to any such plan. Neither the Company nor any Subsidiary will permit any event or condition to exist which could permit any such plan to be terminated under circumstances which would cause the lien provided for in Section 4068 of ERISA to attach to the assets of the Company or any Subsidiary.

(j) Maintenance of Consolidated Maximum Leverage Ratio. Maintain at all times a Consolidated Maximum Leverage Ratio which is equal to or less than 4.0 to 1.00 for each of the rolling four quarter periods ending on and after September 30, 2019. Company's compliance with this covenant shall be tested on a rolling four (4) quarters basis as of the last day of each quarter of each Fiscal Year of Company.

(k) Maintenance of Debt Service Coverage. At the close of each fiscal quarter of Company, maintain a Debt Service Coverage ratio of at least 1.10 to 1.0 for the prior 12 month period. 'Debt Service Coverage' as used herein shall be determined for the relevant period, and shall mean (i) EBITDA excluding non-cash and/or non-recurring expenditures, (including without limitation, up to \$750,000 of certain Go-Dark Expenditures incurred in the delisting of certain of the Company's stock from NASDAQ and the deregistration of the Company's common stock) for the fiscal quarters ending June 30, 2019, September 30, 2019 and December 31, 2019 only, but effective for the subsequent three (3) fiscal quarters to give effect to the trailing twelve (12) month testing periods for this covenant, minus unfinanced capital expenditures, minus dividends and distributions, minus cash taxes paid for ongoing operations, divided by (ii) scheduled interest and principal payments made on all debt.

(l) Foreign Corrupt Practices Act. Comply, and cause each Subsidiary to comply, and cause each officer, director, employee and agent of the Company and each Subsidiary to comply, at all times with the prohibitions on certain acts and practices set forth in the Foreign Corrupt Practices Act of 1977, and any rules or regulations promulgated thereunder.

(m) Equal Employment Opportunity. Comply, and cause each Subsidiary to comply, with all applicable laws of the United States, the Commonwealth of Massachusetts, and of each other applicable jurisdiction relating to equal employment opportunity, any rules, regulations, administrative orders and Executive Orders relating thereto and the applicable terms, relating to equal employment opportunity, of any Government Contract; and keep, and cause each Subsidiary to file, all reports, affirmative action plans and forms required to be filed, pursuant to any such applicable law or the terms of any such Government Contract; provided, however, the Company or any Subsidiary shall not be considered to have failed to comply with the foregoing during any period that any matter relating to the Company's or such Subsidiary's employment practices is being contested by the Company or such Subsidiary in appropriate proceedings, or thereafter, if the Company or such Subsidiary complies with any final determination issued in such proceedings.

(n) Status of Notes as Qualified Investments. In the event that any of the statements, information and related data provided by or on behalf of the Company or any Subsidiary and relied upon by the Purchaser in determining that the Notes constitute "qualified investments" within the meaning of that term in the Capital Resource Company Act shall be put in issue in any formal or informal proceedings initiated or conducted by or on behalf of the Commonwealth of Massachusetts, the Company shall, upon reasonable notice and at its expense, provide, and, cause each Subsidiary to provide, such additional information, witnesses and related data as may be reasonably necessary or appropriate to support the representations and warranties set forth in Article III.

(o) Compensation. The Company shall pay to its management or management of any Subsidiary compensation at a rate of compensation which is not in excess of that commonly paid to management in companies of similar size, of similar maturity and in similar businesses and all management compensation and all policies relating thereto shall be approved in advance either by a majority of the members of that Company's Board of Directors or by a compensation committee composed entirely of independent directors.

(p) Compliance with Security Documents. Comply, and cause each Subsidiary, at all times and in all material respects with all of the terms and conditions of the Security Documents.

(q) Additional Subsidiaries. The Company shall provide the Purchaser with prompt written notice of the creation or acquisition of any Subsidiary and, so long as such Subsidiary is organized in the United States or any State thereof, immediately upon, and as a condition to, such creation or acquisition of a Subsidiary, the Company shall cause any such Subsidiary that is owned by the Company and/or another Subsidiary, to execute and deliver to the Purchaser a Guaranty, a Guarantor Security Agreement and a joinder to the Subordination Agreement which is in form and substance satisfactory to Middlesex Savings Bank

4.02. Negative Covenants of the Company. Without limiting any other covenants and provisions hereof, the Company covenants and agrees that, as long as any of the Notes are outstanding, it will comply with and observe the following covenants and provisions, and will cause each Subsidiary to comply with and observe such of the following covenants and provisions as are applicable to such Subsidiary, and will not:

(a) **Liens.** Create, incur, assume or suffer to exist, or permit any Subsidiary to create, incur, assume or suffer to exist, any mortgage, deed of trust, pledge, lien, security interest or other charge or encumbrance (including the lien or retained security title of a conditional vendor) of any nature, upon or with respect to any of its properties, now owned or hereinafter acquired, or assign or otherwise convey any right to receive income, except that the foregoing restrictions shall not apply to mortgages, deeds of trust, pledges, liens, security interests or other charges or encumbrances:

(i) for taxes, assessments or governmental charges or levies on property of the Company or any Subsidiary if the same shall not at the time be delinquent or thereafter can be paid without penalty, or are being contested in good faith and by appropriate proceedings;

(ii) imposed by law, such as landlord's, carriers', warehousemen's and mechanics' liens and other similar liens arising in the ordinary course of business;

(iii) securing Senior Debt in favor of Middlesex Savings Bank or another holder of Senior Debt;

(iv) arising out of pledges or deposits under workmen's compensation laws, unemployment insurance, old age pensions, or other social security or retirement benefits, or similar legislation;

(v) securing the performance of bids, tenders, contracts (other than for the repayment of borrowed money), statutory obligations and surety bonds;

(vi) in the nature of zoning restrictions, easements and rights or restrictions of record on the use of real property which do not materially detract from its value or impair its use;

(vii) arising by operation of law in favor of the owner or sublessor of leased premises and confined to the property rented;

(viii) arising from any litigation or proceeding which is being contested in good faith by appropriate proceedings, provided, however, that no execution or levy has been made;

(ix) described in Exhibit 3.07 which secure the Indebtedness set forth in Exhibit 3.05, provided that no such lien is extended to cover other or different property of the Company or any Subsidiary;

(x) arising out of a purchase money mortgage or security interest on personal property to secure the purchase price of such property (or to secure Indebtedness incurred solely for the purpose of financing the acquisition of any such property), provided that such purchase money mortgage or security interest does not extend to any other or different property of the Company or any Subsidiary; and

(xi) now or hereafter granted to the Purchaser pursuant to the Company Security Agreement and the Guarantor Security Agreements.

(b) Indebtedness. Create, incur, assume or suffer to exist, or permit any Subsidiary to create, incur, assume or suffer to exist, any liability with respect to Indebtedness except for:

- (i) the Notes;
- (ii) Indebtedness set forth in Exhibit 3.05;
- (iii) Senior Debt owed to Middlesex Savings Bank
- (iv) Indebtedness for money borrowed, provided that such Indebtedness for money borrowed does not result in the Company's failure to comply with all of the other provisions of Article IV hereof;
- (v) Current Liabilities, other than for borrowed money, which are incurred in the ordinary course of business; and
- (vi) Indebtedness with respect to lease obligations, provided that such lease obligations do not violate subsection 4.02(c).

(c) Lease Obligations. Create, incur, assume or suffer to exist, or permit any Subsidiary to create, incur, assume or suffer to exist, any obligations as lessee for the rental or hire of real or personal property in connection with any sale and leaseback transaction.

(d) Assumptions or Guaranties of Indebtedness of Other Persons. Except for (i) the Guaranties and (ii) guaranties in favor of Middlesex Savings Bank or another holder of Senior Debt, assume, guarantee, endorse or otherwise become directly or contingently liable on, or permit any Subsidiary to assume, guarantee, endorse or otherwise become directly or contingently liable on (including, without limitation, liability by way of agreement, contingent or otherwise, to purchase, to provide funds for payment, to supply funds to or otherwise invest in the debtor or otherwise to assure the creditor against loss) any Indebtedness of any other Person, except for guaranties by endorsement of negotiable instruments for deposit or collection in the ordinary course of business.

(e) Mergers, Sale of Assets, etc. Merge or consolidate with, or sell, assign, lease or otherwise dispose of or voluntarily part with the control of (whether in one transaction or in a series of transactions) a material portion of its assets (whether now owned or hereinafter acquired) or sell, assign or otherwise dispose of (whether in one transaction or in a series of transactions) any of its accounts receivable (whether now in existence or hereinafter created) at a discount or with recourse, to, any Person, or permit any Subsidiary to do any of the foregoing, except for sales or other dispositions of assets in the ordinary course of business and except that (1) any Subsidiary may merge into or consolidate with or transfer assets to any other Subsidiary, (2) any Subsidiary may merge into or transfer assets to the Company, and (3) the Company or any Subsidiary may merge any Person into it or otherwise acquire such Person as long as the Company or such Subsidiary is the surviving entity, such merger or acquisition does not result in the violation of any of the provisions of this Agreement and no such violation exists at the time of such merger or acquisition, and, provided that such merger or acquisition does not result in the issuance (in one or more transactions) of shares of the voting stock of the Company representing in the aggregate more than twenty percent (20%) of the total outstanding voting stock of the Company, on a fully diluted basis, immediately following the issuance thereof.

(f) Investments in Other Persons. Make or permit any Subsidiary to make, any loan or advance to any person, or purchase, otherwise acquire, or permit any Subsidiary to purchase or otherwise acquire, the capital stock, assets comprising the business of, obligations of, or any interest in, any Person, except:

(i) investments by the Company or a Subsidiary in evidences of indebtedness issued or fully guaranteed by the United States of America and having a maturity of not more than one year from the date of acquisition;

(ii) investments by the Company or a Subsidiary in certificates of deposit, notes, acceptances and repurchase agreements having a maturity of not more than one year from the date of acquisition issued by a bank organized in the United States having capital, surplus and undivided profits of at least \$100,000,000 and whose parent holding company has long-term debt rated Aa1 or higher, and whose commercial paper (if rated) is rated Prime 1, by Moody's Investors Service, Inc.;

(iii) investments by the Company or a Subsidiary in the highest-rated commercial paper having a maturity of not more than one year from the date of acquisition;

(iv) loans or advances from a Subsidiary to the Company; and

(v) advances made to employees, officers and directors for travel and other expenses arising in the ordinary course of business.

(g) Distributions. Declare or pay any dividends, purchase, redeem, retire, or otherwise acquire for value any of its capital stock (or rights, options or warrants to purchase such shares) now or hereafter outstanding, return any capital to its stockholders as such, or make any distribution of assets to its stockholders as such, or permit any Subsidiary to do any of the foregoing (such transactions being hereinafter referred to as "Distributions"), except that the Subsidiaries may declare and make payment of cash and stock dividends, return capital and make distributions of assets to the Company; provided, however, that nothing herein contained shall prevent the Company from:

(i) effecting a stock split or declaring or paying any dividend consisting of shares of any class of capital stock to the holders of shares of such class of capital stock, or

(ii) redeeming any stock of a deceased stockholder out of insurance held by the Company on that stockholder's life,

if in the case of any such transaction there does not exist at the time of such Distribution an Event of Default or an event which, but for the requirement that notice be given or time elapse or both, would constitute an Event of Default and provided that such Distribution can be made in compliance with the other terms of this Agreement.

(h) Dealings with Affiliates. Enter or permit any Subsidiary to enter into any transaction with any holder of 5% or more of any class of capital stock of the Company, or any member of their families or any corporation or other entity in which any one or more of such stockholders or members of their immediate families directly or indirectly holds five percent (5%) or more of any class of capital stock except (i) in the ordinary course of business and on terms not less favorable to the Company or the Subsidiary than it would obtain in a transaction between unrelated parties or (ii) compensatory and similar arrangements with officers and directors of the Company.

(i) Maintenance of Ownership of Subsidiaries. Sell or otherwise dispose of any shares of capital stock of any Subsidiary, except to the Company or another Subsidiary, or permit any Subsidiary to issue, sell or otherwise dispose of any shares of its capital stock or the capital stock of any Subsidiary, except to the Company or another Subsidiary, provided, however, that nothing herein contained shall prevent any merger, consolidation or transfer of assets permitted by subsection 4.02(e).

(j) Change in Nature of Business. Make, or permit any Subsidiary to make, any material change in the nature of its business as carried on at the date hereof.

4.03. Reporting Requirements. The Company will furnish to each registered holder of any Note:

(a) as soon as possible and in any event within five (5) days after the occurrence of each Event of Default or each event which, with the giving of notice or lapse of time or both, would constitute an Event of Default, the statement of the chief financial officer of the Company setting forth details of such Event of Default or event and the action which the Company proposes to take with respect thereto;

(b) as soon as available and in any event within forty-five (45) days after the end of each of the first three quarters of each fiscal year of the Company, consolidated balance sheets of the Company and its Subsidiaries as of the end of such quarter and consolidated statements of income and retained earnings and of changes in financial position of the Company and its Subsidiaries for the period commencing at the end of the previous fiscal year and ending with the end of such quarter, setting forth in each case in comparative form the corresponding figures for the corresponding period of the preceding fiscal year, all in reasonable detail and duly certified (subject to year-end audit adjustments) by the chief financial officer of the Company as having been prepared in accordance with generally accepted accounting principles consistently applied;

(c) as soon as available and in any event within ninety (90) days after the end of each fiscal year of the Company, a copy of the reviewed report for such year for the Company and its Subsidiaries, including therein consolidated balance sheets of the Company and its Subsidiaries as of the end of such fiscal year and consolidated statements of income and retained earnings and of changes in financial position of the Company and its Subsidiaries for such fiscal year, setting forth in each case in comparative form the corresponding figures for the preceding fiscal year, all duly reviewed by independent public accountants of recognized standing acceptable to the Purchaser;

(d) at the time of delivery of each quarterly and annual statement, a certificate, executed by the chief executive officer or chief financial officer in the case of quarterly statements and the Company's independent public accountants in the case of annual statements, stating that such officer or accountants, as the case may be, has caused this Agreement, the Notes and the Security Documents to be reviewed and has no knowledge of any default by the Company or any Subsidiary in the performance or observance of any of the provisions of this Agreement, the Notes or the Security Documents, if such officer or accountant has such knowledge, specifying such default and the nature thereof. Each such certificate shall set forth computations in reasonable detail demonstrating compliance with the provisions of subsections 4.01(j) and (k) and subsections 4.02(b) and (c);

(e) promptly upon receipt thereof, any written report submitted to the Company by independent public accountants in connection with an annual or interim review of the books of the Company and its Subsidiaries made by such accountants;

(f) no later than 90-days after the start of each fiscal year, consolidated capital and operating expense budgets, cash flow projections and income and loss projections for the Company and its Subsidiaries in respect of such fiscal year, all itemized in reasonable detail and prepared on a quarterly basis, and, promptly after preparation, any revisions to any of the foregoing;

(g) promptly after the commencement thereof, notice of all actions, suits and proceedings before any court or governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, affecting the Company or any Subsidiary of the type described in Section 3.04; and

(h) promptly after sending, making available, or filing the same, such reports and financial statements as the Company or any Subsidiary shall send or make available to the stockholders of the Company or the Securities and Exchange Commission and such other information respecting the business, properties or the condition or operations, financial or otherwise, of the Company or any of its Subsidiaries as the Purchaser may from time to time reasonably request.

ARTICLE V

EVENTS OF DEFAULT

5.01. Events of Default. If any of the following events ("Events of Default") shall occur and be continuing:

(a) The Company shall fail to pay any installment of principal of any of the Notes when due; or

(b) The Company shall fail to pay any interest or premium on any of the Notes when due and such failure shall continue for five (5) business days; or

(c) The Company shall default in the performance of any covenant contained in subsections 4.01(j) or (k) or shall default for ten (10) days in the performance of any covenant contained in Section 4.02; or

(d) Any representation or warranty made by the Company or any Subsidiary in this Agreement or by the Company or any Subsidiary (or any officers of the Company or any Subsidiary) in any certificate, instrument or written statement contemplated by or made or delivered pursuant to or in connection with this Agreement, the Notes or the Security Documents, shall prove to have been incorrect when made in any material respect; or

(e) The Company or any Subsidiary shall fail to perform or observe any other term, covenant or agreement contained in this Agreement, the Notes or the Security Documents on its part to be performed or observed and any such failure remains unremedied for ten (10) business days after written notice thereof shall have been given to the Company by any registered holder of the Notes; or

(f) The Company or any Subsidiary shall fail to pay any Indebtedness for borrowed money in excess of \$250,000 in the aggregate (other than as evidenced by the Notes) owing by the Company or such Subsidiary (as the case may be), or any interest or premium thereon, when due (or, if permitted by the terms of the relevant document, within any applicable grace period), whether such Indebtedness shall become due by scheduled maturity, by required prepayment, by acceleration, by demand or otherwise, or shall fail to perform any material term, covenant or agreement on its part to be performed under any agreement or instrument (other than this Agreement or the Notes) evidencing or securing or relating to any Indebtedness for borrowed money in excess of \$250,000 in the aggregate owing by the Company or any Subsidiary, as the case may be, when required to be performed (or, if permitted by the terms of the relevant document, within any applicable grace period), if the effect of such failure to pay or perform is to accelerate, or to permit the holder or holders of such Indebtedness, or the trustee or trustees under any such agreement or instrument to accelerate, the maturity of such Indebtedness, unless such failure to pay or perform shall be waived by the holder or holders of such Indebtedness or such trustee or trustees; or

(g) The Company or any Subsidiary shall be involved in financial difficulties as evidenced (i) by its admitting in writing its inability to pay its debts generally as they become due; (ii) by its commencement of a voluntary case under Title 11 of the United States Code as from time to time in effect, or by its authorizing, by appropriate proceedings of its Board of Directors or other governing body, the commencement of such a voluntary case; (iii) by its filing an answer or other pleading admitting or failing to deny the material allegations of a petition filed against it commencing an involuntary case under said Title 11, or seeking, consenting to or acquiescing in the relief therein provided, or by its failing to controvert timely the material allegations of any such petition; (iv) by the entry of an order for relief in any involuntary case commenced under said Title 11 which order is not stayed or dismissed within 60 days from the date of entry; (v) by its seeking relief as a debtor under any applicable law, other than said Title 11, of any jurisdiction relating to the liquidation or reorganization of debtors or to the modification or alteration of the rights of creditors, or by its consenting to or acquiescing in such relief; (vi) by the entry of an order by a court of competent jurisdiction (a) finding it to be bankrupt or insolvent, (b) ordering or approving its liquidation, reorganization or any modification or alteration of the rights of its creditors, or (c) assuming custody of, or appointing a receiver or other custodian for, all or a substantial part of its property; or (vii) by its making an assignment for the benefit of, or entering into a composition with, its creditors, or appointing or consenting to the appointment of a receiver or other custodian for all or a substantial part of its property; or

(h) Any judgment, writ, warrant of attachment or execution or similar process shall be issued or levied against a substantial part of the property of the Company or any Subsidiary and such judgment, writ, or similar process shall not be released, vacated or fully bonded within (60) days after its issue or levy; or

(i) A Change of Control;

then, and in any such event, the Purchaser or any other holder of the Notes may, by notice to the Company, declare the entire unpaid principal amount of the Notes, all interest accrued and unpaid thereon and all other amounts payable under this Agreement to be forthwith due and payable, whereupon the Notes, all such accrued interest and all such amounts shall become and be forthwith due and payable (unless there shall have occurred an Event of Default under subsection 5.01(g) in which case all such amounts shall automatically become due and payable), without presentment, demand, protest or further notice of any kind, all of which are hereby expressly waived by the Company.

5.02. Annulment of Defaults. Section 5.01 is subject to the condition that, if at any time after the principal of any of the Notes shall have become due and payable, and before any judgment or decree for the payment of the moneys so due, or any thereof, shall have been entered, all arrears of interest upon all the Notes and all other sums payable under the Notes and under this Agreement (except the principal of the Notes which by such declaration shall have become payable) shall have been duly paid, and every other default and Event of Default shall have been made good or cured, then and in every such case the holders of seventy-five percent (75%) or more in principal amount of all Notes then outstanding may, by written instrument filed with the Company, rescind and annul such declaration and its consequences; but no such rescission or annulment shall extend to or affect any subsequent default or Event of Default or impair any right consequent thereon.

ARTICLE VI

DEFINITIONS AND ACCOUNTING TERMS

6.01. Certain Defined Terms. As used in this Agreement, the following terms shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

“Adjusted EBITDA” shall mean, EBITDA, excluding therefrom non-cash and/or recurring expenditures, including without limitation, up to \$750,000 of Certain Go-Dark Expenditures incurred in the de-listing of certain of the Company’s stock from NASDAQ and the deregistration of the Company’s common stock for the twelve (12) month testing periods ending June 30, 2019, September 30, 2019 and December 31, 2019 only, or gains (as permitted), and the operating income or loss of the Xcede joint venture that is consolidated into Company's financial results.

"Agreement" means this Note Purchase Agreement as from time to time amended and in effect between the parties.

"Capital Lease" shall mean any lease of property which, in accordance with GAAP, should be capitalized on the lessee's balance sheet.

"Capital Lease Obligation" shall mean the amount of the liability which, according to GAAP, should be capitalized or disclosed with respect to a Capital Lease.

"Capital Resource Company Act" shall have the meaning assigned to that term in Section 1.11.

"Change of Control" shall mean the occurrence of one or more of the following events:

- (a) any Person (or group of related Persons for the purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended) shall become the owner, directly or indirectly, beneficially or of record, of shares representing more than forty percent (40%) of the voting stock of the Company; or
- (b) the replacement, in any one-year period, of a majority of the members of the Board of Directors of the Company from the directors who constituted the members of the Board of Directors of the Company at the beginning of such period, and such replacement shall not have been approved by a vote of at least a majority of the Board of Directors of the Company then still in office who were either members of such Board of Directors at the beginning of such period or whose election as a member of such Board of Directors was previously so approved.

"Code" shall have the meaning assigned to that term in Section 4.01(i).

"Company" means and shall include Dynasil Corporation of America and its successors and assigns.

“Company Security Agreement” shall have the meaning assigned to that term in Section 2.02(a).

"Consolidated" and "consolidating" when used with reference to any term defined herein mean that term as applied to the accounts of the Company and its Subsidiaries consolidated in accordance with generally accepted accounting principles.

"Current Liabilities" means all liabilities of any corporation which would, in accordance with generally accepted accounting principles consistently applied, be classified as current liabilities of a corporation conducting a business the same as or similar to that of such corporation, including, without limitation, all rental payments due under leases required to be capitalized in accordance with applicable Statements of Financial Accounting Standards and fixed prepayments of, and sinking fund payments with respect to, Indebtedness (including Indebtedness evidenced by the Notes), which payments are required to be made within one year from the date of determination.

"Distribution" shall have the meaning assigned to that term in Section 4.02(g).

"ERISA" shall have the meaning assigned to that term in Section 3.10.

"Events of Default" shall have the meaning assigned to that term in Section 5.01.

"Fiscal Year" shall mean each twelve (12) month accounting period of the Company, which ends on September 30 of each year.

"Form 10-Q" shall have the meaning assigned to that term in Section 3.08.

"Form 10-K" shall have the meaning assigned to that term in Section 3.08.

"GAAP" shall mean generally accepted accounting principles in the United States as in effect on the Closing and applied on a basis consistent with those used in the financial statements included in the Form 10-K.

"Government Contract" shall have the meaning assigned to that in Section 3.14.

"Guarantor Security Agreement" or "Guarantor Security Agreements" shall have the meaning assigned to that in Section 2.02(c).

"Guaranty" or "Guaranties" shall have the meaning assigned to that in Section 2.02(b).

"Indebtedness" means all obligations, contingent and otherwise, which should, in accordance with generally accepted accounting principles consistently applied, be classified upon the obligor's balance sheet as liabilities, but in any event including, without limitation, liabilities secured by any mortgage on property owned or acquired subject to such mortgage, whether or not the liability secured thereby shall have been assumed, and also including, without limitation, (i) all guaranties, endorsements and other contingent obligations, in respect of Indebtedness of others, whether or not the same are or should be so reflected in said balance sheet, except guaranties by endorsement of negotiable instruments for deposit by collection or similar transactions in the ordinary course of business and (ii) the present value of any lease payments due under leases required to be capitalized in accordance with applicable Statements of Financial Accounting Standards, determined in accordance with applicable Statements of Financial Accounting Standards.

“Interest Expense” shall mean, as of any date, with respect to any Person, for any fiscal measurement period, the sum of (a) all cash interest, unused commitment fees, letter of credit fees and similar fees (in each case as such expenses are calculated according to GAAP) paid or payable for such fiscal period by such Person (including without limitation, the interest and fees (as applicable) payable under this Agreement and the net amount payable in cash under all Hedging Agreements in respect of such period (or minus the net amount receivable under all Hedging Agreements in respect of such period)), plus (b) the portion of rent paid or payable (without duplication) for such fiscal period by that Person under Capitalized Lease Obligations that should be treated as interest in accordance with GAAP; provided that all debt issuance costs, debt discounts or premiums, prepayment premiums and other financing fees and expenses incurred by Company and directly related to the consummation of the transactions contemplated by this Agreement shall be excluded from the calculation of Interest Expense.

“Maximum Leverage Ratio” shall mean that quotient equal to (a) the sum of (i) Senior Secured Debt plus (ii) Subordinated Debt, divided by (b) Adjusted EBITDA.

“Notes” shall have the meaning assigned to that term in Section 1.01.

“Person” shall mean any individual, sole proprietorship, partnership, joint venture, trust, unincorporated organization, association, corporation, limited liability company, institution, entity, party or foreign or United States government (whether federal, state, county, city, municipal or otherwise), including, without limitation, any instrumentality, division, agency, body or department thereof.

“Prior Purchase Agreements” shall have the meaning assigned to that term in the “Background” Section.

“Prior Notes” shall have the meaning assigned to that term in the “Background” Section.

“Purchaser” means and shall include not only the Massachusetts Capital Resource Company but also any other holder or holders of any of the Notes.

“Securities Act” means the Securities Act of 1933 or any similar Federal statute, and the rules and regulations of the Securities and Exchange Commission (or of any other Federal agency then administering the Securities Act) thereunder, all as the same shall be in effect at the time.

“SEC” shall have the meaning assigned to that term in Section 3.08.

“SEC Reports” shall have the meaning assigned to that term in Section 3.08.

“Security Documents” shall have the meaning assigned to that term in Section 2.02(c).

“Senior Debt” shall have the meaning assigned to that term in Section 1.09(h).

"Subsidiary" or "Subsidiaries" means shall mean, as to any Person, any corporation of which more than fifty percent (50%) of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether at the time stock of any other class of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, owned by such Person, or any partnership, joint venture or limited liability company of which more than fifty percent (50%) of the outstanding equity interests are at the time, directly or indirectly, owned by such Person or any partnership of which such Person is a general partner. Xcede Technologies Inc. is specifically excluded.

"Subordination Agreement" shall have the meaning assigned to that term in Section 1.09(i).

6.02. Accounting Terms. All accounting terms not specifically defined herein shall be construed in accordance with generally accepted accounting principles consistent with those applied in preparation of the financial statements attached hereto as Exhibit 3.08, and all financial data submitted pursuant to this Agreement and all financial tests to be calculated in accordance with this Agreement shall be prepared and calculated in accordance with such principles.

ARTICLE VII

MISCELLANEOUS

7.01. No Waiver; Cumulative Remedies. No failure or delay on the part of the Purchaser, or any other holder of the Notes in exercising any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any such right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

7.02. Amendments, Waivers and Consents. Any provision in this Agreement, the Notes or the Security Agreement to the contrary notwithstanding, changes in or additions to this Agreement may be made, and compliance with any covenant or provision herein or therein set forth may be omitted or waived, with the consent of the Company, if the Company shall, in the case of the Notes, obtain consent thereto in writing from the holder or holders of at least seventy-five percent (75%) in principal amount of all Notes then outstanding; provided that no such consent shall be effective to reduce or to postpone the date fixed for the payment of the principal (including any required redemption) or interest payable on any Note, without the consent of the holder thereof, or to reduce the percentage of the Notes the consent of the holders of which is required under this Section. Any waiver or consent may be given subject to satisfaction of conditions stated therein and any waiver or consent shall be effective only in the specific instance and for the specific purpose for which given. Written notice of any waiver or consent effected under this subsection shall promptly be delivered by the Company to any holders who did not execute the same.

7.03. Addresses for Notices, etc. All notices, requests, demands and other communications provided for hereunder shall be in writing and mailed or delivered by reputable overnight courier to the applicable party at the addresses indicated below:

If to the Company:

Dynasil Corporation of America
44 Hunt Street
Watertown, Massachusetts 02472
Attention: President

If to the Purchaser:

Payments should be mailed to:

Massachusetts Capital Resource Company
P. O. Box 3707
Boston, Massachusetts 02241

and all other deliveries and other communications made at or sent to:

Massachusetts Capital Resource Company
420 Boylston Street
Boston, Massachusetts 02116
Attention: Suzanne L. Dwyer, Managing Director

If to any other holder of the Notes: at such holder's address for notice as set forth in the register maintained by the Company, or, as to each of the foregoing, at such other address as shall be designated by such Person in a written notice to the other party complying as to delivery with the terms of this Section. All such notices, requests, demands and other communications shall, when mailed, be effective when deposited in the mails or otherwise delivered, addressed as aforesaid.

7.04. Costs, Expenses and Taxes. The Company agrees to pay on demand all costs and expenses of the Purchaser in connection with the preparation, execution and delivery of this Agreement, the Notes, the Security Documents and other instruments and documents to be delivered hereunder, including the reasonable fees and out-of-pocket expenses of George W. Thibeault, Esq., counsel for the Purchaser, with respect thereto, as well as the reasonable fees and out-of-pocket expenses of legal counsel, independent public accountants and other outside experts reasonably retained by the Purchaser in connection with the amendment or enforcement of this Agreement, the Notes, the Security Documents and other instruments and documents to be delivered hereunder or thereunder. In addition, the Company shall pay any and all stamp and other taxes payable or determined to be payable in connection with the execution and delivery of this Agreement, the Notes, the Security Documents and the other instruments and documents to be delivered hereunder or thereunder and agrees to save the Purchaser harmless from and against any and all liabilities with respect to or resulting from any delay in paying or omission to pay such taxes and filing fees.

7.05. Binding Effect; Assignment. This Agreement shall be binding upon and inure to the benefit of the Company and the Purchaser and their respective successors and assigns, except that the Company shall not have the right to assign its rights hereunder or any interest herein without the prior written consent of the Purchaser.

7.06. Survival of Representations and Warranties. All representations and warranties made in this Agreement, the Notes, the Security Documents or any other instrument or document delivered in connection herewith or therewith, shall survive the execution and delivery hereof or thereof and the making of the loans.

7.07. Prior Agreements. This Agreement constitutes the entire agreement between the parties and supersedes any prior understandings or agreements concerning the subject matter hereof.

7.08. Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

7.09. Governing Law; Construction; Forum Selection. This Agreement and the other agreements to be executed in connection herewith are submitted by the Company to the Purchaser for Purchaser's acceptance or rejection at Purchaser's principal place of business as an offer by the Company to issue the Notes to the Purchaser, and shall not be binding upon the Purchaser or become effective until accepted by the Purchaser, in writing, at said place of business. If so accepted by the Purchaser, this Agreement and such other agreements shall be deemed to have been made at said place of business. **THIS AGREEMENT AND SUCH OTHER AGREEMENTS SHALL BE GOVERNED AND CONTROLLED BY THE INTERNAL LAWS OF THE COMMONWEALTH OF MASSACHUSETTS AS TO INTERPRETATION, ENFORCEMENT, VALIDITY, CONSTRUCTION, EFFECT, AND IN ALL OTHER RESPECTS, INCLUDING, WITHOUT LIMITATION, THE LEGALITY OF THE INTEREST RATE AND OTHER CHARGES, BUT EXCLUDING PERFECTION OF THE SECURITY INTERESTS IN COLLATERAL LOCATED OUTSIDE OF THE COMMONWEALTH OF MASSACHUSETTS, WHICH SHALL BE GOVERNED AND CONTROLLED BY THE LAWS OF THE RELEVANT JURISDICTION IN WHICH SUCH COLLATERAL IS LOCATED.** If any provision of this Agreement shall be held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or remaining provisions of this Agreement.

To induce the Purchaser to accept this Agreement, the Company irrevocably agree that, subject to the Purchaser's sole and absolute election, **ALL ACTIONS OR PROCEEDINGS IN ANY WAY, MANNER OR RESPECT, ARISING OUT OF OR FROM OR RELATED TO THIS AGREEMENT, SUCH OTHER AGREEMENTS OR THE COLLATERAL SHALL BE LITIGATED IN COURTS HAVING SITUS WITHIN THE COMMONWEALTH OF MASSACHUSETTS. THE COMPANY HEREBY CONSENTS AND SUBMITS TO THE JURISDICTION OF ANY LOCAL, STATE OR FEDERAL COURTS LOCATED WITHIN SAID JURISDICTION.** The Company hereby waives personal service of any and all process upon it and consents that all such service of process may be made by intentionally recognized overnight courier or hand delivery directed to the Company at its notice address as provided for in Section 7.03. **THE COMPANY HEREBY WAIVES ANY RIGHT IT MAY HAVE TO TRANSFER OR CHANGE THE VENUE OF ANY LITIGATION BROUGHT AGAINST THE COMPANY BY THE PURCHASER IN ACCORDANCE WITH THIS SECTION.**

7.10. Headings. Article, Section and subsection headings in this Agreement are included herein for convenience of reference only and shall not constitute a part of this Agreement for any other purpose.

7.11. Sealed Instrument. This Agreement is executed as an instrument under seal.

7.12. Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument, and each of the parties hereto may execute this Agreement by signing any such counterpart.

7.13. Further Assurances. From and after the date of this Agreement, upon the request of the Purchaser, the Company and each Subsidiary shall execute and deliver such instruments, documents and other writings as may be necessary or desirable to confirm and carry out and to effectuate fully the intent and purposes of this Agreement, the Notes and the Security Documents.

[BALANCE OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized, as of the date first above written.

DYNASIL CORPORATION OF AMERICA

By /s/ Robert J. Bowdring
Robert J. Bowdring, Chief Financial Officer

MASSACHUSETTS CAPITAL RESOURCE COMPANY

By /s/ Suzanne L. Dwyer
Suzanne L. Dwyer, Managing Director

THIS NOTE IS SUBJECT TO THE SUBORDINATION AGREEMENT DATED AS OF MAY 1, 2014 AMONG THE COMPANY, CERTAIN AFFILIATES OF THE COMPANY, THE PAYEE AND MIDDLESEX SAVINGS BANK

DYNASIL CORPORATION OF AMERICA

NOTE DUE 2026

\$2,865,216

August 6, 2019

For value received, **Dynasil Corporation of America**, a Delaware corporation (the "Company"), hereby promises to pay to **Massachusetts Capital Resource Company** or registered assigns (hereinafter referred to as the "Payee"), on or before July 31, 2026, the principal sum of Two Million, Eight Hundred Sixty Five Thousand, Two Hundred Sixteen Dollars (\$2,865,216.00) or such part thereof as then remains unpaid, to pay interest from the date hereof on the whole amount of said principal sum remaining from time to time unpaid at the rate of eight percent (8%) per annum, such interest to be payable monthly on the last day of each calendar month in each year, the first such payment to be due and payable on August 31, 2019, until the whole amount of the principal hereof remaining unpaid shall become due and payable, and to pay interest at the rate of fourteen percent (14%) (so far as the same may be legally enforceable) on all overdue principal (including any overdue required redemption), premium and interest. Principal, premium, if any, and interest shall be payable in lawful money of the United States of America, in immediately available funds, at the principal office of the Payee or at such other place as the legal holder may designate from time to time in writing to the Company. Interest shall be computed on the basis of a 360-day year and a 30-day month.

This Note is issued pursuant to and is entitled to the benefits of a certain Note Purchase Agreement, dated as of August 6, 2019, between the Company and Massachusetts Capital Resource Company (as the same may be amended from time to time, hereinafter referred to as the "Agreement"), and each holder of this Note, by his acceptance hereof, agrees to be bound by the provisions of the Agreement, including, without limitation, that (i) this Note is subject to prepayment, in whole or in part, as specified in said Agreement, (ii) the principal of and interest on this Note is subordinated to Senior Debt, as defined in the Agreement and (iii) in case of an Event of Default, as defined in the Agreement, the principal of this Note may become or may be declared due and payable in the manner and with the effect provided in the Agreement.

As further provided in the Agreement, upon surrender of this Note for transfer or exchange, a new Note or new Notes of the same tenor dated the date to which interest has been paid on the surrender Note and in an aggregate principal amount equal to the unpaid principal amount of the Note so surrendered will be issued to, and registered in the name of, the transferee or transferees. The Company may treat the person in whose name this Note is registered as the owner hereof for the purpose of receiving payment and for all other purposes.

This Note is secured by and entitled to the benefits of certain Security Documents (as that term is defined in the Agreement), dated August 6, 2019, from the Company and its Subsidiaries to Massachusetts Capital Resource Company.

In case any payment herein provided for shall not be paid when due, the Company promises to pay all cost of collection, including all reasonable attorney's fees.

This Note shall be governed by, and construed in accordance with, the laws of the Commonwealth of Massachusetts and shall have the effect of a sealed instrument.

The Company and all endorsers and guarantors of this Note hereby waive presentment, demand, notice of nonpayment, protest and all other demands and notices in connection with the delivery, acceptance, performance or enforcement of this Note.

DYNASIL CORPORATION OF AMERICA

By /s/ Robert J. Bowdring
Robert J. Bowdring, Chief Financial Officer

Signature Page to the Note
