City of Milford

CITY COUNCIL AGENDA
Monday, November 23, 2020

In accordance with the State of Emergency Declaration issued by Governor John Carney that became effective on March 13, 2020, and as extended, all public meetings of the City of Milford shall be conducted electronically through Zoom until further notice to prevent unnecessary public gatherings.

This meeting is available for viewing by the public by accessing the following link: https://zoom.us/s/99534642366

Members of the public may also dial in by phone using the following number: 1-301-715-8592 Web ID# 995 3464 2366

Public Comments are encouraged on the items as noted on the agenda and must be submitted via email to cityclerk@milford-de.gov no later than the start of the meeting. Attendees may also alert the City Clerk that they wish to speak at the appropriate time by submitting their name, address, and agenda item on which they would like to comment via the Zoom Q&A function or using the Raise Your Hand function during the meeting. All public comments received will be read into the record at the meeting.

7:00 P.M.
COUNCIL MEETING

Call to Order - Mayor Archie Campbell

Invocation

Pledge of Allegiance

Recognition
- New Employee Introduction

Public Hearings Ⓟ

Ordinance 2020-25
Changing Zoning Designations of Certain Properties in Accordance with 2018 Comprehensive Plan, as amended on July 22, 2019. Tax Map 1-30-3.08-007.00; 1-30-3.08-026.00; 1-30-3.11-051.00; 1-30-3.11-052.01; 3-30-7.13-001.00; 3-30-7.13-002.00; 3-30-7.17-269.00; 3-30-7.17-270.00; MD-16-182.00-01-04.00; MD-16-183.07-01-65.00; MD-16-183.09-01-52.00

Ordinance 2020-26
Davis, Bowen & Friedel on behalf of Milford Ponds LLC for a Final Major Subdivision (Phase II Only) of 28.06 +/- acres into 89 single family units in R1, R2, and R3 Zoning Districts. Property is located along Patchwork Drive and Round Robin Drive in the Milford Ponds Subdivision, Milford, Delaware. Present Use: Subdivision known as Milford Ponds; Proposed Use: Same. Tax Map: 1-30-3.00-264.01, 1-30-3.00-558.00, 1-30-6.00-600.00 through -691.00

Communication & Correspondence

Unfinished Business

New Business
- Authorization/Lease/Mill Street Property
- Adoption/Resolution 2020-32/Walnut Village Phase II/Acceptance of Phase II & Roadway Ⓟ
- Adoption/Resolution 2020-33/Planning & Development Fee Schedule Ⓟ
- Adoption/Resolution 2020-39/Permission/Santa Claus to Use Customer Service Drive-Thru[1] Ⓟ
- Adoption/Resolution 2020-40/Grant Application Authorization/Southeast Regional Water System Evaluation[2] Ⓟ
- Bid Award/City Emergency Operations Plan
- Authorization/Funding/Inflow and Infiltration Repair Project[3]

Executive Session
- Motion to Recess into Executive Session
  Pursuant to 29 Del. C. §10004(b)(4) Strategy sessions, including those involving legal advice or opinion from an attorney-at-law, with respect to collective bargaining or pending or potential litigation

- Return to Open Session
- Potential Vote/Litigation Matter

Adjournment

All items on the Council Meeting Agenda are subject to a potential vote.

SUPPORTING DOCUMENTS MUST BE SUBMITTED TO THE CITY CLERK IN ELECTRONIC FORMAT NO LATER THAN ONE WEEK PRIOR TO MEETING; NO PAPER DOCUMENTS WILL BE ACCEPTED OR DISTRIBUTED AFTER PACKET HAS BEEN POSTED ON THE CITY OF MILFORD WEBSITE.

Ⓟ *Public Comment, up to three minutes per person, will be accepted.*

071620 081020 101320 102820 111720
[1]11.18.2020 Late Addition result of Governor's latest modification to Coronavirus Emergency Declaration
[2]Ommitted in Error/Late Addition due to Deadline Requirements
[3]Late Addition/End of Year Req


The Pledge of Allegiance
I pledge allegiance to the flag
of the United States of America,
and to the republic for which it stands,
one nation under God,
indivisible, with liberty and justice for all.

CITY OF MILFORD
NOTICE OF PUBLIC HEARINGS

Planning Commission Hearing: Tuesday, November 17, 2020
City Council Hearing: Monday, November 23, 2020

NOTICE IS HEREBY GIVEN that the following Ordinance is currently under review by Milford Planning Commission and City Council, with action scheduled to occur on the date(s) so indicated:

ORDINANCE 2020-25
CHANGING ZONING DESIGNATIONS OF CERTAIN PROPERTIES
IN ACCORDANCE WITH THE 2018 COMPREHENSIVE PLAN,
AS AMENDED ON JULY 22, 2019

WHEREAS, Delaware Code, Title 22, Chapter 7 Planning Commission, Section 702 (c) Comprehensive Development Plan, states that the Comprehensive Plan shall be the basis for the development of zoning regulations and that within 18 months of the adoption of a comprehensive development plan or revision thereof, the municipality shall amend its official zoning map to rezone all lands within the municipality in accordance with the uses of land provided for in the comprehensive development plan; and

WHEREAS, the City of Milford adopted the City of Milford 2018 Comprehensive Plan on January 22, 2018 and amended such on July 22, 2019; and

WHEREAS, the City of Milford has prepared a map for the Comprehensive Rezoning 2020, showing recommendations to change zoning designations of specific properties so that the City of Milford Zoning Map is in accordance with the adopted 2018 Comprehensive Plan, as amended on July 22, 2019; and

WHEREAS, the City of Milford Planning Commission will consider the changes of zone application at a Public Hearing on November 17, 2020; and

WHEREAS, Milford City Council will hold a Public Hearing on November 23, 2020 to allow for public comment and further review of the ordinance.

NOW, THEREFORE, THE CITY OF MILFORD HEREBY ORDAINS that from and after the passage and approval of this ordinance the Zoning Map and Zoning Ordinance of the City of Milford is amended by changing the zoning designations of specific properties as depicted on the series of maps entitled "City of Milford Comprehensive Rezoning 2020".

SYNOPSIS:
The proposed ordinance would rezone the below parcels as indicated in conformance with the 2018 Comprehensive Plan, as required by Delaware Code.

City of Milford
401 NE Front Street
Tax Parcel MD-16-183.07-01-65.00
15.80 +/- acres
Current Zone: I-1/Proposed Zone: R-3

Milford Pulmonary Associates LLC
39 West Clarke Avenue
Tax Parcel 1-30-3.08-026.00
0.22 +/- acres

Current Zone: H-1/Proposed Zone: OB-1

Mallory & Samuel Alexander
306 Lakeview Avenue
Tax Parcel 1-30-3.08-007.00
0.39 +/- acres
Current Zone: H-1/Proposed Zone: OB-1

Ome Thilde LLC
16 South DuPont Boulevard
Tax Parcel MD-16-183.09-01-52.00
0.40 +/- acres
Current Zone: H-1/Proposed Zone: OB-1

Millman Family Ventures LLC
31 Milford-Harrington Highway
Tax Parcel MD-16-182.00-01-04.00
1.90 +/- acres
Current Zone: I-1/Proposed Zone: C-3

William Sipple & Son Inc
300 South Rehoboth Boulevard
Tax Parcel 3-30-7.17-269.00
1.23 +/- acres
Current Zone: I-1/Proposed Zone: C-3

Scott G & Jacque M Sipple
0 Lovers Lane
Tax Parcel 3-30-7.17-270.00
0.17 +/- acres
Current Zone: R-2/Proposed Zone: C-3

Don Ung Kang & Dong Sun
200 South Rehoboth Boulevard
Tax Parcel 3-30-7.13-001.00
0.76 +/- acres
Current Zone: I-1/Proposed Zone: C-3

Maull Properties LLC
201 South Rehoboth Boulevard
Tax Parcel 3-30-7.13-002.00
4.18 +/- acres
Current Zone: I-1/Proposed Zone: C-3

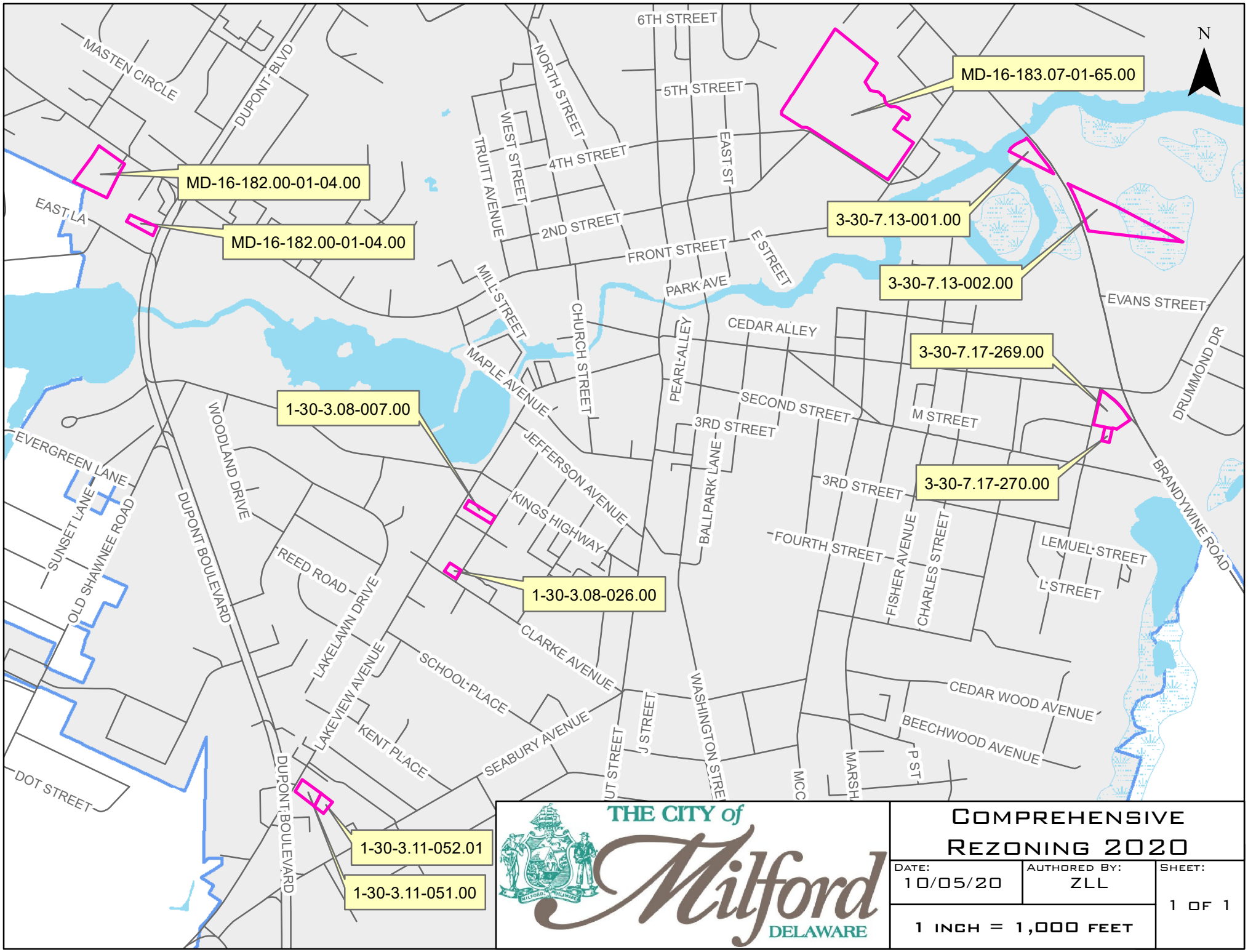
Henry S Mast
910 Lakeview Avenue
Tax Parcel 1-30-3.11-051.00
0.59 +/- acres
Current Zone: R-1/Proposed Zone: C-3

Henry S Mast
0 Seabury Avenue

Tax Parcel 1-30-3.11-052.01
0.29 +/- acres
Current Zone: R-1/Proposed Zone: C-3

Planning Commission Review & Public Hearing: November 17, 2020
City Council Introduction: November 9, 2020
City Council Review & Public Hearing: November 23, 2020
Adoption: November 23, 2020
Effective: December 3, 2020
This ordinance shall take effect and be in force ten days after its adoption.

Advertised*: Beacon 10/28/20*


N
MD-16-183.07-01-65.00
MD-16-182.00-01-04.00
MD-16-182.00-01-04.00
3-30-7.13-001.00
3-30-7.13-002.00
3-30-7.17-269.00
3-30-7.17-270.00
1-30-3.08-007.00
1-30-3.08-026.00
1-30-3.11-052.01
1-30-3.11-051.00
6TH STREET
5TH STREET
4TH STREET
2ND STREET
FRONT STREET
NORTH STREET
WEST STREET
EAST ST
E STREET
TRUITT AVENUE
MASTEN CIRCLE
DUPONT BLVD
EAST LA
MILL STREET
PARK AVE
CHURCH STREET
PEARL ALLEY
CEDAR ALLEY
EVANS STREET
DRUMMOND DR
MAPLE AVENUE
SECOND STREET
M STREET
3RD STREET
BALLPARK LANE
BRANDYWINE ROAD
EVERGREEN LANE
SUNSET LANE
OLD SHAWNEE ROAD
WOODLAND DRIVE
DUPONT BOULEVARD
JEFFERSON AVENUE
KINGS HIGHWAY
FOURTH STREET
FISHER AVENUE
CHARLES STREET
LEMUEL STREET
L STREET
REED ROAD
LAKELAWN DRIVE
LAKEVIEW AVENUE
SCHOOL PLACE
CLARKE AVENUE
WASHINGTON STREET
CEDAR WOOD AVENUE
BEECHWOOD AVENUE
KENT PLACE
SEABURY AVENUE
DOT STREET
J STREET
P ST
THE CITY of Milford DELAWARE
COMPREHENSIVE REZONING 2020
DATE: 10/05/20
AUTHORED BY: ZLL
SHEET: 1 OF 1
1 INCH = 1,000 FEET

CITY OF MILFORD
NOTICE OF PUBLIC HEARINGS

Planning Commission Hearing: Tuesday, November 17, 2020
City Council Hearing: Monday, November 23, 2020

NOTICE IS HEREBY GIVEN that the following Ordinance is currently under review by Milford Planning Commission and City Council, with action scheduled to occur on the date(s) so indicated:

ORDINANCE 2020-25
CHANGING ZONING DESIGNATIONS OF CERTAIN PROPERTIES
IN ACCORDANCE WITH THE 2018 COMPREHENSIVE PLAN,
AS AMENDED ON JULY 22, 2019

WHEREAS, Delaware Code, Title 22, Chapter 7 Planning Commission, Section 702 (c) Comprehensive Development Plan, states that the Comprehensive Plan shall be the basis for the development of zoning regulations and that within 18 months of the adoption of a comprehensive development plan or revision thereof, the municipality shall amend its official zoning map to rezone all lands within the municipality in accordance with the uses of land provided for in the comprehensive development plan; and

WHEREAS, the City of Milford adopted the City of Milford 2018 Comprehensive Plan on January 22, 2018 and amended such on July 22, 2019; and

WHEREAS, the City of Milford has prepared a map for the Comprehensive Rezoning 2020, showing recommendations to change zoning designations of specific properties so that the City of Milford Zoning Map is in accordance with the adopted 2018 Comprehensive Plan, as amended on July 22, 2019; and

WHEREAS, the City of Milford Planning Commission will consider the changes of zone application at a Public Hearing on November 17, 2020; and

WHEREAS, Milford City Council will hold a Public Hearing on November 23, 2020 to allow for public comment and further review of the ordinance.

NOW, THEREFORE, THE CITY OF MILFORD HEREBY ORDAINS that from and after the passage and approval of this ordinance the Zoning Map and Zoning Ordinance of the City of Milford is amended by changing the zoning designations of specific properties as depicted on the series of maps entitled "City of Milford Comprehensive Rezoning 2020".

SYNOPSIS:
The proposed ordinance would rezone the below parcels as indicated in conformance with the 2018 Comprehensive Plan, as required by Delaware Code.

City of Milford
401 NE Front Street
Tax Parcel MD-16-183.07-01-65.00
15.80 +/- acres
Current Zone: I-1/Proposed Zone: R-3

Milford Pulmonary Associates LLC
39 West Clarke Avenue
Tax Parcel 1-30-3.08-026.00
0.22 +/- acres

Current Zone: H-1/Proposed Zone: OB-1

Mallory & Samuel Alexander
306 Lakeview Avenue
Tax Parcel 1-30-3.08-007.00
0.39 +/- acres
Current Zone: H-1/Proposed Zone: OB-1

Ome Thilde LLC
16 South DuPont Boulevard
Tax Parcel MD-16-183.09-01-52.00
0.40 +/- acres
Current Zone: H-1/Proposed Zone: OB-1

Millman Family Ventures LLC
31 Milford-Harrington Highway
Tax Parcel MD-16-182.00-01-04.00
1.90 +/- acres
Current Zone: I-1/Proposed Zone: C-3

William Sipple & Son Inc
300 South Rehoboth Boulevard
Tax Parcel 3-30-7.17-269.00
1.23 +/- acres
Current Zone: I-1/Proposed Zone: C-3

Scott G & Jacque M Sipple
0 Lovers Lane
Tax Parcel 3-30-7.17-270.00
0.17 +/- acres
Current Zone: R-2/Proposed Zone: C-3

Don Ung Kang & Dong Sun
200 South Rehoboth Boulevard
Tax Parcel 3-30-7.13-001.00
0.76 +/- acres
Current Zone: I-1/Proposed Zone: C-3

Maull Properties LLC
201 South Rehoboth Boulevard
Tax Parcel 3-30-7.13-002.00
4.18 +/- acres
Current Zone: I-1/Proposed Zone: C-3

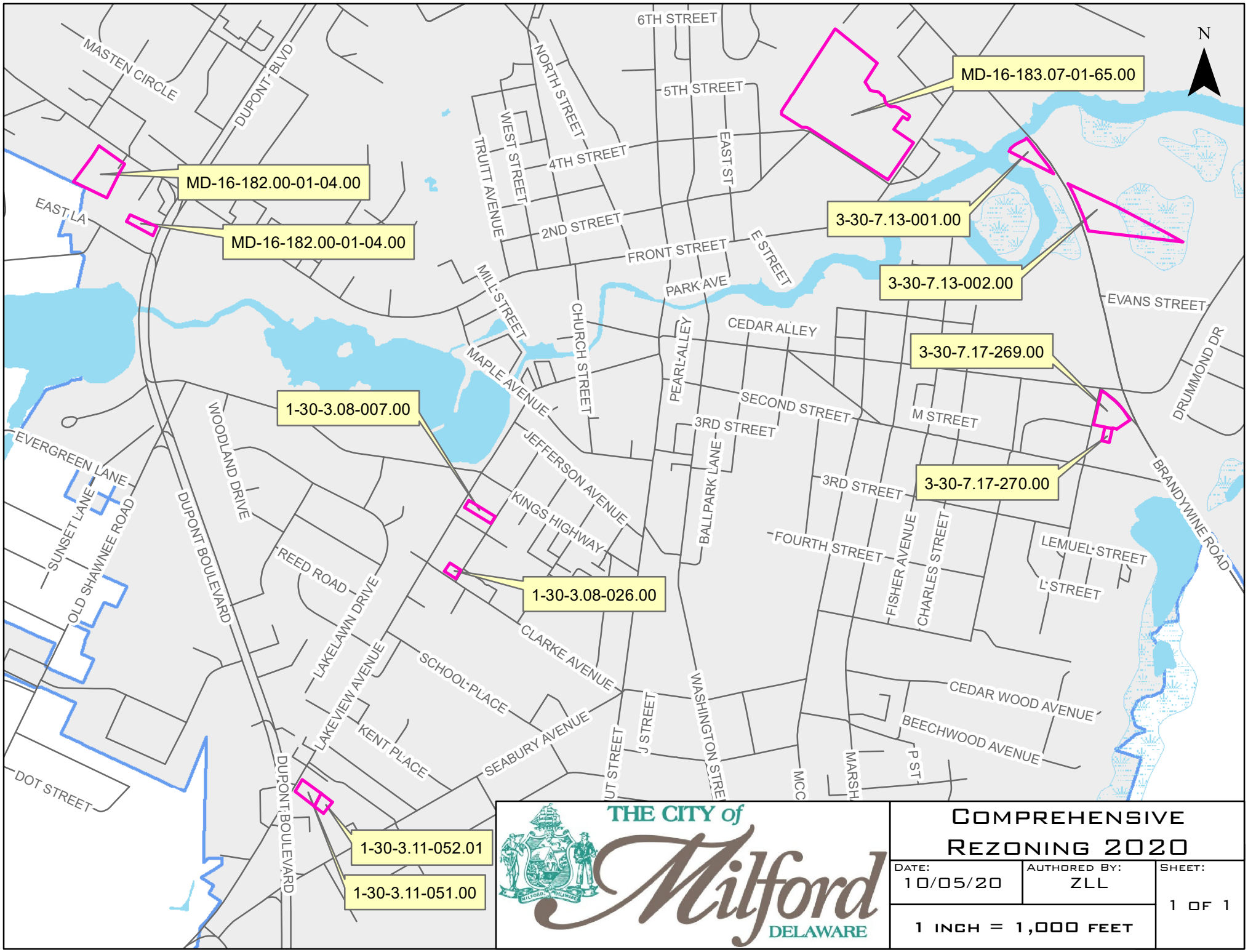
Henry S Mast
910 Lakeview Avenue
Tax Parcel 1-30-3.11-051.00
0.59 +/- acres
Current Zone: R-1/Proposed Zone: C-3

Henry S Mast
0 Seabury Avenue

Tax Parcel 1-30-3.11-052.01
0.29 +/- acres
Current Zone: R-1/Proposed Zone: C-3

Planning Commission Review & Public Hearing: November 17, 2020
City Council Introduction: November 9, 2020
City Council Review & Public Hearing: November 23, 2020
Adoption: November 23, 2020
Effective: December 3, 2020
This ordinance shall take effect and be in force ten days after its adoption.

Advertised*: Beacon 10/28/20*


N
MD-16-183.07-01-65.00
MD-16-182.00-01-04.00
MD-16-182.00-01-04.00
3-30-7.13-001.00
3-30-7.13-002.00
3-30-7.17-269.00
3-30-7.17-270.00
1-30-3.08-007.00
1-30-3.08-026.00
1-30-3.11-052.01
1-30-3.11-051.00
6TH STREET
5TH STREET
4TH STREET
2ND STREET
FRONT STREET
NORTH STREET
WEST STREET
EAST ST
E STREET
TRUITT AVENUE
MASTEN CIRCLE
DUPONT BLVD
EAST LA
MILL STREET
PARK AVE
CHURCH STREET
PEARL ALLEY
CEDAR ALLEY
EVANS STREET
DRUMMOND DR
MAPLE AVENUE
SECOND STREET
M STREET
3RD STREET
BALLPARK LANE
BRANDYWINE ROAD
EVERGREEN LANE
SUNSET LANE
OLD SHAWNEE ROAD
WOODLAND DRIVE
DUPONT BOULEVARD
JEFFERSON AVENUE
KINGS HIGHWAY
FOURTH STREET
FISHER AVENUE
CHARLES STREET
LEMUEL STREET
L STREET
REED ROAD
LAKELAWN DRIVE
LAKEVIEW AVENUE
SCHOOL PLACE
CLARKE AVENUE
WASHINGTON STREET
CEDAR WOOD AVENUE
BEECHWOOD AVENUE
KENT PLACE
SEABURY AVENUE
DOT STREET
J STREET
P ST
THE CITY of Milford DELAWARE
COMPREHENSIVE REZONING 2020
DATE: 10/05/20
AUTHORED BY: ZLL
SHEET: 1 OF 1
1 INCH = 1,000 FEET

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR CITY OF MILFORD

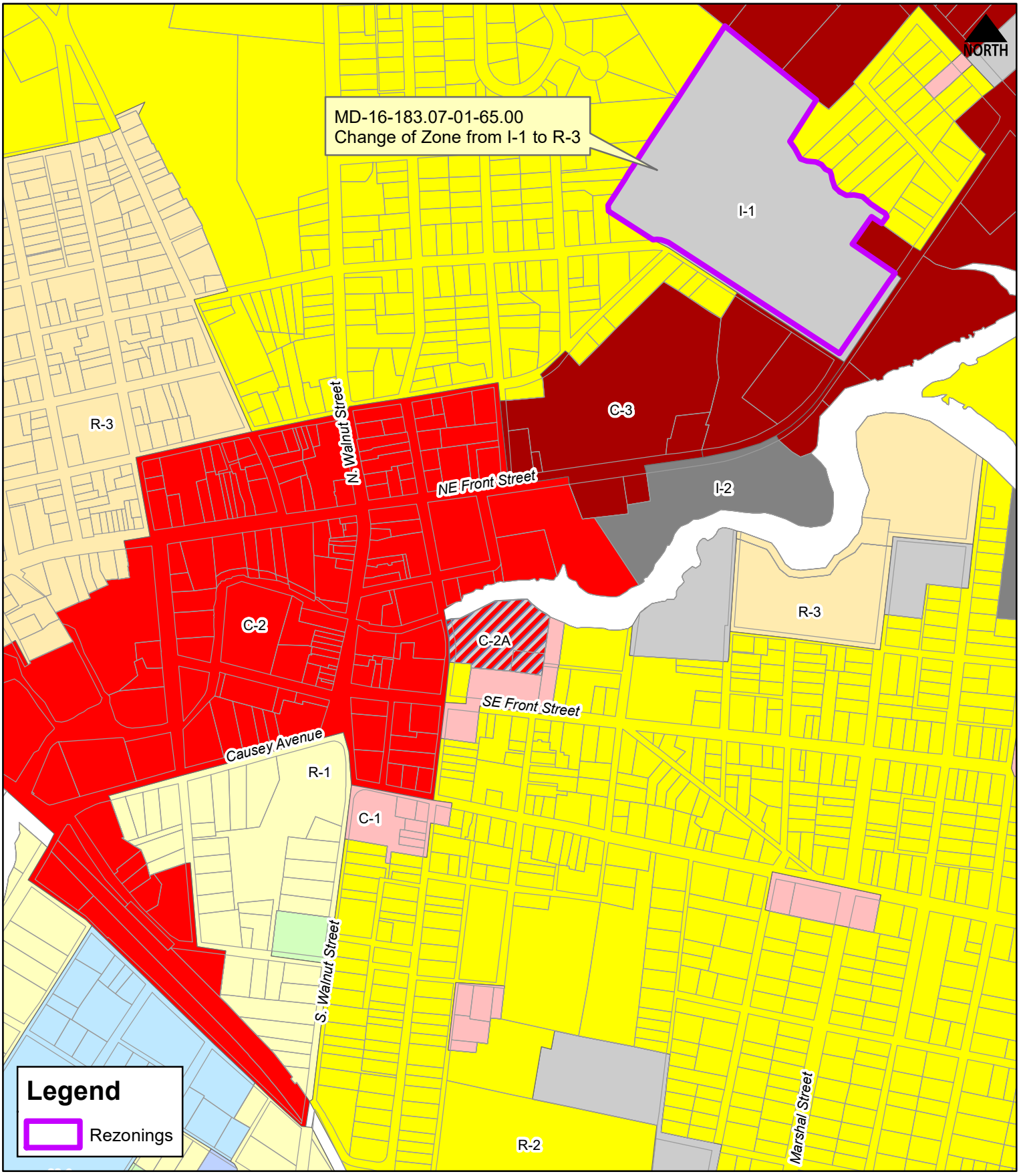
Planning Commission Meeting: November 17, 2020

Owner	:	City of Milford 201 S. Walnut Street Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Moderate Density Residential
Present Zoning District	:	I-1 (Limited Industrial District)
Proposed Zoning District	:	R-3 (Garden Apartment & Townhouse)
Present Use	:	Vacant
Size and Location	:	15.8 +/- acres of land located along the north side of NE Front Street east of NE Fourth Street.
Tax Map & Parcel	:	MD-16-183.07-01-65.00

Staff Analysis

The property is the proposed future location of the Milford Police Station. The change of zone would be consistent with the 2018 Comprehensive Plan and the City's proposed future use of the property.

ENC: Exhibit D – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: 0 250 500 Feet

Drawn by: WRP

Date: 10/01/20

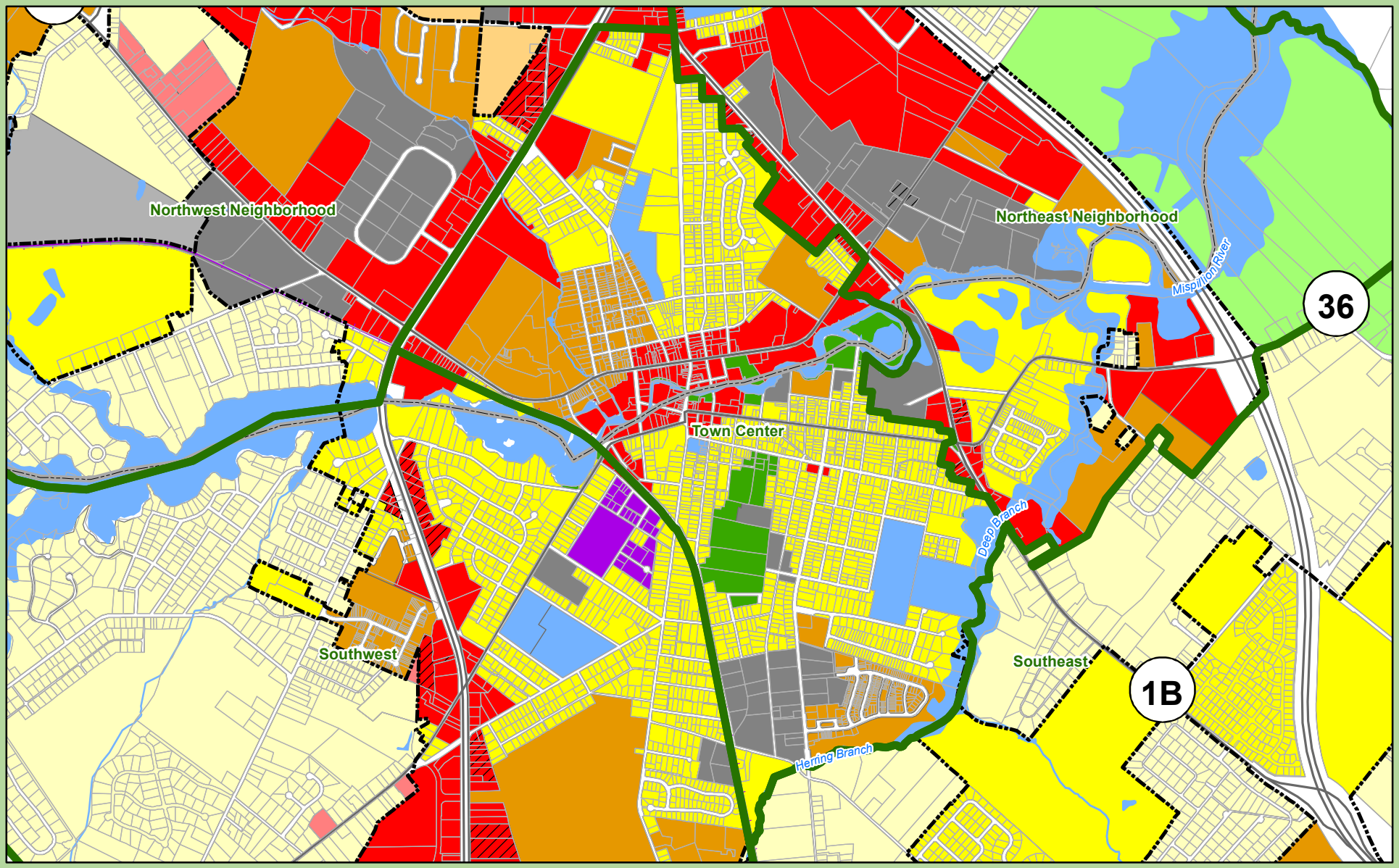
Filepath: ComprehensiveRezoning_ExhibitD.mxd

Title:

Exhibit D - 2020 Rezonings

2020 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Town Center

Adopted Jan. 22, 2018, Certified TBD

0 0.1 0.2 0.4 0.6 0.8 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-11. - R-3 Garden Apartment and Townhouse District.

In an R-3 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The purpose of the R-3 District is to provide for the orderly development of existing and proposed medium- to high-density residential areas where adequate public facilities exist. The district will permit development of garden-type apartments as well as townhouses that will yield high densities in selected areas, multifamily dwellings and a variety of housing types.

B. Permitted uses. Permitted uses for the R-3 District shall be as follows:

(1) All uses permitted in an R-2 District and subject to its area regulations, unless otherwise indicated in this section as provided below:

(a) Single-family and two-family dwellings shall be subject to the following area regulations:

[1] Minimum lot area shall be 7,500 square feet.

[2] Maximum building coverage shall be 45%.

[3] Minimum lot width shall be 60 feet.

[4] Height of buildings shall not exceed three stories or 35 feet.

[5] Minimum building setback line shall be 30 feet.

[6] Side yards shall be provided as follows: each lot shall have at least two side yards eight feet in width, except semidetached structures, which shall have at least one side yard per lot eight feet in width.

[7] Minimum rear yard setback shall be 15 feet. For corner lots the rear yard setback may be reduced 20% in depth to allow for skewing of a residential dwelling on the lot.

[8] Decks, subject to the following requirements:

[Added 9-8-2008 by Ord. No. 2008-13]

[a] The deck cannot be located in the front yard.

[b] A minimum distance of 10 feet must be maintained from the deck to the rear property line.

(2) Garden or low-rise apartments, subject to site plan review and the following requirements:

(a) The number of dwelling units per acre shall not exceed 16.

(b) Building coverage shall be a maximum of 20% for any lot developed for garden apartments.

(c) The maximum number of dwelling units per building shall be 12.

(d) Distance between buildings or groups of buildings shall be as follows: each building or group of buildings shall be at least 25 feet from any other building or group of buildings.

(e) Minimum lot width on any public street shall be at least 50 feet.

(f) Minimum lot size shall be one acre for garden apartment properties or complexes, with a minimum of 2,500 square feet of lot area for each dwelling unit.

(g) A minimum of 400 square feet per unit shall be designated as open space subject to the following recreational use requirements in Subsection B(2)(h) herein.

(h) Recreational use requirement. 50% of the required open space shall be set aside for recreational uses. This requirement only applies to subdivisions or developments with 15 or more lots or units.

(3) Townhouses or row dwellings, subject to site plan review and the following requirements:

(a) The number of dwelling units per group shall not exceed eight nor be fewer than three.

(b) The number of dwelling units per acre shall not exceed 12.

(c) Maximum building coverage shall be 60%.

(d) No group of townhouses shall be closer than 60 feet as to facing walls and 30 feet as to end walls from any other group of such dwellings nor closer than 60 feet from any boundary line of a designated townhouse area of which the group is a part.

(e) There shall be within any contiguous group of townhouses at least three different architectural plans having substantially different designs and building materials. In addition, no more than three continuous townhouses shall have the same front setback, and the variations in front setback shall be at least four feet.

(f) The minimum width of any side yard abutting a street, driveway or parking area within the townhouse area shall not be less than 30 feet.

(g) Height of buildings shall not exceed three stories or 35 feet.

(h) Alleys in the rear of townhouse groups are required for access to units by owners and to facilitate City services, trash collection, meter reading and parking.

(i) Minimum lot size shall be one acre for townhouse projects or complexes, with a minimum of 2,000 square feet of lot area for each dwelling unit.

(j) A minimum of 400 square feet per unit shall be designated as open space subject to the recreational use requirements in Subsection B(3)(k) herein.

(k) Recreational use requirement. 50% of the required open space shall be set aside for recreational uses. This requirement only applies to subdivisions or developments with 15 or more lots or units. [2]

C. Conditional uses subject to special regulations. All uses specified as conditional uses in the R-1 and R-2 Districts and subject to its area regulations, and the following uses may be permitted with the approval of a conditional use permit by the Milford City Council in accordance with the provisions of Article IX of this chapter:

(1) Rooming or boarding houses.

(2) Business offices for administrative purposes only.

(3) Professional offices (nonresident).

(4) Medical clinics.

(5) Sanatoriums or nursing homes.

(6) Mobile home parks, subject to conformance with the following requirements and subject to site plan review:

(a) The total area to be developed as a mobile home park shall be at least 20 acres.

(b) The maximum density shall not exceed eight units per acre.

(c) Mobile home parks with more than 25 units shall provide at least 5,000 square feet or 400 square feet per lot of open space. At least 10% of the open space shall be developed as a recreational area.

(d) Landscape screening shall be required along all property lines. The screening shall be accomplished with an evergreen hedge, shrubs or trees. The screen shall be located not less than five feet from the property line.

(e) Common sidewalks four feet in width shall be required where pedestrian traffic is located. Individual sidewalks 2 1/2 feet wide shall connect each mobile home unit to the common walk.

(f) Off-street parking shall be provided on the basis of two spaces per lot. All parking areas shall be located not more than 400 feet from the mobile home unit. There shall be no on-street parking.

(g) Streets shall be required from abutting public streets to individual lots. The streets shall be designed to minimize congestion and traffic hazards and must be built to the street and storm drainage specifications of Chapter 200, Subdivision of Land, of this Code. No more than two streets shall intersect at one point.

(h) Minimum requirements for mobile home lots.

[1] Lot area shall be 5,000 square feet per mobile home.

[2] Width shall be 40 feet.

[3] Public street setback shall be 50 feet.

[4] Mobile home park setback shall be 35 feet.

[5] Mobile home street or parking area setback shall be 30 feet.

[6] Distance from other mobile homes and buildings shall be 25 feet.

[7] One patio shall be required per unit, 10 feet by 40 feet paved.

[8] Landscaping shall be one tree per lot.

[9] Mobile homes must meet the requirements of the Federal Manufacturer Housing Construction and Safety Standard Act of 1974.

[10] The entire lot occupied by a mobile home park shall be maintained in single ownership throughout the entire life of the mobile home park.

(7) Art or specialty shops/galleries. The following items shall be reviewed for conformance during the site plan review hearing by the Planning Commission:

[Added 7-16-1990]

(a) The residence shall remain as the predominant feature of the site.

(b) The shop or gallery shall occupy only 40% of the residence.

(c) Public parking shall be available, with the determination of said parking requirements being made by the Planning Commission during the site plan review hearing. These determinations and recommendations must be done in conjunction with any state regulations concerning traffic control within the given site area.

(d) The Fire Marshal review must be applied for and recommendations made by the agency must be presented two weeks prior to the hearing date. All requests or recommendations shall be adhered to.

(8) Planned unit residential development.

[Added 6-11-2001 by Ord. No. 4-2001; Ord. No. 2009-17, §§ 3, 4, 4-26-2010; Ord. No. 2015-02, § 2, 3-23-2015; Ord. No. 2019-12, § 1, 4-22-2019; Ord. No. 2019-38, § 4, 11-25-2019]

Footnotes:

--- (**2**) ---

Editor's Note: Former Subsection B(4), regarding planned unit developments, was repealed 6-11-2001 by Ord. No. 4-2001. See now Subsection C(8).

§ 230-16. - I-1 Limited Industrial District.

[Amended 7-9-1990]

In an I-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of an I-1 Limited Industrial District shall be to provide locations for the development of light to moderate industrial manufacturing, warehousing, wholesale and limited research establishments which, because of their type and nature, would be compatible with or adjacent to residential areas. Also, the purpose is to provide guidelines and performance standards which will control and confine any offensive features (i.e., noise, vibration, heat, smoke, glare, dust, objectionable odors, toxic wastes or unsightly storage) to the confines of the premises and within enclosed buildings or within a visually enclosed space.

B. Permitted uses. Permitted uses of the I-1 District shall be as follows:

(1) All permitted uses of the OC-1 District and BP District. [Ord. No. 2017-03, § 1, 2-27-2017]

(2) Light manufacturing, assembling, converting, altering, finishing, baking, cooking or any other type of processing or storage of an industrial nature for the production and/or distribution of any goods, materials, products, instruments, appliances and devices, provided that the fuel or power supply shall be of an approved type. Also included shall be all incidental clinics, offices, cafeterias and recreational facilities for the exclusive use of in-house staff and employees.

(3) Research, design, testing and development laboratories.

(4) Printing, publishing, binding, packaging, storage, warehousing, distribution and trucking terminal operations and trucking schools.

(5) Municipal and public services and facilities, such as utility supply areas (i.e., water, sewer and electric), distribution facilities and substations.

(6) Truck or large vehicle repair facilities with associated parking area. All fuel and lubricant storage shall be installed in compliance with state and federal regulations and shall not be closer than 500 feet to any school or building(s) used for assembly.

[Added 12-16-1996]

C. Prohibited uses. The following are expressly prohibited in an I-1 District:

(1) Residences, except those in existence at the time of adoption of this amendment.

(2) Manufacturing uses involving production of the following products from raw materials: asphalt, cement, charcoal and fuel briquettes; chemicals: aniline dyes, ammonia, carbide, caustic soda, cellulose, chlorine, carbon black and bone black, creosote, hydrogen and oxygen, industrial alcohol, nitrates (both natural and manufactured) of an explosive nature, potash, petro chemical, pyroxylin, rayon yarn and hydrochloric, nitric, picric, phosphoric and sulfuric acids; coal, coke and tar products, including gas manufacturing, explosives, fertilizers, glue and size

(animal); linoleum and oil cloth, matches, paint, varnishes and turpentine; rubber (natural and synthetic); and soaps, including fat rendering.

(3) Dumps, junkyards, automobile salvage and dismantling plants/yards, storage areas or operations for the storage or resale of used automotive or other machine parts.

(4) Operations involving slaughterhouses, stockyards or slag piles.

(5) Storage of explosives and bulk or wholesale storage of gasoline above ground.

(6) Quarries, stone crushers, screening plants and all associated uses.

(7) The following processes: large-scale reduction, refining, smelting and alloying of metal or metal ores; refining petroleum products, such as gasoline, kerosene, naphtha and lubricating oil; and reduction and processing of wood pulp and fiber, including paper mill operations.

D. Conditional uses. The following uses are permitted in the I-1 District, in accordance with the provisions within Article IX (conditional use portion) of this chapter:

(1) Airfields or airpark facilities.

(2) Mini-warehouses or public storage facilities.

(3) Radio-television facilities.

(4) Craft distillery and microbrewery establishments, provided that:

(a) All permits and approvals required by the Delaware Alcoholic Beverage Commission are obtained and remain in full force and effect.

(b) All aspects of the distilling or brewing process are completely confined within a building, including storage of all materials and finished products.

(c) Such establishment offers the public, on a regular and continuing basis, various activities ancillary to its distilling and/or brewing process, including by way of example: tours of the premises, educational classes, demonstrations, tasting rooms, and retail sales areas limited to the sale of beer, mead, cider, or spirits brewed or distilled on the premises for consumption off-premises and other retail items.

(d) On-site consumption or tasting associated with a craft distillery or microbrewery establishment shall be permitted. Any area associated with on-site consumption or tasting shall not operate as a stand-alone bar or tavern, shall be located on the premises of the craft distillery or microbrewery establishment, and shall be ancillary to the primary use. "Ancillary" for purposes of this section means subordinate, auxiliary, smaller and less intensive than the primary use. On-site consumption or tasting of alcohol shall be limited to those products brewed or distilled on the premises, except as otherwise permitted by Delaware Law.

(e) All food sales shall be limited to prepackaged snack items or those food items prepared by a food establishment licensed by the State of Delaware. If a craft distillery or microbrewery intends to operate on its premises a food establishment that is otherwise a permitted use in this district (i.e. restaurant, café, or full-service restaurant), the City may require the property owner to provide the City with a letter of no objection from the Delaware Alcoholic Beverage Control Commissioner regarding the operation of a food establishment on the premises of a craft distillery or microbrewery.

(f) Outdoor seating and gathering areas shall be permitted subject to the following requirements:

i. Permanent and temporary outdoor seating and gathering areas shall be subject to building permit application and approval requirements.

ii. Outdoor seating and gathering areas and ancillary improvements shall include physical barriers from public rights-of-way and physical and visual barriers from

adjoining properties. Physical barriers along public rights-of-way shall restrict access from the public rights-of-way to the outdoor seating and gathering areas and shall not exceed four feet in height. Barriers along adjoining property lines shall create a physical and visual barrier consisting of fencing six feet in height or vegetation at least six feet in height. The regulations herein shall be in addition to any regulations imposed by the State of Delaware.

iii. Maximum occupancy and points of ingress/egress shall be clearly marked. Occupancy of outdoor seating and gathering areas shall not exceed one person per 15 square feet of the outdoor seating and gathering areas identified in the building plans or any other occupancy limit established by the Office of the State Fire Marshall.

iv. All structures and uses related to outdoor seating and gathering areas and facilities are subject to the City of Milford Building Code and the City of Milford Zoning Code.

v. The occupancy of outdoor seating and gathering areas shall be included when calculating the building requirements and minimum parking standards required by the City of Milford and State of Delaware. Outdoor seating and gathering areas shall meet all requirements of the City of Milford and the State of Delaware.

vi. Tables, chairs, umbrellas, equipment, games, and any other items provided in connection with outdoor seating and gathering areas shall be maintained in good repair and shall be secured during non-business hours in a safe and orderly manner.

vii. Any licensing required by the Delaware Alcoholic Beverage Control Commissioner for outdoor seating and gathering areas shall be obtained.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater restrictions as may be required by the Planning Commission.

(1) Accessory uses shall not be permitted without a principal use.

(2) Any uses not permitted, as previously listed, are prohibited.

(3) All uses shall be conducted within a completely enclosed building. There shall be no open storage of raw, in process or finished products, supplies or waste material, except that these items shall be shielded from public view by a landscaped screen, fence or wall.

(4) In a planned industrial park or any lands designated as an I-1 District, no building/structure, accessory structure or sign shall be located closer than 200 feet to any nonindustrial district boundary.

(5) Adequate off-street parking shall be provided for all employees and traffic to the buildings. The minimum requirements are given in Article IV of this chapter and are to be deemed as minimum standards only. Standards in excess of those stated in Article IV may be stipulated by the Planning Commission during the site plan review.

(6) All fencing shall be properly maintained.

(7) All front yard areas and all areas open to public view shall be maintained in a neat and attractive condition.

(8) All loading operations shall be conducted at the side or rear of the building. In the unloading or loading process, no vehicles participating in these operations shall be allowed to extend into any public or private driveway or street or impede its traffic circulation.

(9) All odorous fumes or matter emitted into the environment from any/all fuel-burning equipment, open stacks and internal combustion engines must comply with the requirements set forth by the State of Delaware, Department of Natural Resources and Environmental Control (DNREC).

(10) Dust or particulate debris from any processing or production operations will be minimized by the use of appropriate mechanical and/or electrical devices to the extent necessary to ensure that such emissions shall not be offensive at or beyond the property line of the

industry/warehouse. All such activities will comply with the requirements of the DNREC, State of Delaware.

(11) All internal roads, driveways and parking areas (for public, in-house employee or truck/vehicular traffic) shall be paved.

(12) All dry waste, in dust or particulate form, will be transported in closed or covered vehicles.

(13) The proposed use shall not endanger the surrounding areas to the possibilities of fire, explosion or contamination. All uses shall comply with state regulations which govern their operations. There shall be no allowance for the storage of radioactive materials or those materials deemed to be toxic or dangerous. All liquid storage shall have an approved containment (area) barricade capable of containing any failure of storage medium.

(14) The proposed use shall not allow the emission of heat or glare beyond its property line. All lighting shall be directed so as not to cause glare to the surrounding properties. The light source shall be shielded so as not to be visible from adjoining properties or streets.

(15) All I-1 District projects and proposals are subject to site plan review by the Planning Commission.

F. Area and height regulations.

(1) Minimum lot area shall be two acres.

(2) Maximum lot coverage shall be 60%, with the remainder being that of grass and landscape areas. Parking areas shall be landscaped.

(3) Minimum lot width shall be 150 feet.

(4) Maximum building height shall be 50 feet.

(5) Minimum front yard setback shall be 75 feet.

(6) Minimum side yard setback shall be 40 feet.

(7) Minimum rear yard setback shall be 45 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening. See Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

(11) Accessory structures shall occupy no more than 10% of the lot area.

(12) Accessory structures shall be located in the rear yard/lot area.

(13) Accessory structures shall be located at least 45 feet from the rear lot line.

[Ord. No. 2019-31, § 5, 9-23-2019; Ord. No. 2019-38, § 9, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR MILFORD PULMONARY ASSOCIATES LLC

Planning Commission Meeting: November 17, 2020

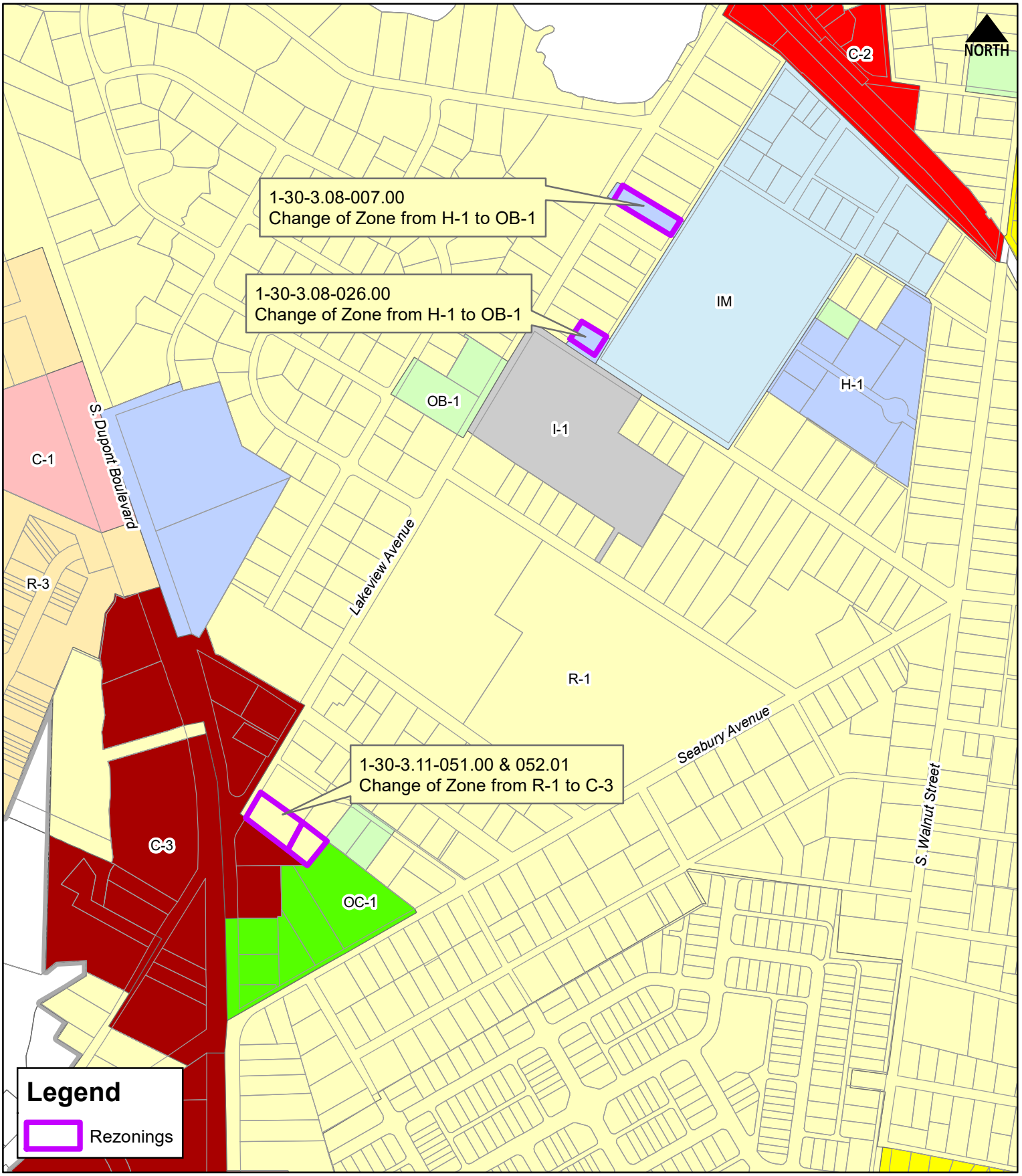
Owner	:	Milford Pulmonary Associates, LLC 39 W. Clarke Avenue Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Low Density Residential
Present Zoning District	:	H-1 (Institutional Development District)
Proposed Zoning District	:	OB-1 (Office Building District)
Present Use	:	Medical Office
Size and Location	:	0.22 +/- acres of land located at the northwest intersection of W. Clarke Avenue and Williams Street. Addressed as 39 W. Clarke Avenue.
Tax Map & Parcel	:	1-30-3.08-026.00

Staff Analysis

The purpose of the OB-1 district is to provide locations for the operation of professional offices of a low-profile, low traffic category in areas of a residential nature where existing nonresidential buildings/structures are present. The district will provide such locations that will not detract from the surrounding residential atmosphere of the neighborhood but allow viable businesses to operate in existing buildings/structures.

The change of zone would allow more flexibility in the types of professional offices that could occupy the space. Currently, the H-1 category only permits medical and dental offices.

ENC: Exhibit B – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: Feet
0 250 500

Drawn by: WRP Date: 10/01/20

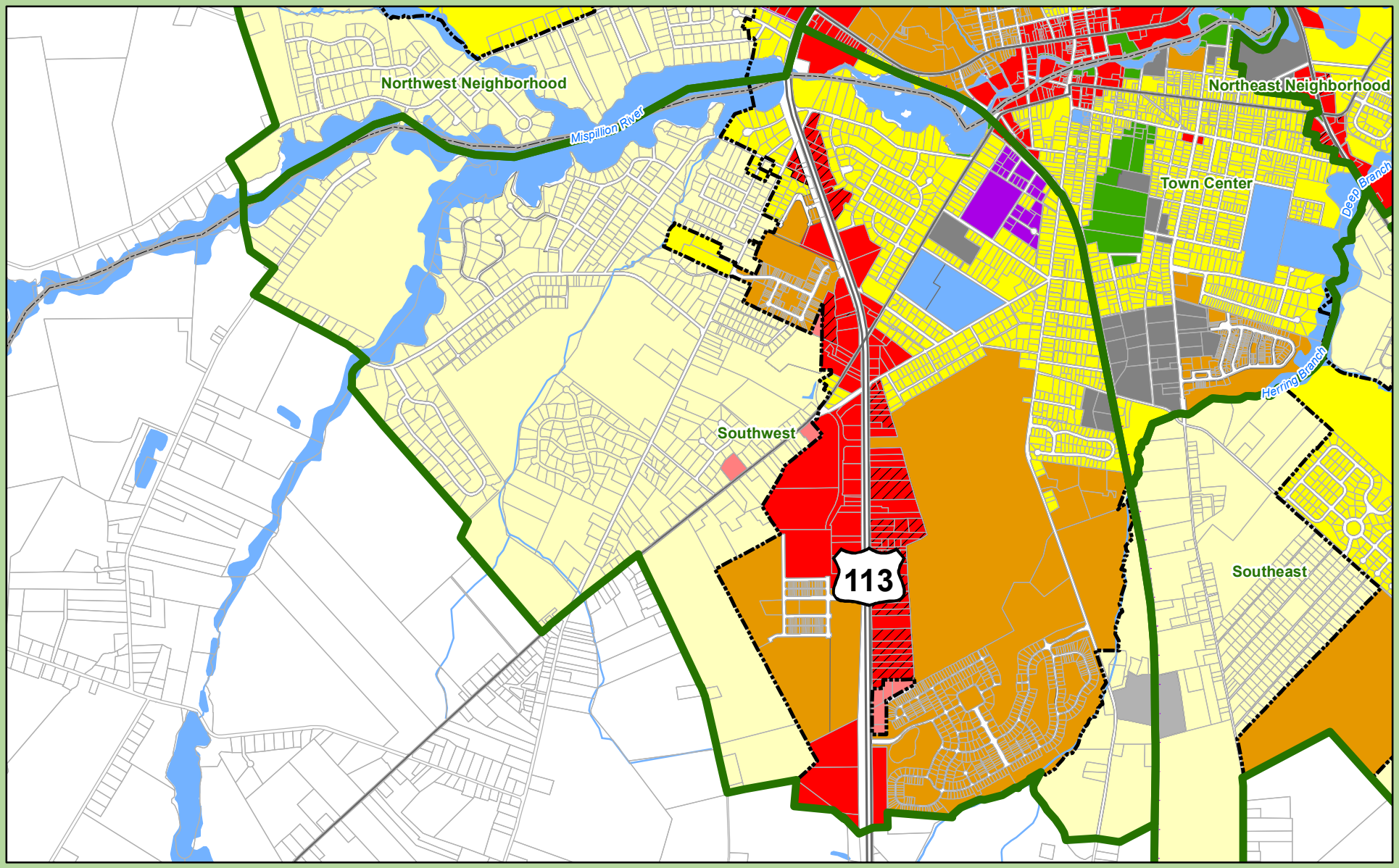
Filepath: ComprehensiveRezoning_ExhibitB.mxd

Title:

Exhibit B - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Southwest

Adopted Jan. 22, 2018, Certified TBD

0 0.1 0.2 0.4 0.6 0.8 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-15. - H-1 Institutional Development District.

In an H-1 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The intent of the H-1 Institutional Development District is to encourage the development of institutional uses in accordance with an approved plan of development. This district is to provide suitable areas and adequate safeguards for such uses to serve the City of Milford and the surrounding region.

B. Permitted uses. Permitted used for the H-1 District shall be as follows:

(1) Medical and surgical hospitals, subject to site plan review.

(2) Medical and dental centers, excluding drug abuse centers and freestanding detoxification centers.

(3) Medical arts offices and buildings.

(4) Accessory uses incidental to the permitted uses.

(5) Municipal and public services and facilities, including City Hall, water storage towers, water reservoirs, water pumping stations, water treatment plants, sewage pumping stations, sewers (storm and sanitary), street rights-of-way, utility transmission and distribution lines, public transportation bus or transit stops, police and fire stations and substations for electric, gas and telephone facilities.

C. Conditional uses subject to special regulations. The following uses may be permitted with the approval of a conditional use permit by the Milford City Council in accordance with the provisions of Article IX of this chapter:

(1) Nursing homes.

(2) Sanatoriums.

(3) Multilevel parking facilities.

(4) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 70%.

(3) Minimum lot width shall be 150 feet.

(4) Height of buildings shall not exceed 50 feet.

(5) Minimum building setback shall be as follows:

(a) Thirty feet for the first 15 feet of height.

(b) An additional 10 feet for the second 15 feet of height.

(c) Twenty feet for each additional 15 feet of height.

(6) Each side yard shall equal 20 feet for each 15 feet of height.

(7) A rear yard shall be provided to equal 20 feet for each 15 feet of height.

(8) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2019-38, § 8, 11-25-2019]

§ 230-19. - OB-1 Office Building District.

[Added 5-9-1994]

In an OB-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of the OB-1 Office Building District shall be to provide locations for the operation of professional offices of a low-profile, low-traffic category in areas of a residential nature where existing nonresidential buildings/structures are present. In short, this district will provide such locations that will not detract from the surrounding residential atmosphere of the neighborhood but allow viable businesses to operate in existing buildings/structures.

B. Permitted uses. Permitted uses for the OB-1 District shall be as follows:

(1) Professional services and administrative activities, including but not limited to architects, engineers, brokers, insurance agents, realtors, physicians, dentists, artists and attorneys, within a single occupancy setting.

(2) Branch libraries and public information centers.

C. Conditional uses. Conditional uses shall be as follows:

(1) Medical and dental clinics.

(2) Day-care facilities (group and day-care centers only).

(3) Civic or fraternal organizations.

(4) Government offices serving the public.

(5) Churches and other places of worship.

(6) New facilities proposed for vacant properties (see lot requirements).

(7) Any use which would necessitate dual-occupancy settings within the single building/structure.

(8) Musicians.

D. Prohibited uses. Any and all uses which would alter the residential nature of the neighborhood or cause such activity to occur which would deteriorate said residential atmosphere shall be prohibited.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater control than those of the permitted use variety and are additionally subject to those requirements imposed by the Planning Commission and/or the City Council.

(1) Accessory uses shall not be allowed without a principle use.

(2) The premises shall be suitably landscaped; most landscaping is present at existing sites.

(3) All driveways shall meet width requirements of the State Fire Marshal's regulations.

(4) All requirements set forth by the state guidelines for sediment and erosion control shall be complied with in all respects. Further, if any federal rulings are applicable, said property shall likewise comply in all respects.

(5) All sites shall be made to comply with the requirements set forth by the Americans with Disabilities Act, and all such needed modifications to the building or premises shall require sealed architectural plans submitted to the City Inspections Office for approval.

(6) All internal driveways and parking areas (for public, in-house staff or other vehicular traffic) shall be paved.

(7) All OB-1 District projects and proposals are subject to site plan review in such cases where expansion to an existing facility may be requested or if any upgrades required by the aforementioned codes or requirements deem any major alterations to occur. This review shall be held by the City Planning Commission.

(8) Exterior lighting will be adequately shielded from the view of all surrounding properties and streets.

F. Area and height regulations shall be as follows:

(1) Minimum lot area.

(a) Existing buildings/structures on site: none.

(b) New construction (conditional use): 1/2 acre.

(2) Maximum lot coverage (building/structure and paved area) shall be no greater than 50%, with the remainder being utilized for plantings and landscaping (new construction, with conditional use). Existing facilities shall not decrease any existing planted or landscaped areas on the site without obtaining a variance for said decrease from the Board of Adjustment.

(3) Minimum lot width.

(a) New construction, with conditional use: 100 feet.

(b) Existing facilities: existing dimension accepted.

(4) Maximum building/structure heights shall not exceed the requirements set forth within this chapter for the residential zoning district in which the building/structure exists.

(5) Minimum front yard setback (new construction, with conditional use): 30 feet. Existing facilities shall not be allowed to encroach further into the front yard area(s) if the setback is less than 30 feet.

(6) Minimum side yard setback (new construction, with conditional use): 15 feet. Existing facilities shall not be allowed to encroach further into the side yard area(s) if the setback is less than 15 feet.

(7) Minimum rear yard setback (new construction, with conditional use): 30 feet. Existing facilities shall not be allowed to encroach further into the rear yard area if the setback is less than 30 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening.

(a) Existing structures/facilities shall maintain existing screening and plantings (as per requirements stated previously within this subsection).

(b) Planted screening shall be provided at all boundaries where adjacent residential properties exist.

(c) There shall be a ten-foot buffer area along all parking areas and adjacent residential properties, in which natural screening shall be placed.

(d) Each planted area of screening/buffering shall:

[1] Retain natural vegetation.

[2] Be planted with indigenous evergreens, deciduous and ornamental trees or shrubs.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

G. Additional requirements.

(1) Space requirement per office staff: 200 square feet (minimum).

(2) Accessory structure installation shall be reviewed by the Director of Planning, and if said unit shall exceed 150 square feet in area, the proposal shall be submitted to the Planning Commission for site plan review. Total accessory structure allowance shall not exceed 10% of the property area.

(3) Accessory structures shall be located within the rear yard area.

(4) Accessory structures shall not be located closer than 15 feet to the rear property line.

[Ord. No. 2019-38, § 12, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR MALLORY ALEXANDER

Planning Commission Meeting: November 17, 2020

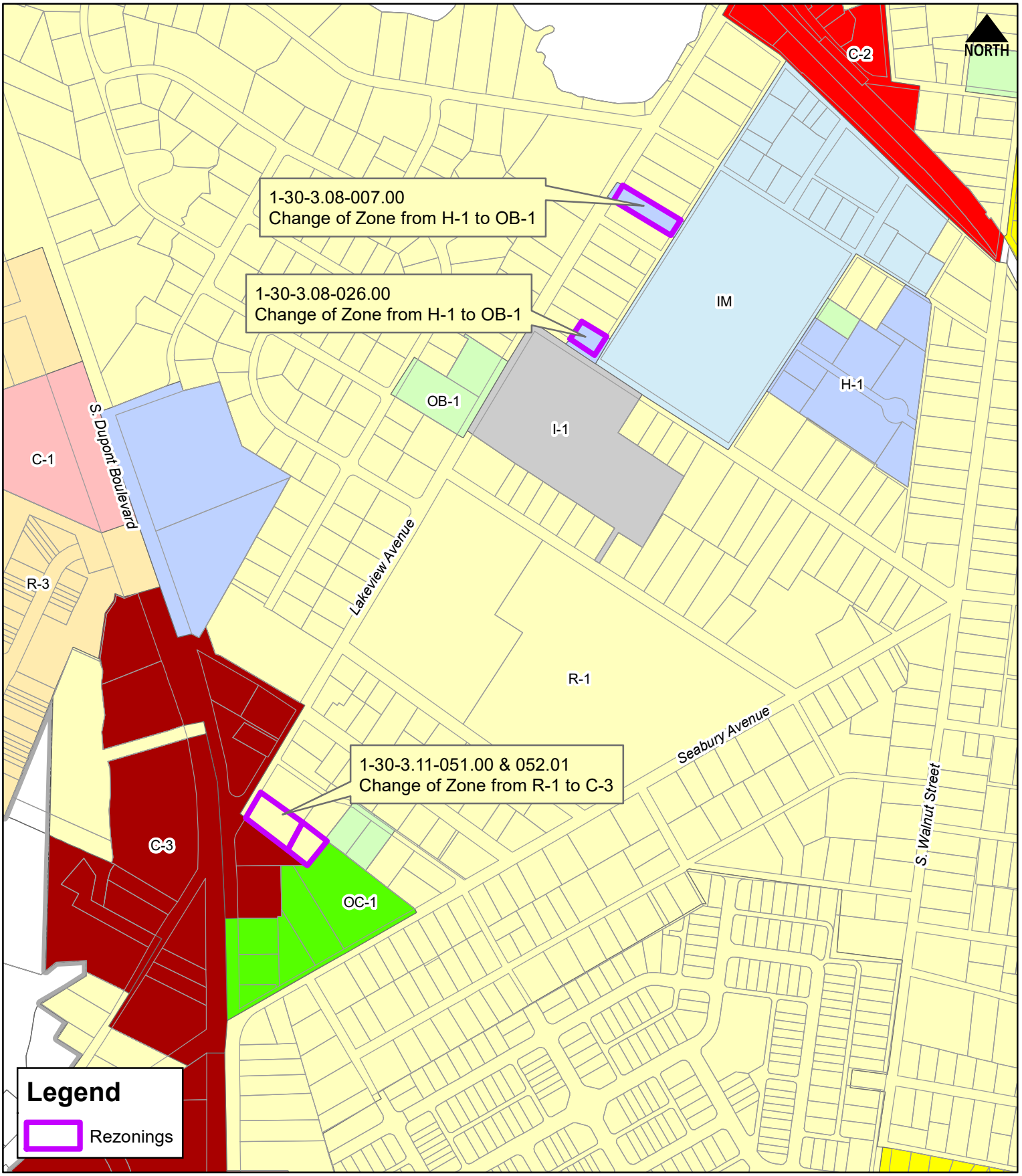
Owner	:	Mallory Alexander 306 Lakeview Avenue Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Low Density Residential
Present Zoning District	:	H-1 (Institutional Development District)
Proposed Zoning District	:	OB-1 (Office Building District)
Present Use	:	Veterinarian
Size and Location	:	0.39 +/- acres of land located along the east side of Lakeview Avenue between Kings Highway and Sussex Avenue. Addressed as 306 Lakeview Avenue.
Tax Map & Parcel	:	1-30-3.08-007.00

Staff Analysis

The purpose of the OB-1 district is to provide locations for the operation of professional offices of a low-profile, low traffic category in areas of a residential nature where existing nonresidential buildings/structures are present. The district will provide such locations that will not detract from the surrounding residential atmosphere of the neighborhood but allow viable businesses to operate in existing buildings/structures.

The change of zone would allow more flexibility in the types of professional offices that could occupy the space. Currently, the H-1 category only permits medical and dental offices.

ENC: Exhibit B – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: Feet
0 250 500

Drawn by: WRP Date: 10/01/20

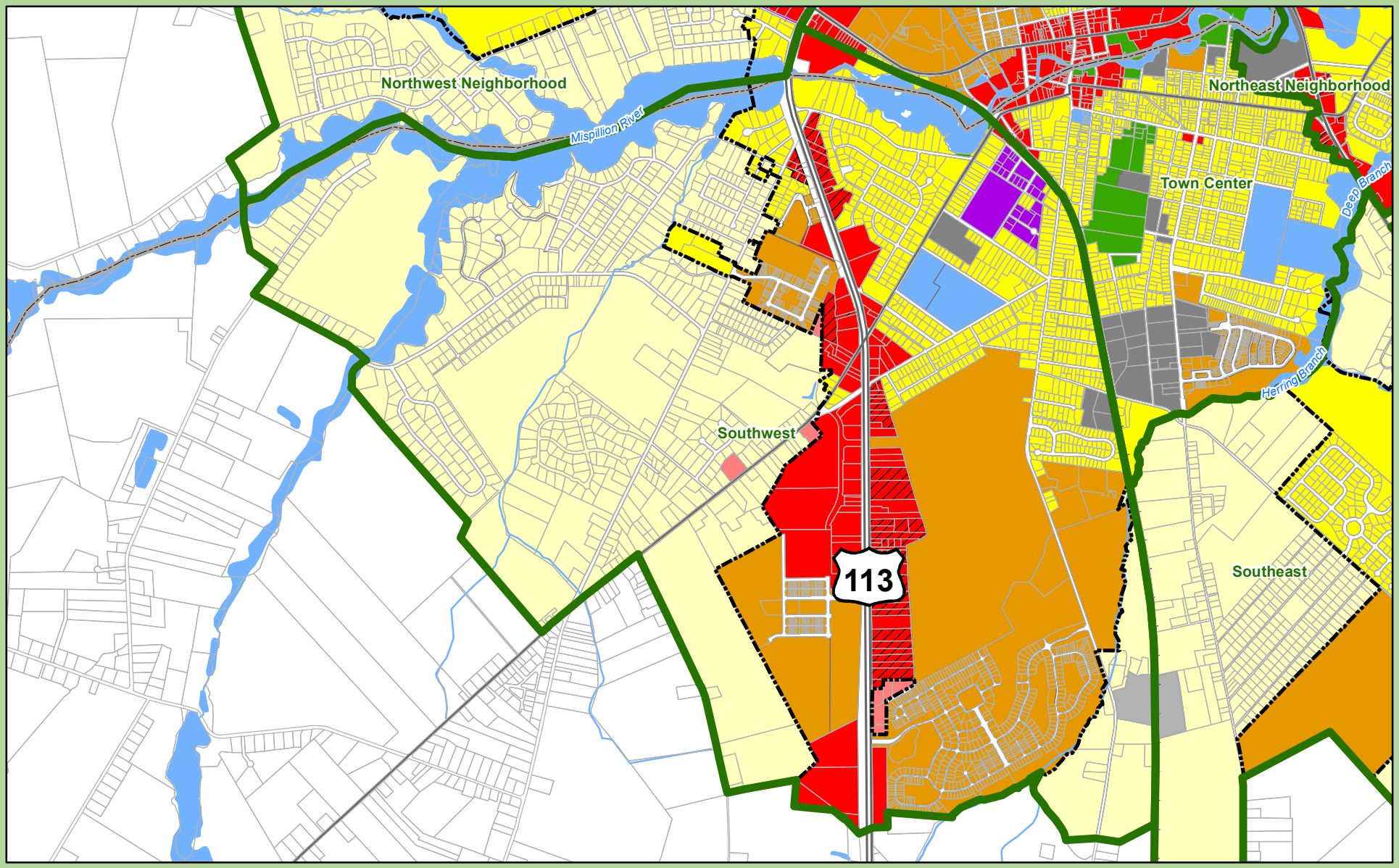
Filepath: ComprehensiveRezoning_ExhibitB.mxd

Title:

Exhibit B - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Southwest

Adopted Jan. 22, 2018, Certified TBD

0 0.1 0.2 0.4 0.6 0.8 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-15. - H-1 Institutional Development District.

In an H-1 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The intent of the H-1 Institutional Development District is to encourage the development of institutional uses in accordance with an approved plan of development. This district is to provide suitable areas and adequate safeguards for such uses to serve the City of Milford and the surrounding region.

B. Permitted uses. Permitted used for the H-1 District shall be as follows:

(1) Medical and surgical hospitals, subject to site plan review.

(2) Medical and dental centers, excluding drug abuse centers and freestanding detoxification centers.

(3) Medical arts offices and buildings.

(4) Accessory uses incidental to the permitted uses.

(5) Municipal and public services and facilities, including City Hall, water storage towers, water reservoirs, water pumping stations, water treatment plants, sewage pumping stations, sewers (storm and sanitary), street rights-of-way, utility transmission and distribution lines, public transportation bus or transit stops, police and fire stations and substations for electric, gas and telephone facilities.

C. Conditional uses subject to special regulations. The following uses may be permitted with the approval of a conditional use permit by the Milford City Council in accordance with the provisions of Article IX of this chapter:

(1) Nursing homes.

(2) Sanatoriums.

(3) Multilevel parking facilities.

(4) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 70%.

(3) Minimum lot width shall be 150 feet.

(4) Height of buildings shall not exceed 50 feet.

(5) Minimum building setback shall be as follows:

(a) Thirty feet for the first 15 feet of height.

(b) An additional 10 feet for the second 15 feet of height.

(c) Twenty feet for each additional 15 feet of height.

(6) Each side yard shall equal 20 feet for each 15 feet of height.

(7) A rear yard shall be provided to equal 20 feet for each 15 feet of height.

(8) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2019-38, § 8, 11-25-2019]

§ 230-19. - OB-1 Office Building District.

[Added 5-9-1994]

In an OB-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of the OB-1 Office Building District shall be to provide locations for the operation of professional offices of a low-profile, low-traffic category in areas of a residential nature where existing nonresidential buildings/structures are present. In short, this district will provide such locations that will not detract from the surrounding residential atmosphere of the neighborhood but allow viable businesses to operate in existing buildings/structures.

B. Permitted uses. Permitted uses for the OB-1 District shall be as follows:

(1) Professional services and administrative activities, including but not limited to architects, engineers, brokers, insurance agents, realtors, physicians, dentists, artists and attorneys, within a single occupancy setting.

(2) Branch libraries and public information centers.

C. Conditional uses. Conditional uses shall be as follows:

(1) Medical and dental clinics.

(2) Day-care facilities (group and day-care centers only).

(3) Civic or fraternal organizations.

(4) Government offices serving the public.

(5) Churches and other places of worship.

(6) New facilities proposed for vacant properties (see lot requirements).

(7) Any use which would necessitate dual-occupancy settings within the single building/structure.

(8) Musicians.

D. Prohibited uses. Any and all uses which would alter the residential nature of the neighborhood or cause such activity to occur which would deteriorate said residential atmosphere shall be prohibited.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater control than those of the permitted use variety and are additionally subject to those requirements imposed by the Planning Commission and/or the City Council.

(1) Accessory uses shall not be allowed without a principle use.

(2) The premises shall be suitably landscaped; most landscaping is present at existing sites.

(3) All driveways shall meet width requirements of the State Fire Marshal's regulations.

(4) All requirements set forth by the state guidelines for sediment and erosion control shall be complied with in all respects. Further, if any federal rulings are applicable, said property shall likewise comply in all respects.

(5) All sites shall be made to comply with the requirements set forth by the Americans with Disabilities Act, and all such needed modifications to the building or premises shall require sealed architectural plans submitted to the City Inspections Office for approval.

(6) All internal driveways and parking areas (for public, in-house staff or other vehicular traffic) shall be paved.

(7) All OB-1 District projects and proposals are subject to site plan review in such cases where expansion to an existing facility may be requested or if any upgrades required by the aforementioned codes or requirements deem any major alterations to occur. This review shall be held by the City Planning Commission.

(8) Exterior lighting will be adequately shielded from the view of all surrounding properties and streets.

F. Area and height regulations shall be as follows:

(1) Minimum lot area.

(a) Existing buildings/structures on site: none.

(b) New construction (conditional use): 1/2 acre.

(2) Maximum lot coverage (building/structure and paved area) shall be no greater than 50%, with the remainder being utilized for plantings and landscaping (new construction, with conditional use). Existing facilities shall not decrease any existing planted or landscaped areas on the site without obtaining a variance for said decrease from the Board of Adjustment.

(3) Minimum lot width.

(a) New construction, with conditional use: 100 feet.

(b) Existing facilities: existing dimension accepted.

(4) Maximum building/structure heights shall not exceed the requirements set forth within this chapter for the residential zoning district in which the building/structure exists.

(5) Minimum front yard setback (new construction, with conditional use): 30 feet. Existing facilities shall not be allowed to encroach further into the front yard area(s) if the setback is less than 30 feet.

(6) Minimum side yard setback (new construction, with conditional use): 15 feet. Existing facilities shall not be allowed to encroach further into the side yard area(s) if the setback is less than 15 feet.

(7) Minimum rear yard setback (new construction, with conditional use): 30 feet. Existing facilities shall not be allowed to encroach further into the rear yard area if the setback is less than 30 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening.

(a) Existing structures/facilities shall maintain existing screening and plantings (as per requirements stated previously within this subsection).

(b) Planted screening shall be provided at all boundaries where adjacent residential properties exist.

(c) There shall be a ten-foot buffer area along all parking areas and adjacent residential properties, in which natural screening shall be placed.

(d) Each planted area of screening/buffering shall:

[1] Retain natural vegetation.

[2] Be planted with indigenous evergreens, deciduous and ornamental trees or shrubs.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

G. Additional requirements.

(1) Space requirement per office staff: 200 square feet (minimum).

(2) Accessory structure installation shall be reviewed by the Director of Planning, and if said unit shall exceed 150 square feet in area, the proposal shall be submitted to the Planning Commission for site plan review. Total accessory structure allowance shall not exceed 10% of the property area.

(3) Accessory structures shall be located within the rear yard area.

(4) Accessory structures shall not be located closer than 15 feet to the rear property line.

[Ord. No. 2019-38, § 12, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR OME THILDE, LLC

Planning Commission Meeting: November 17, 2020

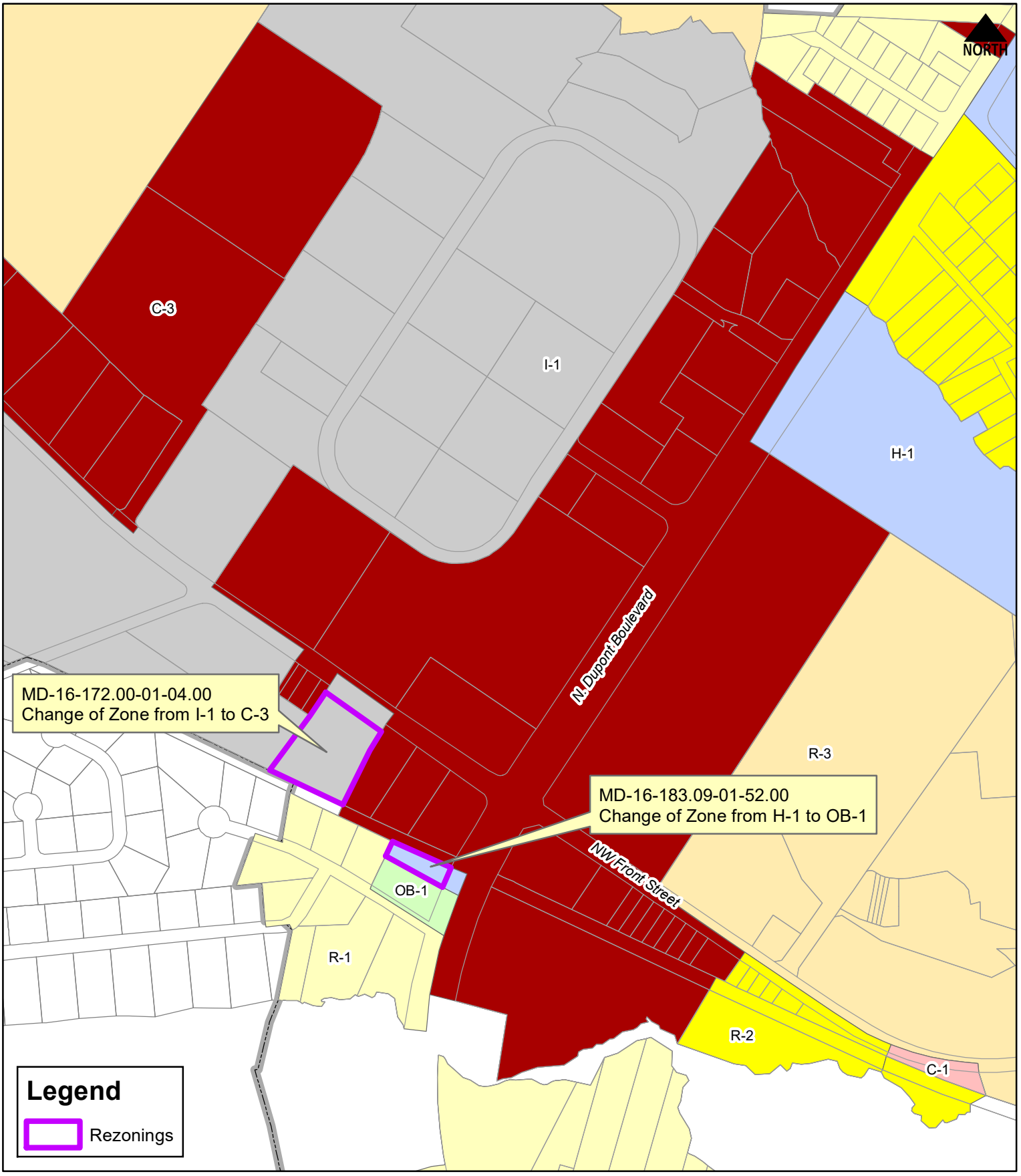
Owner	:	OME Thilde, LLC 16 S. Dupont Boulevard Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Low Density Residential
Present Zoning District	:	H-1 (Institutional Development District)
Proposed Zoning District	:	OB-1 (Office Building District)
Present Use	:	Medical Office
Size and Location	:	0.40 +/- acres of land located along the west side of S. Dupont Boulevard between Route 14 and N. Shore Drive. Addressed as 16 S. Dupont Boulevard.
Tax Map & Parcel	:	MD-16-183.09-01-52.00

Staff Analysis

The purpose of the OB-1 district is to provide locations for the operation of professional offices of a low-profile, low traffic category in areas of a residential nature where existing nonresidential buildings/structures are present. The district will provide such locations that will not detract from the surrounding residential atmosphere of the neighborhood but allow viable businesses to operate in existing buildings/structures.

The change of zone would allow more flexibility in the types of professional offices that could occupy the space. Currently, the H-1 category only permits medical and dental offices.

ENC: Exhibit A – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: Feet
0 250 500

Drawn by: WRP Date: 10/01/20

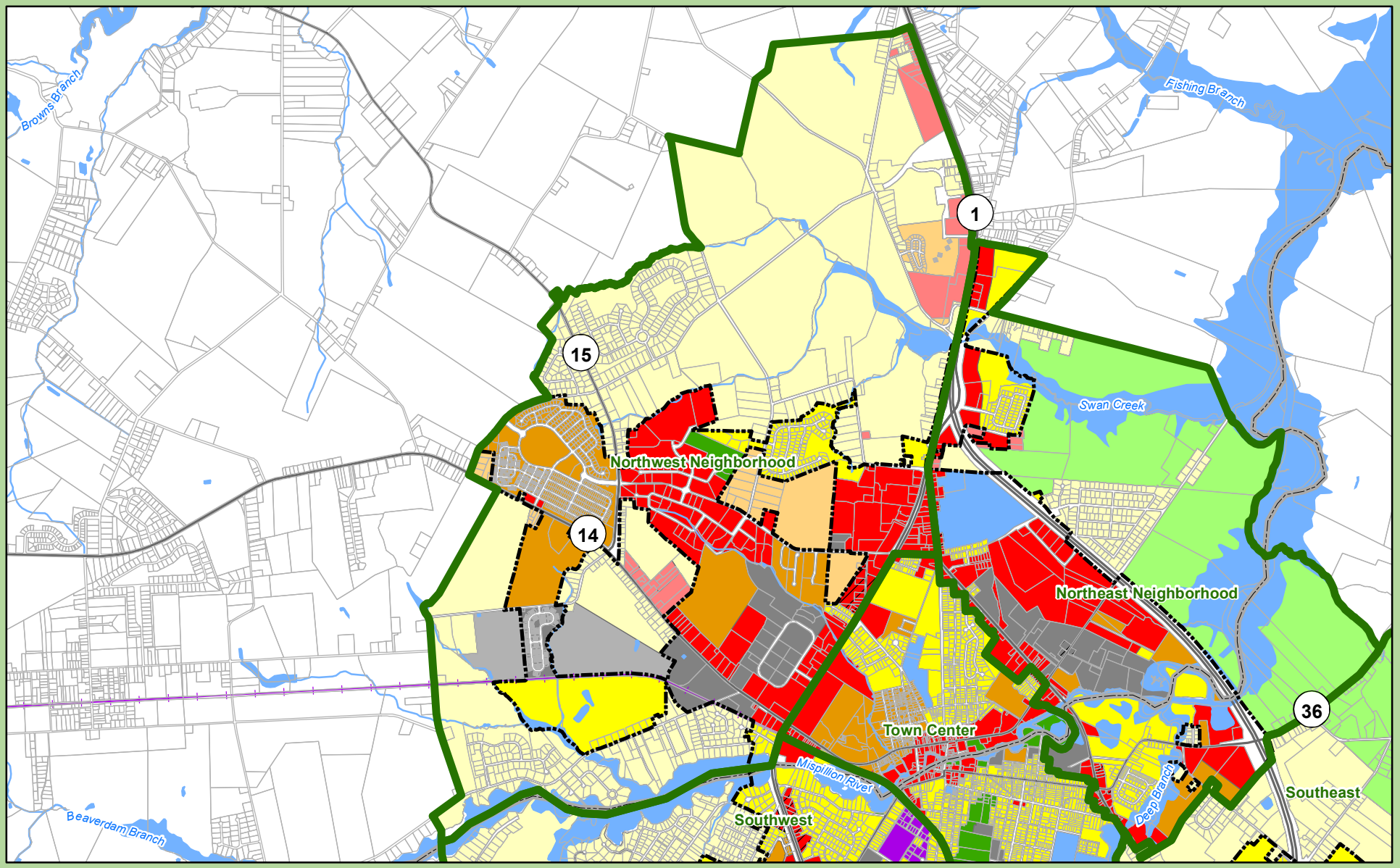
Filepath: ComprehensiveRezoning_ExhibitA.mxd

Title:

Exhibit A - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Northwest Neighborhood

Adopted Jan. 22, 2018, Certified TBD

0 0.2 0.4 0.8 1.2 1.6 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-15. - H-1 Institutional Development District.

In an H-1 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The intent of the H-1 Institutional Development District is to encourage the development of institutional uses in accordance with an approved plan of development. This district is to provide suitable areas and adequate safeguards for such uses to serve the City of Milford and the surrounding region.

B. Permitted uses. Permitted used for the H-1 District shall be as follows:

(1) Medical and surgical hospitals, subject to site plan review.

(2) Medical and dental centers, excluding drug abuse centers and freestanding detoxification centers.

(3) Medical arts offices and buildings.

(4) Accessory uses incidental to the permitted uses.

(5) Municipal and public services and facilities, including City Hall, water storage towers, water reservoirs, water pumping stations, water treatment plants, sewage pumping stations, sewers (storm and sanitary), street rights-of-way, utility transmission and distribution lines, public transportation bus or transit stops, police and fire stations and substations for electric, gas and telephone facilities.

C. Conditional uses subject to special regulations. The following uses may be permitted with the approval of a conditional use permit by the Milford City Council in accordance with the provisions of Article IX of this chapter:

(1) Nursing homes.

(2) Sanatoriums.

(3) Multilevel parking facilities.

(4) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 70%.

(3) Minimum lot width shall be 150 feet.

(4) Height of buildings shall not exceed 50 feet.

(5) Minimum building setback shall be as follows:

(a) Thirty feet for the first 15 feet of height.

(b) An additional 10 feet for the second 15 feet of height.

(c) Twenty feet for each additional 15 feet of height.

(6) Each side yard shall equal 20 feet for each 15 feet of height.

(7) A rear yard shall be provided to equal 20 feet for each 15 feet of height.

(8) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2019-38, § 8, 11-25-2019]

§ 230-19. - OB-1 Office Building District.

[Added 5-9-1994]

In an OB-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of the OB-1 Office Building District shall be to provide locations for the operation of professional offices of a low-profile, low-traffic category in areas of a residential nature where existing nonresidential buildings/structures are present. In short, this district will provide such locations that will not detract from the surrounding residential atmosphere of the neighborhood but allow viable businesses to operate in existing buildings/structures.

B. Permitted uses. Permitted uses for the OB-1 District shall be as follows:

(1) Professional services and administrative activities, including but not limited to architects, engineers, brokers, insurance agents, realtors, physicians, dentists, artists and attorneys, within a single occupancy setting.

(2) Branch libraries and public information centers.

C. Conditional uses. Conditional uses shall be as follows:

(1) Medical and dental clinics.

(2) Day-care facilities (group and day-care centers only).

(3) Civic or fraternal organizations.

(4) Government offices serving the public.

(5) Churches and other places of worship.

(6) New facilities proposed for vacant properties (see lot requirements).

(7) Any use which would necessitate dual-occupancy settings within the single building/structure.

(8) Musicians.

D. Prohibited uses. Any and all uses which would alter the residential nature of the neighborhood or cause such activity to occur which would deteriorate said residential atmosphere shall be prohibited.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater control than those of the permitted use variety and are additionally subject to those requirements imposed by the Planning Commission and/or the City Council.

(1) Accessory uses shall not be allowed without a principle use.

(2) The premises shall be suitably landscaped; most landscaping is present at existing sites.

(3) All driveways shall meet width requirements of the State Fire Marshal's regulations.

(4) All requirements set forth by the state guidelines for sediment and erosion control shall be complied with in all respects. Further, if any federal rulings are applicable, said property shall likewise comply in all respects.

(5) All sites shall be made to comply with the requirements set forth by the Americans with Disabilities Act, and all such needed modifications to the building or premises shall require sealed architectural plans submitted to the City Inspections Office for approval.

(6) All internal driveways and parking areas (for public, in-house staff or other vehicular traffic) shall be paved.

(7) All OB-1 District projects and proposals are subject to site plan review in such cases where expansion to an existing facility may be requested or if any upgrades required by the aforementioned codes or requirements deem any major alterations to occur. This review shall be held by the City Planning Commission.

(8) Exterior lighting will be adequately shielded from the view of all surrounding properties and streets.

F. Area and height regulations shall be as follows:

(1) Minimum lot area.

(a) Existing buildings/structures on site: none.

(b) New construction (conditional use): 1/2 acre.

(2) Maximum lot coverage (building/structure and paved area) shall be no greater than 50%, with the remainder being utilized for plantings and landscaping (new construction, with conditional use). Existing facilities shall not decrease any existing planted or landscaped areas on the site without obtaining a variance for said decrease from the Board of Adjustment.

(3) Minimum lot width.

(a) New construction, with conditional use: 100 feet.

(b) Existing facilities: existing dimension accepted.

(4) Maximum building/structure heights shall not exceed the requirements set forth within this chapter for the residential zoning district in which the building/structure exists.

(5) Minimum front yard setback (new construction, with conditional use): 30 feet. Existing facilities shall not be allowed to encroach further into the front yard area(s) if the setback is less than 30 feet.

(6) Minimum side yard setback (new construction, with conditional use): 15 feet. Existing facilities shall not be allowed to encroach further into the side yard area(s) if the setback is less than 15 feet.

(7) Minimum rear yard setback (new construction, with conditional use): 30 feet. Existing facilities shall not be allowed to encroach further into the rear yard area if the setback is less than 30 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening.

(a) Existing structures/facilities shall maintain existing screening and plantings (as per requirements stated previously within this subsection).

(b) Planted screening shall be provided at all boundaries where adjacent residential properties exist.

(c) There shall be a ten-foot buffer area along all parking areas and adjacent residential properties, in which natural screening shall be placed.

(d) Each planted area of screening/buffering shall:

[1] Retain natural vegetation.

[2] Be planted with indigenous evergreens, deciduous and ornamental trees or shrubs.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

G. Additional requirements.

(1) Space requirement per office staff: 200 square feet (minimum).

(2) Accessory structure installation shall be reviewed by the Director of Planning, and if said unit shall exceed 150 square feet in area, the proposal shall be submitted to the Planning Commission for site plan review. Total accessory structure allowance shall not exceed 10% of the property area.

(3) Accessory structures shall be located within the rear yard area.

(4) Accessory structures shall not be located closer than 15 feet to the rear property line.

[Ord. No. 2019-38, § 12, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR MILLMAN FAMILY VENTURES, LLC

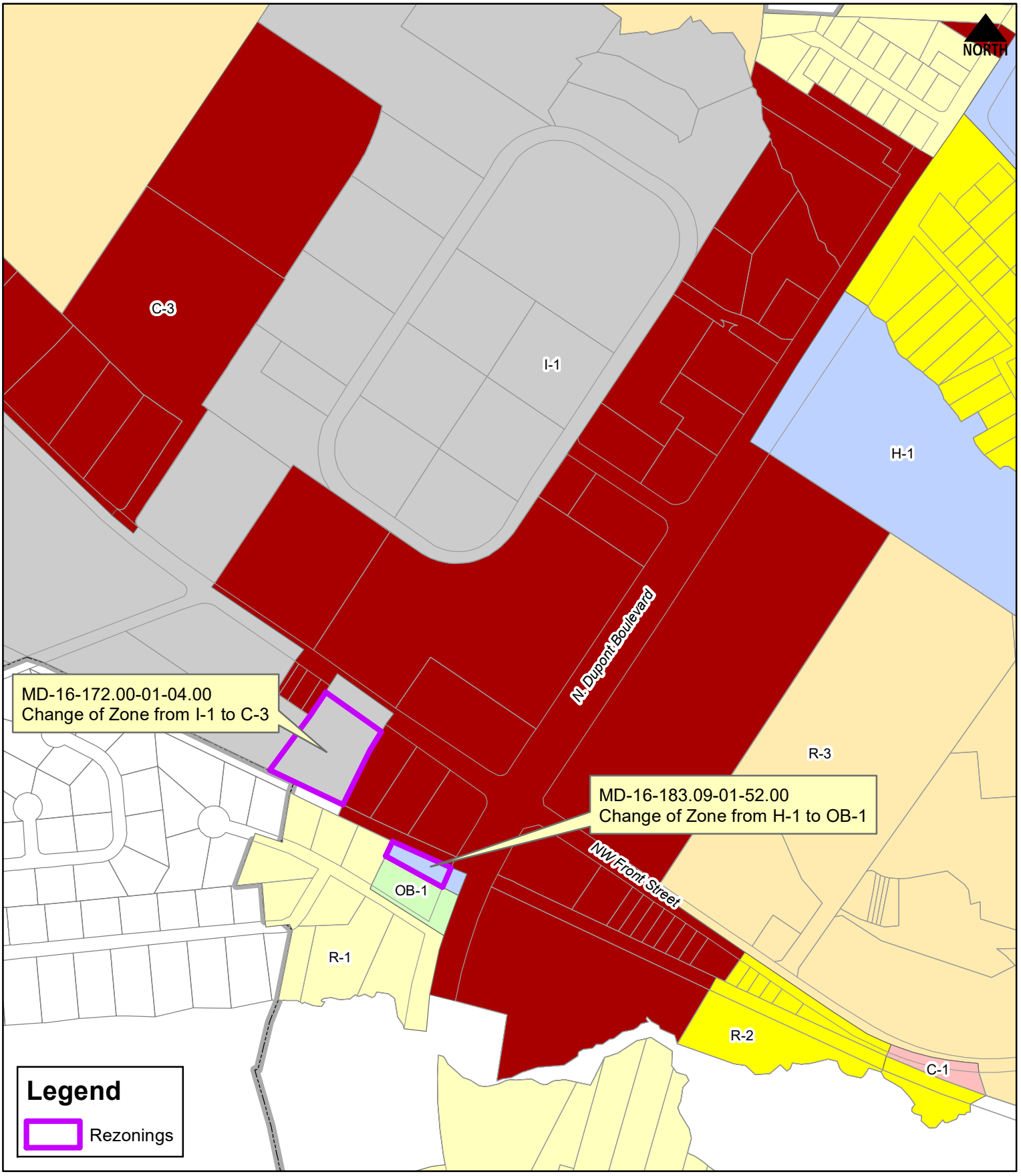
Planning Commission Meeting: November 17, 2020

Owner	:	Millman Family Ventures, LLC 31 Milford-Harrington Highway Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Commercial
Present Zoning District	:	I-1 (Limited Industrial District)
Proposed Zoning District	:	C-3 (Highway Commercial District)
Present Use	:	Auto Parts Store
Size and Location	:	1.90 +/- acres of land located along the south side of Milford-Harrington Highway approximately 480 feet west of the Route 113 intersection. Addressed as 31 Milford-Harrington Highway.
Tax Map & Parcel	:	MD-16-182.00-01-04.00

Staff Analysis

The purpose of the C-3 district is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

ENC: Exhibit A – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: Feet
0 250 500

Drawn by: WRP Date: 10/01/20

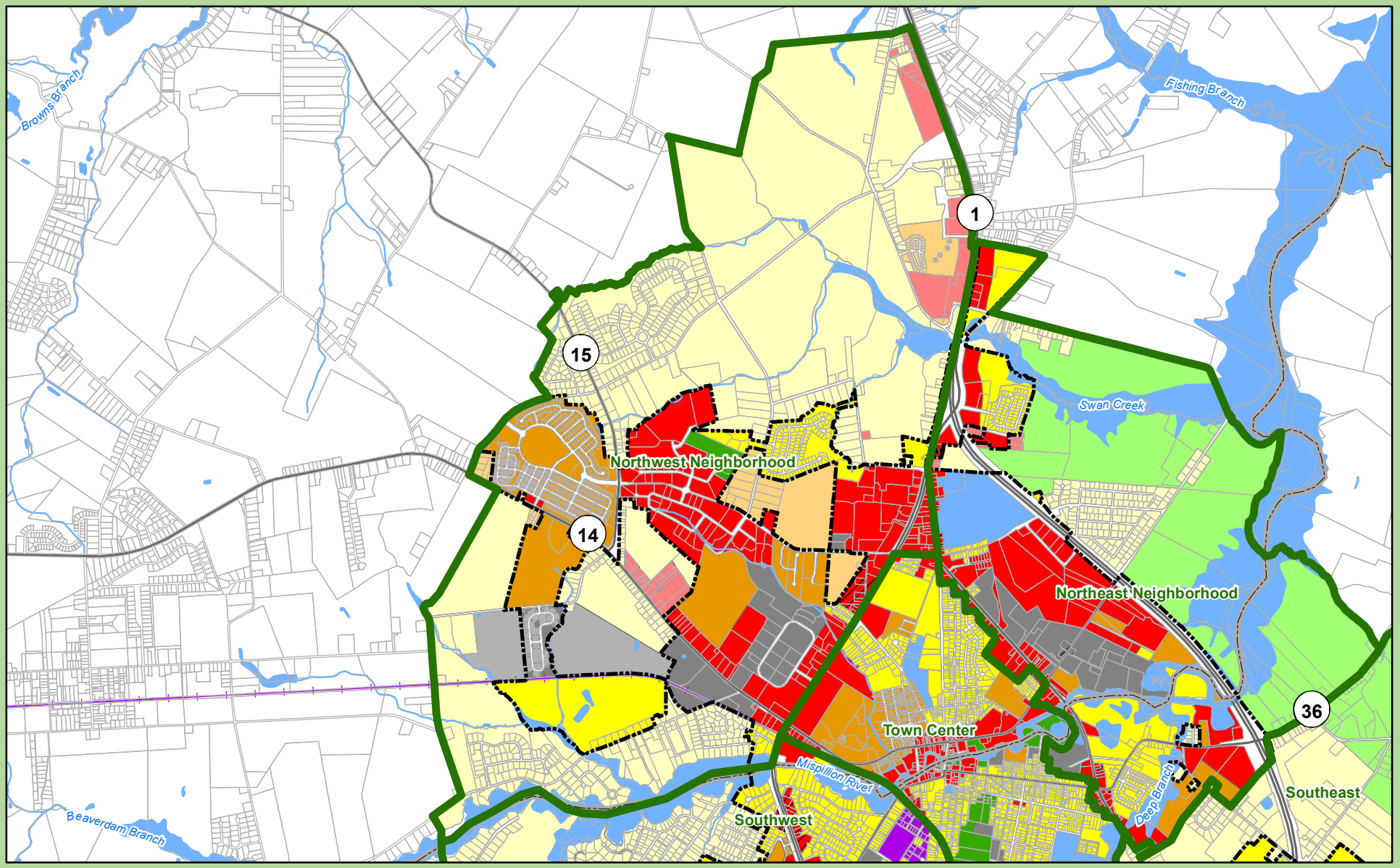
Filepath: ComprehensiveRezoning_ExhibitA.mxd

Title:

Exhibit A - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Northwest Neighborhood

Adopted Jan. 22, 2018, Certified TBD

0 0.2 0.4 0.8 1.2 1.6 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-14. - C-3 Highway Commercial District.

In a C-3 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The purpose of the C-3 District is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

B. Permitted uses. Permitted uses for the C-3 District shall be as follows:

(1) Those uses permitted in the C-2 District.

(2) Warehouses.

(3) Large retail outlets.

(4) Indoor storage accessory building.

(5) Fast-food restaurants and drive-in restaurants.

(6) Supermarkets.

(7) Truck and trailer rentals.

(8) Roadside produce market.

(9) Memorial stone shop.

(10) Outdoor commercial recreational facilities, not motorized vehicles.

(11) Swimming club.

(12) Indoor facility for amusement or assembly.

(13) Bus station.

C. Conditional uses subject to special requirements. The following uses are permitted subject to receiving a conditional use permit by the City Council as provided in Article IX of this chapter:

[Amended 10-12-1998 by Ord. No. 10-1998]

(1) Motels or hotels with a minimum lot size of three acres.

(2) Commercial greenhouse.

(3) Wholesale establishment.

(4) Newspaper publishing or printing establishment.

(5) Contractors', craftsmen's or general service shops, including welding and similar shops.

(6) Laboratory, testing and research.

(7) Car repair shops.

(8) Used car lots.

(9) Telephone central office or television cable central office.

(10) Service station, automobile sales agency, public garage, parking garage or lot, but not including storage of wrecked cars, subject to the following special requirements:

(a) All facilities shall be located and all services shall be conducted on the lot.

(b) All repair work shall be conducted within an entirely enclosed building.

(c) No equipment for the service of gasoline or oil shall be placed closer to any street or property line than 20 feet.

(d) No portion of such structure or its equipment shall be located within 500 feet of the premises of any school, hospital, church or public recreation building.

(e) No service station shall be located within 800 feet of another service station on the same side of the street within the same block.

(f) Any such use shall be permitted only where it is determined that it will not materially interfere with the main pedestrian movement in conjunction with a compact retail area.

(11) Shopping center, subject to site plan review and the following site requirements:

(a) The total shall not be less than one acre.

(b) The site must be served by public water, sewer and electricity.

(c) Stormwater drainage. The facilities shall be provided by the developer to handle the increase in stormwater runoff, and he shall make contributions towards the cost of off-site facilities of the shopping center.

(d) Traffic and parking.

[1] The internal circulation of traffic shall be separated from the external street system, and pedestrian and vehicular traffic shall be separated through traffic control devices and appropriate site design.

[2] Access to state highways shall be controlled by the State Department of Transportation.

[3] The minimum distance between accessways and a residential district shall be 50 feet.

[4] Spacing of accessway.

[a] From adjoining property: 50 feet.

[b] From minor intersections: 50 feet.

[c] From major intersections: 100 to 150 feet.

[5] Five and one-half parking spaces shall be provided per 1,000 feet of leasable area.

[6] Parking lots shall be attractively landscaped as shown on the general site plan.

(e) Setback.

[1] From street right-of-way: 15 feet.

[2] From nonresidential districts: 15 feet.

[3] From residential districts: 100 feet.

(f) Buffering and landscaping.

[1] There shall be a minimum of a ten-foot landscaped buffer along all lot lines. The screening shall be six feet high near residential districts.

[2] Ten percent of the site shall be landscaped and may include features such as pedestrian walking or rest areas and courtyards.

(12) Day-care centers, with site plan required.

[Added 10-14-1991]

(13) Car wash, all types (staffed, automatic, self-service, etc.).

[Added 6-14-1993]

(14) Convenience stores with gas pumps.

(15) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

(16) All dwellings other than single-family with a maximum density of 12 units per acre.

(17) Business, commercial or industrial uses that do not adversely affect neighboring properties.

(18) Aquarium.

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 80%.

(3) Minimum lot width shall be as follows: for an interior lot 150 feet and for a corner lot 170 feet.

(4) Height of buildings shall not exceed three stories or 35 feet, with the following exception: a motel, hotel, or aquarium may be erected to a height of over three stories, but not over five stories, and not exceeding 60 feet.

(5) Minimum building setback shall be 30 feet.

(6) Side yards shall be provided as follows: each lot shall have two side yards a minimum of 20 feet with a minimum aggregate width of two side yards of 50 feet.

(7) Minimum rear yard shall be 50 feet.

(8) Parking shall comply with the requirements provided in Article IV of this chapter.

(9) Landscape screening shall comply with the requirements provided in Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2008-18, § 3, 8-24-2009; Ord. No. 2009-22, § 2, 9-27-2010; Ord. No. 2016-14, §§ 2, 3, 10-24-2016; Ord. No. 2019-38, § 7, 11-25-2019]

§ 230-16. - I-1 Limited Industrial District.

[Amended 7-9-1990]

In an I-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of an I-1 Limited Industrial District shall be to provide locations for the development of light to moderate industrial manufacturing, warehousing, wholesale and limited research establishments which, because of their type and nature, would be compatible with or adjacent to residential areas. Also, the purpose is to provide guidelines and performance standards which will control and confine any offensive features (i.e., noise, vibration, heat, smoke, glare, dust, objectionable odors, toxic wastes or unsightly storage) to the confines of the premises and within enclosed buildings or within a visually enclosed space.

B. Permitted uses. Permitted uses of the I-1 District shall be as follows:

(1) All permitted uses of the OC-1 District and BP District. [Ord. No. 2017-03, § 1, 2-27-2017]

(2) Light manufacturing, assembling, converting, altering, finishing, baking, cooking or any other type of processing or storage of an industrial nature for the production and/or distribution of any goods, materials, products, instruments, appliances and devices, provided that the fuel or power supply shall be of an approved type. Also included shall be all incidental clinics, offices, cafeterias and recreational facilities for the exclusive use of in-house staff and employees.

(3) Research, design, testing and development laboratories.

(4) Printing, publishing, binding, packaging, storage, warehousing, distribution and trucking terminal operations and trucking schools.

(5) Municipal and public services and facilities, such as utility supply areas (i.e., water, sewer and electric), distribution facilities and substations.

(6) Truck or large vehicle repair facilities with associated parking area. All fuel and lubricant storage shall be installed in compliance with state and federal regulations and shall not be closer than 500 feet to any school or building(s) used for assembly.

[Added 12-16-1996]

C. Prohibited uses. The following are expressly prohibited in an I-1 District:

(1) Residences, except those in existence at the time of adoption of this amendment.

(2) Manufacturing uses involving production of the following products from raw materials: asphalt, cement, charcoal and fuel briquettes; chemicals: aniline dyes, ammonia, carbide, caustic soda, cellulose, chlorine, carbon black and bone black, creosote, hydrogen and oxygen, industrial alcohol, nitrates (both natural and manufactured) of an explosive nature, potash, petro chemical, pyroxylin, rayon yarn and hydrochloric, nitric, picric, phosphoric and sulfuric acids; coal, coke and tar products, including gas manufacturing, explosives, fertilizers, glue and size (animal); linoleum and oil cloth, matches, paint, varnishes and turpentine; rubber (natural and synthetic); and soaps, including fat rendering.

(3) Dumps, junkyards, automobile salvage and dismantling plants/yards, storage areas or operations for the storage or resale of used automotive or other machine parts.

(4) Operations involving slaughterhouses, stockyards or slag piles.

(5) Storage of explosives and bulk or wholesale storage of gasoline above ground.

(6) Quarries, stone crushers, screening plants and all associated uses.

(7) The following processes: large-scale reduction, refining, smelting and alloying of metal or metal ores; refining petroleum products, such as gasoline, kerosene, naphtha and lubricating oil; and reduction and processing of wood pulp and fiber, including paper mill operations.

D. Conditional uses. The following uses are permitted in the I-1 District, in accordance with the provisions within Article IX (conditional use portion) of this chapter:

(1) Airfields or airpark facilities.

(2) Mini-warehouses or public storage facilities.

(3) Radio-television facilities.

(4) Craft distillery and microbrewery establishments, provided that:

(a) All permits and approvals required by the Delaware Alcoholic Beverage Commission are obtained and remain in full force and effect.

(b) All aspects of the distilling or brewing process are completely confined within a building, including storage of all materials and finished products.

(c) Such establishment offers the public, on a regular and continuing basis, various activities ancillary to its distilling and/or brewing process, including by way of example: tours of the premises, educational classes, demonstrations, tasting rooms, and retail sales areas limited to the sale of beer, mead, cider, or spirits brewed or distilled on the premises for consumption off-premises and other retail items.

(d) On-site consumption or tasting associated with a craft distillery or microbrewery establishment shall be permitted. Any area associated with on-site consumption or tasting shall not operate as a stand-alone bar or tavern, shall be located on the premises of the craft distillery or microbrewery establishment, and shall be ancillary to the primary use. "Ancillary" for purposes of this section means subordinate, auxiliary, smaller and less intensive than the primary use. On-site consumption or tasting of alcohol shall be limited to those products brewed or distilled on the premises, except as otherwise permitted by Delaware Law.

(e) All food sales shall be limited to prepackaged snack items or those food items prepared by a food establishment licensed by the State of Delaware. If a craft distillery or microbrewery intends to operate on its premises a food establishment that is otherwise a permitted use in this district (i.e. restaurant, café, or full-service restaurant), the City may require the property owner to provide the City with a letter of no objection from the Delaware Alcoholic Beverage Control Commissioner regarding the operation of a food establishment on the premises of a craft distillery or microbrewery.

(f) Outdoor seating and gathering areas shall be permitted subject to the following requirements:

i. Permanent and temporary outdoor seating and gathering areas shall be subject to building permit application and approval requirements.

ii. Outdoor seating and gathering areas and ancillary improvements shall include physical barriers from public rights-of-way and physical and visual barriers from adjoining properties. Physical barriers along public rights-of-way shall restrict access from the public rights-of-way to the outdoor seating and gathering areas and shall not exceed four feet in height. Barriers along adjoining property lines shall create a physical and visual barrier consisting of fencing six feet in height or vegetation at least six feet in height. The regulations herein shall be in addition to any regulations imposed by the State of Delaware.

iii. Maximum occupancy and points of ingress/egress shall be clearly marked. Occupancy of outdoor seating and gathering areas shall not exceed one person per 15 square feet of the outdoor seating and gathering areas identified in the building plans or any other occupancy limit established by the Office of the State Fire Marshall.

iv. All structures and uses related to outdoor seating and gathering areas and facilities are subject to the City of Milford Building Code and the City of Milford Zoning Code.

v. The occupancy of outdoor seating and gathering areas shall be included when calculating the building requirements and minimum parking standards required by the City of Milford and State of Delaware. Outdoor seating and gathering areas shall meet all requirements of the City of Milford and the State of Delaware.

vi. Tables, chairs, umbrellas, equipment, games, and any other items provided in connection with outdoor seating and gathering areas shall be maintained in good repair and shall be secured during non-business hours in a safe and orderly manner.

vii. Any licensing required by the Delaware Alcoholic Beverage Control Commissioner for outdoor seating and gathering areas shall be obtained.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater restrictions as may be required by the Planning Commission.

(1) Accessory uses shall not be permitted without a principal use.

(2) Any uses not permitted, as previously listed, are prohibited.

(3) All uses shall be conducted within a completely enclosed building. There shall be no open storage of raw, in process or finished products, supplies or waste material, except that these items shall be shielded from public view by a landscaped screen, fence or wall.

(4) In a planned industrial park or any lands designated as an I-1 District, no building/structure, accessory structure or sign shall be located closer than 200 feet to any nonindustrial district boundary.

(5) Adequate off-street parking shall be provided for all employees and traffic to the buildings. The minimum requirements are given in Article IV of this chapter and are to be deemed as minimum standards only. Standards in excess of those stated in Article IV may be stipulated by the Planning Commission during the site plan review.

(6) All fencing shall be properly maintained.

(7) All front yard areas and all areas open to public view shall be maintained in a neat and attractive condition.

(8) All loading operations shall be conducted at the side or rear of the building. In the unloading or loading process, no vehicles participating in these operations shall be allowed to extend into any public or private driveway or street or impede its traffic circulation.

(9) All odorous fumes or matter emitted into the environment from any/all fuel-burning equipment, open stacks and internal combustion engines must comply with the requirements set forth by the State of Delaware, Department of Natural Resources and Environmental Control (DNREC).

(10) Dust or particulate debris from any processing or production operations will be minimized by the use of appropriate mechanical and/or electrical devices to the extent necessary to ensure that such emissions shall not be offensive at or beyond the property line of the industry/warehouse. All such activities will comply with the requirements of the DNREC, State of Delaware.

(11) All internal roads, driveways and parking areas (for public, in-house employee or truck/vehicular traffic) shall be paved.

(12) All dry waste, in dust or particulate form, will be transported in closed or covered vehicles.

(13) The proposed use shall not endanger the surrounding areas to the possibilities of fire, explosion or contamination. All uses shall comply with state regulations which govern their operations. There shall be no allowance for the storage of radioactive materials or those materials deemed to be toxic or dangerous. All liquid storage shall have an approved containment (area) barricade capable of containing any failure of storage medium.

(14) The proposed use shall not allow the emission of heat or glare beyond its property line. All lighting shall be directed so as not to cause glare to the surrounding properties. The light source shall be shielded so as not to be visible from adjoining properties or streets.

(15) All I-1 District projects and proposals are subject to site plan review by the Planning Commission.

F. Area and height regulations.

(1) Minimum lot area shall be two acres.

(2) Maximum lot coverage shall be 60%, with the remainder being that of grass and landscape areas. Parking areas shall be landscaped.

(3) Minimum lot width shall be 150 feet.

(4) Maximum building height shall be 50 feet.

(5) Minimum front yard setback shall be 75 feet.

(6) Minimum side yard setback shall be 40 feet.

(7) Minimum rear yard setback shall be 45 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening. See Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

(11) Accessory structures shall occupy no more than 10% of the lot area.

(12) Accessory structures shall be located in the rear yard/lot area.

(13) Accessory structures shall be located at least 45 feet from the rear lot line.

[Ord. No. 2019-31, § 5, 9-23-2019; Ord. No. 2019-38, § 9, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR WILLIAM SIPPLE & SON INC.

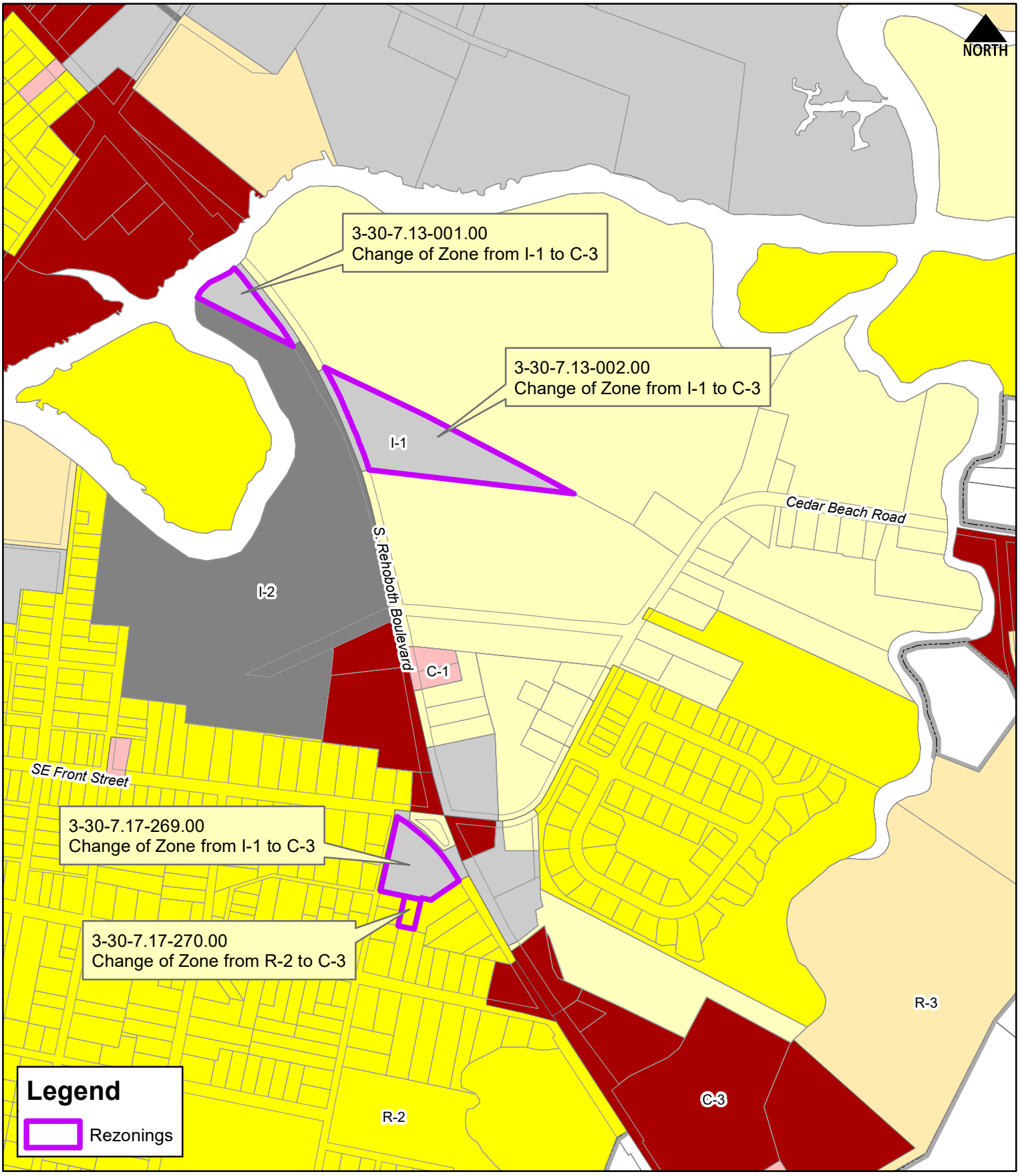
Planning Commission Meeting: November 17, 2020

Owner	:	William Sipple & Son, Inc. 300 S. Rehoboth Boulevard Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Commercial
Present Zoning District	:	I-1 (Limited Industrial District) R-2 (Residential District)
Proposed Zoning District	:	C-3 (Highway Commercial District)
Present Use	:	Memorial Stone Shop
Size and Location	:	1.40 +/- acres of land located at the southwest corner of S. Rehoboth Boulevard and SE Front Street. Addressed as 300 S. Rehoboth Boulevard.
Tax Map & Parcel	:	3-30-7.17-269.00 & 270.00

Staff Analysis

The purpose of the C-3 district is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

ENC: Exhibit C – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: 0 250 500 Feet

Drawn by: WRP

Date: 10/01/20

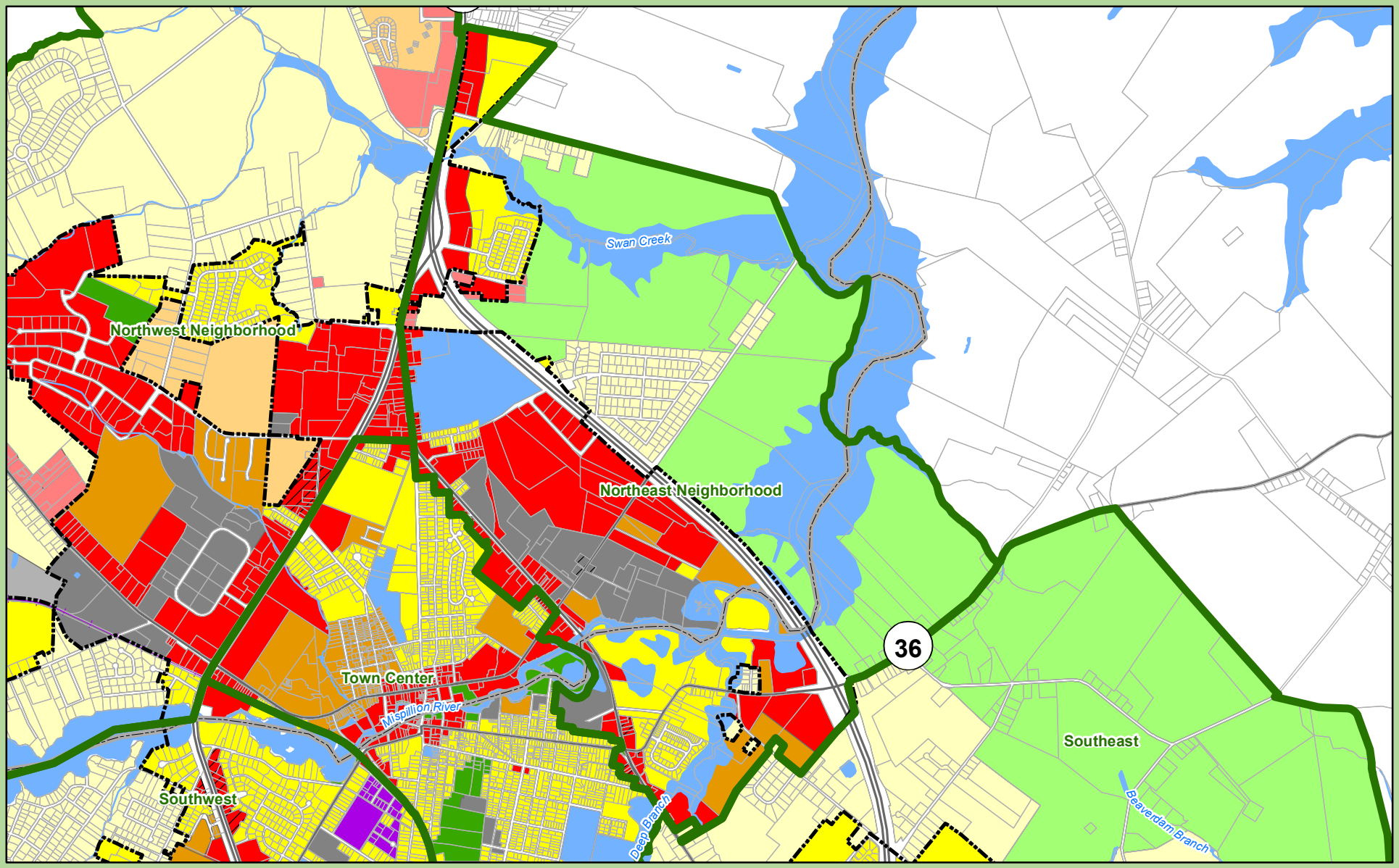
Filepath: ComprehensiveRezoning_ExhibitC.mxd

Title:

Exhibit C - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Northeast Neighborhood

Adopted Jan. 22, 2018, Certified TBD

0 0.15 0.3 0.6 0.9 1.2 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-14. - C-3 Highway Commercial District.

In a C-3 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The purpose of the C-3 District is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

B. Permitted uses. Permitted uses for the C-3 District shall be as follows:

(1) Those uses permitted in the C-2 District.

(2) Warehouses.

(3) Large retail outlets.

(4) Indoor storage accessory building.

(5) Fast-food restaurants and drive-in restaurants.

(6) Supermarkets.

(7) Truck and trailer rentals.

(8) Roadside produce market.

(9) Memorial stone shop.

(10) Outdoor commercial recreational facilities, not motorized vehicles.

(11) Swimming club.

(12) Indoor facility for amusement or assembly.

(13) Bus station.

C. Conditional uses subject to special requirements. The following uses are permitted subject to receiving a conditional use permit by the City Council as provided in Article IX of this chapter:

[Amended 10-12-1998 by Ord. No. 10-1998]

(1) Motels or hotels with a minimum lot size of three acres.

(2) Commercial greenhouse.

(3) Wholesale establishment.

(4) Newspaper publishing or printing establishment.

(5) Contractors', craftsmen's or general service shops, including welding and similar shops.

(6) Laboratory, testing and research.

(7) Car repair shops.

(8) Used car lots.

(9) Telephone central office or television cable central office.

(10) Service station, automobile sales agency, public garage, parking garage or lot, but not including storage of wrecked cars, subject to the following special requirements:

(a) All facilities shall be located and all services shall be conducted on the lot.

(b) All repair work shall be conducted within an entirely enclosed building.

(c) No equipment for the service of gasoline or oil shall be placed closer to any street or property line than 20 feet.

(d) No portion of such structure or its equipment shall be located within 500 feet of the premises of any school, hospital, church or public recreation building.

(e) No service station shall be located within 800 feet of another service station on the same side of the street within the same block.

(f) Any such use shall be permitted only where it is determined that it will not materially interfere with the main pedestrian movement in conjunction with a compact retail area.

(11) Shopping center, subject to site plan review and the following site requirements:

(a) The total shall not be less than one acre.

(b) The site must be served by public water, sewer and electricity.

(c) Stormwater drainage. The facilities shall be provided by the developer to handle the increase in stormwater runoff, and he shall make contributions towards the cost of off-site facilities of the shopping center.

(d) Traffic and parking.

[1] The internal circulation of traffic shall be separated from the external street system, and pedestrian and vehicular traffic shall be separated through traffic control devices and appropriate site design.

[2] Access to state highways shall be controlled by the State Department of Transportation.

[3] The minimum distance between accessways and a residential district shall be 50 feet.

[4] Spacing of accessway.

[a] From adjoining property: 50 feet.

[b] From minor intersections: 50 feet.

[c] From major intersections: 100 to 150 feet.

[5] Five and one-half parking spaces shall be provided per 1,000 feet of leasable area.

[6] Parking lots shall be attractively landscaped as shown on the general site plan.

(e) Setback.

[1] From street right-of-way: 15 feet.

[2] From nonresidential districts: 15 feet.

[3] From residential districts: 100 feet.

(f) Buffering and landscaping.

[1] There shall be a minimum of a ten-foot landscaped buffer along all lot lines. The screening shall be six feet high near residential districts.

[2] Ten percent of the site shall be landscaped and may include features such as pedestrian walking or rest areas and courtyards.

(12) Day-care centers, with site plan required.

[Added 10-14-1991]

(13) Car wash, all types (staffed, automatic, self-service, etc.).

[Added 6-14-1993]

(14) Convenience stores with gas pumps.

(15) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

(16) All dwellings other than single-family with a maximum density of 12 units per acre.

(17) Business, commercial or industrial uses that do not adversely affect neighboring properties.

(18) Aquarium.

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 80%.

(3) Minimum lot width shall be as follows: for an interior lot 150 feet and for a corner lot 170 feet.

(4) Height of buildings shall not exceed three stories or 35 feet, with the following exception: a motel, hotel, or aquarium may be erected to a height of over three stories, but not over five stories, and not exceeding 60 feet.

(5) Minimum building setback shall be 30 feet.

(6) Side yards shall be provided as follows: each lot shall have two side yards a minimum of 20 feet with a minimum aggregate width of two side yards of 50 feet.

(7) Minimum rear yard shall be 50 feet.

(8) Parking shall comply with the requirements provided in Article IV of this chapter.

(9) Landscape screening shall comply with the requirements provided in Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2008-18, § 3, 8-24-2009; Ord. No. 2009-22, § 2, 9-27-2010; Ord. No. 2016-14, §§ 2, 3, 10-24-2016; Ord. No. 2019-38, § 7, 11-25-2019]

§ 230-16. - I-1 Limited Industrial District.

[Amended 7-9-1990]

In an I-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of an I-1 Limited Industrial District shall be to provide locations for the development of light to moderate industrial manufacturing, warehousing, wholesale and limited research establishments which, because of their type and nature, would be compatible with or adjacent to residential areas. Also, the purpose is to provide guidelines and performance standards which will control and confine any offensive features (i.e., noise, vibration, heat, smoke, glare, dust, objectionable odors, toxic wastes or unsightly storage) to the confines of the premises and within enclosed buildings or within a visually enclosed space.

B. Permitted uses. Permitted uses of the I-1 District shall be as follows:

(1) All permitted uses of the OC-1 District and BP District. [Ord. No. 2017-03, § 1, 2-27-2017]

(2) Light manufacturing, assembling, converting, altering, finishing, baking, cooking or any other type of processing or storage of an industrial nature for the production and/or distribution of any goods, materials, products, instruments, appliances and devices, provided that the fuel or power supply shall be of an approved type. Also included shall be all incidental clinics, offices, cafeterias and recreational facilities for the exclusive use of in-house staff and employees.

(3) Research, design, testing and development laboratories.

(4) Printing, publishing, binding, packaging, storage, warehousing, distribution and trucking terminal operations and trucking schools.

(5) Municipal and public services and facilities, such as utility supply areas (i.e., water, sewer and electric), distribution facilities and substations.

(6) Truck or large vehicle repair facilities with associated parking area. All fuel and lubricant storage shall be installed in compliance with state and federal regulations and shall not be closer than 500 feet to any school or building(s) used for assembly.

[Added 12-16-1996]

C. Prohibited uses. The following are expressly prohibited in an I-1 District:

(1) Residences, except those in existence at the time of adoption of this amendment.

(2) Manufacturing uses involving production of the following products from raw materials: asphalt, cement, charcoal and fuel briquettes; chemicals: aniline dyes, ammonia, carbide, caustic soda, cellulose, chlorine, carbon black and bone black, creosote, hydrogen and oxygen, industrial alcohol, nitrates (both natural and manufactured) of an explosive nature, potash, petro chemical, pyroxylin, rayon yarn and hydrochloric, nitric, picric, phosphoric and sulfuric acids; coal, coke and tar products, including gas manufacturing, explosives, fertilizers, glue and size (animal); linoleum and oil cloth, matches, paint, varnishes and turpentine; rubber (natural and synthetic); and soaps, including fat rendering.

(3) Dumps, junkyards, automobile salvage and dismantling plants/yards, storage areas or operations for the storage or resale of used automotive or other machine parts.

(4) Operations involving slaughterhouses, stockyards or slag piles.

(5) Storage of explosives and bulk or wholesale storage of gasoline above ground.

(6) Quarries, stone crushers, screening plants and all associated uses.

(7) The following processes: large-scale reduction, refining, smelting and alloying of metal or metal ores; refining petroleum products, such as gasoline, kerosene, naphtha and lubricating oil; and reduction and processing of wood pulp and fiber, including paper mill operations.

D. Conditional uses. The following uses are permitted in the I-1 District, in accordance with the provisions within Article IX (conditional use portion) of this chapter:

(1) Airfields or airpark facilities.

(2) Mini-warehouses or public storage facilities.

(3) Radio-television facilities.

(4) Craft distillery and microbrewery establishments, provided that:

(a) All permits and approvals required by the Delaware Alcoholic Beverage Commission are obtained and remain in full force and effect.

(b) All aspects of the distilling or brewing process are completely confined within a building, including storage of all materials and finished products.

(c) Such establishment offers the public, on a regular and continuing basis, various activities ancillary to its distilling and/or brewing process, including by way of example: tours of the premises, educational classes, demonstrations, tasting rooms, and retail sales areas limited to the sale of beer, mead, cider, or spirits brewed or distilled on the premises for consumption off-premises and other retail items.

(d) On-site consumption or tasting associated with a craft distillery or microbrewery establishment shall be permitted. Any area associated with on-site consumption or tasting shall not operate as a stand-alone bar or tavern, shall be located on the premises of the craft distillery or microbrewery establishment, and shall be ancillary to the primary use. "Ancillary" for purposes of this section means subordinate, auxiliary, smaller and less intensive than the primary use. On-site consumption or tasting of alcohol shall be limited to those products brewed or distilled on the premises, except as otherwise permitted by Delaware Law.

(e) All food sales shall be limited to prepackaged snack items or those food items prepared by a food establishment licensed by the State of Delaware. If a craft distillery or microbrewery intends to operate on its premises a food establishment that is otherwise a permitted use in this district (i.e. restaurant, café, or full-service restaurant), the City may require the property owner to provide the City with a letter of no objection from the Delaware Alcoholic Beverage Control Commissioner regarding the operation of a food establishment on the premises of a craft distillery or microbrewery.

(f) Outdoor seating and gathering areas shall be permitted subject to the following requirements:

i. Permanent and temporary outdoor seating and gathering areas shall be subject to building permit application and approval requirements.

ii. Outdoor seating and gathering areas and ancillary improvements shall include physical barriers from public rights-of-way and physical and visual barriers from adjoining properties. Physical barriers along public rights-of-way shall restrict access from the public rights-of-way to the outdoor seating and gathering areas and shall not exceed four feet in height. Barriers along adjoining property lines shall create a physical and visual barrier consisting of fencing six feet in height or vegetation at least six feet in height. The regulations herein shall be in addition to any regulations imposed by the State of Delaware.

iii. Maximum occupancy and points of ingress/egress shall be clearly marked. Occupancy of outdoor seating and gathering areas shall not exceed one person per 15 square feet of the outdoor seating and gathering areas identified in the building plans or any other occupancy limit established by the Office of the State Fire Marshall.

iv. All structures and uses related to outdoor seating and gathering areas and facilities are subject to the City of Milford Building Code and the City of Milford Zoning Code.

v. The occupancy of outdoor seating and gathering areas shall be included when calculating the building requirements and minimum parking standards required by the City of Milford and State of Delaware. Outdoor seating and gathering areas shall meet all requirements of the City of Milford and the State of Delaware.

vi. Tables, chairs, umbrellas, equipment, games, and any other items provided in connection with outdoor seating and gathering areas shall be maintained in good repair and shall be secured during non-business hours in a safe and orderly manner.

vii. Any licensing required by the Delaware Alcoholic Beverage Control Commissioner for outdoor seating and gathering areas shall be obtained.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater restrictions as may be required by the Planning Commission.

(1) Accessory uses shall not be permitted without a principal use.

(2) Any uses not permitted, as previously listed, are prohibited.

(3) All uses shall be conducted within a completely enclosed building. There shall be no open storage of raw, in process or finished products, supplies or waste material, except that these items shall be shielded from public view by a landscaped screen, fence or wall.

(4) In a planned industrial park or any lands designated as an I-1 District, no building/structure, accessory structure or sign shall be located closer than 200 feet to any nonindustrial district boundary.

(5) Adequate off-street parking shall be provided for all employees and traffic to the buildings. The minimum requirements are given in Article IV of this chapter and are to be deemed as minimum standards only. Standards in excess of those stated in Article IV may be stipulated by the Planning Commission during the site plan review.

(6) All fencing shall be properly maintained.

(7) All front yard areas and all areas open to public view shall be maintained in a neat and attractive condition.

(8) All loading operations shall be conducted at the side or rear of the building. In the unloading or loading process, no vehicles participating in these operations shall be allowed to extend into any public or private driveway or street or impede its traffic circulation.

(9) All odorous fumes or matter emitted into the environment from any/all fuel-burning equipment, open stacks and internal combustion engines must comply with the requirements set forth by the State of Delaware, Department of Natural Resources and Environmental Control (DNREC).

(10) Dust or particulate debris from any processing or production operations will be minimized by the use of appropriate mechanical and/or electrical devices to the extent necessary to ensure that such emissions shall not be offensive at or beyond the property line of the industry/warehouse. All such activities will comply with the requirements of the DNREC, State of Delaware.

(11) All internal roads, driveways and parking areas (for public, in-house employee or truck/vehicular traffic) shall be paved.

(12) All dry waste, in dust or particulate form, will be transported in closed or covered vehicles.

(13) The proposed use shall not endanger the surrounding areas to the possibilities of fire, explosion or contamination. All uses shall comply with state regulations which govern their operations. There shall be no allowance for the storage of radioactive materials or those materials deemed to be toxic or dangerous. All liquid storage shall have an approved containment (area) barricade capable of containing any failure of storage medium.

(14) The proposed use shall not allow the emission of heat or glare beyond its property line. All lighting shall be directed so as not to cause glare to the surrounding properties. The light source shall be shielded so as not to be visible from adjoining properties or streets.

(15) All I-1 District projects and proposals are subject to site plan review by the Planning Commission.

F. Area and height regulations.

(1) Minimum lot area shall be two acres.

(2) Maximum lot coverage shall be 60%, with the remainder being that of grass and landscape areas. Parking areas shall be landscaped.

(3) Minimum lot width shall be 150 feet.

(4) Maximum building height shall be 50 feet.

(5) Minimum front yard setback shall be 75 feet.

(6) Minimum side yard setback shall be 40 feet.

(7) Minimum rear yard setback shall be 45 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening. See Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

(11) Accessory structures shall occupy no more than 10% of the lot area.

(12) Accessory structures shall be located in the rear yard/lot area.

(13) Accessory structures shall be located at least 45 feet from the rear lot line.

[Ord. No. 2019-31, § 5, 9-23-2019; Ord. No. 2019-38, § 9, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR DON UNG KANG

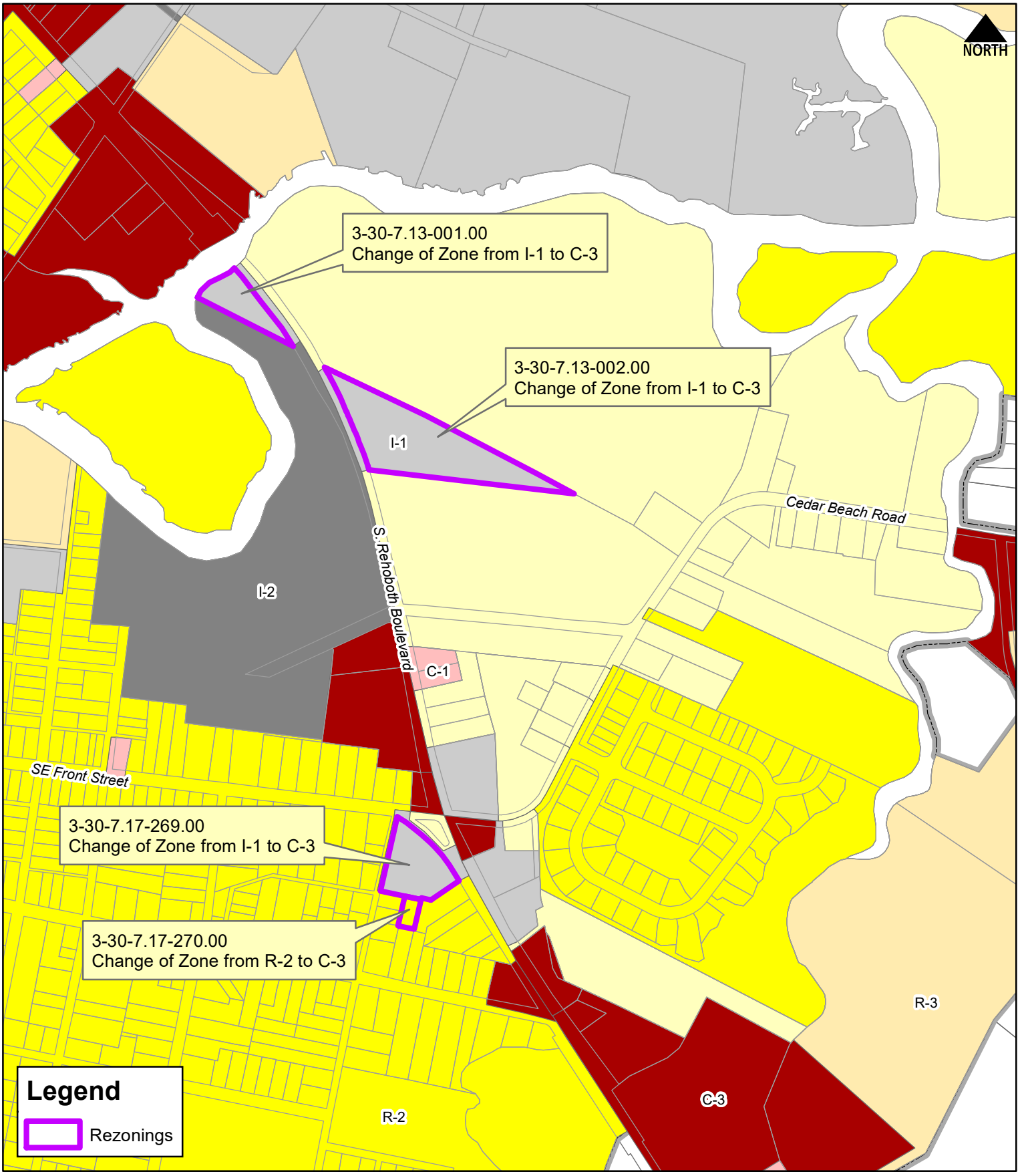
Planning Commission Meeting: November 17, 2020

Owner	:	Don Ung Kang 200 S. Rehoboth Boulevard Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Commercial
Present Zoning District	:	I-1 (Limited Industrial District)
Proposed Zoning District	:	C-3 (Highway Commercial District)
Present Use	:	Car Repair
Size and Location	:	0.76 +/- acres of land located along the west side of S. Rehoboth Boulevard just south of the Mispillion River. Addressed as 200 S. Rehoboth Boulevard.
Tax Map & Parcel	:	3-30-7.13-001.00

Staff Analysis

The purpose of the C-3 district is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

ENC: Exhibit C – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: 0 250 500 Feet

Drawn by: WRP

Date: 10/01/20

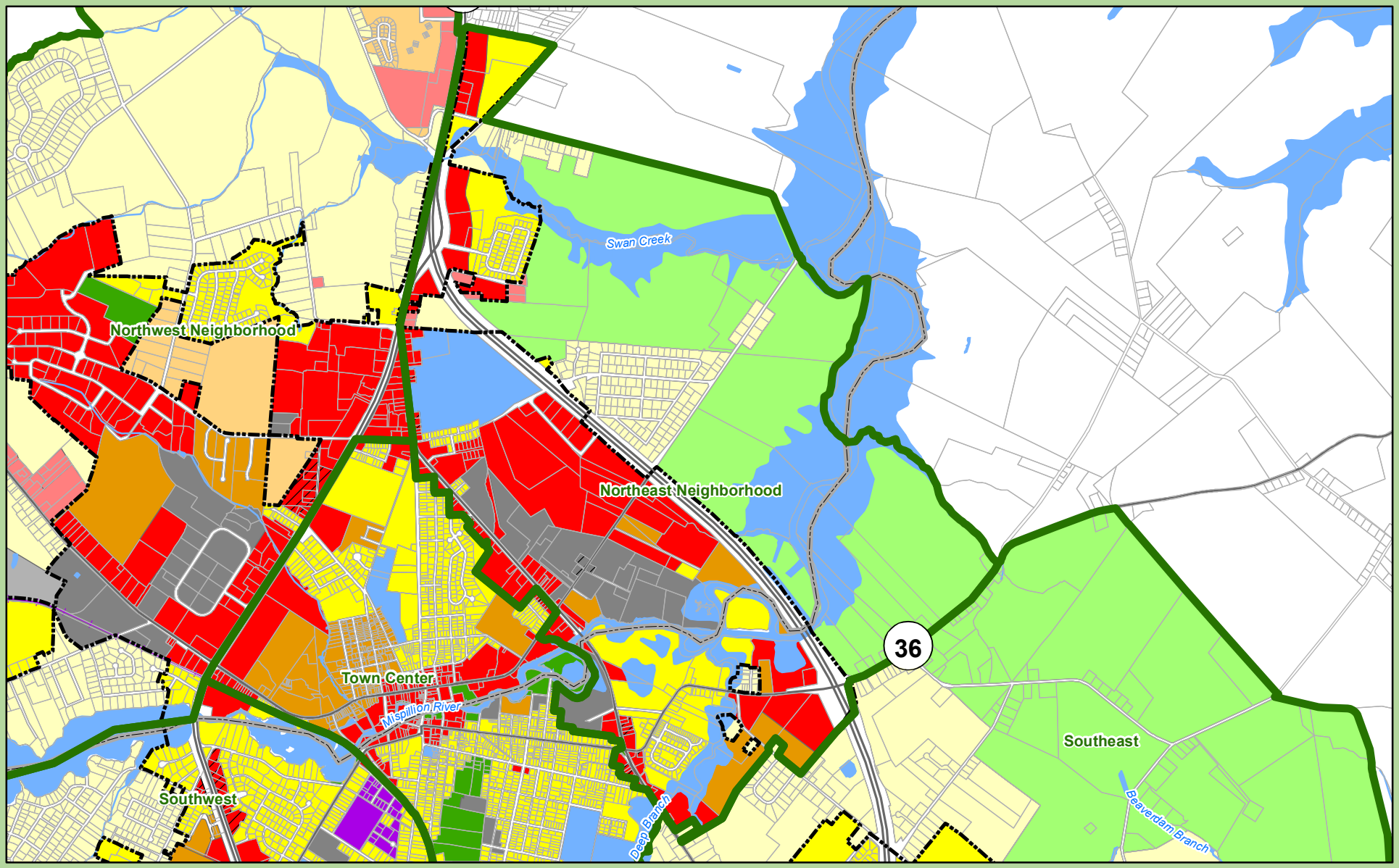
Filepath: ComprehensiveRezoning_ExhibitC.mxd

Title:

Exhibit C - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Northeast Neighborhood

Adopted Jan. 22, 2018, Certified TBD

0 0.15 0.3 0.6 0.9 1.2 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-14. - C-3 Highway Commercial District.

In a C-3 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The purpose of the C-3 District is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

B. Permitted uses. Permitted uses for the C-3 District shall be as follows:

(1) Those uses permitted in the C-2 District.

(2) Warehouses.

(3) Large retail outlets.

(4) Indoor storage accessory building.

(5) Fast-food restaurants and drive-in restaurants.

(6) Supermarkets.

(7) Truck and trailer rentals.

(8) Roadside produce market.

(9) Memorial stone shop.

(10) Outdoor commercial recreational facilities, not motorized vehicles.

(11) Swimming club.

(12) Indoor facility for amusement or assembly.

(13) Bus station.

C. Conditional uses subject to special requirements. The following uses are permitted subject to receiving a conditional use permit by the City Council as provided in Article IX of this chapter:

[Amended 10-12-1998 by Ord. No. 10-1998]

(1) Motels or hotels with a minimum lot size of three acres.

(2) Commercial greenhouse.

(3) Wholesale establishment.

(4) Newspaper publishing or printing establishment.

(5) Contractors', craftsmen's or general service shops, including welding and similar shops.

(6) Laboratory, testing and research.

(7) Car repair shops.

(8) Used car lots.

(9) Telephone central office or television cable central office.

(10) Service station, automobile sales agency, public garage, parking garage or lot, but not including storage of wrecked cars, subject to the following special requirements:

(a) All facilities shall be located and all services shall be conducted on the lot.

(b) All repair work shall be conducted within an entirely enclosed building.

(c) No equipment for the service of gasoline or oil shall be placed closer to any street or property line than 20 feet.

(d) No portion of such structure or its equipment shall be located within 500 feet of the premises of any school, hospital, church or public recreation building.

(e) No service station shall be located within 800 feet of another service station on the same side of the street within the same block.

(f) Any such use shall be permitted only where it is determined that it will not materially interfere with the main pedestrian movement in conjunction with a compact retail area.

(11) Shopping center, subject to site plan review and the following site requirements:

(a) The total shall not be less than one acre.

(b) The site must be served by public water, sewer and electricity.

(c) Stormwater drainage. The facilities shall be provided by the developer to handle the increase in stormwater runoff, and he shall make contributions towards the cost of off-site facilities of the shopping center.

(d) Traffic and parking.

[1] The internal circulation of traffic shall be separated from the external street system, and pedestrian and vehicular traffic shall be separated through traffic control devices and appropriate site design.

[2] Access to state highways shall be controlled by the State Department of Transportation.

[3] The minimum distance between accessways and a residential district shall be 50 feet.

[4] Spacing of accessway.

[a] From adjoining property: 50 feet.

[b] From minor intersections: 50 feet.

[c] From major intersections: 100 to 150 feet.

[5] Five and one-half parking spaces shall be provided per 1,000 feet of leasable area.

[6] Parking lots shall be attractively landscaped as shown on the general site plan.

(e) Setback.

[1] From street right-of-way: 15 feet.

[2] From nonresidential districts: 15 feet.

[3] From residential districts: 100 feet.

(f) Buffering and landscaping.

[1] There shall be a minimum of a ten-foot landscaped buffer along all lot lines. The screening shall be six feet high near residential districts.

[2] Ten percent of the site shall be landscaped and may include features such as pedestrian walking or rest areas and courtyards.

(12) Day-care centers, with site plan required.

[Added 10-14-1991]

(13) Car wash, all types (staffed, automatic, self-service, etc.).

[Added 6-14-1993]

(14) Convenience stores with gas pumps.

(15) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

(16) All dwellings other than single-family with a maximum density of 12 units per acre.

(17) Business, commercial or industrial uses that do not adversely affect neighboring properties.

(18) Aquarium.

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 80%.

(3) Minimum lot width shall be as follows: for an interior lot 150 feet and for a corner lot 170 feet.

(4) Height of buildings shall not exceed three stories or 35 feet, with the following exception: a motel, hotel, or aquarium may be erected to a height of over three stories, but not over five stories, and not exceeding 60 feet.

(5) Minimum building setback shall be 30 feet.

(6) Side yards shall be provided as follows: each lot shall have two side yards a minimum of 20 feet with a minimum aggregate width of two side yards of 50 feet.

(7) Minimum rear yard shall be 50 feet.

(8) Parking shall comply with the requirements provided in Article IV of this chapter.

(9) Landscape screening shall comply with the requirements provided in Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2008-18, § 3, 8-24-2009; Ord. No. 2009-22, § 2, 9-27-2010; Ord. No. 2016-14, §§ 2, 3, 10-24-2016; Ord. No. 2019-38, § 7, 11-25-2019]

§ 230-16. - I-1 Limited Industrial District.

[Amended 7-9-1990]

In an I-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of an I-1 Limited Industrial District shall be to provide locations for the development of light to moderate industrial manufacturing, warehousing, wholesale and limited research establishments which, because of their type and nature, would be compatible with or adjacent to residential areas. Also, the purpose is to provide guidelines and performance standards which will control and confine any offensive features (i.e., noise, vibration, heat, smoke, glare, dust, objectionable odors, toxic wastes or unsightly storage) to the confines of the premises and within enclosed buildings or within a visually enclosed space.

B. Permitted uses. Permitted uses of the I-1 District shall be as follows:

(1) All permitted uses of the OC-1 District and BP District. [Ord. No. 2017-03, § 1, 2-27-2017]

(2) Light manufacturing, assembling, converting, altering, finishing, baking, cooking or any other type of processing or storage of an industrial nature for the production and/or distribution of any goods, materials, products, instruments, appliances and devices, provided that the fuel or power supply shall be of an approved type. Also included shall be all incidental clinics, offices, cafeterias and recreational facilities for the exclusive use of in-house staff and employees.

(3) Research, design, testing and development laboratories.

(4) Printing, publishing, binding, packaging, storage, warehousing, distribution and trucking terminal operations and trucking schools.

(5) Municipal and public services and facilities, such as utility supply areas (i.e., water, sewer and electric), distribution facilities and substations.

(6) Truck or large vehicle repair facilities with associated parking area. All fuel and lubricant storage shall be installed in compliance with state and federal regulations and shall not be closer than 500 feet to any school or building(s) used for assembly.

[Added 12-16-1996]

C. Prohibited uses. The following are expressly prohibited in an I-1 District:

(1) Residences, except those in existence at the time of adoption of this amendment.

(2) Manufacturing uses involving production of the following products from raw materials: asphalt, cement, charcoal and fuel briquettes; chemicals: aniline dyes, ammonia, carbide, caustic soda, cellulose, chlorine, carbon black and bone black, creosote, hydrogen and oxygen, industrial alcohol, nitrates (both natural and manufactured) of an explosive nature, potash, petro chemical, pyroxylin, rayon yarn and hydrochloric, nitric, picric, phosphoric and sulfuric acids; coal, coke and tar products, including gas manufacturing, explosives, fertilizers, glue and size (animal); linoleum and oil cloth, matches, paint, varnishes and turpentine; rubber (natural and synthetic); and soaps, including fat rendering.

(3) Dumps, junkyards, automobile salvage and dismantling plants/yards, storage areas or operations for the storage or resale of used automotive or other machine parts.

(4) Operations involving slaughterhouses, stockyards or slag piles.

(5) Storage of explosives and bulk or wholesale storage of gasoline above ground.

(6) Quarries, stone crushers, screening plants and all associated uses.

(7) The following processes: large-scale reduction, refining, smelting and alloying of metal or metal ores; refining petroleum products, such as gasoline, kerosene, naphtha and lubricating oil; and reduction and processing of wood pulp and fiber, including paper mill operations.

D. Conditional uses. The following uses are permitted in the I-1 District, in accordance with the provisions within Article IX (conditional use portion) of this chapter:

(1) Airfields or airpark facilities.

(2) Mini-warehouses or public storage facilities.

(3) Radio-television facilities.

(4) Craft distillery and microbrewery establishments, provided that:

(a) All permits and approvals required by the Delaware Alcoholic Beverage Commission are obtained and remain in full force and effect.

(b) All aspects of the distilling or brewing process are completely confined within a building, including storage of all materials and finished products.

(c) Such establishment offers the public, on a regular and continuing basis, various activities ancillary to its distilling and/or brewing process, including by way of example: tours of the premises, educational classes, demonstrations, tasting rooms, and retail sales areas limited to the sale of beer, mead, cider, or spirits brewed or distilled on the premises for consumption off-premises and other retail items.

(d) On-site consumption or tasting associated with a craft distillery or microbrewery establishment shall be permitted. Any area associated with on-site consumption or tasting shall not operate as a stand-alone bar or tavern, shall be located on the premises of the craft distillery or microbrewery establishment, and shall be ancillary to the primary use. "Ancillary" for purposes of this section means subordinate, auxiliary, smaller and less intensive than the primary use. On-site consumption or tasting of alcohol shall be limited to those products brewed or distilled on the premises, except as otherwise permitted by Delaware Law.

(e) All food sales shall be limited to prepackaged snack items or those food items prepared by a food establishment licensed by the State of Delaware. If a craft distillery or microbrewery intends to operate on its premises a food establishment that is otherwise a permitted use in this district (i.e. restaurant, café, or full-service restaurant), the City may require the property owner to provide the City with a letter of no objection from the Delaware Alcoholic Beverage Control Commissioner regarding the operation of a food establishment on the premises of a craft distillery or microbrewery.

(f) Outdoor seating and gathering areas shall be permitted subject to the following requirements:

i. Permanent and temporary outdoor seating and gathering areas shall be subject to building permit application and approval requirements.

ii. Outdoor seating and gathering areas and ancillary improvements shall include physical barriers from public rights-of-way and physical and visual barriers from adjoining properties. Physical barriers along public rights-of-way shall restrict access from the public rights-of-way to the outdoor seating and gathering areas and shall not exceed four feet in height. Barriers along adjoining property lines shall create a physical and visual barrier consisting of fencing six feet in height or vegetation at least six feet in height. The regulations herein shall be in addition to any regulations imposed by the State of Delaware.

iii. Maximum occupancy and points of ingress/egress shall be clearly marked. Occupancy of outdoor seating and gathering areas shall not exceed one person per 15 square feet of the outdoor seating and gathering areas identified in the building plans or any other occupancy limit established by the Office of the State Fire Marshall.

iv. All structures and uses related to outdoor seating and gathering areas and facilities are subject to the City of Milford Building Code and the City of Milford Zoning Code.

v. The occupancy of outdoor seating and gathering areas shall be included when calculating the building requirements and minimum parking standards required by the City of Milford and State of Delaware. Outdoor seating and gathering areas shall meet all requirements of the City of Milford and the State of Delaware.

vi. Tables, chairs, umbrellas, equipment, games, and any other items provided in connection with outdoor seating and gathering areas shall be maintained in good repair and shall be secured during non-business hours in a safe and orderly manner.

vii. Any licensing required by the Delaware Alcoholic Beverage Control Commissioner for outdoor seating and gathering areas shall be obtained.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater restrictions as may be required by the Planning Commission.

(1) Accessory uses shall not be permitted without a principal use.

(2) Any uses not permitted, as previously listed, are prohibited.

(3) All uses shall be conducted within a completely enclosed building. There shall be no open storage of raw, in process or finished products, supplies or waste material, except that these items shall be shielded from public view by a landscaped screen, fence or wall.

(4) In a planned industrial park or any lands designated as an I-1 District, no building/structure, accessory structure or sign shall be located closer than 200 feet to any nonindustrial district boundary.

(5) Adequate off-street parking shall be provided for all employees and traffic to the buildings. The minimum requirements are given in Article IV of this chapter and are to be deemed as minimum standards only. Standards in excess of those stated in Article IV may be stipulated by the Planning Commission during the site plan review.

(6) All fencing shall be properly maintained.

(7) All front yard areas and all areas open to public view shall be maintained in a neat and attractive condition.

(8) All loading operations shall be conducted at the side or rear of the building. In the unloading or loading process, no vehicles participating in these operations shall be allowed to extend into any public or private driveway or street or impede its traffic circulation.

(9) All odorous fumes or matter emitted into the environment from any/all fuel-burning equipment, open stacks and internal combustion engines must comply with the requirements set forth by the State of Delaware, Department of Natural Resources and Environmental Control (DNREC).

(10) Dust or particulate debris from any processing or production operations will be minimized by the use of appropriate mechanical and/or electrical devices to the extent necessary to ensure that such emissions shall not be offensive at or beyond the property line of the industry/warehouse. All such activities will comply with the requirements of the DNREC, State of Delaware.

(11) All internal roads, driveways and parking areas (for public, in-house employee or truck/vehicular traffic) shall be paved.

(12) All dry waste, in dust or particulate form, will be transported in closed or covered vehicles.

(13) The proposed use shall not endanger the surrounding areas to the possibilities of fire, explosion or contamination. All uses shall comply with state regulations which govern their operations. There shall be no allowance for the storage of radioactive materials or those materials deemed to be toxic or dangerous. All liquid storage shall have an approved containment (area) barricade capable of containing any failure of storage medium.

(14) The proposed use shall not allow the emission of heat or glare beyond its property line. All lighting shall be directed so as not to cause glare to the surrounding properties. The light source shall be shielded so as not to be visible from adjoining properties or streets.

(15) All I-1 District projects and proposals are subject to site plan review by the Planning Commission.

F. Area and height regulations.

(1) Minimum lot area shall be two acres.

(2) Maximum lot coverage shall be 60%, with the remainder being that of grass and landscape areas. Parking areas shall be landscaped.

(3) Minimum lot width shall be 150 feet.

(4) Maximum building height shall be 50 feet.

(5) Minimum front yard setback shall be 75 feet.

(6) Minimum side yard setback shall be 40 feet.

(7) Minimum rear yard setback shall be 45 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening. See Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

(11) Accessory structures shall occupy no more than 10% of the lot area.

(12) Accessory structures shall be located in the rear yard/lot area.

(13) Accessory structures shall be located at least 45 feet from the rear lot line.

[Ord. No. 2019-31, § 5, 9-23-2019; Ord. No. 2019-38, § 9, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR MAULL PROPERTIES, LLC

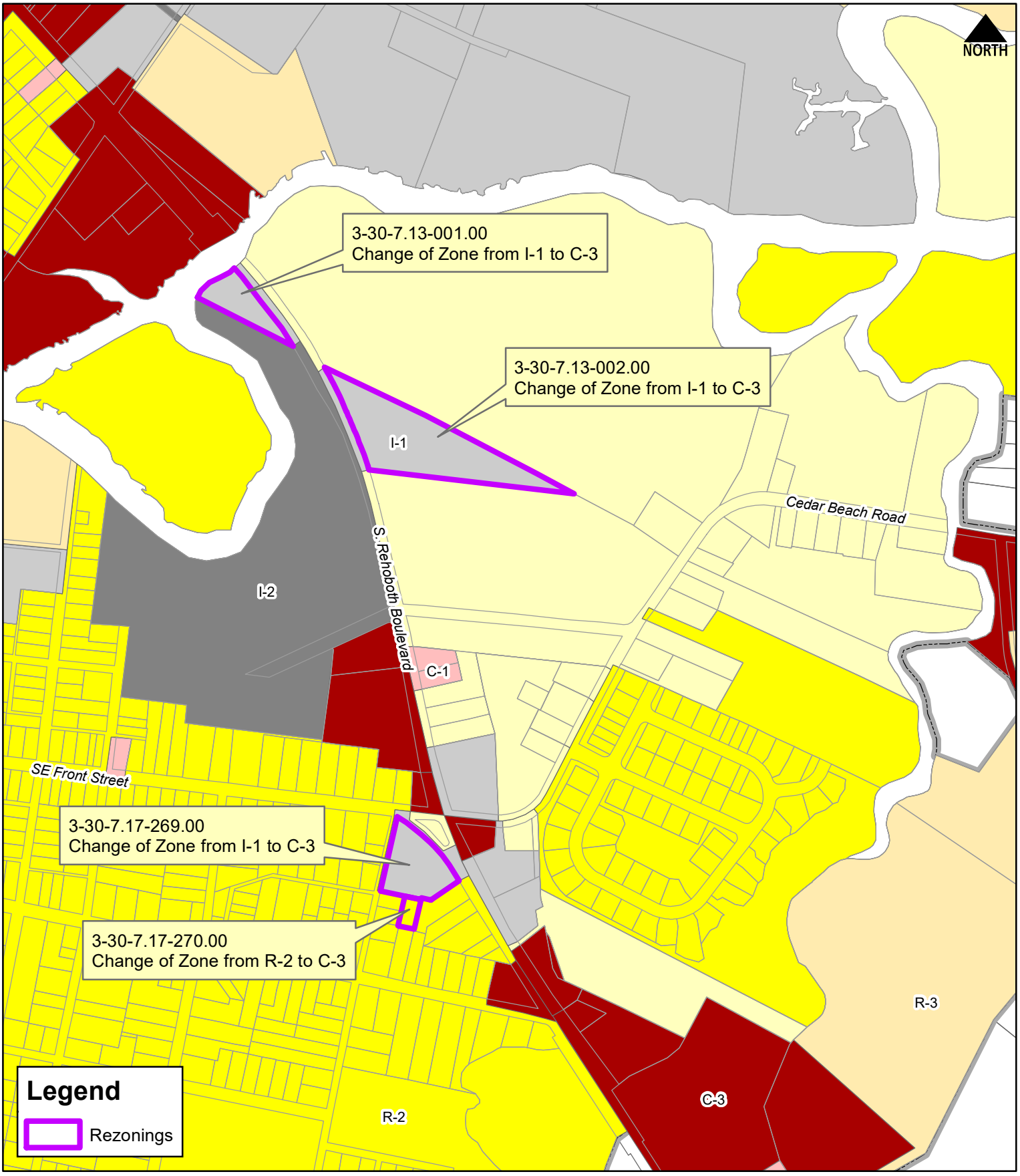
Planning Commission Meeting: November 17, 2020

Owner	:	Maull Properties, LLC 201 S. Rehoboth Boulevard Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Commercial
Present Zoning District	:	I-1 (Limited Industrial District)
Proposed Zoning District	:	C-3 (Highway Commercial District)
Present Use	:	Car Repair
Size and Location	:	4.18 +/- acres of land located along the east side of S. Rehoboth Boulevard just south of the Mispillion River. Addressed as 201 S. Rehoboth Boulevard.
Tax Map & Parcel	:	3-30-7.13-002.00

Staff Analysis

The purpose of the C-3 district is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

ENC: Exhibit C – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: 0 250 500 Feet

Drawn by: WRP

Date: 10/01/20

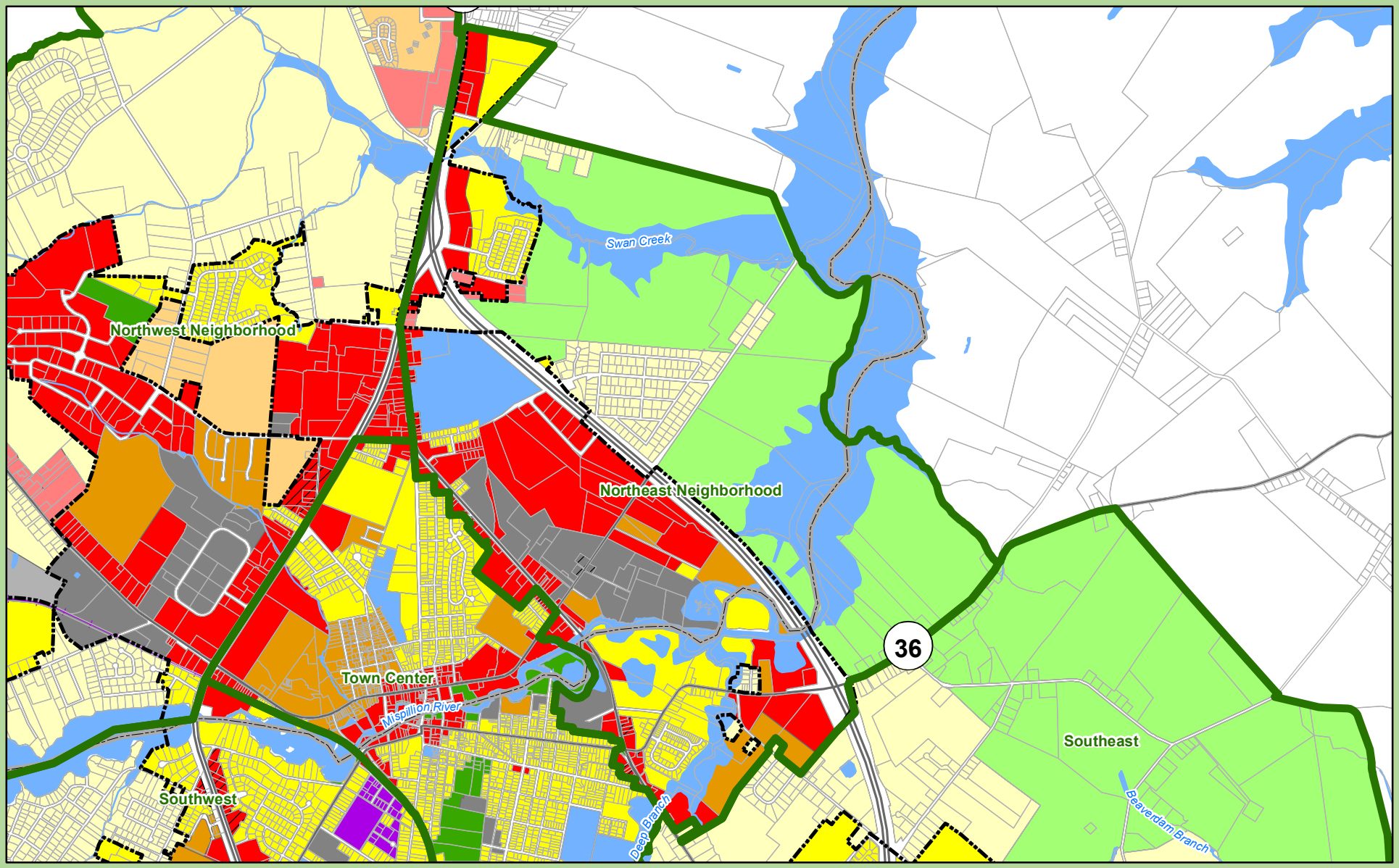
Filepath: ComprehensiveRezoning_ExhibitC.mxd

Title:

Exhibit C - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Northeast Neighborhood

Adopted Jan. 22, 2018, Certified TBD

0 0.15 0.3 0.6 0.9 1.2 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-14. - C-3 Highway Commercial District.

In a C-3 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The purpose of the C-3 District is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

B. Permitted uses. Permitted uses for the C-3 District shall be as follows:

(1) Those uses permitted in the C-2 District.

(2) Warehouses.

(3) Large retail outlets.

(4) Indoor storage accessory building.

(5) Fast-food restaurants and drive-in restaurants.

(6) Supermarkets.

(7) Truck and trailer rentals.

(8) Roadside produce market.

(9) Memorial stone shop.

(10) Outdoor commercial recreational facilities, not motorized vehicles.

(11) Swimming club.

(12) Indoor facility for amusement or assembly.

(13) Bus station.

C. Conditional uses subject to special requirements. The following uses are permitted subject to receiving a conditional use permit by the City Council as provided in Article IX of this chapter:

[Amended 10-12-1998 by Ord. No. 10-1998]

(1) Motels or hotels with a minimum lot size of three acres.

(2) Commercial greenhouse.

(3) Wholesale establishment.

(4) Newspaper publishing or printing establishment.

(5) Contractors', craftsmen's or general service shops, including welding and similar shops.

(6) Laboratory, testing and research.

(7) Car repair shops.

(8) Used car lots.

(9) Telephone central office or television cable central office.

(10) Service station, automobile sales agency, public garage, parking garage or lot, but not including storage of wrecked cars, subject to the following special requirements:

(a) All facilities shall be located and all services shall be conducted on the lot.

(b) All repair work shall be conducted within an entirely enclosed building.

(c) No equipment for the service of gasoline or oil shall be placed closer to any street or property line than 20 feet.

(d) No portion of such structure or its equipment shall be located within 500 feet of the premises of any school, hospital, church or public recreation building.

(e) No service station shall be located within 800 feet of another service station on the same side of the street within the same block.

(f) Any such use shall be permitted only where it is determined that it will not materially interfere with the main pedestrian movement in conjunction with a compact retail area.

(11) Shopping center, subject to site plan review and the following site requirements:

(a) The total shall not be less than one acre.

(b) The site must be served by public water, sewer and electricity.

(c) Stormwater drainage. The facilities shall be provided by the developer to handle the increase in stormwater runoff, and he shall make contributions towards the cost of off-site facilities of the shopping center.

(d) Traffic and parking.

[1] The internal circulation of traffic shall be separated from the external street system, and pedestrian and vehicular traffic shall be separated through traffic control devices and appropriate site design.

[2] Access to state highways shall be controlled by the State Department of Transportation.

[3] The minimum distance between accessways and a residential district shall be 50 feet.

[4] Spacing of accessway.

[a] From adjoining property: 50 feet.

[b] From minor intersections: 50 feet.

[c] From major intersections: 100 to 150 feet.

[5] Five and one-half parking spaces shall be provided per 1,000 feet of leasable area.

[6] Parking lots shall be attractively landscaped as shown on the general site plan.

(e) Setback.

[1] From street right-of-way: 15 feet.

[2] From nonresidential districts: 15 feet.

[3] From residential districts: 100 feet.

(f) Buffering and landscaping.

[1] There shall be a minimum of a ten-foot landscaped buffer along all lot lines. The screening shall be six feet high near residential districts.

[2] Ten percent of the site shall be landscaped and may include features such as pedestrian walking or rest areas and courtyards.

(12) Day-care centers, with site plan required.

[Added 10-14-1991]

(13) Car wash, all types (staffed, automatic, self-service, etc.).

[Added 6-14-1993]

(14) Convenience stores with gas pumps.

(15) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

(16) All dwellings other than single-family with a maximum density of 12 units per acre.

(17) Business, commercial or industrial uses that do not adversely affect neighboring properties.

(18) Aquarium.

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 80%.

(3) Minimum lot width shall be as follows: for an interior lot 150 feet and for a corner lot 170 feet.

(4) Height of buildings shall not exceed three stories or 35 feet, with the following exception: a motel, hotel, or aquarium may be erected to a height of over three stories, but not over five stories, and not exceeding 60 feet.

(5) Minimum building setback shall be 30 feet.

(6) Side yards shall be provided as follows: each lot shall have two side yards a minimum of 20 feet with a minimum aggregate width of two side yards of 50 feet.

(7) Minimum rear yard shall be 50 feet.

(8) Parking shall comply with the requirements provided in Article IV of this chapter.

(9) Landscape screening shall comply with the requirements provided in Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2008-18, § 3, 8-24-2009; Ord. No. 2009-22, § 2, 9-27-2010; Ord. No. 2016-14, §§ 2, 3, 10-24-2016; Ord. No. 2019-38, § 7, 11-25-2019]

§ 230-16. - I-1 Limited Industrial District.

[Amended 7-9-1990]

In an I-1 District no building/structure or premises shall be used and no building/structure or part thereof shall be erected or altered which is arranged, intended or designed to be used, in whole or in part, for any purpose except for one or more of the following uses and complying with the requirements herein indicated.

A. The purpose of an I-1 Limited Industrial District shall be to provide locations for the development of light to moderate industrial manufacturing, warehousing, wholesale and limited research establishments which, because of their type and nature, would be compatible with or adjacent to residential areas. Also, the purpose is to provide guidelines and performance standards which will control and confine any offensive features (i.e., noise, vibration, heat, smoke, glare, dust, objectionable odors, toxic wastes or unsightly storage) to the confines of the premises and within enclosed buildings or within a visually enclosed space.

B. Permitted uses. Permitted uses of the I-1 District shall be as follows:

(1) All permitted uses of the OC-1 District and BP District. [Ord. No. 2017-03, § 1, 2-27-2017]

(2) Light manufacturing, assembling, converting, altering, finishing, baking, cooking or any other type of processing or storage of an industrial nature for the production and/or distribution of any goods, materials, products, instruments, appliances and devices, provided that the fuel or power supply shall be of an approved type. Also included shall be all incidental clinics, offices, cafeterias and recreational facilities for the exclusive use of in-house staff and employees.

(3) Research, design, testing and development laboratories.

(4) Printing, publishing, binding, packaging, storage, warehousing, distribution and trucking terminal operations and trucking schools.

(5) Municipal and public services and facilities, such as utility supply areas (i.e., water, sewer and electric), distribution facilities and substations.

(6) Truck or large vehicle repair facilities with associated parking area. All fuel and lubricant storage shall be installed in compliance with state and federal regulations and shall not be closer than 500 feet to any school or building(s) used for assembly.

[Added 12-16-1996]

C. Prohibited uses. The following are expressly prohibited in an I-1 District:

(1) Residences, except those in existence at the time of adoption of this amendment.

(2) Manufacturing uses involving production of the following products from raw materials: asphalt, cement, charcoal and fuel briquettes; chemicals: aniline dyes, ammonia, carbide, caustic soda, cellulose, chlorine, carbon black and bone black, creosote, hydrogen and oxygen, industrial alcohol, nitrates (both natural and manufactured) of an explosive nature, potash, petro chemical, pyroxylin, rayon yarn and hydrochloric, nitric, picric, phosphoric and sulfuric acids; coal, coke and tar products, including gas manufacturing, explosives, fertilizers, glue and size (animal); linoleum and oil cloth, matches, paint, varnishes and turpentine; rubber (natural and synthetic); and soaps, including fat rendering.

(3) Dumps, junkyards, automobile salvage and dismantling plants/yards, storage areas or operations for the storage or resale of used automotive or other machine parts.

(4) Operations involving slaughterhouses, stockyards or slag piles.

(5) Storage of explosives and bulk or wholesale storage of gasoline above ground.

(6) Quarries, stone crushers, screening plants and all associated uses.

(7) The following processes: large-scale reduction, refining, smelting and alloying of metal or metal ores; refining petroleum products, such as gasoline, kerosene, naphtha and lubricating oil; and reduction and processing of wood pulp and fiber, including paper mill operations.

D. Conditional uses. The following uses are permitted in the I-1 District, in accordance with the provisions within Article IX (conditional use portion) of this chapter:

(1) Airfields or airpark facilities.

(2) Mini-warehouses or public storage facilities.

(3) Radio-television facilities.

(4) Craft distillery and microbrewery establishments, provided that:

(a) All permits and approvals required by the Delaware Alcoholic Beverage Commission are obtained and remain in full force and effect.

(b) All aspects of the distilling or brewing process are completely confined within a building, including storage of all materials and finished products.

(c) Such establishment offers the public, on a regular and continuing basis, various activities ancillary to its distilling and/or brewing process, including by way of example: tours of the premises, educational classes, demonstrations, tasting rooms, and retail sales areas limited to the sale of beer, mead, cider, or spirits brewed or distilled on the premises for consumption off-premises and other retail items.

(d) On-site consumption or tasting associated with a craft distillery or microbrewery establishment shall be permitted. Any area associated with on-site consumption or tasting shall not operate as a stand-alone bar or tavern, shall be located on the premises of the craft distillery or microbrewery establishment, and shall be ancillary to the primary use. "Ancillary" for purposes of this section means subordinate, auxiliary, smaller and less intensive than the primary use. On-site consumption or tasting of alcohol shall be limited to those products brewed or distilled on the premises, except as otherwise permitted by Delaware Law.

(e) All food sales shall be limited to prepackaged snack items or those food items prepared by a food establishment licensed by the State of Delaware. If a craft distillery or microbrewery intends to operate on its premises a food establishment that is otherwise a permitted use in this district (i.e. restaurant, café, or full-service restaurant), the City may require the property owner to provide the City with a letter of no objection from the Delaware Alcoholic Beverage Control Commissioner regarding the operation of a food establishment on the premises of a craft distillery or microbrewery.

(f) Outdoor seating and gathering areas shall be permitted subject to the following requirements:

i. Permanent and temporary outdoor seating and gathering areas shall be subject to building permit application and approval requirements.

ii. Outdoor seating and gathering areas and ancillary improvements shall include physical barriers from public rights-of-way and physical and visual barriers from adjoining properties. Physical barriers along public rights-of-way shall restrict access from the public rights-of-way to the outdoor seating and gathering areas and shall not exceed four feet in height. Barriers along adjoining property lines shall create a physical and visual barrier consisting of fencing six feet in height or vegetation at least six feet in height. The regulations herein shall be in addition to any regulations imposed by the State of Delaware.

iii. Maximum occupancy and points of ingress/egress shall be clearly marked. Occupancy of outdoor seating and gathering areas shall not exceed one person per 15 square feet of the outdoor seating and gathering areas identified in the building plans or any other occupancy limit established by the Office of the State Fire Marshall.

iv. All structures and uses related to outdoor seating and gathering areas and facilities are subject to the City of Milford Building Code and the City of Milford Zoning Code.

v. The occupancy of outdoor seating and gathering areas shall be included when calculating the building requirements and minimum parking standards required by the City of Milford and State of Delaware. Outdoor seating and gathering areas shall meet all requirements of the City of Milford and the State of Delaware.

vi. Tables, chairs, umbrellas, equipment, games, and any other items provided in connection with outdoor seating and gathering areas shall be maintained in good repair and shall be secured during non-business hours in a safe and orderly manner.

vii. Any licensing required by the Delaware Alcoholic Beverage Control Commissioner for outdoor seating and gathering areas shall be obtained.

E. Design standards and requirements. These are minimum requirements for all activities that are permitted or conditional uses. Conditional use activities are subject to much greater restrictions as may be required by the Planning Commission.

(1) Accessory uses shall not be permitted without a principal use.

(2) Any uses not permitted, as previously listed, are prohibited.

(3) All uses shall be conducted within a completely enclosed building. There shall be no open storage of raw, in process or finished products, supplies or waste material, except that these items shall be shielded from public view by a landscaped screen, fence or wall.

(4) In a planned industrial park or any lands designated as an I-1 District, no building/structure, accessory structure or sign shall be located closer than 200 feet to any nonindustrial district boundary.

(5) Adequate off-street parking shall be provided for all employees and traffic to the buildings. The minimum requirements are given in Article IV of this chapter and are to be deemed as minimum standards only. Standards in excess of those stated in Article IV may be stipulated by the Planning Commission during the site plan review.

(6) All fencing shall be properly maintained.

(7) All front yard areas and all areas open to public view shall be maintained in a neat and attractive condition.

(8) All loading operations shall be conducted at the side or rear of the building. In the unloading or loading process, no vehicles participating in these operations shall be allowed to extend into any public or private driveway or street or impede its traffic circulation.

(9) All odorous fumes or matter emitted into the environment from any/all fuel-burning equipment, open stacks and internal combustion engines must comply with the requirements set forth by the State of Delaware, Department of Natural Resources and Environmental Control (DNREC).

(10) Dust or particulate debris from any processing or production operations will be minimized by the use of appropriate mechanical and/or electrical devices to the extent necessary to ensure that such emissions shall not be offensive at or beyond the property line of the industry/warehouse. All such activities will comply with the requirements of the DNREC, State of Delaware.

(11) All internal roads, driveways and parking areas (for public, in-house employee or truck/vehicular traffic) shall be paved.

(12) All dry waste, in dust or particulate form, will be transported in closed or covered vehicles.

(13) The proposed use shall not endanger the surrounding areas to the possibilities of fire, explosion or contamination. All uses shall comply with state regulations which govern their operations. There shall be no allowance for the storage of radioactive materials or those materials deemed to be toxic or dangerous. All liquid storage shall have an approved containment (area) barricade capable of containing any failure of storage medium.

(14) The proposed use shall not allow the emission of heat or glare beyond its property line. All lighting shall be directed so as not to cause glare to the surrounding properties. The light source shall be shielded so as not to be visible from adjoining properties or streets.

(15) All I-1 District projects and proposals are subject to site plan review by the Planning Commission.

F. Area and height regulations.

(1) Minimum lot area shall be two acres.

(2) Maximum lot coverage shall be 60%, with the remainder being that of grass and landscape areas. Parking areas shall be landscaped.

(3) Minimum lot width shall be 150 feet.

(4) Maximum building height shall be 50 feet.

(5) Minimum front yard setback shall be 75 feet.

(6) Minimum side yard setback shall be 40 feet.

(7) Minimum rear yard setback shall be 45 feet.

(8) Off-street parking. See Article IV of this chapter.

(9) Landscape screening. See Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

(11) Accessory structures shall occupy no more than 10% of the lot area.

(12) Accessory structures shall be located in the rear yard/lot area.

(13) Accessory structures shall be located at least 45 feet from the rear lot line.

[Ord. No. 2019-31, § 5, 9-23-2019; Ord. No. 2019-38, § 9, 11-25-2019]

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR HENRY S. MAST

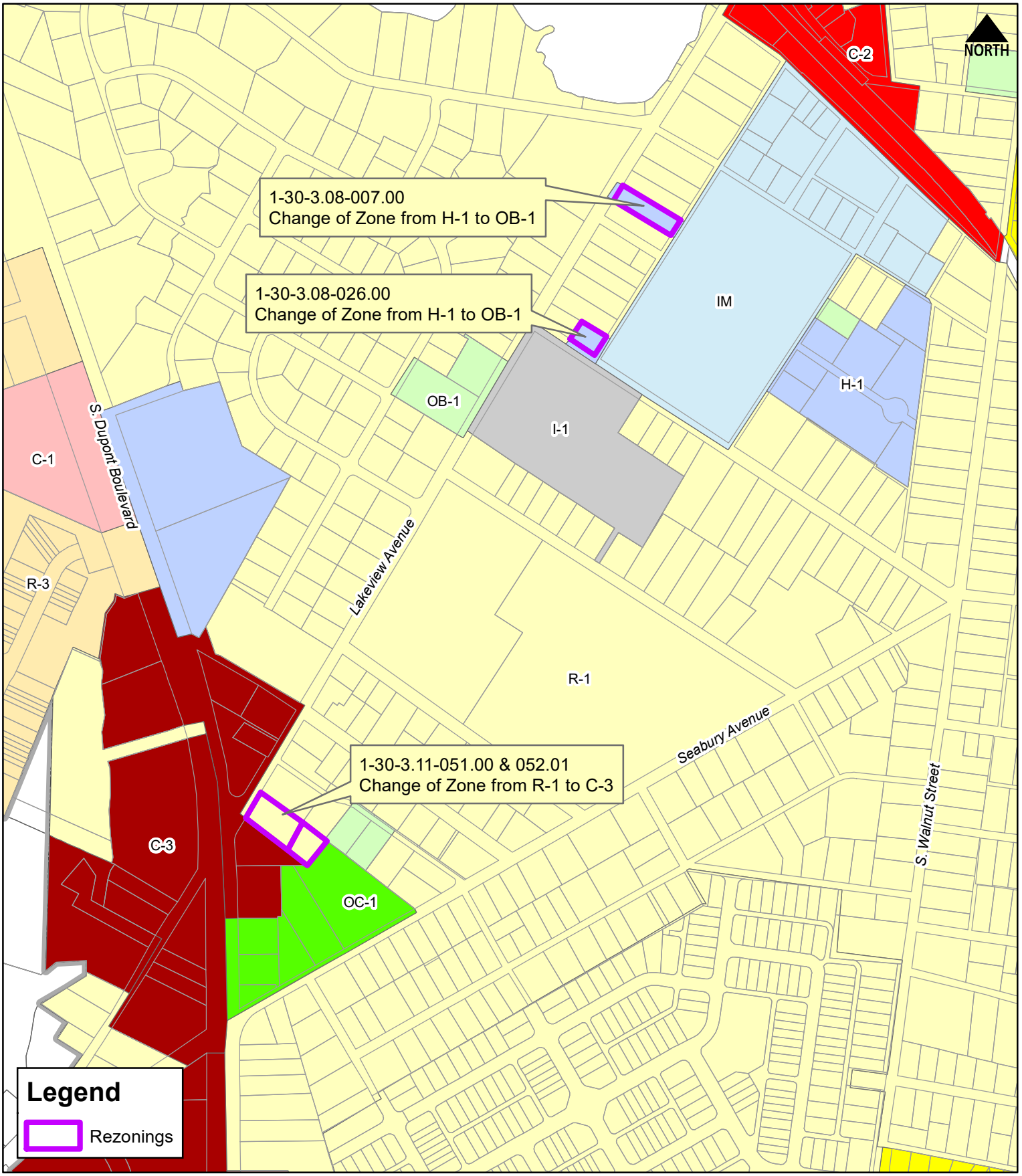
Planning Commission Meeting: November 17, 2020

Owner	:	Henry S. Mast 910 Lakeview Avenue Milford, DE 19963
Application Type	:	Change of Zone
Present Comprehensive Plan Map Designation	:	Commercial
Present Zoning District	:	R-1 (Single-family Residential District)
Proposed Zoning District	:	C-3 (Highway Commercial District)
Present Use	:	Vacant
Size and Location	:	0.88 +/- acres of land located along the south side of Lakeview Avenue approximately 70 feet east of the Route 113 intersection. Addressed as 910 Lakeview Avenue.
Tax Map & Parcel	:	1-30-3.11-051.00 & 052.01

Staff Analysis

The purpose of the C-3 district is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

ENC: Exhibit B – Location & Zoning Map
2018 Comprehensive Plan Future Land Use Exhibit



THE CITY of Milford DELAWARE

Scale: Feet
0 250 500

Drawn by: WRP Date: 10/01/20

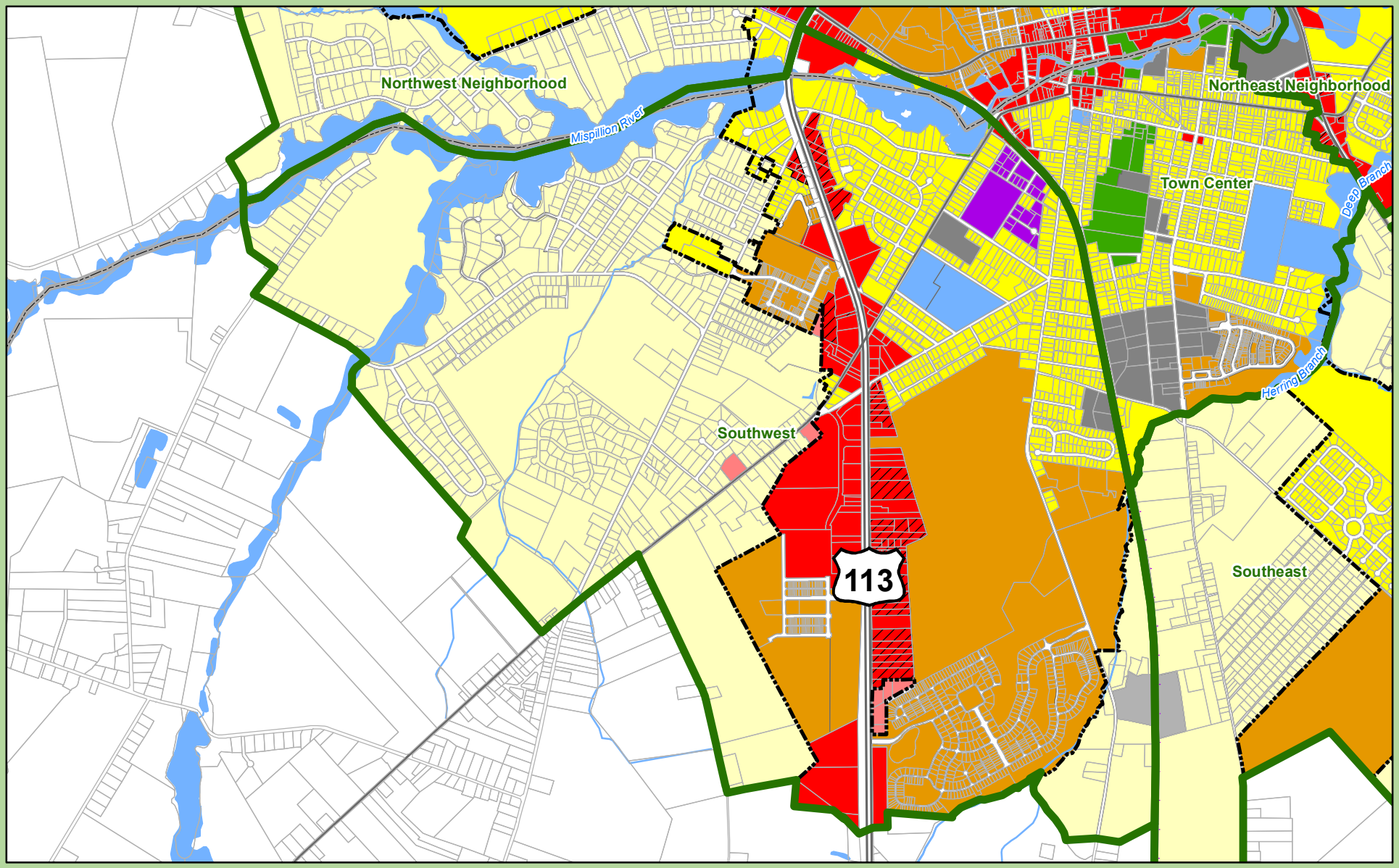
Filepath: ComprehensiveRezoning_ExhibitB.mxd

Title:

Exhibit B - 2020 Rezonings

2018 Comprehensive Plan Update

Location & Zoning Map



Neighborhoods

Land Use Type

- Open Space
- Proposed Open Space
- Low Density Residential
- Proposed Low Density Residential
- Moderate Density Residential
- Proposed Moderate Density Residential
- Employment
- Proposed Employment
- Institutional
- Commercial
- Proposed Commercial
- Industrial
- Proposed Industrial
- Transition Area
- Municipal Boundary
- County Boundaries
- State Parcels
- Routes
- Rail Lines
- Hydrology
- Bodies of Water

City of Milford, Delaware

Future Land Use

Southwest

Adopted Jan. 22, 2018, Certified TBD

0 0.1 0.2 0.4 0.6 0.8 Miles

Sources:

Municipal Boundaries - Delaware Office of State Planning Coordination, FirstMap 10/17.
DRAFT Future Landuse - City of Milford, Delaware 01/18.
Road and Rail Network - Delaware Department of Transportation, FirstMap 01/18.
Hydrology - USGS and EPA, FirstMap 01/18.

Note:This map is provided by the University of Delaware, Institute for Public Administration (IPA) solely for display and reference purposes and is subject to change without notice. No claims, either real or assumed, as to the absolute accuracy or precision of any data contained herein are made by IPA, nor will IPA be held responsible for any use of this document for purposes other than which it was intended.

THE CITY of Milford DELAWARE

UNIVERSITY OF DELAWARE

www.ipa.udel.edu

institute for Public Administration

§ 230-9. - R-1 Single-Family Residential District.

In an R-1 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The intent of the R-1 Residential District is to preserve the spacious residential atmosphere and quality of living of existing low-density residential development, to provide for the orderly and appropriate development of new low-density housing and to allow related uses that would not be detrimental to the residential character of the district.

B. Permitted uses. Permitted uses for the R-1 District shall be as follows:

(1) A single-family detached residential dwelling.

(2) Farming, agricultural activities and roadside stands for the sale of farm and nursery products produced on the property where offered for sale.

(3) Municipal and public services and facilities, including City Hall, water storage towers, water reservoirs, water pumping stations, water treatment plants, sewage pumping stations, sewers (storm and sanitary), street rights-of-way, utility transmission and distribution lines, public transportation bus or transit stops, police and fire stations and substations for electric, gas and telephone facilities.

(4) Parks, playgrounds, athletic fields, recreation buildings, swimming pools and community centers operated on a noncommercial basis for recreation purposes.

(5) Customary accessory uses, such as private garages, swimming pools and storage sheds, subject to the following special requirements:

(a) The primary residence must exist or be under construction.

(b) Private residential garages shall not exceed 750 square feet.

(c) Residential storage sheds or related outbuildings shall not exceed 150 square feet.

(6) Home occupational/office (subject to the following special requirements):

[Added 4-9-1990]

(a) All employees are to be of the immediate family.

(b) The appearance of the dwelling shall not be inconsistent with the primary use of the structure.

(c) The area used for the home occupation shall not exceed 30% of the total floor area of the dwelling, unless, as in the case of family day care, the state has final jurisdiction of the area requirements.

(d) No storage of products or associated materials is allowed in accessory structures/buildings, and no products are to be stored where they are outwardly visible to the public view.

(e) Family day care shall involve a maximum of six full-time and two after-school children, as specified by state regulations.

(f) The occupation will not cause excessive vehicular traffic or noise.

(g) The occupation will not involve animal boarding and/or care.

C. Conditional uses subject to special regulations. The following uses may be permitted with the approval of a conditional use permit by the Milford City Council in accordance with the provisions in Article IX of this chapter:

(1) Churches and other places of worship and cemeteries.

(2) Public and private elementary, junior or senior high schools.

(3) Day-care centers.

(4) Conversion of a one-family dwelling into multiple dwelling units, if such dwelling is structurally sound but too large to be in demand for one-family use and if that conversion would not impair the character of the neighborhood, subject to conformance with the following requirements:

(a) There shall be a lot area of at least 2,000 square feet for each unit to be accommodated.

(b) There shall be a gross leasable floor area, computed as the sum of those areas enclosed by the outside faces of all exterior walls surrounding each story used for the residence, exclusive of any area for any accessory private garage, of at least 500 square feet per family to be accommodated.

(c) No dwelling shall be converted unless it complies with Chapter 145, Housing Standards, and Chapter 88, Building Construction, of this code.

(d) No addition shall extend within the front yard, side yards or rear yard required for the district within which it is located.

(e) Fire escapes and outside stairways leading to a second or higher story shall, where practicable, be located on the rear of the building and shall not be located on any building wall facing a street.

(f) Two off-street parking spaces shall be provided for each additional dwelling unit created.

(5) Professional occupation restricted to the owner/occupant, subject to conformance with the following requirements:

(a) There shall be three off-street parking spaces in addition to those otherwise required.

(b) No more than two persons shall be employed by the practitioner of the professional occupation to provide secretarial, clerical, technical or similar assistance.

(c) No storage of materials or products outside the dwelling shall be permitted unless completely housed.

(d) The area used for the practice of a professional occupation shall occupy no more than 50% of the total floor area, including garages or other accessory buildings.

(e) The professional use shall be clearly incidental to the residential use of the dwelling and shall not change the essential residential character of the dwelling.

(f) No external alterations inconsistent with the primary residential use of the dwelling shall be allowed.

(g) No display of products shall be visible from outside the building.

(6) Customary home occupation or a studio for artists, designers, photographers, musicians, sculptors and other similar persons, subject to conformance with the following requirements:

(a) The area used for the practice of the home occupation or studio shall occupy no more than 50% of the total floor area of the dwelling unit in which it is located.

(b) No storage of materials or products outside the dwelling shall be permitted unless completely housed.

(c) The home occupation or studio shall be clearly incidental to the residential use of the dwelling and shall not change the essential residential character of the dwelling.

(d) No external alterations inconsistent with the primary residential use of the dwelling shall be allowed.

(e) No display of products shall be visible from outside the building.

(f) A maximum of two employees shall be permitted in the operation of the home occupation or studio.

(7) Social club or fraternal, social service, union or civic organization.

(8) Cultural facilities, including a library, museum or art gallery.

(9) Country club, regulation golf course, including customary accessory uses, provided that all buildings have a minimum setback of 120 feet from all street and property lines.

(10) Planned unit residential development.

[Added 6-11-2001 by Ord. No. 4-2001]

(11) Planned Residential Neighborhood Development.

[Added 11-27-2006 by Ord. No. 2006-15]

(a) Planned Residential Neighborhood Development. In order to encourage superior residential environments through a unified planning process, the Planned Residential Neighborhood Development shall be permitted in the R-1 Single Family Residential District Zone as a conditional use subject to the provisions of this chapter and after a determination by the Planning Commission that the proposed planned neighborhood design presents a community design that would not be possible under the conventional zone and is in accordance with the goals and policies of the Comprehensive Plan. The minimum size required for a Planned Residential Neighborhood Development (PRND) shall be 10 acres.

(b) Review process. The planned neighborhood design option shall involve a three-step review and approval process. In the first step, the developer shall meet with the City Council and present a general sketch plan and a statement documenting the project's compliance with the goals of the Comprehensive Plan for review. The general sketch plan shall reflect the general layout of streets, open space, and housing areas and types. The City Council shall determine whether the proposed project is of such a design and type that it warrants further review by the Planning Commission. If the City Council determines that further review is warranted, the second step shall be the conditional use review process which involves the submission of a conceptual plan which conforms in content to the design standards and requirements specified in this section, as well as the plan submission requirements of this chapter and Subdivision Ordinance. If the conditional use/conceptual subdivision plan is approved, the plan would proceed to the third step which involves the submission of a site development plan and preliminary/final subdivision plans for review and approval by the Planning Commission and City Council.

(c) Maximum density. The gross residential density in a Planned Residential Neighborhood Development shall not exceed four dwelling units per acre, however the density could be increased to eight dwelling units per acre, provided the development provides the amenities listed under the density bonus section. In no case shall the development exceed eight dwellings units per gross acre.

(d) Design standards. The design standards and dimensional requirements (bulk and parking regulations) shall be in accordance with this chapter.

[1] Lot coverage. Based on the following type of residential construction, the following is the maximum lot coverage:

[a] Single-family detached dwelling: 35%.

[b] Single-family semidetached dwelling: 35%.

[c] Single-family attached dwelling: 40%.

[d] Garden apartments/condominiums: 30%.

[2] Minimum setback areas. New buildings shall observe a twenty-five-foot minimum front yard, ten-foot minimum side yards, and a twenty-five-foot minimum rear yard.

[3] Height of buildings. The height of buildings shall not exceed three stories or 35 feet. Accessory buildings shall not exceed 15 feet in height.

[4] Off-street parking. Off-street parking shall be provided for residents, visitors and employees of the facility. The applicant shall demonstrate to the satisfaction of the Planning Commission that, based on total potential occupancy load (resident, visitor and employee), a sufficient number of off-street parking spaces will be provided.

(e) Design requirements.

[1] Common open space.

[a] The area set aside and preserved for open space shall aggregate no less than 25 percent of the total site area. Common open space shall be provided in the PRND proposals. The common open space shall not include any wetlands, floodways or similar area not suitable for building as determined by the Planning Commission and City Council. Significant natural features shall be incorporated into common open space whenever possible.

[b] The common open space shall be designed as a contiguous area if possible, and shall be interspersed with residential areas so as to provide pedestrian access and visual amenity. The common open space shall be designed and maintained by the property owner/s or an HOA. Recreational areas shall be constructed and may be located within the 25% of open space set aside.

[2] Planned neighborhoods. The area set aside and preserved for open space shall aggregate no less than 25% of the total site area.

[3] Buffers. Buffers shall be required to provide transition between planned residential development and adjacent properties/rights-of-way or changes in land use. Buffers should consist of earth berms and a planting area. No building shall be constructed less than 40 feet from the perimeter property line of the development. This buffer may consist of either common open space, earth berms, planting areas or private yards or a combination of both; however, no more than 30% of the required buffer area may be counted toward the minimum common open area requirement.

[4] Disruption of natural environment. The planned neighborhood design development shall be designed and scheduled so as to minimize earthmoving, erosion, tree clearance and other disruption of the natural environment. Existing vegetation shall be preserved wherever possible. Where extensive natural tree cover and vegetation do not exist or cannot be preserved on the site, landscaping shall be undertaken in order to enhance the appearance of the development and screen streets and parking areas, and enhance privacy of private dwellings. Natural drainage systems shall be preserved wherever possible.

[5] Privacy. Dwelling unit structures shall be located and arranged so as to promote privacy for residents within the development and maintain privacy for residents adjacent to the development. Recreational and nonresidential uses shall be located and designed so as not to interfere with nearby residential areas. All structures and activities located near the periphery of the site shall be designed so as to harmonize with neighboring areas.

(f) Density bonus.

[1] A density bonus may be granted if the developer furnishes improvements that significantly demonstrate to the Planning Commission that the improvements

contribute to superior design and which exceed the standard requirements of the city ordinances in accordance with the following schedule:

[a] Open space. For each increase of 10% in common open space over the minimum requirement of 25%, a density bonus of 10% shall be granted.

[b] Housing types. Neighborhood design which integrates a variety of housing types to provide architectural diversity and which avoids monotony and segregation by dwelling type in order that single housing type does not dominate the planned neighborhood or section thereof shall be awarded a density bonus of 10%. The term "housing type" refers to each of the following dwelling types: single-family detached houses, semidetached and duplex houses, multiplexes, townhouses, and garden apartments.

[c] Public buildings. The construction and leasing of a public building, including a firehouse, or a library, or a branch library which is necessitated, either wholly or partially, by the development, may increase the permitted density by 10%, if approved by the City, the Planning Commission and the agency to which the building is to be leased.

[d] School sites. The donation of a school site may increase the permitted density by 25%, if approved by the City, the Planning Commission and the local school board.

[e] Recreation facilities. Where the developer provides recreation facilities in accordance with recommendations from the City, the Planning Commission, and the Parks and Recreation Department where the facilities are in excess of those required by City ordinances, a density bonus of 5% shall be given. Such facilities may include, but are not limited to walking trails, bike paths, tennis courts, and boating access areas.

[f] Community gardens. The reservation of additional common land for the establishment of community gardening space for the raising of flowers, fruits and vegetables shall be awarded a 5% of density bonus.

[g] Community day-care facilities. The construction of a building to house a day-care center for use primarily by residents of the community shall be awarded a density bonus of 10%.

[h] Community buildings. The construction of a community building to serve as a meeting hall for various community functions, including, but not limited to, civic meetings, recreational purposes, receptions and special events, shall be awarded a density bonus of 10%.

[i] Conservation easements. The establishment of a permanent easement for the purpose of conserving and protecting a woodland area, a wetland area, and/or a stream corridor from removal of existing natural vegetation, and/or encroachment by future development shall be awarded a density bonus of 5%.

[j] Parking lot landscaping. The construction of landscaping in and around parking lots/areas shall be awarded a density bonus of 2%.

[k] Low-level lighting. The construction of low level light within the development and in/around parking lots/areas shall be awarded a density bonus of 3%.

[l] School bus pull off/school bus shelter. The construction of school bus pull offs or school bus shelters within the development shall be awarded a density bonus of 5%.

[2] Note: City Council will have the final determination in determining the amount of the allowable density bonus.

(g) Conditional use plan approval.

[1] In addition to the minimum conditional use plan requirements listed in this chapter and the minimum conceptual subdivision plan requirements listed in the Land Subdivision Regulations, the following additional items shall be reflected on or shall accompany the conditional use plan:

[a] Architectural drawings illustrating exterior elevations of typical dwelling units and nonresidential structures to be constructed.

[b] Statements and illustrations of the materials to be used in construction and their compatibility with the City Building Code and other codes relating to construction.

[c] Total acreage of development, land uses in each area, total number of dwelling units, average gross residential density, average lot area and lot width by unit type, and gross residential density in each section.

[d] Building coverage lines accurately locating all types of dwelling units, and nonresidential structures, giving dimensions of the structures, distances between the structures, and distances to street rights-of-way and parking areas, with distances accurate to the nearest hundredth of a foot, and total amount and percentage of impervious area.

[e] Accurate dimensions of common open space areas specifically indicating those areas to be developed for active recreation. Where common space areas are to be developed, the exact location of the structures in common open space will be illustrated.

[f] Locations and dimensions of parking areas and pedestrian walkways.

[2] Each application for a conditional use plan approval shall be accompanied by a fee of $700 (§ 230-57).

(h) Site development preliminary subdivision plan review.

[1] Application for site development plan approval shall be made to the Planning Commission in accordance with this chapter and the land subdivision regulations. Such application may be requested in stages. The following additional requirements shall be included for review along with the site development plan submission:

[a] A development phasing plan if proposed, which clearly defines the boundaries of each phase of the development and indicates the number of dwelling units to be constructed in each phase. Each phase shall be assigned a number which represents that phase's order in the construction sequence of the development.

[b] Architectural drawings illustrating exterior and interior designs of typical dwelling units of each type and nonresidential structures to be constructed.

[c] Statements and illustrations of the materials to be used in construction and their compatibility with the City Building Code and other codes relating to construction.

[d] All covenants running with the land governing the reservation and maintenance of dedicated or undedicated open space land. These shall bear the certificate of approval of the City Solicitor as to their legal sufficiency.

[e] Restrictions of all types which will run with the land and become covenants in this chapter or in the Land Subdivision Regulations.

[f] In the case of a planned neighborhood design which is proposed to be developed over a period of years in specific phases, the site development/preliminary subdivision plan requirements as listed in this section shall apply to the phase or phases for which approval is being sought. The site development plan for each phase must demonstrate compliance with minimum plan requirements and shall provide phase specific information regarding proposed development density and dwelling types, locations of common open space, sanitary sewer and water

distribution systems, and street systems consistent with the approved conditional use conceptual plan developed for the entire neighborhood.

[2] Each application for a preliminary plan approval and final plan approval shall be accompanied by a fee of $1,000 plus $10 per dwelling unit (§ 230-57).

(i) Site requirements.

[1] All structures shall be so located as to provide proper access to the building for fire-fighting equipment, trash collection and deliveries.

[2] All off-street parking shall be provided at the rate of 2.5 spaces for every dwelling unit.

[3] Outdoor light fixtures shall be provided at locations that will assure the safe and convenient use of walks, steps, parking areas, driveways, streets and other facilities.

[4] Facilities for temporary trash/refuse storage shall be provided in such manner that is adequate for the dwelling units they support.

(j) Final subdivision plat approval.

[1] Final subdivision plat review and approval for planned neighborhood design projects involving subdivision of land shall follow the requirements pertaining to the review and recordation of final subdivision plats. In the case of projects for which a phasing plan has been approved, the final subdivision plat for each phase shall demonstrate compliance with minimum plan requirements and shall provide phase specific information regarding proposed development density and dwelling types, locations of common open space, sanitary sewer and water distribution systems, and street systems consistent with the approved conditional use conceptual plan developed for the entire neighborhood.

[2] Each application for a preliminary plan approval shall be accompanied by a fee of $1,000 plus $10 per dwelling unit (§ 230-57).

(12) Bed-and-breakfast, subject to the following requirements:

[Added 9-8-2008 by Ord. No. 2008-13]

(a) The bed-and-breakfast establishment does not adversely affect the residential character of the neighborhood and such use is carried on in an existing residential structure.

(b) The building proposed for use as a bed-and-breakfast must have the owner of the bed-and-breakfast residing in the building as his/her principal residence.

(c) The serving of meals shall be limited to breakfast and afternoon tea for overnight guests and customers.

(d) Rooms used for sleeping shall be part of the primary residential structure and shall not have been specifically constructed for rental purposes.

(e) No exterior alterations other than a sign and those required by law to ensure the safety of the structure shall be made.

(f) The bed-and-breakfast operation shall not use more than 50% of the floor area of the principal residence. Common areas such as the kitchen, foyer, living room or dining room are not included in this calculation.

(g) No areas shall be floodlit. Drives and parking areas shall not be illuminated by lighting fixtures higher than 20 feet. Sidewalks shall not be illuminated by lighting fixtures higher than 15 feet. Exterior lighting shall be so shaded as to prevent illumination off-site. All external lighting, except for demonstrated security needs, shall be extinguished by 10:00 p.m.

(h) All bed-and-breakfasts must be in compliance with the requirements of the Uniform Building Code and Uniform Fire Code as adapted and enforced by the state fire marshal. Requirements include smoke detectors centrally located on each floor with sleeping rooms and the basement stairway. They must have battery backup and be connected or have a sounding device to provide an alarm which can be heard in all sleeping areas. Every sleeping room must provide at least 50 square feet of floor area per guest and have an operable window of 5.7 square feet or more of clear opening or exterior door for emergency escape or rescue. The maximum distance to a fire extinguisher rated 2A and having a BC rating is 75 feet.

(i) Safe food handling is the responsibility of the "host." He/She must properly train employees and other household members in safe food handling procedures and requirements and secure the proper state health permit if applicable.

(j) Parking requirements: one space per guestroom plus two spaces for residence. Spaces shall be located to the side and rear of the building and shall be screened from adjacent properties by a five-foot-high wood or masonry fence or by sight-obscuring vegetation of the same height. The area of the parking lot, including driveways, shall be graded, surfaced with asphalt or other suitable material and drained to the satisfaction of the City Engineer to the extent necessary to prevent dust, erosion or excessive water flow across streets or adjoining properties.

D. Area regulations.

(1) Minimum lot area shall be 10,000 square feet. Minimum interior lot shall be 10,000 square feet. Minimum corner lot shall be 13,000 square feet.

(2) Maximum lot coverage shall be 30%, exclusive of accessory buildings.

(3) Minimum lot width shall be 80 feet.

(4) Height of buildings shall not exceed three stories or 35 feet. Accessory buildings shall not exceed 15 feet in height.

(5) Minimum front building setback line shall be 25 feet.

[Amended 11-27-2006 by Ord. No. 2006-15]

(6) Minimum rear yard shall be 25 feet. For corner lots the rear yard may be reduced 20% in depth to allow for skewing of a residential dwelling on the lot.

(7) Side yards shall be provided as follows: each lot shall have two side yards with a minimum of 12 feet each.

(8) Parking shall comply with the requirements provided in Article IV of this chapter.

(9) Signs shall comply with the requirements provided in Article VI of this chapter.

(10) Decks, subject to the following requirements:

[Added 11-27-2006 by Ord. No. 2006-15; amended 9-8-2008 by Ord. No. 2008-13]

(a) The deck cannot be located in the front yard.

(b) A minimum distance of 10 feet must be maintained from the deck to the rear property line.

[Ord. No. 2019-38, § 3, 11-25-2019]

§ 230-14. - C-3 Highway Commercial District.

In a C-3 District no building or premises shall be used and no building shall be erected or altered which is arranged, intended or designed to be used except for one or more of the following uses and complying with the requirements so indicated.

A. Purpose. The purpose of the C-3 District is to provide for larger-scale commercial uses that may require large amounts of parking space or have a high traffic impact. These uses generally require locations on major arterial routes and serve both local and regional customers.

B. Permitted uses. Permitted uses for the C-3 District shall be as follows:

(1) Those uses permitted in the C-2 District.

(2) Warehouses.

(3) Large retail outlets.

(4) Indoor storage accessory building.

(5) Fast-food restaurants and drive-in restaurants.

(6) Supermarkets.

(7) Truck and trailer rentals.

(8) Roadside produce market.

(9) Memorial stone shop.

(10) Outdoor commercial recreational facilities, not motorized vehicles.

(11) Swimming club.

(12) Indoor facility for amusement or assembly.

(13) Bus station.

C. Conditional uses subject to special requirements. The following uses are permitted subject to receiving a conditional use permit by the City Council as provided in Article IX of this chapter:

[Amended 10-12-1998 by Ord. No. 10-1998]

(1) Motels or hotels with a minimum lot size of three acres.

(2) Commercial greenhouse.

(3) Wholesale establishment.

(4) Newspaper publishing or printing establishment.

(5) Contractors', craftsmen's or general service shops, including welding and similar shops.

(6) Laboratory, testing and research.

(7) Car repair shops.

(8) Used car lots.

(9) Telephone central office or television cable central office.

(10) Service station, automobile sales agency, public garage, parking garage or lot, but not including storage of wrecked cars, subject to the following special requirements:

(a) All facilities shall be located and all services shall be conducted on the lot.

(b) All repair work shall be conducted within an entirely enclosed building.

(c) No equipment for the service of gasoline or oil shall be placed closer to any street or property line than 20 feet.

(d) No portion of such structure or its equipment shall be located within 500 feet of the premises of any school, hospital, church or public recreation building.

(e) No service station shall be located within 800 feet of another service station on the same side of the street within the same block.

(f) Any such use shall be permitted only where it is determined that it will not materially interfere with the main pedestrian movement in conjunction with a compact retail area.

(11) Shopping center, subject to site plan review and the following site requirements:

(a) The total shall not be less than one acre.

(b) The site must be served by public water, sewer and electricity.

(c) Stormwater drainage. The facilities shall be provided by the developer to handle the increase in stormwater runoff, and he shall make contributions towards the cost of off-site facilities of the shopping center.

(d) Traffic and parking.

[1] The internal circulation of traffic shall be separated from the external street system, and pedestrian and vehicular traffic shall be separated through traffic control devices and appropriate site design.

[2] Access to state highways shall be controlled by the State Department of Transportation.

[3] The minimum distance between accessways and a residential district shall be 50 feet.

[4] Spacing of accessway.

[a] From adjoining property: 50 feet.

[b] From minor intersections: 50 feet.

[c] From major intersections: 100 to 150 feet.

[5] Five and one-half parking spaces shall be provided per 1,000 feet of leasable area.

[6] Parking lots shall be attractively landscaped as shown on the general site plan.

(e) Setback.

[1] From street right-of-way: 15 feet.

[2] From nonresidential districts: 15 feet.

[3] From residential districts: 100 feet.

(f) Buffering and landscaping.

[1] There shall be a minimum of a ten-foot landscaped buffer along all lot lines. The screening shall be six feet high near residential districts.

[2] Ten percent of the site shall be landscaped and may include features such as pedestrian walking or rest areas and courtyards.

(12) Day-care centers, with site plan required.

[Added 10-14-1991]

(13) Car wash, all types (staffed, automatic, self-service, etc.).

[Added 6-14-1993]

(14) Convenience stores with gas pumps.

(15) Community residential treatment program.

[Added 9-13-1999 by Ord. No. 6-1999]

(16) All dwellings other than single-family with a maximum density of 12 units per acre.

(17) Business, commercial or industrial uses that do not adversely affect neighboring properties.

(18) Aquarium.

D. Area regulations.

(1) Minimum lot area shall be one acre.

(2) Maximum lot coverage shall be 80%.

(3) Minimum lot width shall be as follows: for an interior lot 150 feet and for a corner lot 170 feet.

(4) Height of buildings shall not exceed three stories or 35 feet, with the following exception: a motel, hotel, or aquarium may be erected to a height of over three stories, but not over five stories, and not exceeding 60 feet.

(5) Minimum building setback shall be 30 feet.

(6) Side yards shall be provided as follows: each lot shall have two side yards a minimum of 20 feet with a minimum aggregate width of two side yards of 50 feet.

(7) Minimum rear yard shall be 50 feet.

(8) Parking shall comply with the requirements provided in Article IV of this chapter.

(9) Landscape screening shall comply with the requirements provided in Article V of this chapter.

(10) Signs shall comply with the requirements provided in Article VI of this chapter.

[Ord. No. 2008-18, § 3, 8-24-2009; Ord. No. 2009-22, § 2, 9-27-2010; Ord. No. 2016-14, §§ 2, 3, 10-24-2016; Ord. No. 2019-38, § 7, 11-25-2019]

CITY OF MILFORD
NOTICE OF PUBLIC HEARINGS

Planning Commission Hearing: Tuesday, November 17, 2020
City Council Hearing: Monday, November 23, 2020

NOTICE IS HEREBY GIVEN that the following Ordinance is currently under review by Milford Planning Commission and City Council, with action scheduled to occur on the date(s) so indicated:

ORDINANCE 2020-26

Davis, Bowen & Friedel on behalf of Milford Ponds LLC for a Final Major Subdivision (Phase II Only) of 28.06 +/- acres into 89 single family units in R1, R2, and R3 Zoning Districts. Property is located along Patchwork Drive and Round Robin Drive in the Milford Ponds Subdivision, Milford, Delaware. Present Use: Subdivision known as Milford Ponds; Proposed Use: Same. Tax Map: 1-30-3.00-264.01, 1-30-3.00-558.00, 1-30-6.00-600.00 through -691.00

WHEREAS, the owners of the property as above described herein have petitioned the City of Milford for a Final Major Subdivision (Phase II Only); and

WHEREAS, the City of Milford Planning Commission will consider the application at a Public Hearing to allow for public comment on November 17, 2020; and

WHEREAS, Milford City Council will hold a Public Hearing on November 23, 2020 to allow for public comment and further review of the ordinance.

Dates.
Planning Commission Review & Public Hearing: November 17, 2020
City Council Introduction: November 9, 2020
City Council Public Hearing: November 23, 2020
Effective: December 3, 2020

For additional information, please contact Rob Pierce in the Planning & Economic Development Department either by e-mail at RPierce@milford-de.gov or by calling 302.424.8396.

Advertised: Beacon, 10/28/20

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

DATA SHEET FOR MILFORD PONDS – PHASE II

Planning Commission Meeting: November 17, 2020

Application Number / Name	:	19-033 / Milford Ponds – Phase II
Applicant	:	Milford Ponds, LLC 179 Rehoboth Avenue, Suite 1081 Rehoboth Beach, DE 19971
Owner	:	Same
Application Type	:	Revised Final Major Subdivision
Comprehensive Plan Designation	:	Moderate Density Residential
Zoning District	:	R-1, R-2 & R-3 with PUD
Present Use	:	Planned Unit Development
Proposed Use	:	Planned Unit Development
Area and Location	:	178.03 +/- acres located along the east side of Route 113 5,500 feet south of the Seabury Avenue intersection known as the Milford Ponds subdivision
Property Identification Numbers	:	1-30-3.00-264.01, 1-30-3.00-558.00, 1-30-6.00-600.00 thru 691.00

ENC: Staff Analysis Report
Exhibit A - Location & Zoning Map
Final Major Subdivision Plans

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

PLANNING DEPARTMENT
Planning, Economic Development,
Enforcement, and Inspections Office
O 302.424.8396 | F 302.424.3559

STAFF ANALYSIS REPORT
October 14, 2020

Application Number / Name	**:**	19-033 / Milford Ponds – Phase II
Application Type	**:**	Revised Final Major Subdivision
Comprehensive Plan Designation	**:**	Moderate Density Residential
Zoning District	**:**	R-1, R-2, & R-3 with PUD
Present Use	**:**	Planned Unit Development
Proposed Use	**:**	Planned Unit Development
Property Identification Numbers	**:**	1-30-3.00-264.01, 1-30-3.00-558.00, 1-30-6.00-600.00 thru 691.00
Area and Location	**:**	178.025 +/- acres of land located along the east side of Route 113 approximately 5,500 feet south of the Seabury Avenue intersection known as the Milford Ponds subdivision.

I. BACKGROUND INFORMATION:

- The applicant received revised Preliminary Major Subdivision and Planned Unit Development approval from City Council on June 22, 2020.
- The revised final major subdivision application is for Phase II only of the subdivision, which includes 89 single-family detached dwellings.

II. STAFF ANALYSIS:

Based on the information presented, the City of Milford Code and the Comprehensive Plan, staff submits the following regarding the request for a revised Final Major Subdivision approval:

- The Final Major Subdivision is consistent with Chapter 230 Zoning and Chapter 200 Subdivision of Land of the City Code.

- The applicant has obtained approvals or letters of no-objection from DelDOT, State Fire Marshal's Office, Division of Public Health, Sussex Conservation District and the City Engineer.

III. AGENCY & DEPARTMENT COMMENTS:

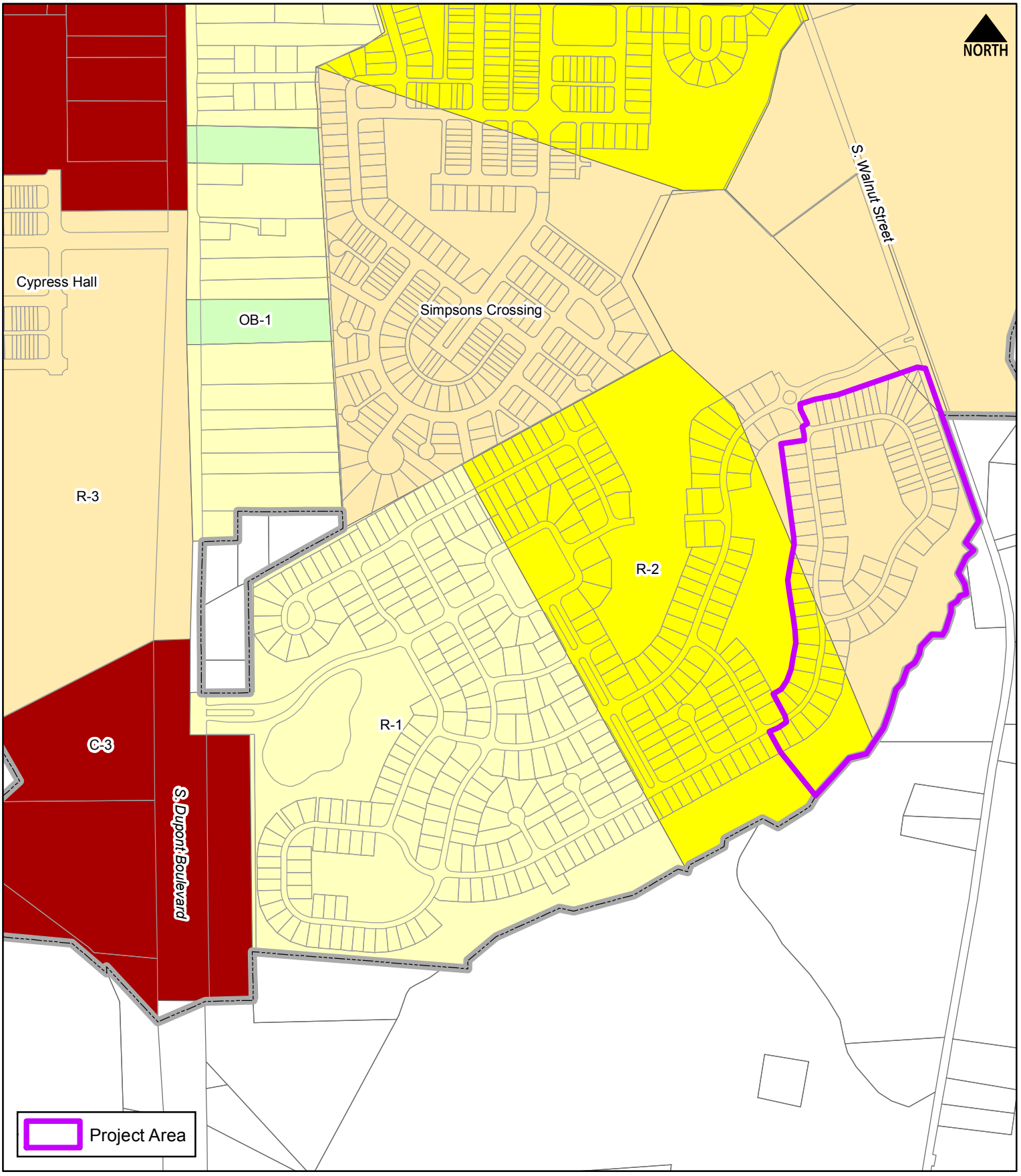
- **DelDOT Planning, Development Coordination**
  See attached for "Letter of No-Objection to Recordation" dated September 15, 2020.

- **Sussex Conservation District**
  See attached letter requesting final plans dated October 1, 2020.

- **DHSS – Division of Public Health**
  See attached "Approval to Construct" dated January 23, 2020.

- **State Fire Marshal's Office**
  See attached "Fire Protection Plan Review Report" dated January 30, 2020.

- **City of Milford Public Works Department**
  See attached contingent approval letter dated October 14, 2020.



THE CITY of Milford DELAWARE

Scale: 0 300 600 Feet

Drawn by: WRP

Date: 10/03/19

Filepath: PreliminaryMajorSub_MilfordPonds_PhII.mxd

Title:

Preliminary Major Subdivision

Milford Ponds - Phase II

Location & Zoning Map

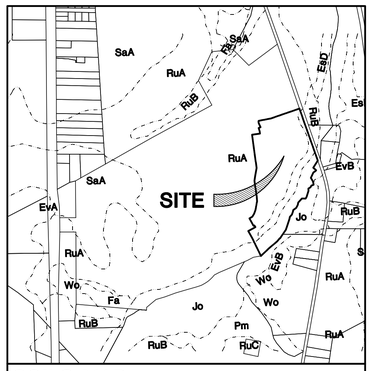
MILFORD PONDS - PHASE 2

CONSTRUCTION PLANS

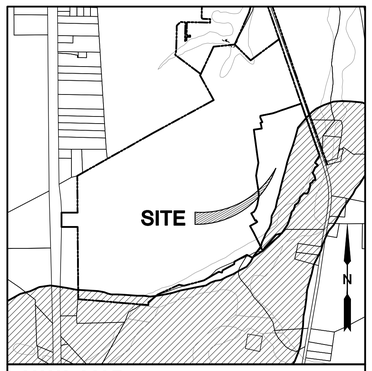
CITY OF MILFORD

DBF NO. : 2875A001

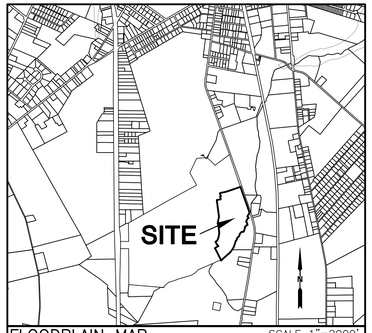
JUNE 2020



SOILS MAP SCALE: 1"=1000'



N.W.I. MAP SCALE: 1"=1000'



FLOODPLAIN MAP SCALE 1"=2000'
MAP PANEL: 10005C0043K DATED: MARCH 16, 2015
10005C0039J JANUARY 6, 2005

DATA COLUMN

TAX MAP ID:	1-30-6.00-108.00 1-30-3.00-264 & 264.01
OWNER/DEVELOPER:	MILFORD PONDS, LLC 179 REHOBOTH AVENUE, SUITE 1081 REHOBOTH BEACH, DE 19971
ENGINEER/SURVEYOR:	DAVIS, BOWEN & FRIEDEL, INC. 1 PARK AVENUE MILFORD, DE 19963 302-424-1441
EXISTING/PROPOSED ZONING:	R-1, R-2, R-3, W/PUD
TOTAL SITE AREA:	178.03 AC.±
PHASE 1:	119.19 AC.±
PHASE 2:	28.06 AC.±
PHASE 3:	12.15 AC.±
PHASE 4:	18.46 AC.±
GROSS AREA:	R-1 = 71.02 AC, R-2 = 50.19 AC, R-3 = 47.82 AC
NET DEVELOPMENT AREA:	R-1 = 53.27 AC, R-2 = 38.19 AC, R-3 = 35.86 AC
MAX DENSITY ALLOWED:	R-1 = 4, R-2 = 6, R-3 = 16
UNITS ALLOWED:	R-1 = 213(53.27 x 4), R-2 = 229(38.19 x 6), R-3 = 573(35.86 x 16)
TOTAL NUMBER OF UNITS ALLOWED:	1015
TOTAL NUMBER OF UNITS PROVIDED:	768
PHASE 2 TOTAL:	89
SINGLE FAMILY DWELLING:	89
BUILDING CONSTRUCTION TYPE:	MASONARY & TIMBER
TOTAL PROPOSED RIGHT-OF-WAY:	1.99 AC.±
TOTAL AREA OF LOTS:	14.70 AC.±
OVERALL DENSITY :	4.31 UNITS/ACRE
PHASE 1 TOTAL:	363
SINGLE FAMILY DWELLING:	363
PHASE 2 TOTAL:	89
SINGLE FAMILY DWELLING:	89
PHASE 3 TOTAL:	52
SINGLE FAMILY DWELLING:	52
PHASE 4 TOTAL:	264
11 APARTMENT BUILDINGS WITH 24 UNITS	264
COMMUNITY BUILDING SIZE:	±40'x ±95'
COMMUNITY BUILDING LOCATION:	CORNER OF W. HEIRLOOM WAY & CLUBHOUSE DR.
TOTAL PROPOSED RIGHT-OF-WAY:	18.90 AC.±
PHASE 1:	15.31 AC.±
PHASE 2:	1.99 AC.±
PHASE 3:	1.60 AC.±
PHASE 4:	0.00 AC.±
TOTAL AREA OF LOTS:	105.22 AC.±
PHASE 1:	65.44 AC.±
PHASE 2:	14.70 AC.±
PHASE 3:	10.55 AC.±
PHASE 4:	18.46 AC.±
TOTAL REQUIRED OPEN SPACE:	(768 DWELLING UNITS x 400 SF) = 7.05 AC.±
REQUIRED RECREATIONAL AREA:	(OPEN SPACE x 50%) = 3.525 AC.±
TOTAL SITE (ALL PHASES)	
WETLANDS:	8.31 Ac.±
OPEN SPACE AREA:	22.94 Ac.±
FUTURE CLUBHOUSE RESORT AREA:	6.32 Ac.±
TOTAL OPEN SPACE PROVIDED:	47.57 AC.±
RECREATIONAL AREA PROVIDED:	22.46 AC.±
AVERAGE DENSITY OF LOTS:	6.05 UNITS/ACRE
MINIMUM LOT SIZE:	5,772 SQ.FT.±
MAXIMUM LOT SIZE:	16,782 SQ.FT.±
AVERAGE LOT SIZE:	7,195 SQ.FT.±
MAXIMUM IMPERVIOUS COVERAGE:	35%
PROPOSED SEWER:	CITY OF MILFORD
PROPOSED WATER:	CITY OF MILFORD
ELECTRIC SERVICE:	CITY OF MILFORD
SCHOOL DISTRICT:	MILFORD
FIRE DEPARTMENT:	MILFORD
VERTICAL DATUM:	NAVD 88
HORIZONTAL DATUM:	NAD 83
NUMBER OF MONUMENTS FOUND:	14
NUMBER OF MONUMENTS SET:	12



VICINITY MAP SCALE: 1" = 1/2 MILE

INDEX OF DRAWINGS

Sheet Number	Sheet Title
C0.0	TITLE
C0.1	GENERAL NOTES
C0.2	OVERALL SITE PLAN
C0.3	KEY PLAN
C1.0	EXISTING CONDITIONS PLAN
C2.1	ROAD PLAN & PROFILE
C2.2	ROAD PLAN & PROFILE
C2.3	INTERSECTIONS-ROAD SECTIONS
C3.1	GRADING PLAN
C3.2	GRADING PLAN
C3.3	STORMDRAIN PROFILES
C3.4	STORMDRAIN PROFILES
C3.5	SWM POND 4 AS-BUILT & REVISION
C4.1	UTILITY PLAN
C4.2	UTILITY PLAN
C4.3	SEWER PROFILES
C4.4	UTILITY DETAILS
C4.5	UTILITY DETAILS
C4.6	UTILITY DETAILS
C4.7	UTILITY DETAILS
C5.1	OVERALL EROSION & SEDIMENT CONTROL PLAN
C5.2	EROSION & SEDIMENT CONTROL PLAN
C5.3	EROSION & SEDIMENT CONTROL PLAN
C5.4	EROSION & SEDIMENT CONTROL DETAILS
C5.5	EROSION & SEDIMENT CONTROL DETAILS
C5.6	EROSION & SEDIMENT CONTROL DETAILS
R2.0	PHASE 2 RECORD TITLE SHEET
R2.1	KEY MAP
R2.2	PHASE 2 RECORD PLAN
R2.3	PHASE 2 RECORD PLAN
FP1.1	OVERALL FIRE PROTECTION PLAN
FP1.2	FIRE PROTECTION PLAN
FP1.3	FIRE PROTECTION PLAN

RESPONSIBLE PERSONNEL CERTIFICATION

I JOEL SENS, OF MILFORD PONDS, LLC, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION, AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN, AND THAT RESPONSIBLE PERSONNEL CERTIFIED BY DNREC WILL BE IN CHARGE OF ON-SITE CLEARING AND LAND DISTURBING ACTIVITIES. ALL SEDIMENT AND STORMWATER MANAGEMENT PLANS SHALL CONTAIN CERTIFICATION BY THE OWNER OR DEVELOPER OF THE RIGHT OF THE DEPARTMENT OR DELEGATED INSPECTION AGENCY TO CONDUCT ON-SITE INSPECTIONS.

SIGNATURE: _____

DATE: _____

TITLE: _____

CITY OF MILFORD APPROVAL

_____ _____ _____

PRINT NAME CITY MANAGER DATE

CITY ENGINEER APPROVAL

CONSTRUCTION IMPROVEMENTS PLANS HAVE BEEN REVIEWED AND ARE FOUND TO BE IN GENERAL CONFORMANCE WITH THE CITY OF MILFORD'S STANDARD SPECIFICATIONS FOR INSTALLATION OF UTILITY CONSTRUCTION PROJECTS AND SUBDIVISION PAVEMENT DESIGN. THE OWNER AND THEIR ENGINEER AND/OR SURVEYOR ASSUME ALL RESPONSIBILITY FOR THE DESIGN AS CONTEMPLATED HEREIN AND ACCURACY OF ALL INFORMATION SHOWN HEREON.

_____ _____ _____

PRINT NAME CITY ENGINEER DATE

ENGINEERS STATEMENT

I HEREBY STATE THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.

DATE: _____ SIGNATURE: _____

RING W. LARDNER, PROFESSIONAL ENGINEER

DAVIS, BOWEN & FRIEDEL, INC.

ARCHITECTS ENGINEERS SURVEYORS

SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

CITY OF MILFORD GENERAL NOTES

1. THE BOUNDARY INFORMATION SHOWN ON THESE DRAWINGS IS BASED ON A SURVEY PERFORMED BY DAVIS BOWEN AND FRIEDEL, INC, IN 2005.
2. A TOPOGRAPHIC SURVEY WAS PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC. OF MILFORD, DELAWARE IN 2018. ELEVATIONS ARE BASED ON CONTROL MONUMENT IRCS NEAR THE INTERSECTION OF CANNER'S COURT AND PATCHWORK DRIVE, WITH AN ELEVATION OF 36.04 NGVD88.
3. HORIZONTAL DATUM IS BASED ON DELAWARE STATE GRID, NAD83/91, CONTROL MONUMENTS IRCS NEAR THE INTERSECTION OF CANNER'S COURT AND PATCHWORK DRIVE, WITH AN ELEVATION OF 36.04.
4. HYDRIC SOILS ARE INDICATED AS BEING PRESENT ACCORDING TO THE SUSSEX COUNTY SOIL SURVEY.
5. EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO HIS/HER NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE. TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY DELMARVA (800-282-8555) A MINIMUM OF THREE (3) CONSECUTIVE WORKING DAYS PRIOR TO ANY EXCAVATION.
6. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MATERIALS AND WORKMANSHIP SHALL MEET THE REQUIREMENTS OF THE CITY OF MILFORD STANDARD SPECIFICATIONS FOR INSTALLATION OF UTILITY CONSTRUCTION AND SUBDIVISION PAVEMENT DESIGN, AND ALL APPLICABLE AGENCIES HAVING JURISDICTION OVER THE PROPOSED IMPROVEMENTS.
7. USE ONLY SUITABLE AND APPROVED GRANULAR MATERIAL FOR BACK FILLING TRENCHES.
8. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL RIGHT-OF-WAY LINES AND PROPERTY LINES TO HIS OWN SATISFACTION. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION.
9. ALL VALVE CLOSURES AND CUT-INS SHALL BE COORDINATED WITH THE CITY. CITY OFFICIALS WILL CARRY OUT ALL NECESSARY VALVE CLOSURES. CONTRACTOR SHALL COORDINATE ISOLATION OF EXISTING WATER MAINS WITH THE CITY AND NOTIFY AFFECTED RESIDENTS AT LEAST 48 HOURS PRIOR TO CUT-IN.
10. PIPELINE DETECTION TAPE SHALL BE COLOR CODED, APPROPRIATELY LABELED, AND INSTALLED 18 INCHES BELOW THE GROUND SURFACE AND DIRECTLY ABOVE ALL PROPOSED NON-METALLIC WATER MAIN, SEWER MAIN, SEWER LATERALS, AND WATER SERVICES.
11. CONDUCIVE TRACER WIRE SHALL BE INSTALLED WITH ALL NON-METALLIC WATER PIPE AND SERVICES; AND ALONG ALL SEWER LATERALS AND FORCEMAIN. WIRE SHALL BE SECURED TO THE PIPE AND SHALL BE SECURELY BONDED TOGETHER AT ALL WIRE JOINTS WITH APPROVED WATERTIGHT CONNECTORS. TRACER WIRE SHALL BE ACCESSIBLE AT ALL VALVE BOXES, METER PITS, CLEANOUTS, AND AIR RELEASE VALVES.
12. PRIOR TO ISOLATION AND CUT-IN PROCEDURES, CONTRACTOR SHALL EXCAVATE, LOCATE, AND OBSERVE FUNCTION OF ALL EXISTING VALVES TO ASSIST IN THE SYSTEM ISOLATION.
13. SHOP DRAWINGS FOR ANY ITEM(S) WHICH WILL EVENTUALLY BE TAKEN OVER BY THE CITY SHALL BE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE ORDERING OF AND/OR INSTALLATION OF THE ITEM(S).
14. ALL SANITARY SEWER MAINS AND FORCEMAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES AND ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 42 INCHES AS MEASURED FROM THE TOP OF PIPE TO PROPOSED GRADE. SEWER LATERALS SHALL HAVE A MINIMUM DIAMETER OF SIX (6) INCHES AND HAVE A MINIMUM COVER OF 36 INCHES.
15. THERE SHALL BE A MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER MAINS AND FORCEMAINS OF 10 FEET, AS MEASURED FROM EDGE OF PIPE TO EDGE OF PIPE. THERE SHALL BE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN WATER MAINS AND SANITARY SEWER MAINS OR FORCEMAINS AT CROSSINGS. ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE AT CROSSINGS.
16. THERE SHALL BE A MINIMUM VERTICAL SEPARATION OF 12 INCHES BETWEEN ANY STORM DRAIN PIPE AND ANY WATER MAIN OR SEWER MAIN. IF 12 INCHES CANNOT BE MAINTAINED, A MINIMUM OF SIX (6) INCHES IS REQUIRED AND PROVISIONS SHALL BE MADE ACCEPTABLE TO THE CITY OF MILFORD FOR PROPERLY ENCASING THE PIPE IN CONCRETE.
17. FLOODPLAIN: THIS SITE LIES WITHIN ZONE AE (AREAS WITHIN THE 100-YEAR FLOODPLAIN) AND ZONE X (AREAS OUTSIDE THE 500-YEAR FLOODPLAIN) AS DETERMINED BY FEMA FIRM PANEL 10005C0041K, DATED MARCH 16, 2015.
18. ALL ROADWAYS ARE TO BE SWEPT FREE OF SEDIMENT ON A DAILY BASIS.
19. THE CONTRACTOR SHALL REMOVE AND IMMEDIATELY REPLACE, RELOCATE, RESET OR RECONSTRUCT ALL OBSTRUCTIONS IN THE WORK AREA, INCLUDING, BUT NOT LIMITED TO, MAILBOXES, SIGNS, LANDSCAPING, LIGHTING, PLANTERS, CULVERTS, DRIVEWAYS, PARKING AREAS, CURBS, GUTTERS, FENCES, OR OTHER NATURAL OR MAN-MADE OBSTRUCTIONS. TRAFFIC CONTROL REGULATORY, WARNING AND INFORMATIONAL SIGNS SHALL REMAIN FUNCTIONAL AND VISIBLE TO THE APPROPRIATE LANES OF TRAFFIC AT ALL TIMES, WITH THEIR RELOCATION KEPT TO A MINIMUM DISTANCE. THE COST SHALL BE INCLUDED IN THE COST OF ITEMS BID.
20. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT PAVING IS INSTALLED TO THE ELEVATIONS SHOWN AND THAT NO PONDING OF WATER WILL OCCUR AFTER PAVING IS COMPLETE. PONDING IS DEFINED AS WATER STANDING IN AN AREA MORE THAN 1 HOUR AFTER A RAINFALL EVENT THAT PRODUCES RUNOFF. ELIMINATION OF PONDING WILL BE COMPLETED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
21. THE STORM DRAINAGE SYSTEM HAS BEEN DESIGNED USING THE CRITERIA OF THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION DEVELOPMENT COORDINATION MANUAL, LATEST EDITION.
22. ALL FIRE LANES, FIRE HYDRANTS, EXITS, AND STANDPIPES WILL BE MARKED IN ACCORDANCE WITH STATE FIRE PREVENTION REGULATIONS.
23. DELAWARE REGULATIONS PROHIBIT THE BURIAL OF CONSTRUCTION DEMOLITION DEBRIS, INCLUDING TREES AND STUMPS ON CONSTRUCTION SITES. ANY SOLID WASTE FOUND DURING THE EXCAVATION FOR STRUCTURES AND UTILITY LINES ON AND OFF SITE MUST BE REMOVED AND PROPERLY DISCARDED. ANY REMEDIAL ACTION REQUIRED IS THE RESPONSIBILITY OF THE OWNER.
24. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
25. CONTRACTOR SHALL GRADE, TOPSOIL, SEED AND MULCH ALL DISTURBED AREAS OF CONSTRUCTION, INCLUDING PIPE INSTALLATION OR DITCH CONSTRUCTION. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL SLOPES GREATER THAN 3:1.
26. THE OWNER AND/OR THEIR CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE SERVICES OF A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF DELAWARE FOR THE PERMANENT RE-ESTABLISHING OF ANY PROPERTY MARKERS OR MONUMENTS DISTURBED DURING CONSTRUCTION. A SURVEY AND METES AND BOUNDS THAT INCLUDES THE RE-ESTABLISHED MARKER(S) OR MONUMENT(S) SHALL BE PRESENTED TO THE PROPERTY OWNER FOR COMPARISON WITH THE ORIGINAL PLAT, FOR VERIFICATION.
27. THE OWNER SHALL BE RESPONSIBLE FOR THE SHORT-TERM MAINTENANCE OF ANY AND ALL STORMWATER MANAGEMENT FACILITIES AND STORM SEWER SYSTEMS UNTIL SUCH TIME THE LONG-TERM MAINTENANCE RESPONSIBILITIES CAN BE TRANSFERRED TO A LEGALLY-ESTABLISHED HOMEOWNERS ASSOCIATION OR OTHER RESPONSIBLE ENTITY.
28. THE CITY OF MILFORD WILL ASSUME OWNERSHIP AND MAINTENANCE RESPONSIBILITY OF WATER AND SEWER PIPES AND APPURTENANCES, INSTALLED WITHIN CITY RIGHT-OF-WAY AND EASEMENTS DEDICATED TO THE CITY. STORM SEWER PIPES AND CATCH BASINS, INSTALLED FULLY WITHIN CITY RIGHT-OF-WAY; ONCE THE FOLLOWING CONDITIONS HAVE BEEN MET:
    - 28.1. ALL ITEMS HAVE PASS CITY INSPECTION;
    - 28.2. THE CITY HAS RECEIVED AND APPROVED DIGITAL HARD COPIES OF THE RECORD DRAWINGS; AND
    - 28.3. THE RIGHTS-OF-WAY AND/OR EASEMENTS HAVE BEEN DEEDED TO THE CITY AND RECORDED WITH THE RECORDER OF DEEDS.
29. SEWER AND WATER CAPACITY ARE NOT GUARANTEED UNTIL BUILDING PERMITS ARE ISSUED, ALL FEES ARE PAID AND SUITABLE UTILITIES ARE IN PLACE FOR PROPER CONVEYANCE, TREATMENT AND DISPOSAL.
30. PRELIMINARY APPROVAL FROM PLANNING COMMISSION SHALL BE VOID AFTER ONE (1) YEAR, UNLESS AN EXTENSION IS REQUESTED BY THE OWNER AND APPROVED, FOR GOOD CAUSE, BY THE PLANNING COMMISSION PRIOR TO THE DATE OF EXPIRATION.
31. THE APPROVAL OF A CONDITIONAL USE IS VALID FOR ONE YEAR. UNLESS PERMITS ARE OBTAINED OR CONSTRUCTION OR USE IS SUBSTANTIALLY UNDERWAY, ALL PROVISIONS ARE AUTOMATICALLY RESCINDED.
32. FINAL APPROVAL FROM THE CITY SHALL BECOME VOID IF THE FINAL RECORD PLAT IS NOT RECORDED WITHIN 90 DAYS OF THE DATE OF PLANNING COMMISSION'S GRANTING OF FINAL APPROVAL. IF CONSTRUCTION OF THE APPROVED IMPROVEMENTS IS NOT SUBSTANTIALLY UNDERTAKEN WITHIN ONE (1) YEAR OF FINAL SITE PLAN APPROVAL, THE SITE PLAN APPROVAL SHALL BE VOID. THE APPLICANT MAY REQUEST A ONE (1) YEAR EXTENSION FROM THE PLANNING COMMISSION FOR GOOD CAUSE.
33. THE APPLICANT IS RESPONSIBLE TO ENSURE THAT ALL CITY AND/OR AGENCY CONSTRUCTION PERMIT APPLICATIONS HAVE BEEN COMPLETED, SUBMITTED, AND ALL APPLICABLE FEES HAVE BEEN PAID PRIOR TO COMMENCING CONSTRUCTION. THE CITY SHALL NOT BE HELD RESPONSIBLE FOR AN ANTICIPATED CONSTRUCTION START DATE THAT IS NOT MET DUE TO THE APPLICANT OR HIS/HER CONTRACTOR NOT HAVING MET THE CONSTRUCTION PERMITTING REQUIREMENTS.
34. AS A CONDITION OF THE APPROVAL OF THE CONSTRUCTION DRAWINGS, AND PRIOR TO THE START OF CONSTRUCTION, THE APPLICANT MAY BE REQUIRED TO ENTER INTO A FORMAL PUBLIC WORKS AGREEMENT WITH THE CITY AND/OR TO POST A COMPLETION GUARANTY FOR ANY IMPROVEMENTS WHICH WILL EVENTUALLY BE TAKEN OVER BY THE CITY. THE GUARANTY SHALL BE IN AN AMOUNT EQUAL TO 150% OF THE COST OF THE IMPROVEMENTS AS ESTIMATED OR APPROVED BY THE CITY ENGINEER. THE GUARANTY SHALL BE IN THE FORM OF A BOND OR FUNDS DEPOSITED INTO AN ESCROW ACCOUNT. THE PUBLIC WORKS AGREEMENT AND THE GUARANTY SHALL BE REVIEWED AND APPROVED BY THE CITY SOLICITOR. THE COMPLETION GUARANTY SHALL NOT BE RELEASED UNTIL A MAINTENANCE BOND IN THE AMOUNT OF 10% OF THE IMPROVEMENTS HAS BEEN SUBMITTED.
35. A MAINTENANCE BOND IN THE AMOUNT OF 10% OF THE CONSTRUCTION VALUE FOR ANY CONSTRUCTED IMPROVEMENTS AND A PERFORMANCE BOND IN THE AMOUNT OF 125% OF THE CONSTRUCTION VALUE FOR ANY UNCOMPLETED WORK SHALL BE PROVIDED IN ORDER TO ACHIEVE FINAL COMPLETION OF THE IMPROVEMENTS AND RELEASE OF ANY COMPLETION GUARANTY. THE MAINTENANCE PERIOD SHALL BE A MINIMUM OF ONE YEAR AND ALL CONSTRUCTION VALUES MUST BE SUBMITTED TO, REVIEWED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE ISSUANCE OF ANY BONDS.

CITY OF MILFORD GENERAL NOTES CONTINUED

36. UPON COMPLETION OF THE CONSTRUCTION IMPROVEMENTS AND PRIOR TO THE RELEASE OF ANY DEVELOPER'S COMPLETION GUARANTEE, THE DEVELOPER SHALL PROVIDE THE CITY ENGINEER A DRAFT PAPER SET OF DETAILED RECORD PLANS (PLAN VIEW AND PROFILE SHEETS). RECORD INFORMATION SHALL BE PLACED ON THE APPROPRIATE DRAWINGS. ORIGINAL DESIGN ELEVATION AND/OR DISTANCE INFORMATION SHALL BE STRUCK THROUGH WITH A FINE LINE AND THE RECORD INFORMATION SHALL BE INSERTED NEXT TO IT. WHEN THE DRAFT SET OF DRAWINGS HAS BEEN APPROVED BY THE CITY, THREE (3) FINAL PAPER COPIES SHALL BE SUBMITTED, SIGNED AND SEALED BY THE OWNER'S ENGINEER OR SURVEYOR. ADDITIONALLY, A CD SHALL BE PROVIDED WITH DIGITAL RECORD INFORMATION IN AUTOCAD FORMAT (VERSION 2018 OR LATER). THE DIGITAL INFORMATION SHALL BE ON DELAWARE STATE PLANE, NAD 83 HORIZONTAL CONTROL AND NAVD88 VERTICAL CONTROL. RECORD PLAN INFORMATION SHALL INCLUDE SURVEYED AS-BUILT ELEVATIONS AND HORIZONTAL LOCATIONS OF THE FOLLOWING:
    - 36.1. ALL PROPERTY MONUMENTS/MARKERS;
    - 36.2. SEWER MANHOLE RIM & INVERT ELEVATIONS, WITH ASSOCIATED PIPE SIZES & MATERIALS NOTED, PUMP STATION RIM, BOTTOM & INVERT ELEVATIONS WITH ASSOCIATED PIPE SIZES & MATERIALS NOTED, FOREMAIN INVERT ELEVATIONS EVERY 50 FEET, FORCEMAIN AIR RELEASE VALVE RIM & INVERT ELEVATIONS, SEWER CLEANOUT RIM & INVERT ELEVATIONS, AND GREASE TRAP RIM, BOTTOM & INVERT ELEVATIONS;
    - 36.3. WATER VALVES, FIRE HYDRANTS, METER VAULTS, METER PITS, AND CURB STOPS;
    - 36.4. STORM SEWER CATCH BASIN AND/OR MANHOLE GRATE; RIM & INVERT ELEVATIONS WITH ASSOCIATED PIPE SIZES & MATERIALS NOTED; AND
    - 36.5. ANY OTHER ITEM WHICH WILL BE TAKEN OVER BY THE CITY.
37. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT (302) 422-1110 A MINIMUM OF TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND SCHEDULE A PRE-CONSTRUCTION MEETING. THE SITE CONTRACTOR AND THE OWNER, OR HIS/HER REPRESENTATIVE SHALL BE IN ATTENDANCE.
38. THERE ARE SOURCEWATER PROTECTION AREAS ON THIS SITE.
39. WETLANDS EXIST ON THIS SITE. REFER TO THE DATA COLUMN ON SHEET R1.0 FOR TOTAL ACREAGE. WETLAND DELINEATION IS SHOWN ON ALL PLAN VIEWS.
40. UPON RECORDATION OF THIS PLAT, THE CITY WILL HAVE THE RIGHT OF INGRESS AND EGRESS TO ALL MULTIFAMILY AREAS FOR THE PURPOSE OF MAINTAINING UTILITIES AND FOR TRASH REMOVAL SERVICES.

CIVIL PLAN GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND SHALL APPRISE AND COORDINATE DURING ALL PHASES OF CONSTRUCTION:
    1.1 DAVIS, BOWEN & FRIEDEL, INC. 302-424-1441.
    1.2 SUSSEX CONSERVATION DISTRICT 302-856-2105.
    1.3 CITY OF MILFORD PUBLIC WORKS DEPARTMENT 302-422-1110, EXT. 1110.
    1.4 CITY OF MILFORD ELECTRIC DEPARTMENT 302-422-1110, EXT. 1135.
    1.5 DEPARTMENT OF TRANSPORTATION, SOUTH DISTRICT PERMITS SUPERVISOR 302.853.1342.
2. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS UNLESS WRITTEN APPROVAL HAS BEEN PROVIDED BY THE ENGINEER.
3. FINAL APPROVED SET OF PLANS AND SPECIFICATIONS SHALL BE MAINTAINED ON THE JOB SITE. FAILURE TO COMPLY WITH THIS PROVISION SHALL BE CONSIDERED CAUSE TO STOP THE WORK.
4. THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF CONTRACT DRAWINGS ON WHICH HE SHALL NOTE, IN RED, THE ALIGNMENTS AND INVERTS OF ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED DURING THE PROSECUTION OF THE WORK. ALL DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND ELEVATIONS OF BOTH THE EXISTING AND PROPOSED UTILITIES SHALL BE SHOWN ON THE AS-BUILT DRAWINGS TO BE MAINTAINED BY THE CONTRACTOR IN THE FIELD. FINAL SET OF APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS SHALL BE MAINTAINED ON THE JOB SITE AT ALL TIMES. FAILURE TO COMPLY WITH THIS PROVISION SHALL BE CONSIDERED CAUSE TO STOP THE WORK.
5. THE CONTRACTOR SHALL USE ONLY NEW MATERIALS, PARTS, AND PRODUCTS. ALL MATERIALS SHALL BE STORED SO AS TO ASSURE THE PRESERVATION OF THEIR QUALITY AND FITNESS FOR THE INTENDED WORK.
6. ROUTINE PERIODIC INSPECTIONS DURING CONSTRUCTION WILL BE PROVIDED BY THE OWNER AND THE CITY. THESE INSPECTIONS DO NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATION AND RESPONSIBILITY FOR CONSTRUCTING ALL WORK IN STRICT ACCORDANCE WITH ALL STANDARDS AND SPECIFICATIONS AND CONSTRUCTION DOCUMENTS.
7. CONTRACTOR SHALL PROVIDE STAKEOUT SURVEY NECESSARY FOR THE INSTALLATION OF UTILITY WORK AND APPURTENANES AS REQUIRED PER THE CITY OF MILFORD STANDARDS AND SPECIFICATIONS.

POTABLE WATER DISTRIBUTION GENERAL NOTES

1. ALL WATER DISTRIBUTION WORK SHALL COMPLY WITH THE CITY OF MILFORD WATER MAIN CONSTRUCTION SPECIFICATIONS, LATEST EDITION. CONTRACTOR SHALL OBTAIN A COPY FROM CITY OF MILFORD PRIOR TO BIDDING ON THE JOB. FAILURE TO OBTAIN A COPY OF THE SPECIFICATIONS SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY. ANY ADDITIONAL COSTS CAUSED BY THE FAILURE TO FOLLOW THE SPECIFICATIONS SHALL BE AT THE SOLE COST OF THE CONTRACTOR.
2. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING WATER LATERALS TO WHICH NEW CONSTRUCTION WILL CONNECT.
4. DIFFERING SITE CONDITIONS AND/OR DIFFERING MATERIAL PROPERTIES SHALL REQUIRE CITY OF MILFORD OR DESIGNEE APPROVAL OF SPECIAL DESIGN DETAILS PREPARED BY THE DESIGN ENGINEER PRIOR TO INITIATING OR RESUMING CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOLLOWING EXCAVATIONS FOR INSPECTION AND EVALUATION OF EXISTING SOIL SUBGRADE CONDITIONS BY CITY OF MILFORD OR DESIGNEE. CITY OF MILFORD OR DESIGNEE SHALL INSPECT ALL LATERAL SUBGRADES FOLLOWING EXCAVATION AND PRIOR TO CONSTRUCTION OF NEW WORK TO CONFIRM DESIGN CONDITIONS ARE MET AND SUBGRADE CONDITIONS ARE SUITABLE FOR CONSTRUCTION. IN THE EVENT THE SOIL BEARING CAPACITY IS LESS THAN THE MINIMUM DESIGN VALUE, CITY OF MILFORD OR DESIGNEE SHALL CAUSE AFFECTED CONSTRUCTION TO CEASE AND SHALL NOTIFY THE DESIGN ENGINEER FOR RE-DESIGN TO ACCOMMODATE THE REDUCED SOIL BEARING CAPACITY.
6. IN THE EVENT THE SUBGRADE CONDITION IS UNSTABLE, DUE TO UNSUITABLE MATERIALS AND/OR GROUNDWATER INFILTRATION/INTRUSION INTO THE SURROUNDING SOILS, AS DETERMINED BY CITY OF MILFORD OR DESIGNEE, THE CONTRACTOR SHALL, AS DIRECTED BY CITY OF MILFORD OR DESIGNEE, REMOVE THE UNSUITABLE MATERIAL AND FILL WITH SUITABLE APPROVED GRANULAR FILL MATERIAL.
7. CONTRACTOR SHALL EXTEND LATERAL BELOW ANY CONFLICTS OR OBSTRUCTIONS TO PROVIDE REQUIRED CLEARANCES. COST SHALL BE INCLUDED IN THE PRICE OF THE CONTRACT.
8. THROUGHOUT THE PROJECT, WHERE WATER MAINS ARE LOCATED IN, ACROSS OR ADJACENT TO DRAINAGE DITCHES AND SWALES, THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION AND VEGETATE AS REQUIRED.
9. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED IN ACCORDANCE WITH CITY OF MILFORD STANDARDS AND SPECIFICATIONS BEFORE ACCEPTANCE.
10. THE CONTRACTOR WILL INSTALL THE WATER SERVICE TO THE GROUND MARKER AS SHOWN ON THE STANDARD DETAILS. THE WATER METER AND PIT ASSEMBLY WILL BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CITY OF MILFORD.
11. ALL FITTINGS SHALL BE DUCTILE IRON, MECHANICAL JOINT RESTRAINT AND AWWA APPROVED. SEE THE CITY OF MILFORD STANDARDS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. ALL FITTINGS SHALL BE THRUST RESTRAINED AS SHOWN ON THE STANDARD DETAILS.
12. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO LOCATE PROPERTY LINES, EASEMENTS, AND RIGHT-OF-WAY LINES PRIOR TO CONSTRUCTION AND AVOID CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY AND/OR RIGHTS OF WAYS WHERE SAID CONSTRUCTION IS PROHIBITED. THE CONTRACTOR MAY CONDUCT CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY PROVIDED HE HAS OBTAINED PRIOR WRITTEN PERMISSION FROM THE PROPERTY OWNER AND HAS SUBMITTED A COPY OF SAID WRITTEN PERMISSION TO THE CITY OF MILFORD. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE COST OF ITEMS BID.
13. WATER MAINS ARE TO BE POLYVINYL CHLORIDE PIPE AND SHALL MEET THE REQUIREMENTS OF AWWA C-900. IT SHALL BE MANUFACTURED IN STANDARD LENGTH NOT EXCEEDING 20 FEET AND HAVE AN OUTSIDE DIAMETER EQUAL TO CAST IRON PIPE. PVC PIPE SHALL HAVE STANDARD DIMENSION RATION (DR) OF 18.0 OR LESS. THE PIPE SHALL BE RATED FOR WORKING PRESSURE OF AT LEAST 150 PSI.

INTERNAL PAVING NOTES

1. BITUMINOUS CONCRETE ASPHALT SHALL BE INSTALLED IN ACCORDANCE WITH THE AUGUST 2016 DelDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION TO INCLUDE SPECIAL PROVISIONS:
    1.1. SECTION 1011 FOR PLACEMENT OF TACK COAT.
    1.2. SECTION 401 FOR PLACEMENT OF BITUMINOUS CONCRETE ASPHALT
    1.3. BITUMINOUS CONCRETE ASPHALT SHALL BE FROM A DelDOT APPROVED PLANT.
    1.4. BITUMINOUS CONCRETE ASPHALT SHALL NOT BE APPLIED WHEN BELOW TEMPERATURES SPECIFIED IN SECTION 401.03.F.
2. ALL DISTURBED AREAS NOT COVERED WITH IMPERVIOUS MATERIAL, SHALL BE TOPSOILED (6" MINIMUM), FERTILIZED, SEEDED AND MULCHED.
3. ALL SIGNING AND MAINTENANCE OF TRAFFIC IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL FOLLOW THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
4. DESIGN, FABRICATION, AND INSTALLATION OF ALL PERMANENT SIGNING SHALL BE AS OUTLINED IN THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
5. FOR FINAL PERMANENT PAVEMENT MARKINGS, EPOXY RESIN PAINT SHALL BE REQUIRED FOR LONG LINE STRIPING AND THERMO WILL BE REQUIRED FOR SHORT LINE STRIPING, i.e. SYMBOLS/LEGENDS.
6. ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION, SHALL COMPLY WITH THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION), AND SHALL BE NCHRP – 350 APPROVED AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN GOOD CONDITION FOR DURATION OF USE.
7. BREAKAWAY POSTS SHALL BE USED WHEN INSTALLING ALL SIGNS. DETAIL CAN BE FOUND IN DelDOT'S STANDARD CONSTRUCTION DETAILS.
8. PLAN LOCATION AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
9. OPEN-CUT TRENCHES AND PROVIDE PAVEMENT RESTORATION IN ACCORDANCE WITH THE APPROPRIATE JURISDICTION'S STANDARDS AND SPECIFICATIONS. USE ONLY SUITABLE AND APPROVED GRANULAR MATERIALS FOR BACKFILLING TRENCHES.

SANITARY SEWER GENERAL NOTES

1. SANITARY SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE CITY OF MILFORD STANDARDS AND SPECIFICATIONS, AND DETAILS.
2. ALL SANITARY SEWER MATERIALS AND APPURTENANCES SHALL MEET OR EXCEED THOSE REQUIRED BY THE CITY OF MILFORD STANDARDS AND SPECIFICATIONS, AND DETAILS.
3. SANITARY SEWER LATERAL SHALL BE 8" PVC. SEWER LATERAL SHALL INCLUDE A 8" CLEANOUT, WYE, AND CAP JUST BEHIND THE ACCESS EASEMENT LINE.
4. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
5. TOP OF MANHOLE ELEVATIONS ARE TOP OF MANHOLE FRAME AND COVER.
6. PIPE SPAN LENGTHS ARE MEASURED FROM C/L OF STRUCTURE TO C/L OF STRUCTURE, WHERE APPLICABLE ARE ROUNDED TO THE NEAREST FOOT.
7. THE CONTRACTOR SHALL FIELD VERIFY INVERTS AND LOCATION OF EXISTING SANITARY SEWER MAINS OR MANHOLES TO WHICH NEW CONSTRUCTION WILL CONNECT.
8. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO LOCATE PROPERTY LINES, EASEMENTS, AND RIGHT-OF-WAY LINES PRIOR TO CONSTRUCTION AND AVOID CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY AND/OR RIGHTS OF WAYS WHERE SAID CONSTRUCTION IS PROHIBITED. THE CONTRACTOR MAY CONDUCT CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY PROVIDED HE HAS OBTAINED PRIOR WRITTEN PERMISSION FROM THE PROPERTY OWNER AND HAS SUBMITTED A COPY OF SAID WRITTEN PERMISSION TO THE CITY OF MILFORD. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE COST OF ITEMS BID.
9. DIFFERING SITE CONDITIONS AND/OR DIFFERING MATERIAL PROPERTIES SHALL REQUIRE CITY OF MILFORD APPROVAL OF SPECIAL DESIGN DETAILS PREPARED BY THE DESIGN ENGINEER PRIOR TO INITIATING OR RESUMING CONSTRUCTION ACTIVITIES.
10. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOLLOWING EXCAVATIONS FOR INSPECTION AND EVALUATION OF EXISTING SOIL SUBGRADE CONDITIONS BY THE CITY OF MILFORD OR HIS/HER DESIGNEE. THE CITY OF MILFORD SHALL INSPECT ALL SUBGRADES FOLLOWING EXCAVATION AND PRIOR TO CONSTRUCTION OF NEW WORK TO CONFIRM DESIGN CONDITIONS ARE MET AND SUBGRADE CONDITIONS ARE SUITABLE FOR CONSTRUCTION. IN THE EVENT THE SOIL BEARING CAPACITY IS LESS THAN THE MINIMUM DESIGN VALUE, THE CITY OF MILFORD ENGINEER SHALL CAUSE AFFECTED CONSTRUCTION TO CEASE AND SHALL NOTIFY THE DESIGN ENGINEER FOR RE-DESIGN TO ACCOMMODATE THE REDUCED SOIL BEARING CAPACITY.
11. IN THE EVENT THE SUBGRADE CONDITION IS UNSTABLE, DUE TO UNSUITABLE MATERIALS AND/OR GROUNDWATER INFILTRATION/INTRUSION INTO THE SURROUNDING SOILS, AS DETERMINED BY THE CITY OF MILFORD, THE CONTRACTOR SHALL, AS DIRECTED BY THE CITY OF MILFORD ENGINEER, REMOVE THE UNSUITABLE MATERIAL AND FILL WITH SUITABLE APPROVED GRANULAR FILL MATERIAL.

DEMOLITION AND SAFETY GENERAL NOTES

1. MISS UTILITY OF DELMARVA SHALL BE NOTIFIED THREE (3) CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION, AT 1-800-282-8555.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECES



P:\2875\2875A001\current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15, 2020 - 10:50am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

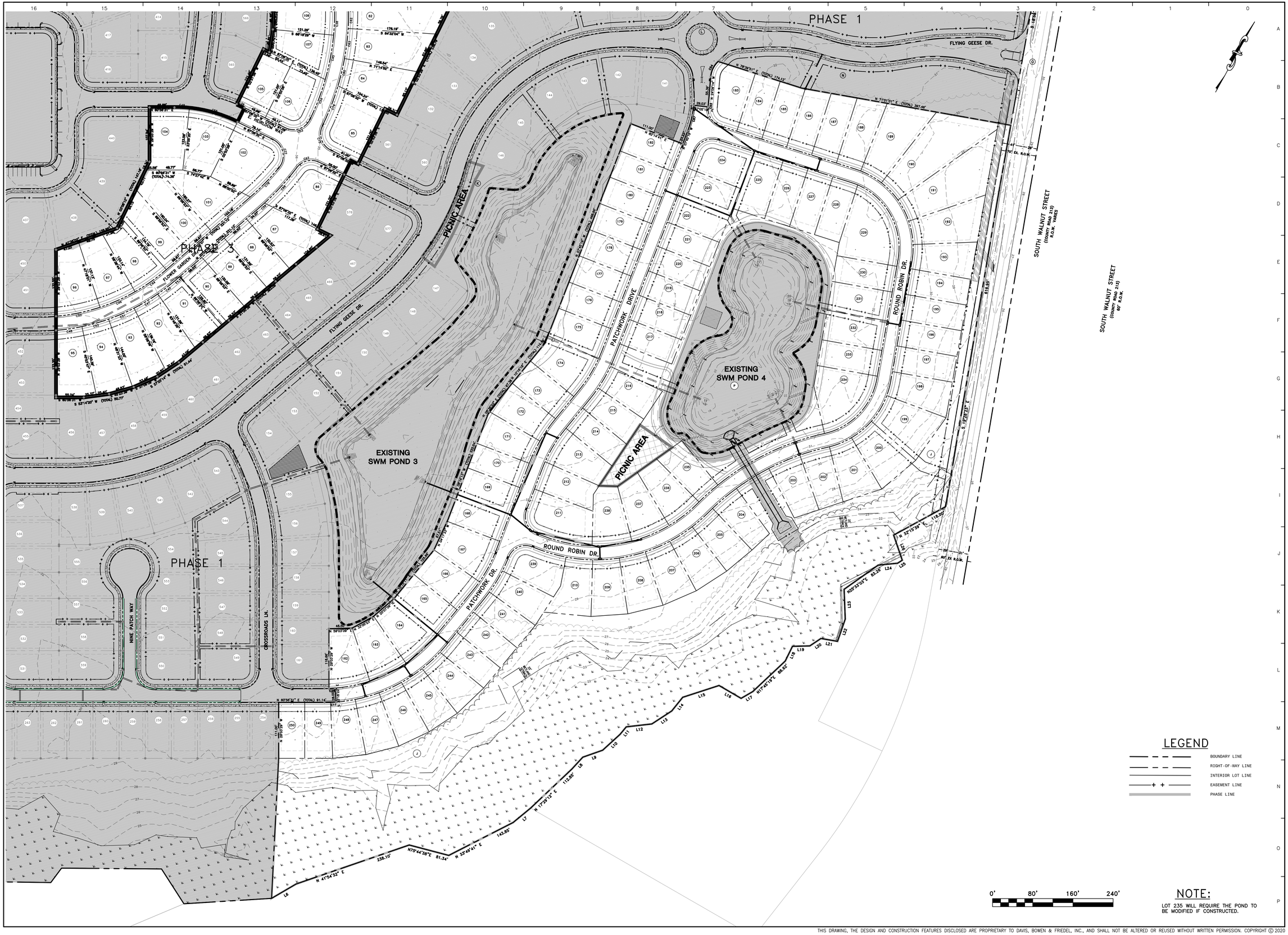
DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

OVERALL SITE PLAN

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	1"=150'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C0.2



NOTE:
LOT 235 WILL REQUIRE THE POND TO BE MODIFIED IF CONSTRUCTED.

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15 , 2020 - 10:51 am micka

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

KEY PLAN

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	1"=80'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C0.3

PHASE 3

PHASE 1

PHASE 2

EXISTING SWM POND 3

EXISTING SWM POND 4

SOUTH WALNUT STREET
(COUNTY ROAD 213)
60' R.O.W.

70' EX. R.O.W.

N 78°36'51" E (TOTAL) 174.15'

N 71°01'01" E (TOTAL) 397.46'

N 60°56'31" E (TOTAL) 91.14'

N 41°54'33" E 258.10'

N 75°44'38"E 81.34'

N 33°49'41" E 143.80'

N 17°39'13" E 112.85'

N11°47'41"E 88.62'

N 32°15'39" E 118.00'

S 14°29'23" E 616.80'

N 22°31'11" E 111.06'

N 59°03'09" E 46.50'

N 30°07'09" E 119.96'

N 22°31'11" E (TOTAL) 128.96'

N 67°52'49" E (TOTAL) 488.96'

N 36°40'39" E (TOTAL) 128.34'

N 67°52'49" E (TOTAL) 114.58'

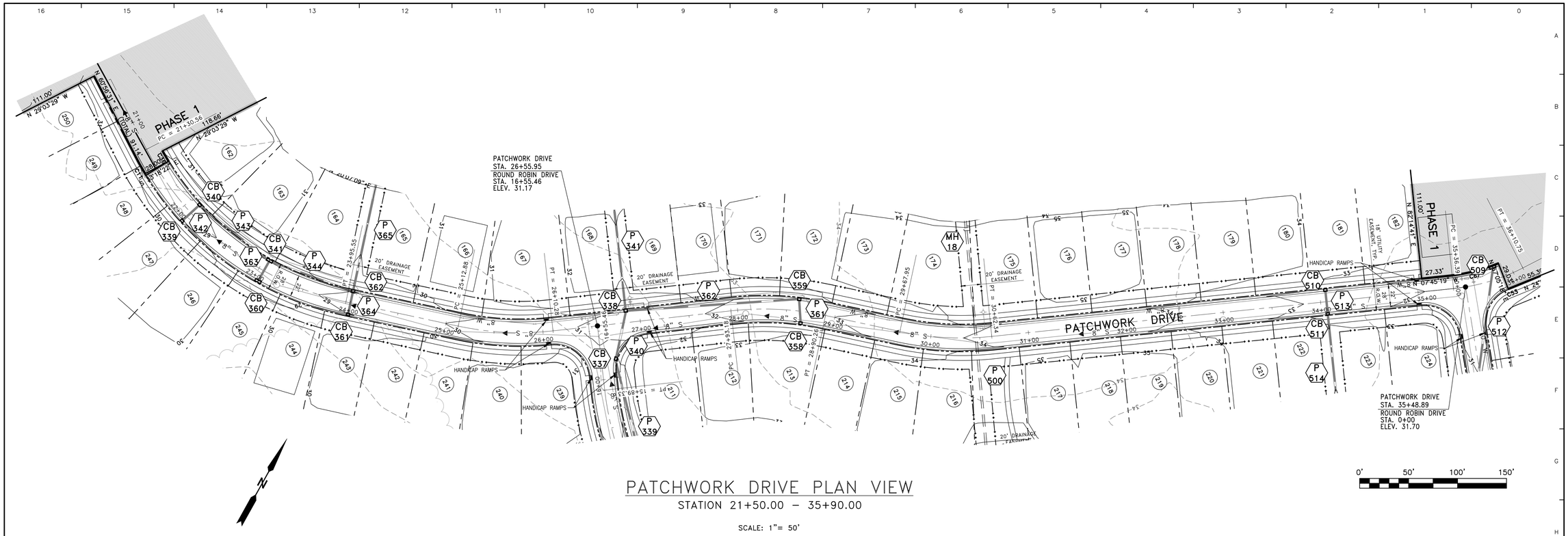
N 22°31'11" E 111.06'

N 67°52'49" E 29.03'

N 67°52'49" E 29.03'

N 22°31'11" E 29.36'

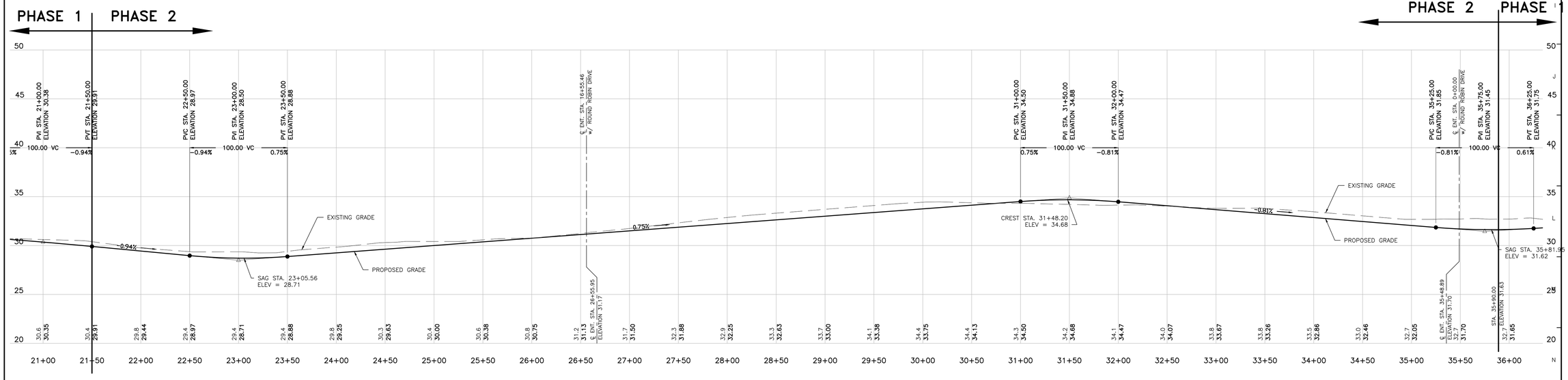
N 67°52'49" E 29.36



PATCHWORK DRIVE PLAN VIEW

STATION 21+50.00 – 35+90.00

SCALE: 1"= 50'



PATCHWORK DRIVE PROFILE

STATION 21+50.00 – 35+90.00

SCALE: VERT: 1" = 5'
HORZ: 1" = 50'

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

ROAD PLAN & PROFILE

MILFORD PONDS - PHASE 2

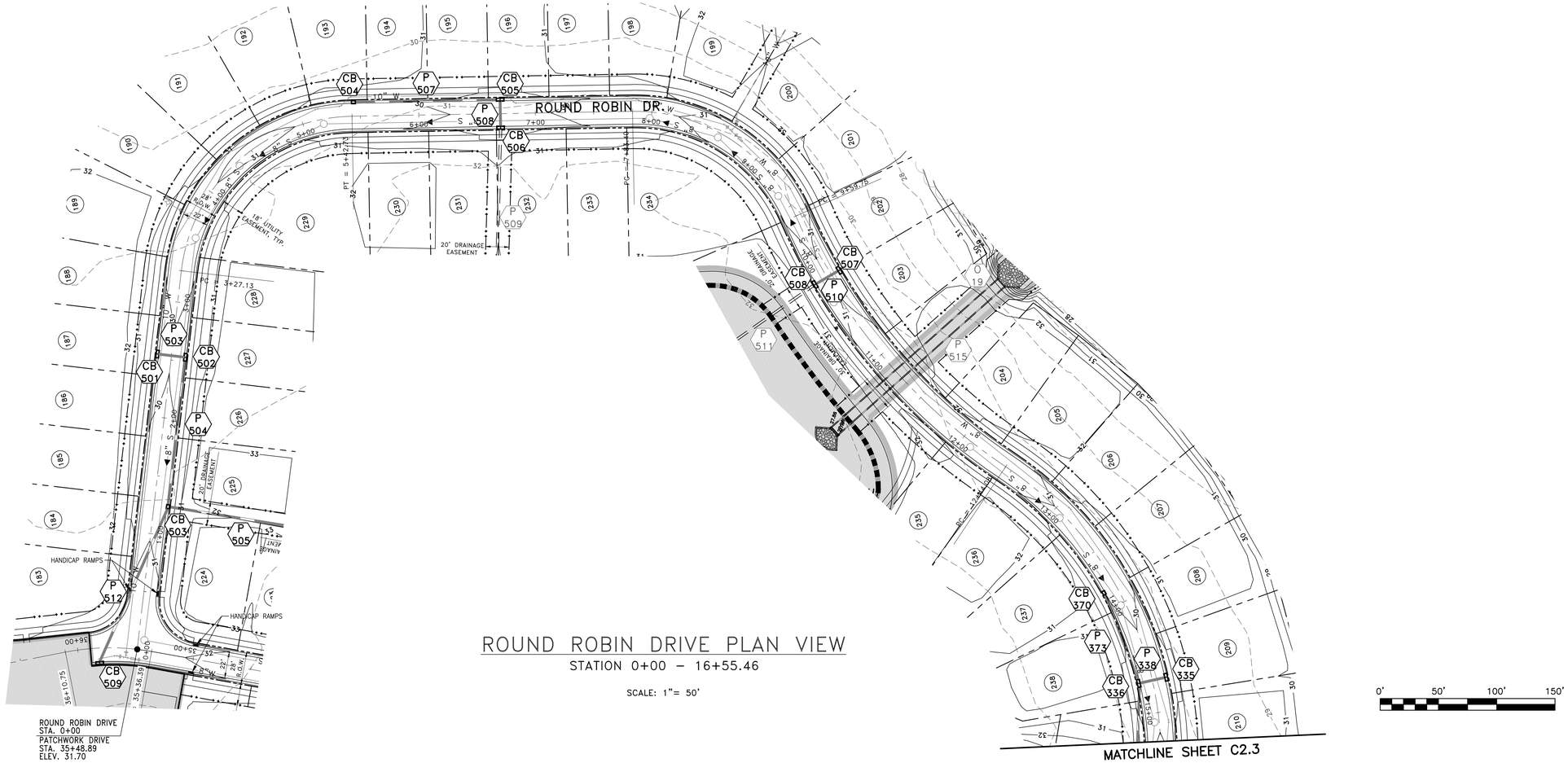
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	1"=50'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C2.1

P:\2875\2875A001\current working folder\dwgs\PHASE 2\ROAD-PRO-INT-SECT.dwg, Oct 15 , 2020 - 10:51am mska

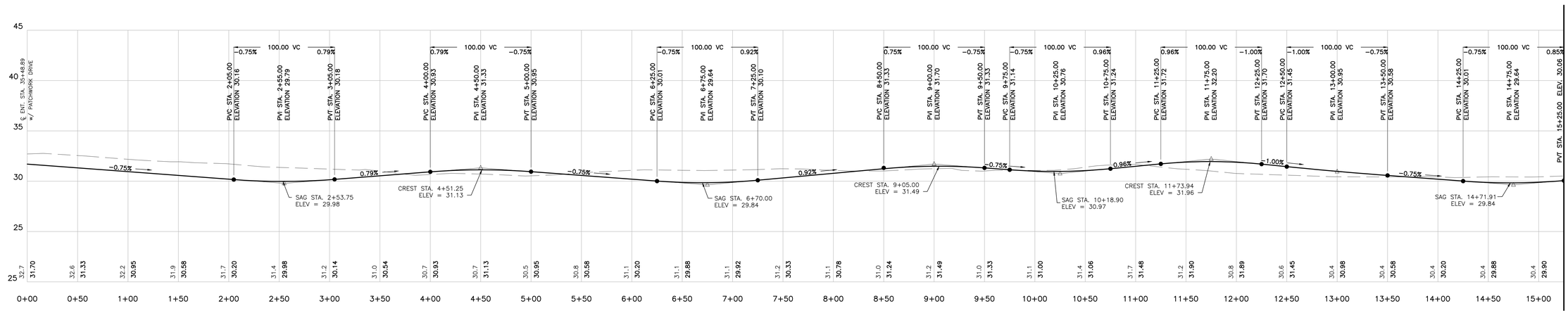
THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



ROUND ROBIN DRIVE PLAN VIEW

STATION 0+00 – 16+55.46

SCALE: 1"= 50'



ROUND ROBIN DRIVE PROFILE

STATION 2+25.00 – 16+55.46

SCALE: VERT: 1" = 5'
HORZ: 1" = 50'

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

ROAD PLAN & PROFILE

MILFORD PONDS - PHASE 2

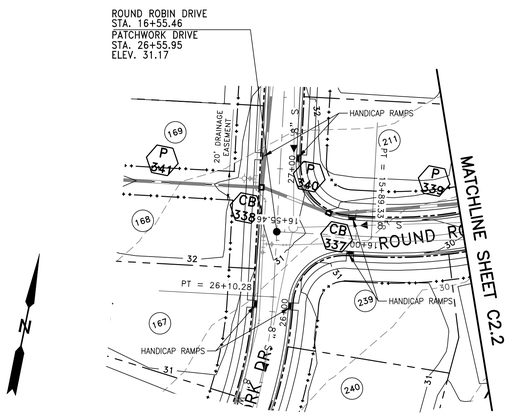
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JUNE 2020
Scale: 1"=50'
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C2.2

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\ROAD-PRO-INT-SECT.dwg Oct 15, 2020 - 10:52am mska

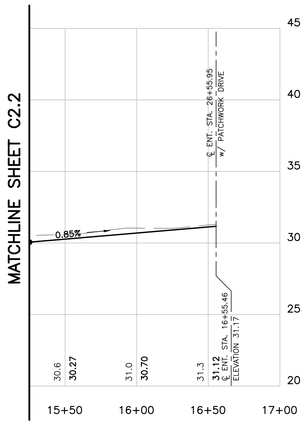


ROUND ROBIN DRIVE PLAN VIEW (CONT.)

STATION 15+25.00 – 16+55.46

SCALE: 1"= 50'

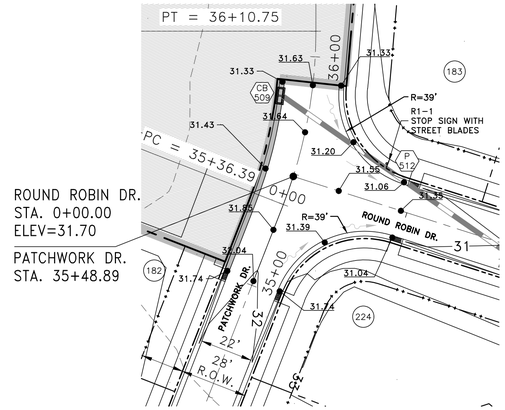
0' 50' 100' 150'



ROUND ROBIN DRIVE PROFILE (CONT.)

STATION 15+25.00 – 16+55.46

SCALE:
VERT: 1" = 5'
HORZ: 1" = 50'



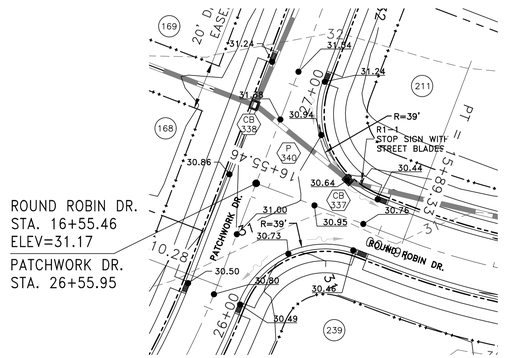
ROUND ROBIN DR.
STA. 0+00.00
ELEV=31.70

PATCHWORK DR.
STA. 35+48.89

INTERSECTION: ROUND ROBIN DR. & PATCHWORK DR.

SCALE: 1"= 30'

0' 30' 60' 90'

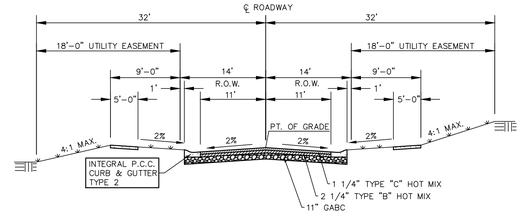


ROUND ROBIN DR.
STA. 16+55.46
ELEV=31.17

PATCHWORK DR.
STA. 26+55.95

INTERSECTION: ROUND ROBIN DR. & PATCHWORK DR.

SCALE: 1"= 30'



ROUND ROBIN DRIVE	PATCHWORK DRIVE
0+00.00 - 16+55.46	21+50.00 - 35+90.00

REQUIRED STRUCTURAL NUMBER = 2.90
PROPOSED STRUCTURAL NUMBER = 2.94

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

INTERSECTIONS–ROAD SECTIONS

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	AS SHOWN
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C2.3

P:\2875\2875A001\current working folder\dwgs\PHASE 2\ROAD-PRO-INT-SECT.dwg Oct 15, 2020 - 10:32am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

GRADING PLAN

MILFORD PONDS - PHASE 2

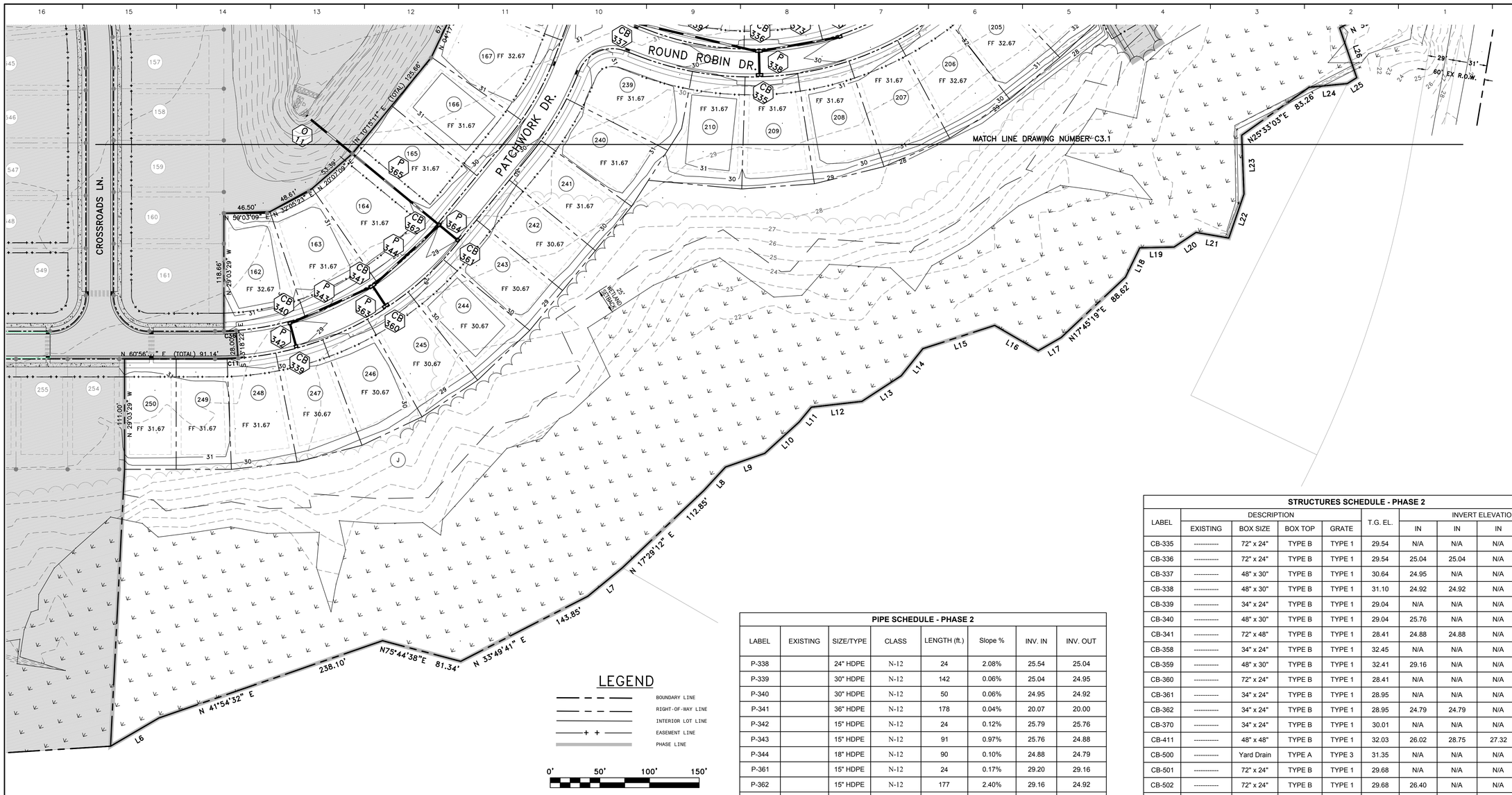
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	1"=50'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C3.1

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15, 2020 - 11:21am micka



STRUCTURES SCHEDULE - PHASE 2

LABEL	DESCRIPTION				T.G. EL.	INVERT ELEVATION			
	EXISTING	BOX SIZE	BOX TOP	GRATE		IN	IN	IN	OUT
CB-335	----------	72" x 24"	TYPE B	TYPE 1	29.54	N/A	N/A	N/A	25.54
CB-336	----------	72" x 24"	TYPE B	TYPE 1	29.54	25.04	25.04	N/A	25.04
CB-337	----------	48" x 30"	TYPE B	TYPE 1	30.64	24.95	N/A	N/A	24.95
CB-338	----------	48" x 30"	TYPE B	TYPE 1	31.10	24.92	24.92	N/A	20.07
CB-339	----------	34" x 24"	TYPE B	TYPE 1	29.04	N/A	N/A	N/A	25.79
CB-340	----------	48" x 30"	TYPE B	TYPE 1	29.04	25.76	N/A	N/A	25.76
CB-341	----------	72" x 48"	TYPE B	TYPE 1	28.41	24.88	24.88	N/A	24.88
CB-358	----------	34" x 24"	TYPE B	TYPE 1	32.45	N/A	N/A	N/A	29.20
CB-359	----------	48" x 30"	TYPE B	TYPE 1	32.41	29.16	N/A	N/A	29.16
CB-360	----------	72" x 24"	TYPE B	TYPE 1	28.41	N/A	N/A	N/A	24.91
CB-361	----------	34" x 24"	TYPE B	TYPE 1	28.95	N/A	N/A	N/A	25.70
CB-362	----------	34" x 24"	TYPE B	TYPE 1	28.95	24.79	24.79	N/A	21.12
CB-370	----------	34" x 24"	TYPE B	TYPE 1	30.01	N/A	N/A	N/A	26.76
CB-411	----------	48" x 48"	TYPE B	TYPE 1	32.03	26.02	28.75	27.32	26.02
CB-500	----------	Yard Drain	TYPE A	TYPE 3	31.35	N/A	N/A	N/A	28.10
CB-501	----------	72" x 24"	TYPE B	TYPE 1	29.68	N/A	N/A	N/A	26.43
CB-502	----------	72" x 24"	TYPE B	TYPE 1	29.68	26.40	N/A	N/A	25.18
CB-503	----------	48" x 30"	TYPE B	TYPE 1	30.46	25.12	26.86	N/A	25.12
CB-504	----------	34" x 24"	TYPE B	TYPE 1	30.32	N/A	N/A	N/A	27.07
CB-505	----------	72" x 24"	TYPE B	TYPE 1	29.54	23.14	N/A	N/A	23.14
CB-506	EXISTING	72" x 24"	TYPE B	TYPE 1	29.54	22.86	N/A	N/A	20.01
CB-507	----------	72" x 24"	TYPE B	TYPE 1	30.67	N/A	N/A	N/A	24.07
CB-508	EXISTING	72" x 24"	TYPE B	TYPE 1	30.67	24.04	N/A	N/A	20.25
CB-509	----------	72" x 24"	TYPE B	TYPE 1	31.30	N/A	N/A	N/A	28.05
CB-510	----------	34" x 24"	TYPE B	TYPE 1	32.51	N/A	N/A	N/A	29.26
CB-511	----------	34" x 24"	TYPE B	TYPE 1	32.51	29.21	N/A	N/A	29.21
MH-12	EXISTING	ROUND	----------	----------	30.74	23.00	N/A	N/A	17.80
MH-13	EXISTING	ROUND	----------	----------	31.89	25.01	24.81	N/A	19.11
MH-18	----------	ROUND	----------	----------	33.15	20.02	N/A	N/A	24.00
O-10	----------	----------	----------	----------	32.00	N/A	N/A	N/A	20.00
O-11	----------	----------	----------	----------	32.00	N/A	N/A	N/A	21.00
O-15	EXISTING	----------	----------	----------	31.00	N/A	N/A	N/A	18.01
O-16	EXISTING	----------	----------	----------	32.00	N/A	N/A	N/A	18.75
O-17	EXISTING	----------	----------	----------	31.00	N/A	N/A	N/A	19.85
O-18	EXISTING	----------	----------	----------	31.00	N/A	N/A	N/A	19.78
O-19	EXISTING	----------	----------	----------	32.00	N/A	N/A	N/A	22.98

PIPE SCHEDULE - PHASE 2

LABEL	EXISTING	SIZE/TYPE	CLASS	LENGTH (ft.)	Slope %	INV. IN	INV. OUT
P-338		24" HDPE	N-12	24	2.08%	25.54	25.04
P-339		30" HDPE	N-12	142	0.06%	25.04	24.95
P-340		30" HDPE	N-12	50	0.06%	24.95	24.92
P-341		36" HDPE	N-12	178	0.04%	20.07	20.00
P-342		15" HDPE	N-12	24	0.12%	25.79	25.76
P-343		15" HDPE	N-12	91	0.97%	25.76	24.88
P-344		18" HDPE	N-12	90	0.10%	24.88	24.79
P-361		15" HDPE	N-12	24	0.17%	29.20	29.16
P-362		15" HDPE	N-12	177	2.40%	29.16	24.92
P-363		18" HDPE	N-12	24	0.13%	24.91	24.88
P-364		15" HDPE	N-12	24	3.79%	25.70	24.79
P-365		24" HDPE	N-12	166	0.07%	21.12	21.00
P-373		15" HDPE	N-12	83	2.07%	26.76	25.04
P-500		48" HDPE	N-12	242	0.41%	24.00	23.00
P-501	EXISTING	48" HDPE	N-12	77	-0.27%	17.80	18.01
P-502		15" HDPE	N-12	78	1.00%	28.10	27.32
P-503		15" HDPE	N-12	24	0.13%	26.43	26.40
P-504		30" HDPE	N-12	129	0.05%	25.18	25.12
P-505		36" HDPE	N-12	139	0.22%	25.12	24.81
P-506	EXISTING	36" HDPE	N-12	96	0.37%	19.11	18.75
P-507		15" HDPE	N-12	125	3.14%	27.07	23.14
P-508		18" HDPE	N-12	24	1.17%	23.14	22.86
P-509	EXISTING	24" HDPE	N-12	191	0.08%	20.01	19.85
P-510		18" HDPE	N-12	24	0.13%	24.07	24.04
P-511	EXISTING	18" HDPE	N-12	96	0.49%	20.25	19.78
P-512		15" HDPE	N-12	146	0.82%	28.05	26.86
P-513		15" HDPE	N-12	24	0.21%	29.26	29.21
P-514		15" HDPE	N-12	115	3.65%	29.21	25.01
P-515	EXISTING	4' x 8' BOX	----------	191	-0.01%	22.97	22.98
P-517		48" HDPE	N-12	83	-0.02%	20.00	20.02

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

GRADING PLAN

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD

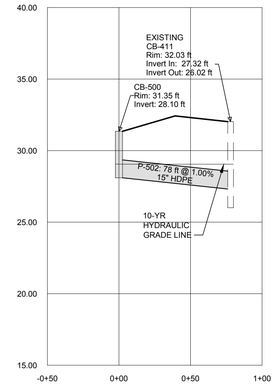
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JUNE 2020
Scale: 1"=50'
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C3.2

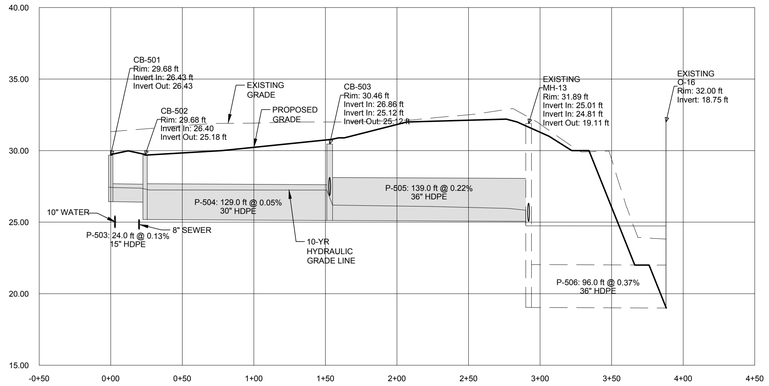
THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001 \current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15, 2020 - 11:21am mcka



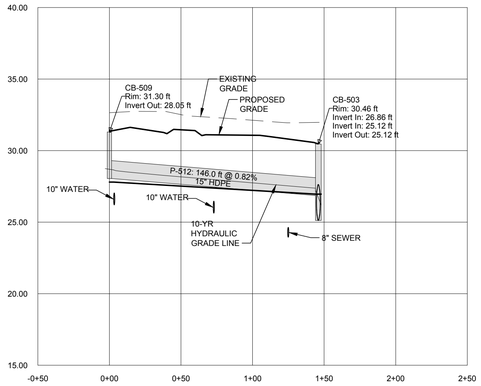
STORMDRAIN CB500-CB411

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



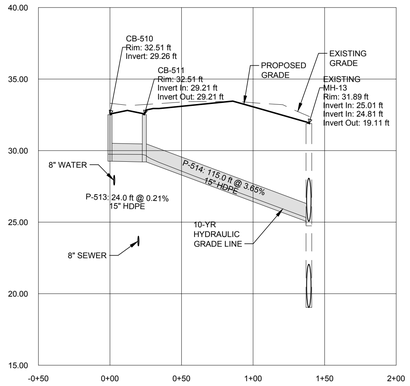
STORMDRAIN CB501-O16

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



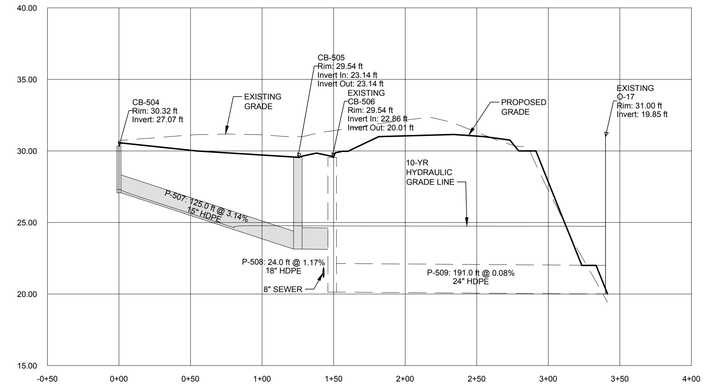
STORMDRAIN CB509-CB503

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



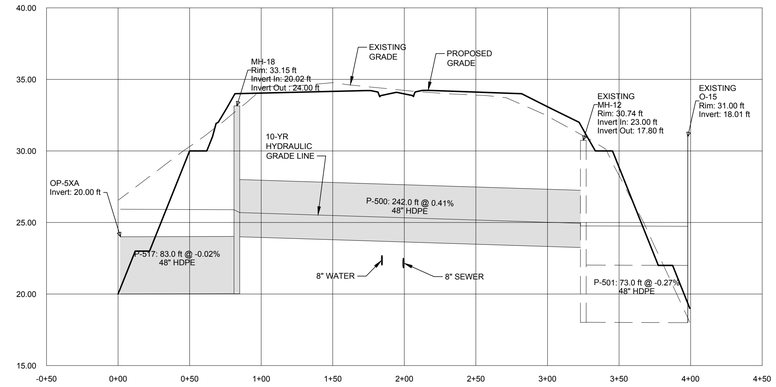
STORMDRAIN CB510-MH13

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



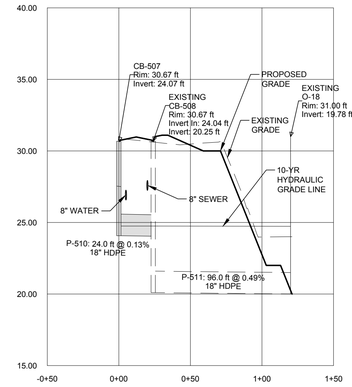
STORMDRAIN CB504-O17

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



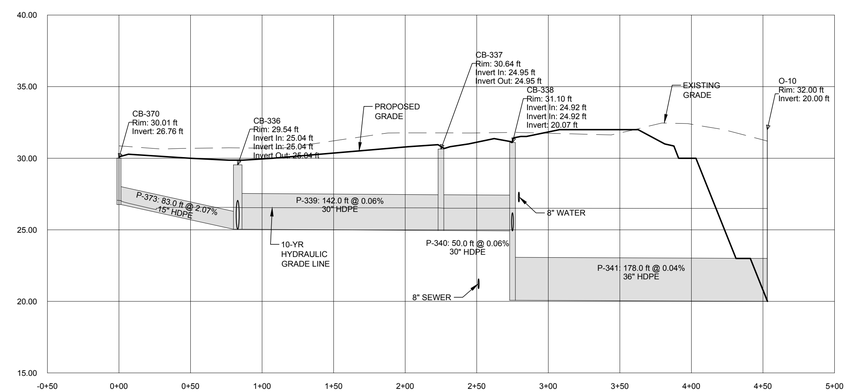
STORMDRAIN OP5XA-O15

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



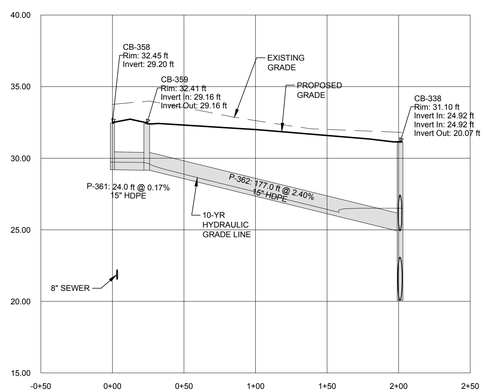
STORMDRAIN CB507-O18

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



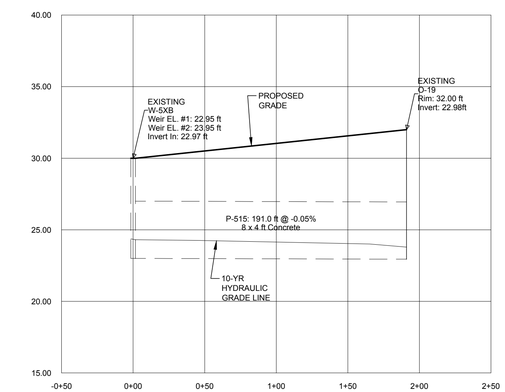
STORMDRAIN CB370-O10

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



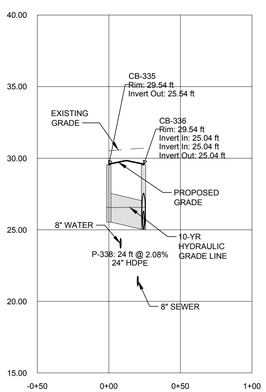
STORMDRAIN CB358-CB338

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



STORMDRAIN W5XB-O19

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



STORMDRAIN CB335-CB336

SCALE: 1"=50' HORIZ.
1"= 5' VERT.

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
OCEAN CITY, MARYLAND (410) 289-9641
EASTON, MARYLAND (410) 770-4744

STORMDRAIN PROFILES

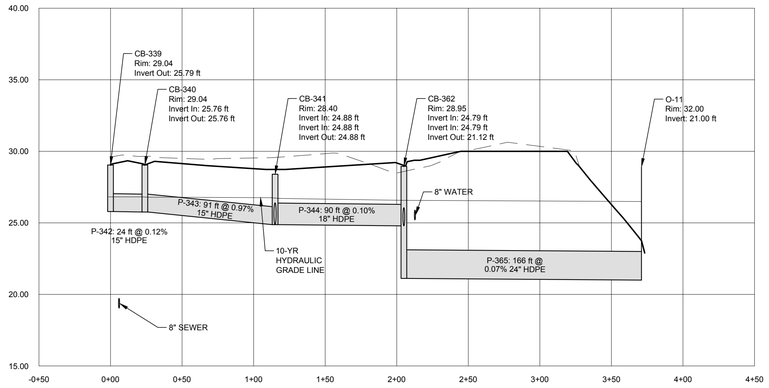
MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	AS NOTED
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C3.3

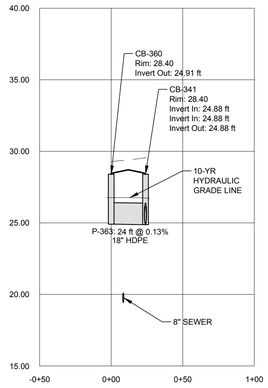
P:\2875\2875A001\current working folder\dwgs\PHASE 2\STORMDRAIN PROFILES.dwg Oct 15, 2020 - 10:53am mrcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



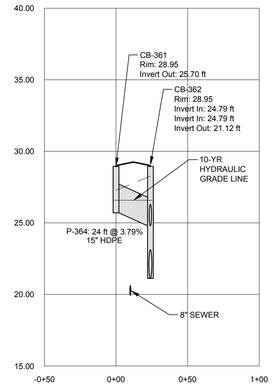
STORMDRAIN CB339-O11

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



STORMDRAIN CB360-CB341

SCALE: 1"=50' HORIZ.
1"= 5' VERT.



STORMDRAIN CB361-CB362

SCALE: 1"=50' HORIZ.
1"= 5' VERT.

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

STORMDRAIN PROFILES

MILFORD PONDS - PHASE 2

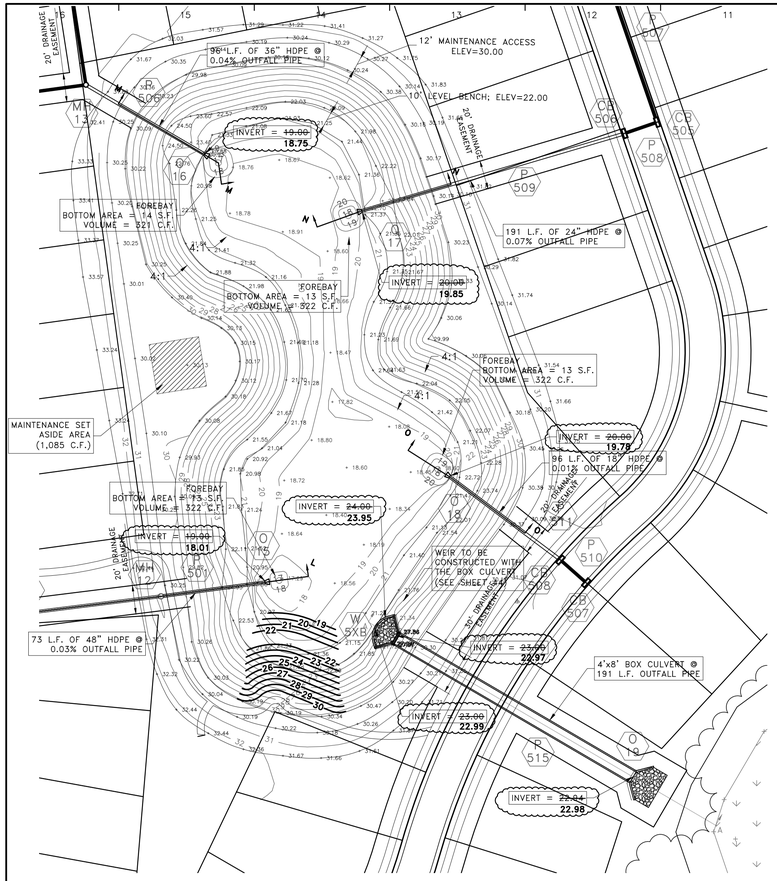
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	AS NOTED
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C3.4

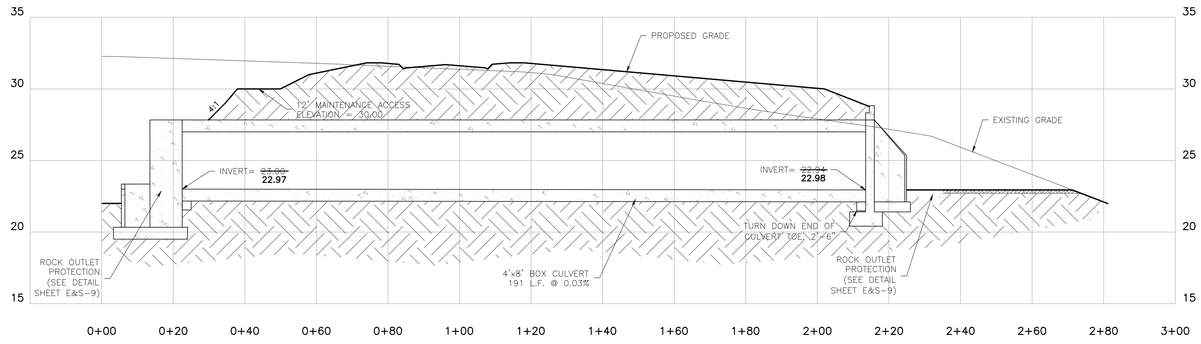
THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\STORMDRAIN PROFILES.dwg Oct 15 , 2020 - 10:53am mcka



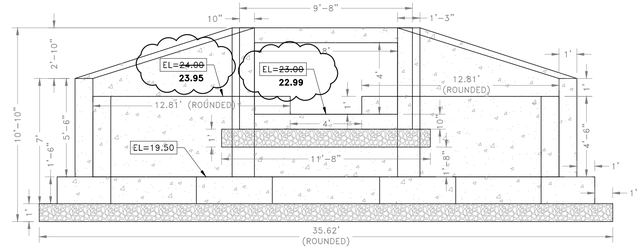
STORMWATER MANAGEMENT POND 4 AS-BUILT & REVISION

SCALE: 1" = 50'



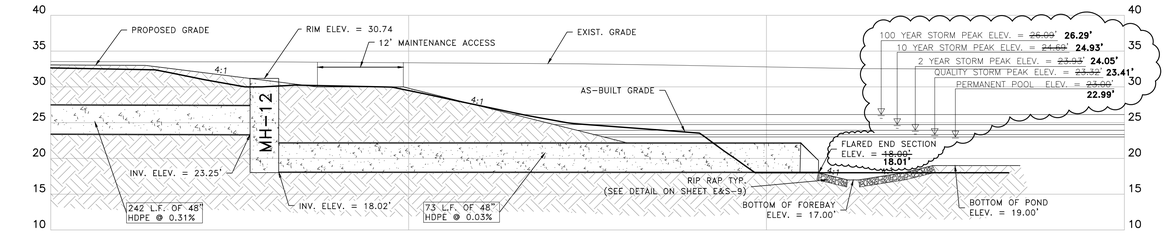
POND 4 CULVERT WEIR CROSS-SECTION A-A

SCALE: VERT. 1" = 5 HORZ. 1" =20'

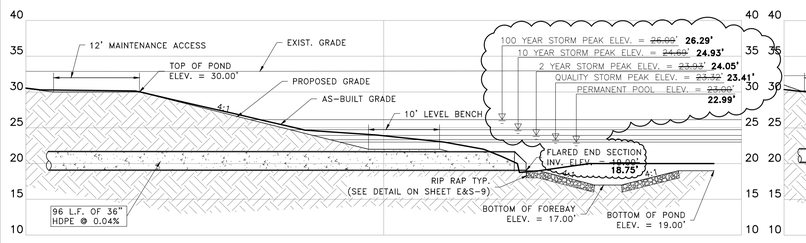


CULVERT WEIR PROFILE B-B

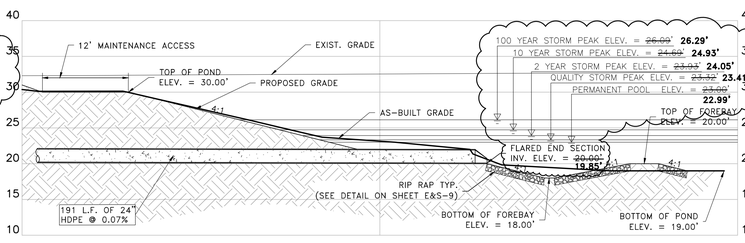
SCALE: 1" = 4'



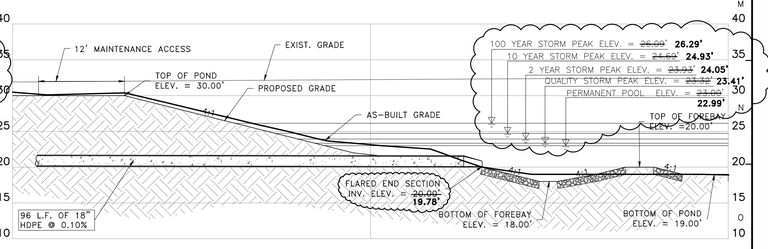
STORMWATER POND 3&4 CROSS-SECTION L-L



STORMWATER POND 4 CROSS-SECTION M-M



STORMWATER POND 4 CROSS-SECTION N-N



STORMWATER POND 4 CROSS-SECTION O-O

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

SWM POND 4 AS-BUILT & REVISION

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD

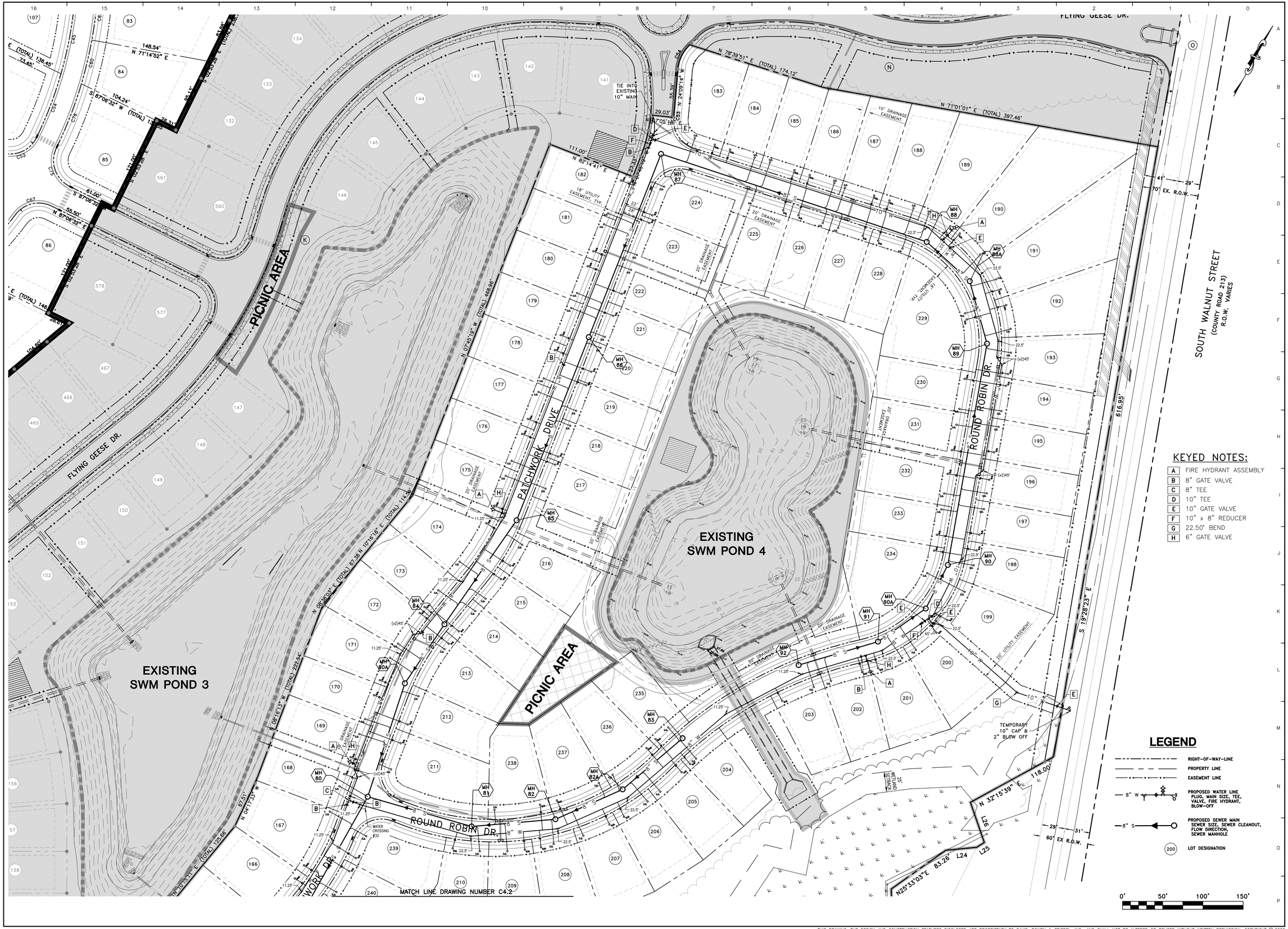
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	AS NOTED
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C3.5

P:\2875\2875A001\current working folder\dwgs\PHASE 1\Pond AsBuilt PLAN.dwg Oct 15 , 2020 - 10:54am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



KEYED NOTES:

- A FIRE HYDRANT ASSEMBLY
- B 8" GATE VALVE
- C 8" TEE
- D 10" TEE
- E 10" GATE VALVE
- F 10" x 8" REDUCER
- G 22.50° BEND
- H 6" GATE VALVE

LEGEND

- RIGHT-OF-WAY-LINE
- PROPERTY LINE
- EASEMENT LINE
- 8" W — PROPOSED WATER LINE PLUG, MAIN SIZE, TEE, VALVE, FIRE HYDRANT, BLOW-OFF
- 8" S — PROPOSED SEWER MAIN SEWER SIZE, SEWER CLEANOUT, FLOW DIRECTION, SEWER MANHOLE
- (200) LOT DESIGNATION

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
OCEAN CITY, MARYLAND (410) 524-1441
EASTON, MARYLAND (410) 770-4744

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

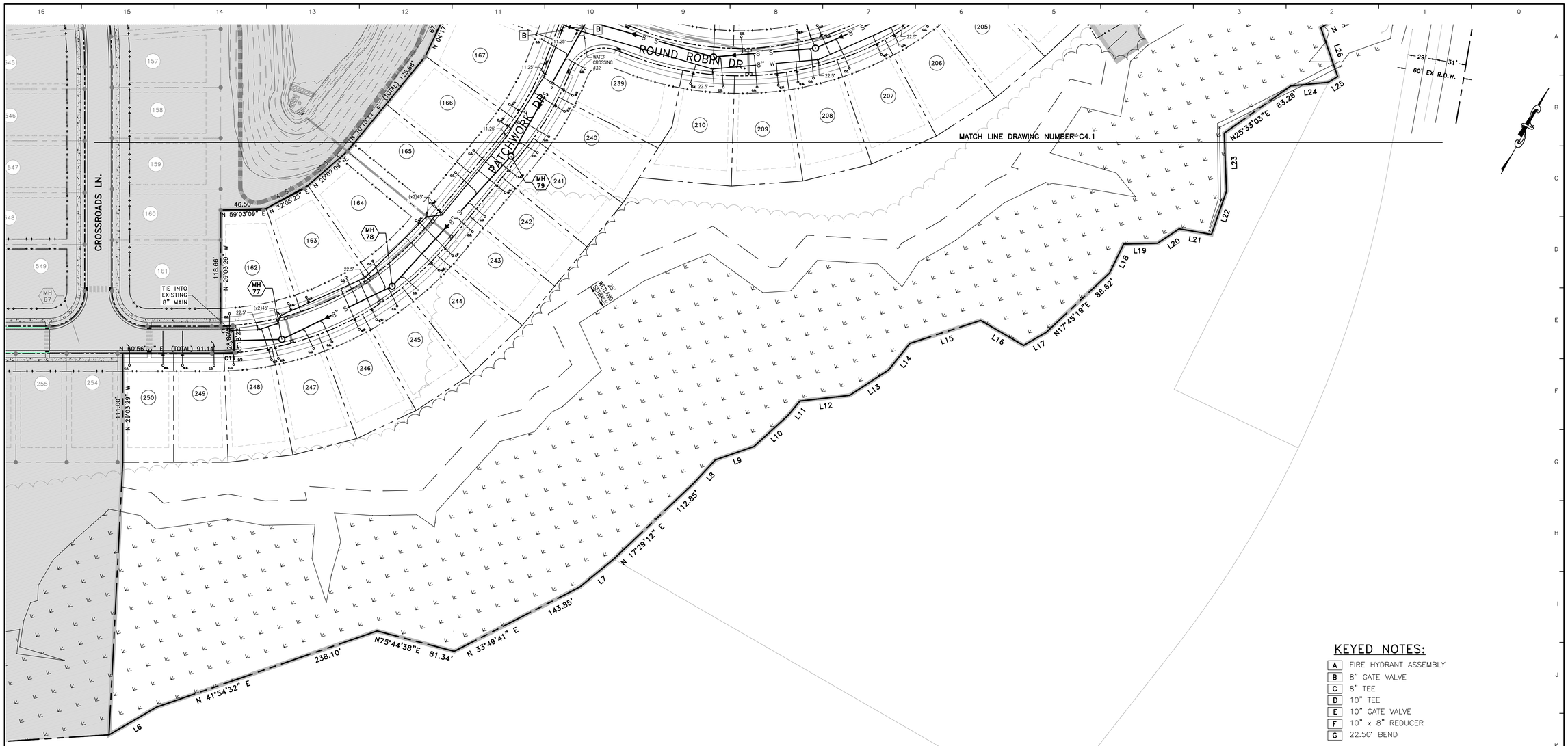
UTILITY PLAN

Revisions:

Date:	JUNE 2020
Scale:	1"=50'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C4.1

P:\2875\2875A001\current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15, 2020 - 11:22am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



KEYED NOTES:

- A FIRE HYDRANT ASSEMBLY
- B 8" GATE VALVE
- C 8" TEE
- D 10" TEE
- E 10" GATE VALVE
- F 10" x 8" REDUCER
- G 22.50° BEND

LEGEND

- RIGHT-OF-WAY-LINE
- PROPERTY LINE
- EASEMENT LINE
- 8" W — PROPOSED WATER LINE PLUG, MAIN SIZE, TEE, VALVE, FIRE HYDRANT, BLOW-OFF
- 8" S — PROPOSED SEWER MAIN SEWER SIZE, SEWER CLEANOUT, FLOW DIRECTION, SEWER MANHOLE
- (200) LOT DESIGNATION

0' 50' 100' 150'

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

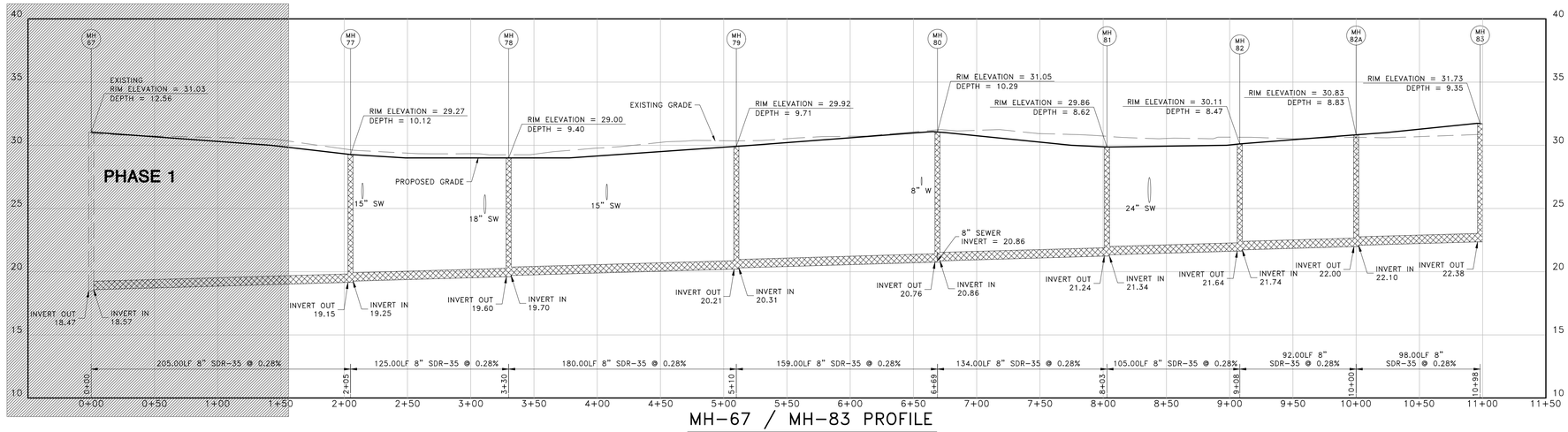
UTILITY PLAN

Revisions:

Date: JUNE 2020
Scale: 1"=50'
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C4.2

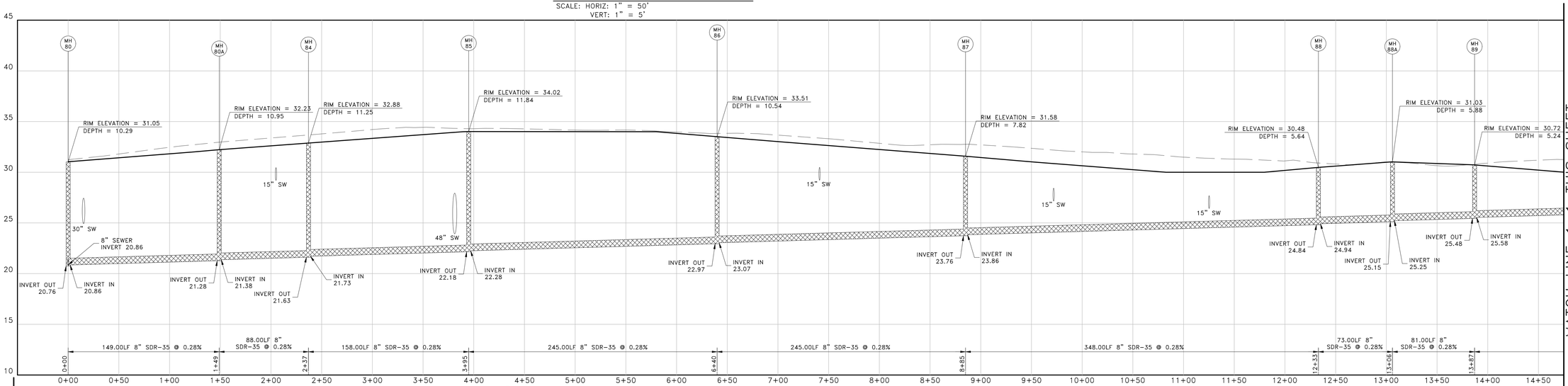
P:\2875\2875A001 \current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15, 2020 - 11:22am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



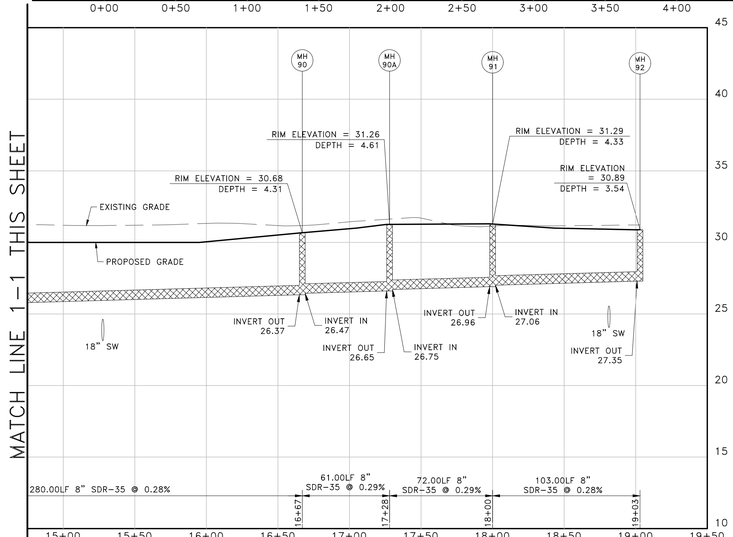
MH-67 / MH-83 PROFILE

SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'



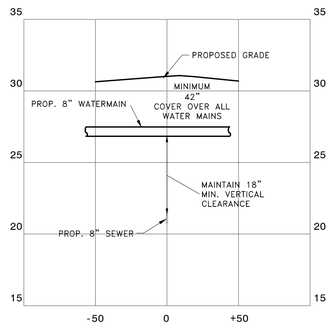
MH-80 / MH-89 PROFILE

SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'



MH-90 / MH-92 PROFILE CONT'D

SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'



WATER CROSSING #32

SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

SEWER PROFILES

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD

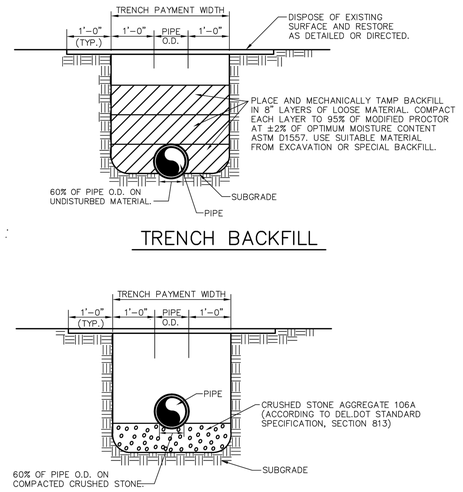
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	1"=50'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C4.3

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

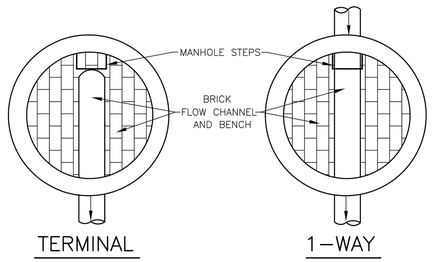
P:\2875\2875A001\current working folder\dwgs\PHASE 2\SEWER PROFILES PHASE 2.dwg Oct 15 , 2020 - 10:55am mcka



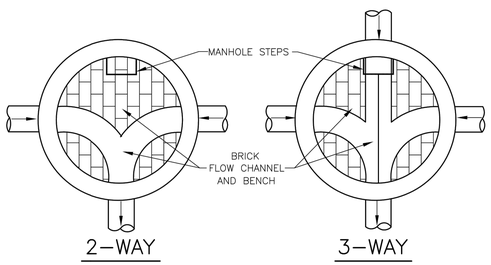
TRENCH BACKFILL

CRUSHED STONE BEDDING

DATE:	REVISION NO.:	APPROVED:
CITY OF MILFORD DEPARTMENT OF PUBLIC WORKS WATER & WASTEWATER DIVISION CONSTRUCTION STANDARDS		TRENCH BACKFILL & PIPE BEDDING DETAIL NO SCALE
	SECTION - 1	DRAWING: D1-1



TERMINAL 1-WAY



2-WAY 3-WAY

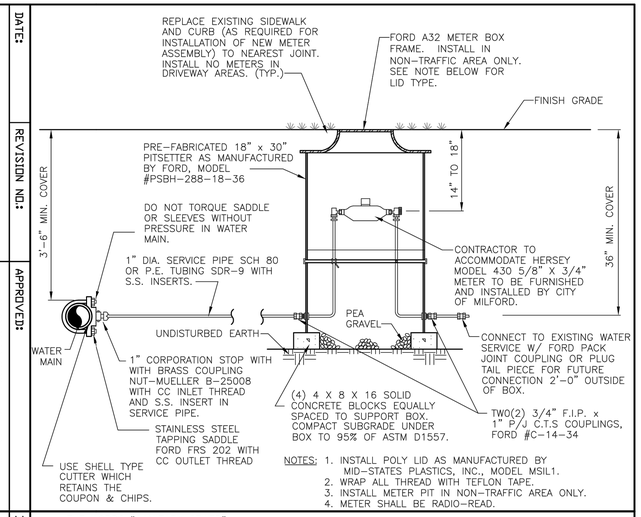
DATE:	REVISION NO.:	APPROVED:
CITY OF MILFORD DEPARTMENT OF PUBLIC WORKS WATER & WASTEWATER DIVISION CONSTRUCTION STANDARDS		TYPICAL MANHOLE FLOW CHANNEL DETAIL NO SCALE
	SECTION - 3	DRAWING: D3-6

CITY OF MILFORD
DEPARTMENT OF PUBLIC WORKS
WATER & WASTEWATER DIVISION
CONSTRUCTION STANDARDS

DATE: | REVISION NO.: | APPROVED:

STANDARD SINGLE METER PIT DETAIL(PREFABRICATED)
NO SCALE

SECTION - 2 | DRAWING: D2-1

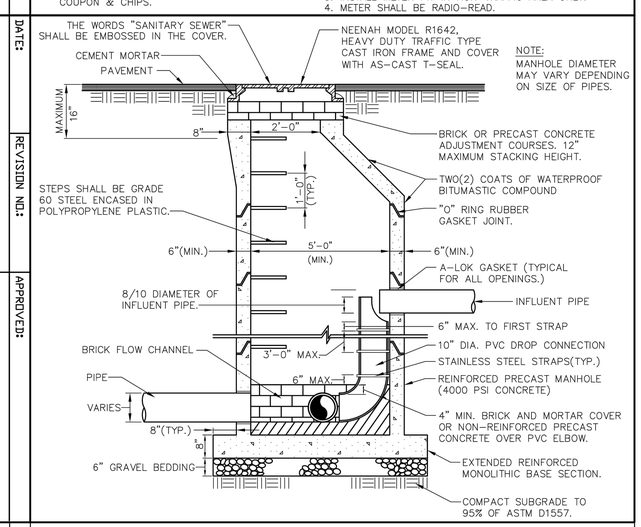


CITY OF MILFORD
DEPARTMENT OF PUBLIC WORKS
WATER & WASTEWATER DIVISION
CONSTRUCTION STANDARDS

DATE: | REVISION NO.: | APPROVED:

INSIDE DROP MANHOLE DETAIL
NO SCALE

SECTION - 3 | DRAWING: D3-3

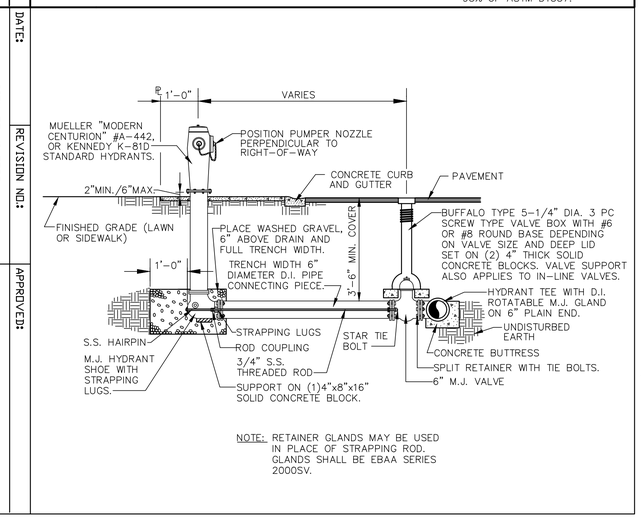


CITY OF MILFORD
DEPARTMENT OF PUBLIC WORKS
WATER & WASTEWATER DIVISION
CONSTRUCTION STANDARDS

DATE: | REVISION NO.: | APPROVED:

FIRE HYDRANT DETAIL
NO SCALE

SECTION - 2 | DRAWING: D2-7



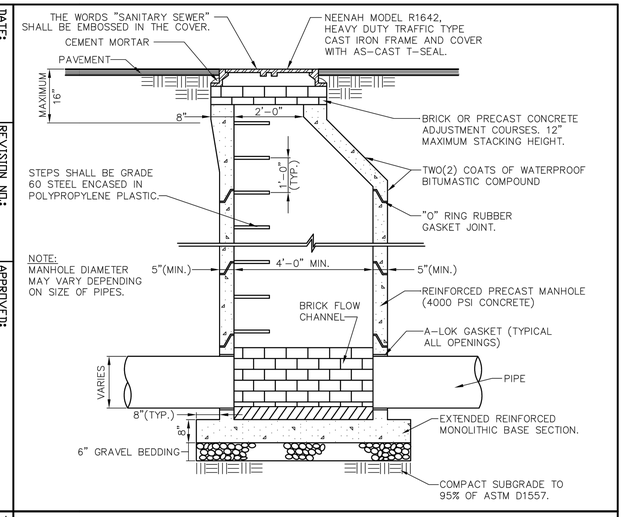
NOTE: RETAINER GLANDS MAY BE USED IN PLACE OF STRAPPING ROD. GLANDS SHALL BE EBAA SERIES 2000SV.

CITY OF MILFORD
DEPARTMENT OF PUBLIC WORKS
WATER & WASTEWATER DIVISION
CONSTRUCTION STANDARDS

DATE: | REVISION NO.: | APPROVED:

PRECAST CONCRETE MANHOLE DETAIL
NO SCALE

SECTION - 3 | DRAWING: D3-2

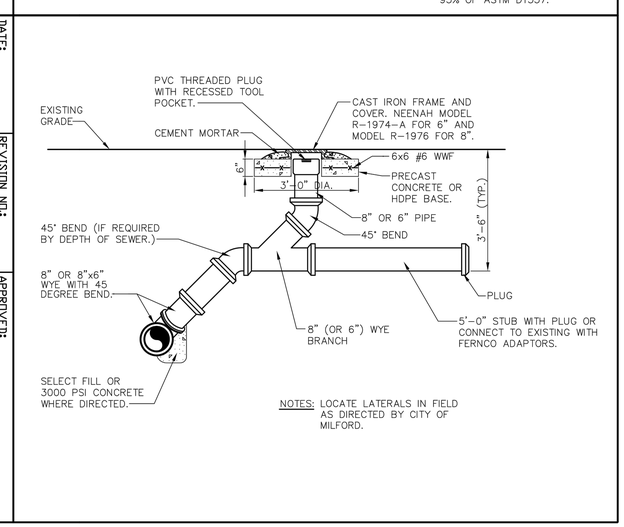


CITY OF MILFORD
DEPARTMENT OF PUBLIC WORKS
WATER & WASTEWATER DIVISION
CONSTRUCTION STANDARDS

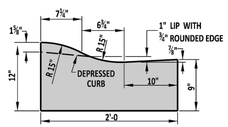
DATE: | REVISION NO.: | APPROVED:

BUILDING LATERAL CLEANOUT DETAIL
NO SCALE

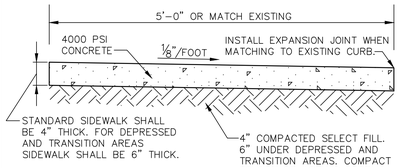
SECTION - 3 | DRAWING: D3-7



NOTES: LOCATE LATERALS IN FIELD AS DIRECTED BY CITY OF MILFORD.

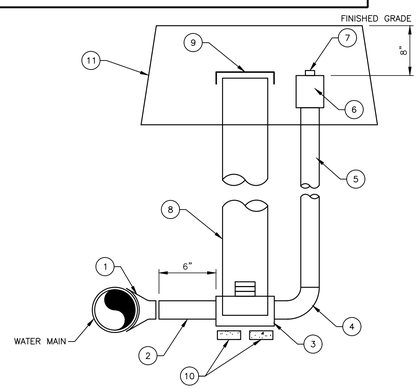


INTEGRAL P.C.C. CURB AND GUTTER
TYPE 2



NOTE: PLACE EXPANSION JOINTS 20' ON CENTER AND CONTROL JOINTS 5' ON CENTER OR MATCH EXISTING PATTERN.

CONCRETE SIDEWALK DETAIL
NO SCALE



1. FORD FS202-XXX-IPY SADDLE
2. BRASS NIPPLE
3. FORD B11-ZZZ CURB STOP
4. SCH80 90
5. SCH80 PIPE
6. SCH80 FEMALE ADAPTER
7. GALVANIZED PLUG
8. 4" SDR-35 PIPE
9. 4" SDR-35 CAP (SLIP)
10. CEMENT BRICK
11. ENCLOSURE-SUPPLIED BY TIDEWATER

MAIN SIZE	BLOW SIZE	XXX	Y	Z
8	2"	979	7	777
6	1 1/2"	760	6	666
4	1 1/2"	526	6	666

BLOW-OFF HYDRANT
NOT TO SCALE

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
OCEAN CITY, MARYLAND (410) 524-5141
EASTON, MARYLAND (410) 770-4744

UTILITY DETAILS

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

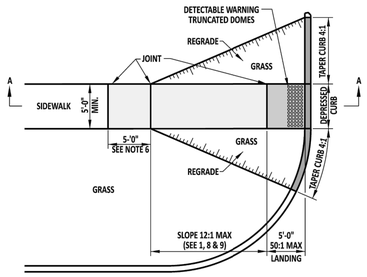
Revisions:

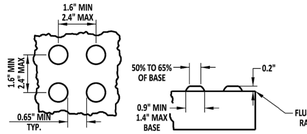
Date: JUNE 2020
Scale: AS SHOWN
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C4.4

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\UTILITY DETAILS.dwg Oct 15, 2020 - 10:55am mcka

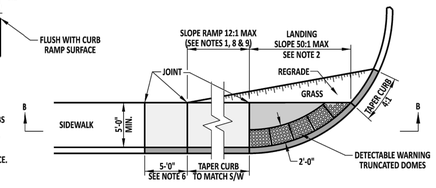
SCALE : NTS

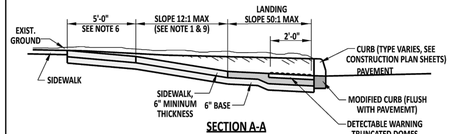




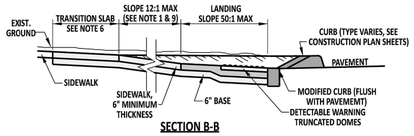
DETECTABLE WARNING TRUNCATED DOME DETAILS

NOTES:
A). ENTIRE DEPRESSED AREA OF CURB EXCLUDING THE TAPERED CURBS SHALL HAVE DETECTABLE WARNING TRUNCATED DOMES.
B). THE DETECTABLE WARNING SYSTEM SHALL EXTEND AT LEAST 2'-0" IN LENGTH, MEASURED IN THE DIRECTION OF TRAVEL, FROM THE BACK OF THE CURB ALONG THE PEDESTRIAN CONNECTION SURFACE.
C). SEE SPECIFICATION FOR ADDITIONAL INFORMATION.

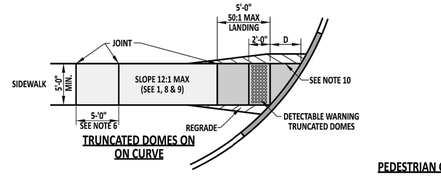




SECTION A-A



SECTION B-B



TRUNCATED DOMES ON ON CURVE

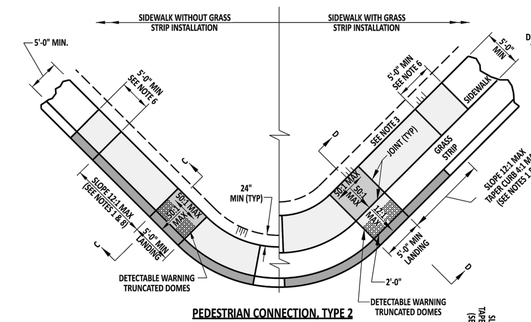
NOTES:
1). FOR ALTERATIONS WHERE THE MAXIMUM ALLOWABLE 12:1 RUNNING SLOPE WILL NOT MEET THE EXISTING SIDEWALK GRADE WITHIN A LENGTH OF 15'-0", THE SLOPED SEGMENT OF THE PEDESTRIAN CONNECTION MAY BE LIMITED TO 15'-0" AT A CONSTANT SLOPE, AND ALLOWED TO EXCEED THE 12:1 MAXIMUM SLOPE.
2). PEDESTRIAN CONNECTION AND SIDEWALK CROSS SLOPE SHALL BE 50:1 (2%) MAXIMUM. FOR REHABILITATION WORK, THE PEDESTRIAN CONNECTION CROSS SLOPE MAY MATCH THE SLOPE OF THE ADJACENT ROADWAY IN ACCORDANCE WITH THE LATEST VERSION OF THE PAS MANUAL.
3). A 6:1 GRADE IS REQUIRED FOR A MINIMUM OF 2'-0" IMMEDIATELY ADJACENT TO THE PEDESTRIAN CONNECTION.
4). THE MAXIMUM ALGEBRAIC DIFFERENCE IN GRADE BETWEEN THE PEDESTRIAN CONNECTION OR MODIFIED CURB AT THE FLOW LINE AND THE PAVEMENT SHALL BE 13.3%, HOWEVER 11% IS PREFERRED.
5). LANDING AREA SHALL BE DELINEATED WITH JOINTS.
6). FOR REHABILITATION WORK, PLACE TRANSITION SLAB TO TRANSITION FROM THE NEW PEDESTRIAN CONNECTION TO THE EXISTING SIDEWALK WHEN THE EXISTING SIDEWALK HAS A NON-CONFORMING RUNNING SLOPE, CROSS SLOPE, OR WIDTH. ADJACENT CURB TAPER SHOULD MATCH THE SLOPE OF THE TRANSITION SLAB.
7). REFER TO THE DELAWARE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES FOR DETAILS REGARDING THE LOCATION OF PEDESTRIAN PUSH BUTTONS.
8). CONSTRUCTION JOINTS ARE REQUIRED ON RAMPS AT THE INTERVAL SPECIFIED IN NOTE 6 ON DETAIL M-3, SHEET 1 OF 1. HOWEVER, EXPANSION MATERIAL SHALL NOT BE USED IN THE PEDESTRIAN CONNECTION SECTION.
9). IF THE RUNNING SLOPE IS LESS THAN 20:1 (5%) THEN THE 50:1 (2%) LANDING CAN BE OMITTED. DETECTABLE WARNING SYSTEM MUST STILL BE PLACED.
10). FOR INSTALLATIONS ON A RADIUS AND WHEN DIMENSION D IS LESS THAN 5'-0", THE DETECTABLE WARNING TRUNCATED DOMES SYSTEM SHALL BE INSTALLED AT THE INTERSECTION OF THE BACK OF THE CURB AND THE BEGINNING OF THE FULL WIDTH OF THE PEDESTRIAN ACCESS ROUTE. THE DOMES SHALL BE INSTALLED PERPENDICULAR TO THE PATH OF THE PEDESTRIAN TRAVEL AND BE THE FULL WIDTH OF THE PEDESTRIAN ACCESS ROUTE.

PEDESTRIAN CONNECTION, TYPE 1

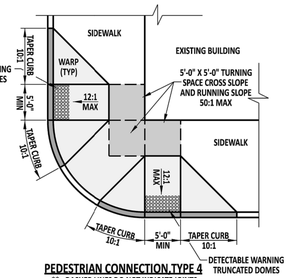
DELAWARE DEPARTMENT OF TRANSPORTATION	PEDESTRIAN CONNECTION, TYPE 1 AND SECTIONS			APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER)	1/04/2019 (DATE)
	STANDARD NO. C-2 (2018)	SHT. 1	OF 3	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER)	12/20/2018 (DATE)

1/7/2019

SCALE : NTS

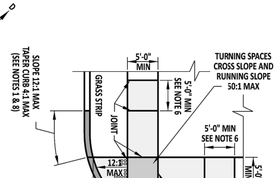


PEDESTRIAN CONNECTION, TYPE 2

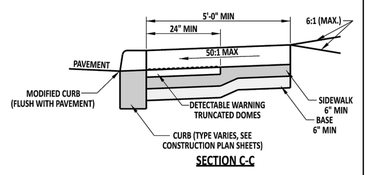


PEDESTRIAN CONNECTION, TYPE 4

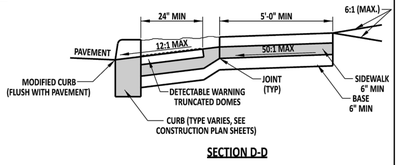
** - DASHED LINES DO NOT INDICATE JOINTS



PEDESTRIAN CONNECTION, TYPE 3



SECTION C-C

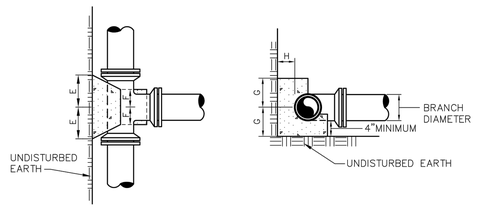


SECTION D-D

NOTES:
1). FOR ALTERATIONS WHERE THE MAXIMUM ALLOWABLE 12:1 RUNNING SLOPE WILL NOT MEET THE EXISTING SIDEWALK GRADE WITHIN A LENGTH OF 15'-0", THE SLOPED SEGMENT OF THE PEDESTRIAN CONNECTION MAY BE LIMITED TO 15'-0" AT A CONSTANT SLOPE, AND ALLOWED TO EXCEED THE 12:1 MAXIMUM SLOPE.
2). PEDESTRIAN CONNECTION AND SIDEWALK CROSS SLOPE SHALL BE 50:1 (2%) MAXIMUM. FOR REHABILITATION WORK, THE PEDESTRIAN CONNECTION CROSS SLOPE MAY MATCH THE SLOPE OF THE ADJACENT ROADWAY IN ACCORDANCE WITH THE LATEST VERSION OF THE PAS MANUAL.
3). A 6:1 GRADE IS REQUIRED FOR A MINIMUM OF 2'-0" IMMEDIATELY ADJACENT TO THE PEDESTRIAN CONNECTION.
4). THE MAXIMUM ALGEBRAIC DIFFERENCE IN GRADE BETWEEN THE PEDESTRIAN CONNECTION OR CURB AND THE PAVEMENT SHALL BE 13.3%, HOWEVER 11% IS PREFERRED.
5). LANDING AREA SHALL BE DELINEATED WITH JOINTS.
6). FOR REHABILITATION WORK, PLACE TRANSITION SLAB TO TRANSITION FROM THE NEW PEDESTRIAN CONNECTION TO THE EXISTING SIDEWALK WHEN THE EXISTING SIDEWALK HAS A NON-CONFORMING RUNNING SLOPE, CROSS SLOPE, OR WIDTH. ADJACENT CURB SHOULD MATCH THE SLOPE OF THE TRANSITION SLAB.
7). REFER TO DELAWARE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES FOR DETAILS REGARDING THE LOCATION OF PEDESTRIAN PUSH BUTTONS.
8). CONSTRUCTION JOINTS ARE REQUIRED AT THE INTERVALS SPECIFIED IN NOTE 6 ON DETAIL M-3, SHEET 1 OF 1. HOWEVER, EXPANSION MATERIAL SHALL NOT BE USED IN THE PEDESTRIAN CONNECTION SECTION.
9). ENTIRE DEPRESSED AREA OF CURB SHALL HAVE DETECTABLE WARNING TRUNCATED DOMES.

DELAWARE DEPARTMENT OF TRANSPORTATION	PEDESTRIAN CONNECTION, TYPES 2, 3, & 4			APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER)	1/04/2019 (DATE)
	STANDARD NO. C-2 (2018)	SHT. 2	OF 3	RECOMMENDED	SIGNATURE ON FILE (DESIGN ENGINEER)	12/20/2018 (DATE)

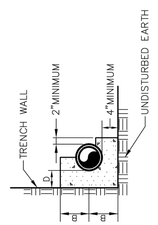
1/7/2019



PLAN PROFILE

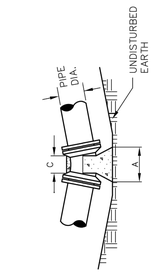
DIMENSION SCHEDULE					
BRANCH DIA.	6"	8"	10"	12"	16"
E	8"	10"	1'-0"	1'-3"	1'-8"
F	6"	8"	8"	8"	10"
G	7"	9"	1'-0"	1'-2"	1'-6"
H	8"	9"	10"	1'-0"	1'-2"

DATE:	REVISION NO.:	APPROVED:
CITY OF MILFORD DEPARTMENT OF PUBLIC WORKS WATER & WASTEWATER DIVISION CONSTRUCTION STANDARDS		TEE AND WYE DETAIL NO SCALE
		SECTION - 2 / DRAWING: D2-9



PROFILE

DIMENSION SCHEDULE											
		11 1/4°				22 1/2°				90°	
BEND		6"	8"	10"	12"	16"	6"	8"	10"	12"	16"
PIPE DIA.		8"	10"	12"	16"		8"	10"	12"	16"	
	A	6"	8"	1'-0"	1'-4"		9"	1'-0"	1'-6"	1'-9"	2'-3"
	B	7"	8"	10"	1'-0"		7"	8"	9"	10"	1'-0"
	C	4"	6"	10"	1'-0"		4"	6"	8"	10"	1'-0"
	D	7"	7"	8"	9"		8"	9"	10"	11"	1'-2"
		45°					60°				
BEND		6"	8"	10"	12"	16"	6"	8"	10"	12"	16"
PIPE DIA.		1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"
	A	7"	8"	9"	1'-1"	1'-3"	6"	9"	1'-0"	1'-3"	1'-6"
	B	4"	6"	8"	10"	1'-0"	4"	6"	8"	10"	1'-0"
	C	8"	9"	10"	11"	1'-2"	1'-5"	1'-7"	1'-8"	1'-9"	1'-10"



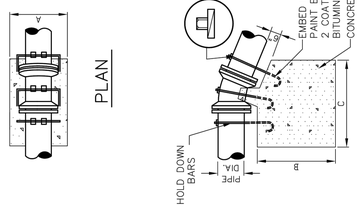
PLAN

DATE:	REVISION NO.:	APPROVED:
CITY OF MILFORD DEPARTMENT OF PUBLIC WORKS WATER & WASTEWATER DIVISION CONSTRUCTION STANDARDS		HORIZONTAL BEND DETAIL NO SCALE
		SECTION - 2 / DRAWING: D2-10

DIMENSION SCHEDULE											
		11 1/4°				22 1/2°				45°	
BEND		6"	8"	10"	12"	16"	6"	8"	10"	12"	16"
PIPE DIA.		8"	10"	12"	16"		10"	12"	16"		
	A	6"	8"	1'-0"	1'-4"		1'-0"	1'-4"	2'-0"		
	B	7"	8"	1'-0"	1'-4"		1'-0"	1'-4"	2'-0"		
	C	4"	6"	8"	10"		6"	8"	10"		
	D	7"	8"	9"	11"		9"	11"	1'-2"		
		45°					60°				
BEND		6"	8"	10"	12"	16"	6"	8"	10"	12"	16"
PIPE DIA.		1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	4'-6"
	A	7"	8"	9"	1'-1"	1'-3"	6"	9"	1'-0"	1'-3"	1'-6"
	B	4"	6"	8"	10"	1'-0"	4"	6"	8"	10"	1'-0"
	C	8"	9"	10"	11"	1'-2"	1'-5"	1'-7"	1'-8"	1'-9"	1'-10"

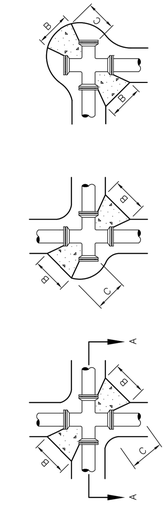
DIMENSION SCHEDULE											
		11 1/4°				22 1/2°				45°	
BEND		6"	8"	10"	12"	16"	6"	8"	10"	12"	16"
PIPE DIA.		8"	10"	12"	16"		10"	12"	16"		
	A	6"	8"	1'-0"	1'-4"		1'-0"	1'-4"	2'-0"		
	B	7"	8"	1'-0"	1'-4"		1'-0"	1'-4"	2'-0"		
	C	4"	6"	8"	10"		6"	8"	10"		
	D	7"	8"	9"	11"		9"	11"	1'-2"		
		45°					60°				
BEND		6"	8"	10"	12"	16"	6"	8"	10"	12"	16"
PIPE DIA.		1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	4'-6"
	A	7"	8"	9"	1'-1"	1'-3"	6"	9"	1'-0"	1'-3"	1'-6"
	B	4"	6"	8"	10"	1'-0"	4"	6"	8"	10"	1'-0"
	C	8"	9"	10"	11"	1'-2"	1'-5"	1'-7"	1'-8"	1'-9"	1'-10"

BAR SCHEDULE					
		REINFORCING BARS			
SIZE	11 ¼	22½	45°	60°	90°
6"	3 #6	3 #6	3 #6	3 #6	3 #6
8"	3 #6	3 #6	3 #6	3 #6	3 #6
10"	3 #6	3 #6	3 #6	3 #6	3 #6
12"	3 #6	3 #6	3 #6	3 #6	3 #6
16"	3 #6	3 #6	3 #6	3 #6	3 #6



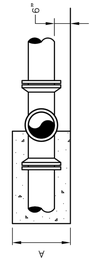
PLAN PROFILE

DATE:	REVISION NO.:	APPROVED:
CITY OF MILFORD DEPARTMENT OF PUBLIC WORKS WATER & WASTEWATER DIVISION CONSTRUCTION STANDARDS		VERTICAL DOWNWARD BEND DETAIL NO SCALE
		SECTION - 2 / DRAWING: D2-11



PLAN VIEW

DIMENSION SCHEDULE		
UNDISTURBED EARTH BRANCH DIA.	6"	10"
A	1'-9"	2'-6" 3'-0"
B	1'-2"	1'-4" 2'-0"
C	2'-6"	UNDISTURBED SOIL



SECTION A

DATE:	REVISION NO.:	APPROVED:
CITY OF MILFORD DEPARTMENT OF PUBLIC WORKS WATER & WASTEWATER DIVISION CONSTRUCTION STANDARDS		CROSS DETAIL NO SCALE
		SECTION - 2 / DRAWING: D2-12

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
ANNAPOLIS, MARYLAND (410) 224-4411
EASTON, MARYLAND (410) 770-4744

UTILITY DETAILS

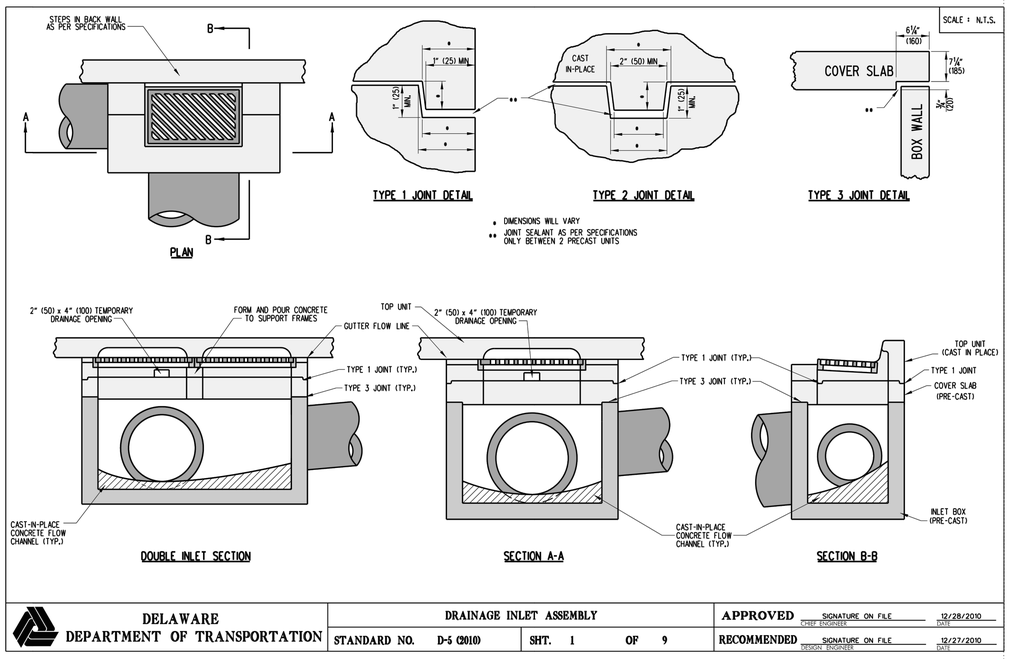
MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JUNE 2020
Scale: AS SHOWN
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C4.5

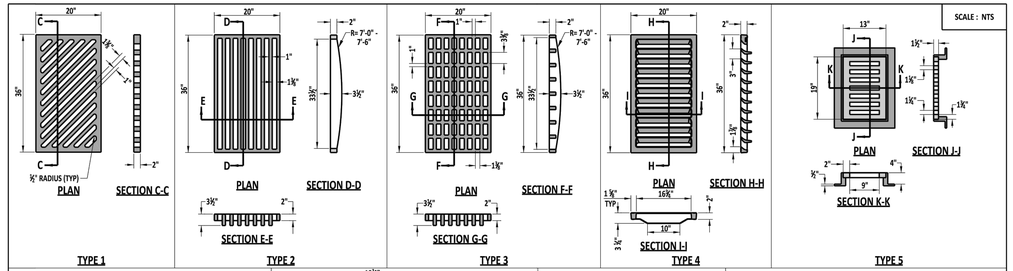
THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\UTILITY DETAILS.dwg Oct 15 , 2020 - 10:56am mcka



DELAWARE DEPARTMENT OF TRANSPORTATION	DRAINAGE INLET ASSEMBLY			APPROVED SIGNATURE ON FILE CHIEF ENGINEER	12/28/2010 DATE
	STANDARD NO. D-5 (2010)	SHT. 1 OF 9		RECOMMENDED SIGNATURE ON FILE DESIGN ENGINEER	12/27/2010 DATE

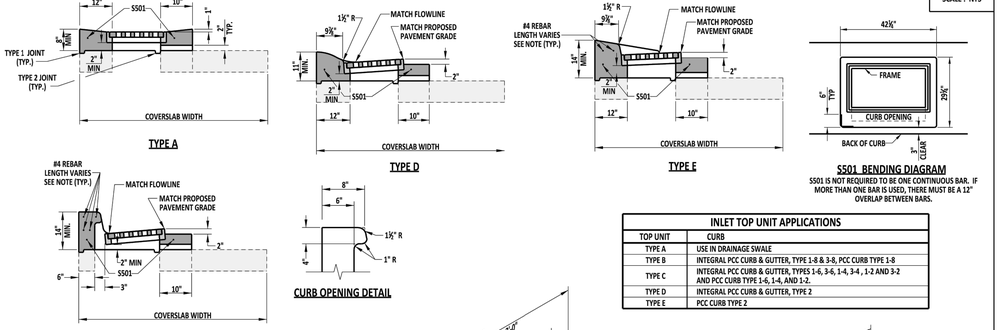
10/26/2010



NOTES:
1). ONLY INSTALL THE TYPE 2 DRAINAGE INLET GRATE WHERE BICYCLE TRAFFIC IS NOT EXPECTED TO BE PRESENT.
2). LABEL THE TOP OF ALL DRAINAGE INLET GRATES, EXCEPT TYPE 7, WITH "ONLY RAIN DOWN THE STORM DRAIN". ALSO, LABEL DRAINAGE INLET GRATES TYPE 1 AND TYPE 4 WITH "WATER FLOW" AND AN ARROW INDICATING FLOW DIRECTION AS SHOWN IN THE EXAMPLE DETAIL.
3). LABEL THE TOP AND BOTTOM OF THE TYPE 1 DRAINAGE INLET GRATE WITH "CURBSIDE" AS SHOWN ON THE EXAMPLE DETAIL.
4). ONLY USE THE TYPES 5 & 6 DRAINAGE INLET FRAME AND GRATE COMBINATIONS ON LAWN INLET DRAINAGE BOXES. SEE SCHEDULE ON DETAIL D-4, SHEET 1 FOR WHICH BOX SIZES ARE CONSIDERED LAWN INLET DRAINAGE BOXES.
5). THE TYPE 6 DRAINAGE INLET FRAME AND GRATE COMBINATION SHOWN IS THE NEENAH FOUNDRY FRAME AND GRATE COMBINATION MODEL NF-1879-A5G, AN ACCEPTABLE ALTERNATIVE IS THE EAST JORDAN IRON WORKS FRAME AND GRATE COMBINATION MODEL V-5622.

DELAWARE DEPARTMENT OF TRANSPORTATION	DRAINAGE INLET FRAME AND GRATES			APPROVED SIGNATURE ON FILE CHIEF ENGINEER	12/30/2014 DATE
	STANDARD NO. D-5 (2014)	SHT. 2 OF 9		RECOMMENDED SIGNATURE ON FILE DESIGN ENGINEER	12/11/2014 DATE

12/4/2014



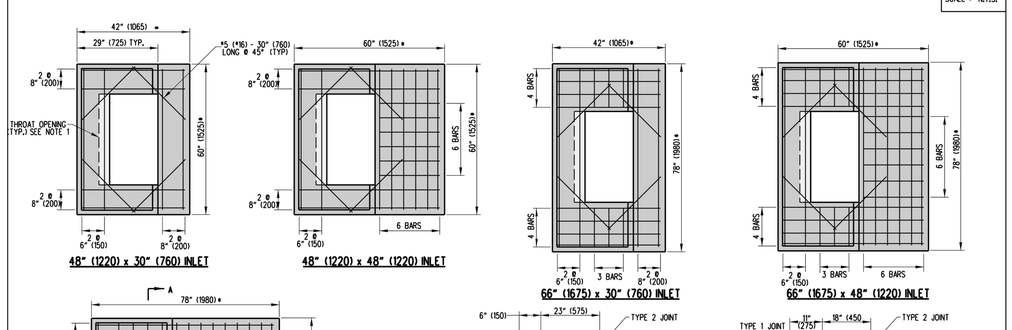
INLET TOP UNIT APPLICATIONS	
TOP UNIT	CURB
TYPE A	USE IN DRAINAGE SWALE
TYPE B	INTEGRAL PCC CURB & GUTTER, TYPE 1-8 & 3-8, PCC CURB TYPE 1-8
TYPE C	INTEGRAL PCC CURB & GUTTER, TYPES 1-6, 3-6, 1-4, 3-4 , 1-2 AND 3-2 AND PCC CURB TYPE 1-6, 1-4, AND 1-2.
TYPE D	INTEGRAL PCC CURB & GUTTER, TYPE 2
TYPE E	PCC CURB TYPE 2

* - THIS DIMENSION VARIES BASED ON THE HEIGHT OF THE CURB AND GUTTER OR CURB USED:
- INTEGRAL P.C.C. CURB AND GUTTER, TYPES 1-6 AND 3-6 & CURB, TYPE 1-6 - 12" MIN.
- INTEGRAL P.C.C. CURB AND GUTTER, TYPES 1-4 AND 3-4 & CURB, TYPE 1-4 - 10" MIN.
- INTEGRAL P.C.C. CURB AND GUTTER, TYPES 1-2 AND 3-2 & CURB, TYPE 1-2 - 8" MIN.

NOTE: LENGTH OF #4 REBAR SHALL BE THE OUTSIDE OF THE DRAINAGE INLET BOX PLUS 2'-9".

DELAWARE DEPARTMENT OF TRANSPORTATION	DRAINAGE INLET TOP UNITS			APPROVED SIGNATURE ON FILE CHIEF ENGINEER	01/07/2013 DATE
	STANDARD NO. D-5 (2012)	SHT. 3 OF 9		RECOMMENDED SIGNATURE ON FILE DESIGN ENGINEER	12/20/2012 DATE

12/4/2012



NOTES :
1). RELOCATE ENCROACHING REINFORCING BARS WHEN USING TYPE B UNIT.
2). COVER SLABS SHALL BE PRECAST AND MUST BE SIZED TO FIT INLET BOX DIMENSIONS.
3). ALL BARS ARE TO BE *5 (*16) SPACED @ 6" (150) UNLESS NOTED OTHERWISE. TOP REINFORCEMENT SHALL BE 0.11 IN^2/FT (70 mm^2) HORIZONTAL REINFORCEMENT PER FOOT IN BOTH DIRECTIONS.
4). MINIMUM BAR COVER = 1 ½" (38).

* - DIMENSIONS TO MATCH OUTSIDE TO OUTSIDE DIMENSIONS OF BOX.

DELAWARE DEPARTMENT OF TRANSPORTATION	DRAINAGE INLET COVER SLAB DETAILS			APPROVED SIGNATURE ON FILE CHIEF ENGINEER	12/28/2010 DATE
	STANDARD NO. D-5 (2010)	SHT. 4 OF 9		RECOMMENDED SIGNATURE ON FILE DESIGN ENGINEER	12/27/2010 DATE

12/31/2010

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

UTILITY DETAILS

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

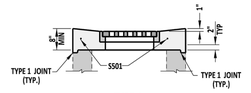
Revisions:

Date: JUNE 2020
Scale: AS SHOWN
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C4.6

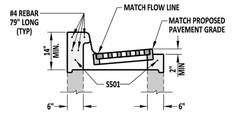
THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\UTILITY DETAILS.dwg Oct 15, 2020 - 10:56am mcka

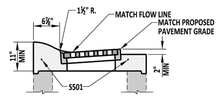
SCALE : NTS



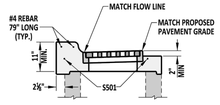
TYPE A



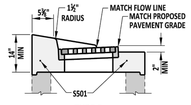
TYPE B



TYPE D



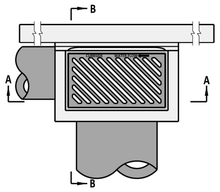
TYPE C



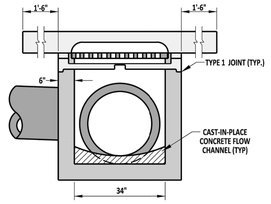
TYPE E

TOP UNIT DETAILS

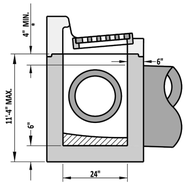
NOTE: SEE DETAIL D-5, SHEET 3 OF 9 FOR INLET TOP UNIT APPLICATIONS.



TOP VIEW



SECTION A-A



SECTION B-B

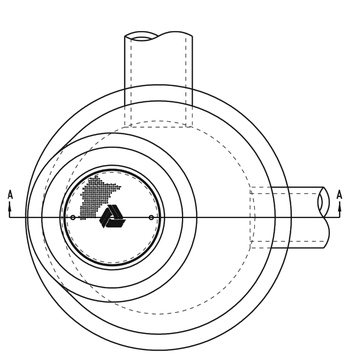
DRAINAGE INLET DETAILS

NOTE: REFER TO PREVIOUS SHEETS FOR REINFORCING REQUIREMENTS
* - SEE OPTIONAL PIPE OPENING DETAIL ON STANDARD NO. D-4, SHEET 1 OF 1

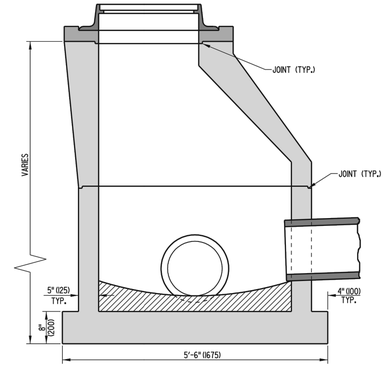
DELAWARE DEPARTMENT OF TRANSPORTATION	34" x 24" DRAINAGE INLET DETAILS			APPROVED	SIGNATURE ON FILE (CHIEF ENGINEER)	01/07/2013 (DATE)
	STANDARD NO. D-5 (2012)	SHT. 6 OF 9		RECOMMENDED	SIGNATURE ON FILE (TRANSPORTATION ENGINEER)	12/20/2012 (DATE)

12/4/2012

SCALE : N.T.S.



PLAN



SECTION A-A

ROUND MANHOLE ASSEMBLY

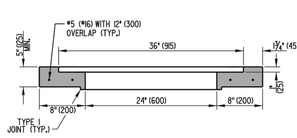
NOTE: ROUND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.

DELAWARE DEPARTMENT OF TRANSPORTATION	MANHOLE DETAILS			APPROVED	(CHIEF ENGINEER)	6/18/01 (DATE)
	STANDARD NO. D-6 (2001)	SHT. 2 OF 4		RECOMMENDED	(TRANSPORTATION ENGINEER)	6/15/01 (DATE)

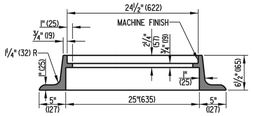
06/06/2001

SCALE : N.T.S.

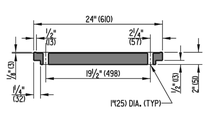
NOTE: TOP UNIT IS TO BE CAST IN PLACE TO GRADE AS SPECIFIED ON PLAN SHEETS OR AS DIRECTED BY ENGINEER.



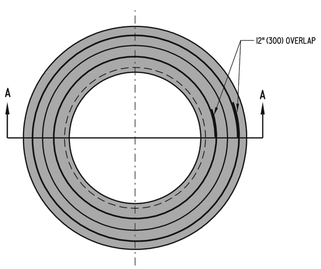
SECTION A-A



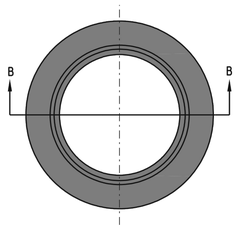
SECTION B-B



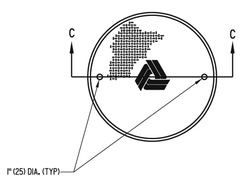
SECTION C-C



TOP UNIT



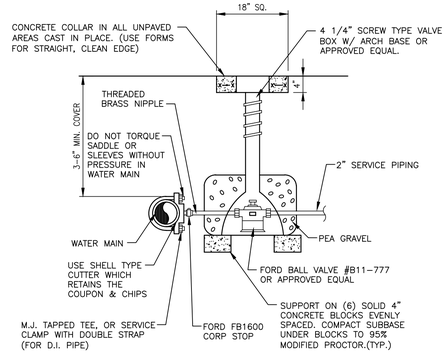
FRAME



COVER

DELAWARE DEPARTMENT OF TRANSPORTATION	MANHOLE DETAILS			APPROVED	(CHIEF ENGINEER)	6/18/01 (DATE)
	STANDARD NO. D-6 (2001)	SHT. 3 OF 4		RECOMMENDED	(TRANSPORTATION ENGINEER)	6/15/01 (DATE)

05/21/2001



2" SERVICE CURB STOP & BOX DETAIL

NOT TO SCALE

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

UTILITY DETAILS

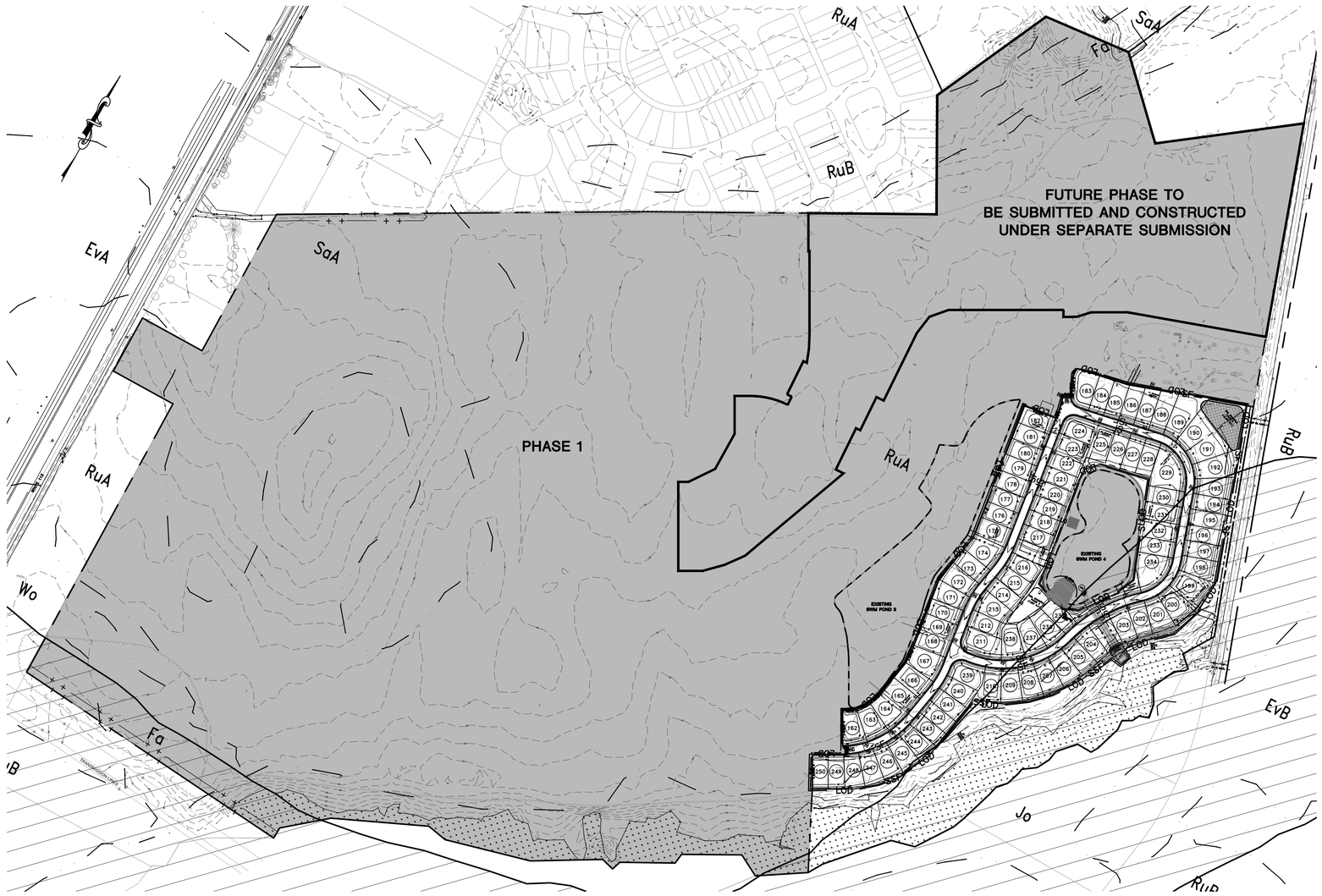
MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	AS SHOWN
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C4.7

P:\2875\2875A001\current working folder\dwgs\PHASE 2\UTILITY DETAILS.dwg Oct 15, 2020 - 10:58am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



SEDIMENT & STORMWATER CONSTRUCTION NOTES

1. THE DNREC SEDIMENT AND STORMWATER PROGRAM SHALL BE NOTIFIED IN WRITING 5 DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. REVIEW AND/OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
3. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY DNREC OR THE DELEGATED AGENCY.
4. FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED FOR ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WITHIN 14 CALENDAR DAYS UNLESS MORE RESTRICTIVE FEDERAL REQUIREMENTS APPLY.
5. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
6. AT ANY TIME A DEWATERING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEWATERING PERMIT SHOULD BE APPROVED BY THE DNREC WELL PERMITTING BRANCH.
7. APPROVED PLANS REMAIN VALID FOR 5 YEARS FROM THE DATE OF APPROVAL.
8. POST CONSTRUCTION VERIFICATION DOCUMENTS SHALL BE SUBMITTED TO THE DEPARTMENT OR DELEGATED AGENCY WITHIN 60-DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.
9. APPROVAL OF A SEDIMENT AND STORMWATER MANAGEMENT PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
10. THE NOTICE OF INTENT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER A NPDES GENERAL PERMIT FOR THIS PROJECT IS #6085. THE PERMITTEE OF RECORD SHALL NOT BE RELIEVED OF THEIR RESPONSIBILITIES UNTIL A NOTICE OF TERMINATION HAS BEEN PROCESSED BY THE DEPARTMENT.
11. THE OWNER SHALL BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.
12. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
13. BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHOULD CALL MISS UTILITY AT 811 OR 1-800-282-8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.
14. BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7 DEL.C. CH. 60 AND THE CURRENT DELAWARE CONSTRUCTION GENERAL PERMIT (CGP).
15. DOCUMENTATION OF SOIL TESTING AND MATERIALS USED FOR TEMPORARY OR PERMANENT STABILIZATION INCLUDING BUT NOT LIMITED TO SOIL TEST RESULTS, SEED TAGS, SOIL AMENDMENT TAGS, ETC. SHALL BE PROVIDED TO THE DEPARTMENT OR DELEGATED AGENCY TO VERIFY THAT THE PERMANENT OR TEMPORARY STABILIZATION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN.
16. THE DEPARTMENT OR DELEGATED AGENCY MAY REQUIRE ADDITIONAL SOIL TESTING AND REAPPLICATION OF PERMANENT OR TEMPORARY STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, OR ALTERNATIVE MEASURES THAT PROVIDE FUNCTIONAL EQUIVALENCY.
17. THE SITE CONTRACTOR, UNDER THE DIRECTION OF THE OWNER SHALL MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PRACTICES DURING UTILITY INSTALLATION.
18. THE OWNER SHALL ACQUIRE THE SERVICES OF A THIRD PARTY CERTIFIED CONSTRUCTION REVIEWER (CCR) TO PERFORM WEEKLY CONSTRUCTION REVIEWS OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN ELEMENTS, AS WELL AS CONSTRUCTION REVIEWS OF INSTALLATION OF STORMWATER MANAGMEMNT SYSTEMS. THE DEPARTMENT OR DELEGATED AGENCY MAY, AT ITS DISCRETION AND FOLLOWING A WRITTEN REQUEST, MODIFY CCR REPORTING FREQUENCY IF SITE CONDITIONS WARRANT.
19. UPON COMPLETION OF THE PROJECT, THE OWNER AND/OR HOME OWNERS ASSOCIATION WILL BE RESPONSIBLE FOR PERPETUAL MAINTENANCE OF THE STORMWATER FACILITIES.
20. ALL AREAS NOT COVERED BY BUILDING OR PAVEMENT WILL BE SEEDED USING PERMANENT SEED MIXTURE SHOWN ON THIS PLAN.
21. PROVIDE EROSION CONTROL MATTING ON ALL SLOPES 3:1 OR GREATER, AND IN ALL AREAS OF CONCENTRATED FLOW. PROVIDE EROSION CONTROL FABRIC BENEATH ALL STONE APPLICATIONS WITH THE EXCEPTION OF CHECK DAMS.
22. UPON COMPLETION OF STOCKPILING TOPSOIL, SEED AND MULCH USING TEMPORARY SEED MIXTURE #5 IF TO REMAIN IN PLACE LONGER THAN FOURTEEN (14) DAYS.
23. TEMPORARY STABILIZATION:
    A. TEMPORARY SEEDING/ STABILIZATION IS TO BE CONDUCTED WITHIN 14 DAYS OF DISTURBANCE AND IS NOT LIMITED TO SPECIFIC DATES.
    B. SEEDBED PREPARATION: SEEDBED SHALL BE WELL PREPARED, LOOSE, UNIFORM, AND FREE OF LARGE CLODS, ROCKS, AND OTHER OBJECTIONABLE MATERIAL. THE SOIL SURFACE SHOULD NOT BE COMPACTED OR CRUSTED.
    C. SEEDING: APPLY 4 LBS. PER 1000 SQ. FT. OF RYE GRASS. REFER TO FIGURE 3.4.3 ON SHEET C7.19 FOR TEMPORARY SEEDING GUIDELINES AND OPTIMUM SEEDING DATES.
    D. MULCH: STRAW SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE, OR 70 TO 90 LBS. (TWO BALES) PER 1000 SQ. FT.. MULCH MATERIALS SHALL BE RELATIVELY FREE OF WEEDS AND SHALL BE FREE OF NOXIOUS WEEDS SUCH AS: THISTLES, JOHNSON GRASS, AND QUACKGRASS. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY. MULCH MUST BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER, ANCHORING SHALL BE COMPLETED BY THE CRIMPING OR ANCHORING METHOD WHERE APPLICABLE.
24. SEEDING (PERMANENT):
    A. SHALL BE CONDUCTED AS SOON AS WEATHER PERMITS.
    B. THE APPLICATION RATES OF FERTILIZER AND LIME SHOULD BE ACCORDING TO THE RECOMMENDATION OF THE ON SITE SOIL TESTS. IF THE SOIL TESTING IS NOT AVAILABLE, THEN THE FOLLOWING SPECIFIED RATES MAY BE USED.
    C. SEEDBED PREPARATION: APPLY 14 LBS. OF 10-10-10 FERTILIZER PER 1000 SQ. FT.; HARROW OR DISC INTO THE TOP 4 TO 6 INCHES OF SOIL; APPLY DOLOMITIC LIMESTONE AT 92 LBS. PER 1000 SQ. FT.
    D. SEEDING: APPLY 3.5 LBS. PER 1000 SQ. FT. OF SEED MIX #7 ON A MOIST SEED BED WITH SUITABLE EQUIPMENT. MINIMUM COVERAGE IS 1/4 INCH. REFER TO FIGURE 3.4.5 ON SHEET C7.19 FOR SEEDING GUIDELINES AND OPTIMUM SEEDING DATES.
    E. MULCHING: IMMEDIATELY AFTER SEEDING, UNIFORMLY MULCH ENTIRE AREA WITH UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE IN 1-1/2 TO 2 TONS PER ACRE, OR 70 TO 90 LBS. (TWO BALES) PER 1000 SQ. FT.. MULCH MATERIALS SHALL BE RELATIVELY FREE OF WEEDS AND SHALL BE FREE OF NOXIOUS WEEDS SUCH AS: THISTLES, JOHNSON GRASS, AND QUACKGRASS. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY. MULCH MUST BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER, ANCHORING SHALL BE COMPLETED BY THE CRIMPING OR ANCHORING METHOD WHERE APPLICABLE
25. IF TEMPORARY STABILIZATION IS REQUESTED, PERMANENT SEEDING SHALL BE PERFORMED DURING THE NEXT APPLICABLE PERIOD PER PARAGRAPH 23 (D) ABOVE.
26. ALL FILL SLOPE AREAS SHOWN HEREON ARE TO BE STABILIZED PER PARAGRAPHS 23 OR 24 ABOVE IMMEDIATELY AFTER COMPLETION OF GRADING OPERATIONS FOR THESE SLOPES.
27. TEMPORARY VEGETATIVE COVER, MULCHING, AND/OR SPRINKLING WITH WATER SHALL BE THE METHODS USED AS NECESSARY TO CONTROL DUST.
28. THE DNREC DIVISION OF WATERSHED STEWARDSHIP SEDIMENT AND STORMWATER PROGRAM RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE INSPECTION.
29. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ESTABLISHED.
30. SILT FENCE LINE IS THE LIMIT OF DISTURBANCE, TOTAL AREA OF DISTURBANCE

SEQUENCE OF CONSTRUCTION

1. NOTIFY THE DNREC SEDIMENT AND STORMWATER PROGRAM IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES OR GRADING, A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED AND CONDUCTED WITH THE AGENCY CONSTRUCTION SITE REVIEWER. THE LANDOWNER/DEVELOPER, CONTRACTOR, AND CERTIFIED CONSTRUCTION REVIEWER ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING; THE DESIGNER IS RECOMMENDED TO ATTEND.
3. ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.
4. THE CONTRACTOR SHOULD AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHOULD BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENTATION ON THE SITE. ACCUMULATED SEDIMENT SHOULD BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR REPAIR MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
5. NOTIFY THE PERSON RESPONSIBLE FOR STORMWATER SYSTEM CONSTRUCTION REVIEW AT LEAST 3 DAYS PRIOR TO THE START OF THE STORMWATER SYSTEM CONSTRUCTION; STORMWATER FACILITIES MUST BE REVIEWED THROUGHOUT THEIR CONSTRUCTION.
6. CONSTRUCTION REVIEWS WILL BE REQUIRED DURING THE FOLLOWING STAGES OF CONSTRUCTION:
    - PRE-CONSTRUCTION MEETING
    - INITIAL SITE-PREPARATION INCLUDING INSTALLATION OF EROSION & SEDIMENT CONTROLS
    - CONSTRUCTION OF THE EMBANKMENT, INCLUDING THE INSTALLATION OF THE PRINCIPAL SPILLWAY AND THE OUTLET STRUCTURE
    - EXCAVATION AND GRADING INCLUDING INTERIM AND FINAL ELEVATIONS
    - IMPLEMENTATION OF THE PLANTING PLAN AND VEGETATIVE STABILIZATION
    - FINAL INSPECTION INCLUDING DEVELOPMENT OF A PUNCH LIST FOR FACILITY ACCEPTANCE.
7. EROSION AND SEDIMENT CONTROL DEVICES TO BE REMOVED ONLY AFTER WORK IN AN AREA HAS BEEN COMPLETED AND STABILIZED, WITH WRITTEN APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER.
8. PRIOR TO COMMENCING A NEW PHASE OF CONSTRUCTION, THE CONTRACTOR SHALL RECEIVE APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER THAT THE PREVIOUS PHASE HAS BEEN SUFFICIENTLY STABILIZED.
9. THE CONTRACTOR IS NOT TO EXCEED THE LIMIT OF DISTURBANCE SHOWN PER PHASE.
10. THE TERMINATION OF THE CONSTRUCTION GENERAL PERMIT WILL REQUIRE SUBMISSION AND ACCEPTANCE OF THE POST CONSTRUCTION VERIFICATION DOCUMENTS, INCLUDING FINAL STABILIZATION THROUGHOUT THE SITE, ALL ELEMENTS OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN IMPLEMENTED, AND ACCEPTANCE OF THE FINAL OPERATION AND MAINTENANCE PLAN.

PHASE 2 (18.60±AC.)

A. SUSSEX CONSERVATION APPROVAL IS REQUIRED AND NECESSARY TO START WORK IN THIS PHASE.
B. ESTABLISH STABILIZED CONSTRUCTION ENTRANCE.
C. INSTALL SILT FENCE AROUND ENTIRE PHASE PERIMETER. SUPER SILT FENCE SHALL BE USED ADJACENT TO THE WETLANDS.
D. INSTALL PUMPING PIT TO DEWATER POND 4. DISCHARGE DEWATERING PIPE INTO POND 4 OUTLET STRUCTURE.
E. INSTALL TURBIDITY CURTAIN IN POND 4.
F. ADJUST GRADING IN ON POND 4 AREA PER GRADING PLAN. STABILIZE SIDE SLOPES WITH TURF REINFORCED MATTING.
G. BULK GRADE SITE IN PHASE 2 AREA.
H. CLEAR, GRUB, AND ROUGH GRADE ROADWAYS IN PHASE 2 AREA.
I. INSTALL UTILITIES AND STORM DRAIN SYSTEM IN PHASE 2. INSTALL INLET PROTECTION ON ALL STORM INLETS.
J. FINE GRADE ROADWAYS, INSTALL CURBING AND ROADWAY AGGREGATE BASE COURSE. NO HOME CONSTRUCTION SHALL BEGIN UNTIL THE STONE BASE AND CURBING HAS BEEN INSTALLED FOR THE PHASE.
K. BEGIN LOT GRADING AND HOME CONSTRUCTION. (SEE DETAIL ON SHEET C5.5).
L. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL NOTES.
M. REMOVE SEDIMENT FROM SEDIMENT TRAP, AND STABILIZE AS NECESSARY. INSPECT AND REPAIR ALL INLET PROTECTION.
N. CONTACT SUSSEX CONSERVATION DISTRICT FOR INSPECTION. REMOVE REMAINING TEMPORARY EROSION CONTROL MEASURES (I.E.-SILT FENCE, INLET PROTECTION, ETC.).

SOILS

LABEL	NAME	HYDROLOGIC SOIL GROUP
Fa	Fallsington	B/D
Jo	Johnston	D
RuA,RuB	Rumford	B
SaA	Sassafras	B
Wo	Woodstown	C

SEDIMENT TRAP SIZING (PHASE 1 PONDS)

BASIN	AREA	STORAGE REQUIRED	STORAGE PROVIDED
POND 3	70.67 AC	254,412 CF	255,531 CF @ 26.24'
POND 4	11.31 AC	40,716 CF	40,745 CF @ 23.74'

MAINTENANCE SET ASIDE AREAS (PHASE 1 PONDS)

POND	2 YEAR VOLUME	2% OF 2 YEAR VOLUME	VOLUME PROVIDED
POND 3	170,546 CF	3,411 CF	3,840 CF
POND 4	57,598 CF	1,152 CF	1,225 CF

LIMIT OF DISTURBANCE (18.60± ACRES-PHASE 2)
AREA OF CLEARING (0.74± ACRES-PHASE 2)

* **NOTE:**

NO CONSTRUCTION CAN BEGIN UNTIL PHASE 1, PONDS 3 & 4 ARE COMPLETE AND ALL CONTIGUOUS AREAS ARE STABILIZED.

LEGEND

- IP1 — INLET PROTECTION TYPE 1
- IP2 — INLET PROTECTION TYPE 2
- OUTLET PROTECTION
- TURF REINFORCEMENT MATTING
- LOD — LIMIT OF DISTURBANCE
- SSF — SUPER SILT FENCE
- S — SOIL STOCKPILE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- MSA — MAINTENANCE SET ASIDE AREA
- TC-1(STD) — TURBIDITY CURTAIN
- SDD — SKIMMER DEWATERING DEVICE
- PP-1 — PUMPING PIT - TYPE 1

RESPONSIBLE PERSONNEL CERTIFICATION

I JOEL SENS, OF MILFORD PONDS, LLC, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION, AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN, AND THAT RESPONSIBLE PERSONNEL CERTIFIED BY DNREC WILL BE IN CHARGE OF ON-SITE CLEARING AND LAND DISTURBING ACTIVITIES. ALL SEDIMENT AND STORMWATER MANAGEMENT PLANS SHALL CONTAIN CERTIFICATION BY THE OWNER OR DEVELOPER OF THE RIGHT OF THE DEPARTMENT OR DELEGATED INSPECTION AGENCY TO CONDUCT ON-SITE INSPECTIONS.

SIGNATURE: _____

DATE: _____

TITLE: _____

APPROVED BY _____ DATE _____

SUSSEX CONSERVATION DISTRICT
GEORGETOWN, DELAWARE 19947

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
OCEAN CITY, MARYLAND (410) 524-5141
EASTON, MARYLAND (410) 770-4744

OVERALL EROSION & SEDIMENT CONTROL PLAN

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD

SUSSEX COUNTY, DELAWARE

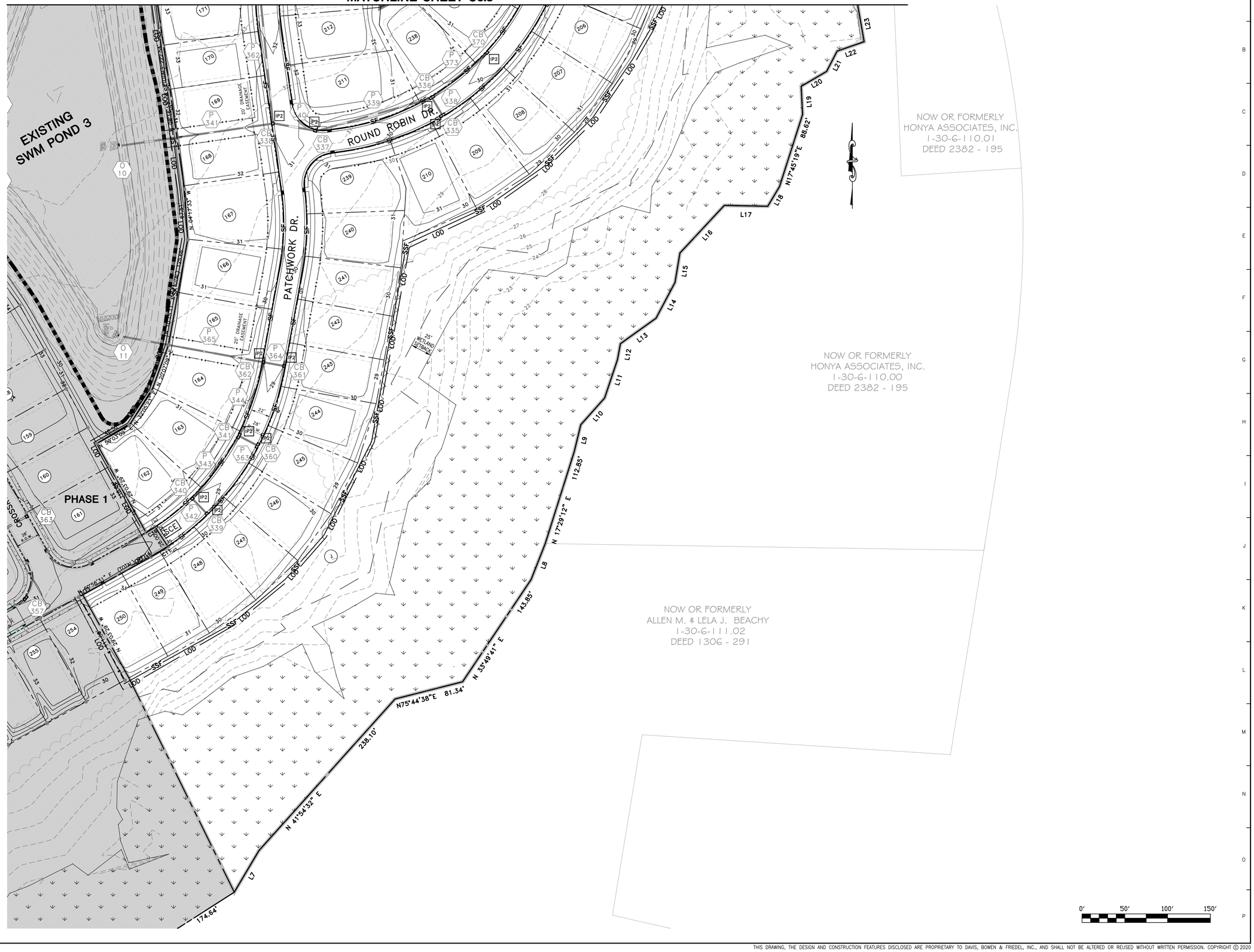
Revisions:

Date: JUNE 2020
Scale: AS SHOWN
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C5.1

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\E&S PLAN.dwg Oct 15, 2020 - 10:56am micka

MATCHLINE SHEET C5.3



DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

EROSION & SEDIMENT CONTROL PLAN

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	AS SHOWN
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C5.2

P:\2875\2875A001\current working folder\dwgs\PHASE 2\E&S PLAN.dwg Oct 15 , 2020 - 10:57am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

FUTURE PHASE TO
BE SUBMITTED AND CONSTRUCTED
UNDER SEPARATE SUBMISSION

PHASE 1

EXISTING
SWM POND 3

EXISTING
SWM POND 4

MSA

SOIL STOCKPILE
PHASE 2
(13,361 S.F.)

SOIL STOCKPILE
PHASE 2
(7,697 S.F.)

SOIL
STABILIZATION
MATTING

PATCHWORK DRIVE

ROUND ROBIN DR

SOUTH WALNUT STREET
(COUNTY ROAD 212)
VARIES R.O.W.

70' EX. R.O.W.

60' EX. R.O.W.

10' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

18' UTILITY EASEMENT, TYP.

28' R.O.W.

22'

20' UTILITY EASEMENT

20' WETLAND BUFFER

TC-1(STD)

SDD

PP-1

MATCHLINE SHEET C5.2

0' 50' 100' 150'

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

EROSION & SEDIMENT CONTROL PLAN

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

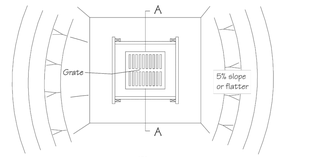
Revisions:

Date:	JUNE 2020
Scale:	AS SHOWN
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	C5.3

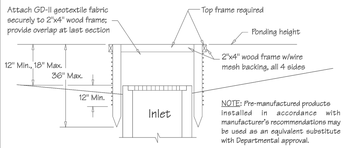
P:\2875\2875A001\current working folder\dwgs\PHASE 2\E&S PLAN.dwg Oct 15, 2020 - 10:57am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

Standard Detail & Specifications
Inlet Protection - Type 1



Plan



Section A-A

Source:	Symbol:	Detail No.
Adapted from Erosion Draw Manual J. McCullah & Assoc.	IP-1	DE-ESC-3.1.5.1 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Inlet Protection - Type 1

Construction Notes:

1. Excavate completely around inlet to a depth of 18" below grate elevation.
2. Drive 2" x 4" post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2" x 4" frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
4. Stretch geotextile fabric tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet grate elevation. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
5. Backfill around inlet in compacted 6" layers until at least 12" of geotextile fabric is buried.
6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
7. This structure must be inspected frequently and the filter fabric replaced when clogged.

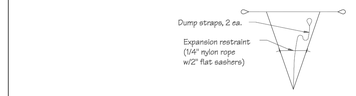
Materials:

1. Wooden frame is to be constructed of 2" x 4" construction grade lumber.
2. Wire mesh must be of sufficient strength to support filter fabric with water fully impounded against it.
3. Geotextile fabric: Type GD-II

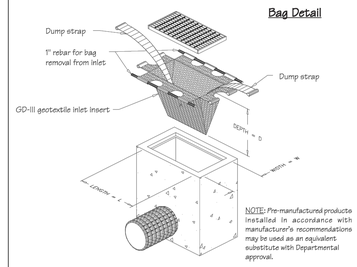
Source:	Symbol:	Detail No.
Adapted, from Erosion Draw Manual J. McCullah & Assoc.	IP-1	DE-ESC-3.1.5.1 Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Inlet Protection - Type 2



Bag Detail



Perspective

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	IP-2	DE-ESC-3.1.5.2 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Inlet Protection - Type 2

Notes:

1. This practice shall only be used in situations in which Inlet Protection - Type 1 cannot be used due to site constraints. These include, but are not limited to partially completed parking areas, streets, roads, etc.
2. It may be necessary to transition from Type 1 to Type 2 Inlet Protection as construction proceeds.
3. For areas where there is a concern for oil run-off or spills, insert shall meet one of the above specifications with an oil-absorbant pillow or shall be made completely from an oil-absorbant material with a woven pillow.

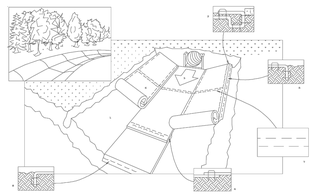
Materials:

The geotextile inlet insert shall meet or exceed the specifications of Type GD-III geotextile in accordance with Appendix A-3 of the Delaware Erosion & Sediment Control Handbook.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	IP-2	DE-ESC-3.1.5.2 Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Stabilization Matting - Channel



Perspective



Note: Horizontal staple spacing should be altered if necessary to allow staples to secure the critical points along the channel surface.

Use manufacturer's recommendations for stapling patterns for channel installations.

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-C	DE-ESC-3.4.6.2 Sheet 1 of 3

Effective February 2019

Standard Detail & Specifications
Stabilization Matting - Channel

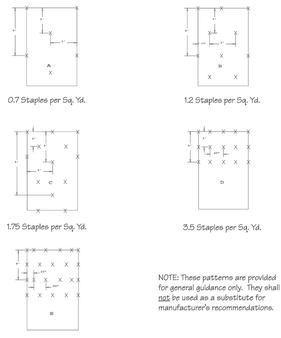
Construction Notes:

1. Prepare soil before installing matting, including application of lime, fertilizer, and seed.
2. Begin at the top of the channel by anchoring the mat in a 6" deep X 6" wide trench. Backfill and compact the trench after stapling.
3. Roll center mat in direction of water flow on bottom of channel.
4. Place mats end over end (shingle style) with a 6" overlap, use a double row of staggered staples 4" apart to secure mats.
5. Full Length edge of mats at top of side slopes must be anchored in 6" deep X 6" wide trench; backfill and compact the trench after stapling.
6. Mats on side slopes must be overlapped 4" over the center mat and stapled.
7. In high flow channel applications, a staple check slot is recommended at 30 to 40 foot intervals. Use a row of staples 4" apart over entire width of the channel. Place a second row 4" below the first row in a staggered pattern.
8. The terminal end of the mats must be anchored in a 6" X 6" wide trench. Backfill and compact the trench after stapling.

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-C	DE-ESC-3.4.6.2 Sheet 2 of 3

Effective February 2019

Standard Detail & Specifications
Stabilization Matting - Channel



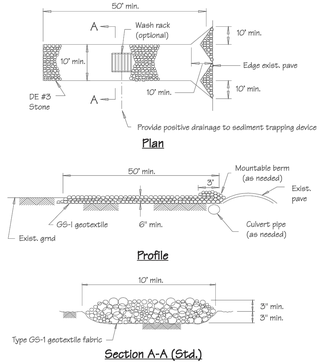
NOTE: These patterns are provided for general guidance only. They shall not be used as a substitute for manufacturer's recommendations.

Stapling Patterns

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-C	DE-ESC-3.4.6.2 Sheet 3 of 3

Effective February 2019

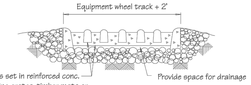
Standard Detail & Specifications
Stabilized Construct. Entrance



Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Stabilized Construct. Entrance



Section A-A (Opt.)

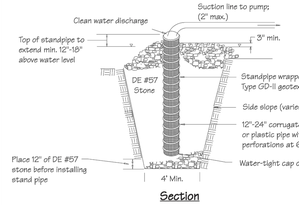
Construction Notes:

1. Stone size - Use DE #3 stone.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than size (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Geotextile - Type GS-I, placed over the entire area prior to placing of stone.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Vehicle wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Inspection - Periodic inspection and needed maintenance shall be provided after each rain.

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Pumping Pit - Type 1



Section

Construction Notes:

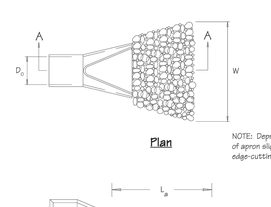
1. Pit dimensions are variable.
2. The standpipe should be constructed by perforating a 12" to 24" diameter corrugated or PVC pipe. The perforations shall be 1/2" X 6" slits or 1" diameter holes 6" on center.
3. A base of DE #57 aggregate should be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe should then be backfilled with DE #57 aggregate.
4. The standpipe should extend 12" to 18" above the lip of the pit or riser crest elevation (basin dewatering).

NOTE: If discharge will be pumped directly to a storm drainage system, the standpipe must be wrapped with Type GD-II geotextile fabric before installation. If desired, 1/2" hardware cloth may be placed around the standpipe, prior to attaching the geotextile fabric. This will increase the rate of water seepage into the pipe.

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	PP-1	DE-ESC-3.2.2.1 Sheet 1 of 1

Effective February 2019

Standard Detail & Specifications
Riprap Outlet Protection - 1



Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	ROP-1	DE-ESC-3.3.10.1 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Riprap Outlet Protection - 1

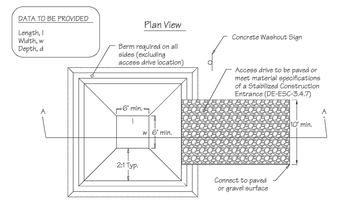
Construction Notes:

1. The subgrade for the riprap shall be prepared to the required lines and grades as shown on the plan. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The riprap shall conform to the grading limits as shown on the plan.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged area. All connecting joints should overlap a minimum of 1 ft. If the damage is extensive, replace the entire filter cloth.
4. Stone for the riprap or gabion outlets may be placed by equipment. Riprap shall be placed in a manner to prevent damage to the filter cloth. Hand placement will be required to the extent necessary to prevent damage to the conduits, structures, etc.

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	ROP-1	DE-ESC-3.3.10.1 Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Concrete Washout



Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Concrete Washout

Construction Notes:

1. Locate washout area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.
2. Locate washout area so that it is accessible to concrete equipment (service with a minimum 10 foot wide gravel accessway), but so it is not in a highly active construction area causing accidental damage.
3. Minimum dimensions for prefabricated units are 4 feet by 4 feet by 1 foot deep with a minimum 4mil polyethylene plastic liner. Minimum dimensions for constructed concrete washout areas are 6 feet by 6 feet by 3 feet deep, with a minimum 10mil polyethylene liner, 2:1 side slopes, and a 1 foot high by 1 foot wide compacted fill berm.
4. The liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing. For excavated washouts, anchor the liner underneath the berm or overtop with sandbags or concrete blocks to hold in place.
5. Provide a sign designating the washout area, and for large construction sites, provide signs throughout directing traffic to its location.
6. Allow washed out concrete mixture to harden through evaporation of the wastewater. Once the facility has reached 75 percent of its capacity, remove the hardened concrete by reusing the broken aggregate onsite, recycling, or disposing of offsite. The hardened material can be buried on site with minimum of 1 foot of clean, compacted fill.
7. Apply a new liner before reusing the station for additional washouts after maintenance has occurred.

Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 2 of 2

Effective February 2019

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

EROSION & SEDIMENT CONTROL DETAILS

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

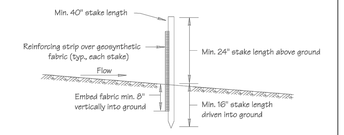
Date: JUNE 2020
Scale: AS SHOWN
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.:

C5.4

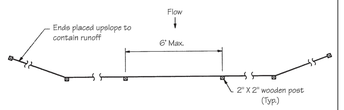
P:\2875\2875A001\current working folder\dwgs\PHASE 2\E&S PLAN.dwg Oct 15, 2020 - 10:57am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

Standard Detail & Specifications
Silt Fence



Section



Plan

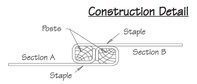
DATA
Max. controlled slope

Source:	Symbol:	Detail No.
Adapted form MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Silt Fence

Construction Detail



Method for joining continuous sections

Top

Construction Notes:

1. Geosynthetic fabric to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

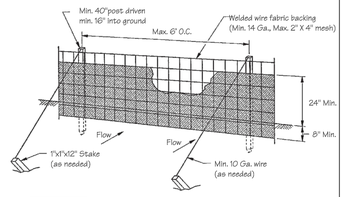
Materials:

1. Stakes: Steel (either T or U) or 2" x 2" hardwood
2. Geosynthetic Fabric: Type GD-I
3. Reinforcing strip: Wooden lath or plastic strip

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 2 of 2

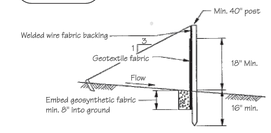
Effective February 2019

Standard Detail & Specifications
Reinforced Silt Fence



DATA
Max. controlled slope

Perspective



Cross-section

Source:	Symbol:	Detail No.
Adapted from Transco, Inc.	RSF	DE-ESC-3.1.2.2 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Reinforced Silt Fence

Construction Notes:

1. Welded wire fabric to be fastened securely to the fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24 inches at top and mid-section.
3. When two sections of fabric adjoin each other, they shall be overlapped by six inches and folded.
4. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

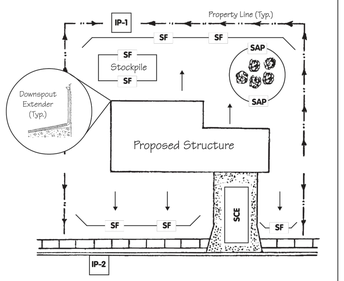
Materials:

1. Posts: Steel either T or U or 2" x 2" hardwood
2. Geotextile Fabric: Type GD-I
3. Backing: Woven welded wire, 14 Ga., 2" X 4" mesh opening

Source:	Symbol:	Detail No.
Adapted from Transco, Inc.	RSF	DE-ESC-3.1.2.2 Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
ESC for Minor Development



LEGEND

Flow		Inlet protection - Type 1	IP-1
Silt Fence	SF		
Sensitive Area Protection	SAP		
Stabilized Construction Entrance	SCE	Inlet Protection - Type 2	IP-2

Source:	Symbol:	Detail No.
Adapted from IN DNR, "Erosion Control for the Home Builder"		DE-ESC-3.7.1 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
ESC for Minor Development

Construction Notes:

1. Evaluate the Site.
   a. Identify Vegetation To Be Saved
   b. Protect Trees and Sensitive Areas
2. Install Perimeter Erosion And Sediment Controls.
   a. Protect down-slope areas with vegetative filter strips.
   b. Protect down-slope areas with silt fence.
   c. Restrict all lot access to stabilized construction entrance to prevent vehicles from tracking mud onto roadways.
   d. Install inlet protection on nearby storm drain inlets.
3. Prepare the Site for Construction.
4. Salvage and Stockpile the Topsoil/Subsoil
5. Build the Structure(s) and Install the Utilities.
6. Install Downspout Extenders
7. Maintain the Control Practices.
   a. Maintain all erosion and sediment control practices until construction is completed and the lot is stabilized.
   b. Inspect the control practices a minimum of twice a week and after each storm event, making any needed repairs immediately.
8. Revegetate the Building Site.
   a. Redistribute the stockpiled subsoil and topsoil.
   b. Seed or sod bare areas.
   c. Mulch newly seeded areas.
9. Remove Remaining Temporary Control Measures.

Source:	Symbol:	Detail No.
Adapted from IN DNR, "Erosion Control for the Home Builder"		DE-ESC-3.7.1 Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Dust Control

Temporary Methods:

1. Mulches - See **DE-ESC-3.4.5**, Standard Detail and Specifications for Mulching.
2. Vegetative cover - See **DE-ESC-3.4.3**, Std. Detail and Specifications for Vegetative Stabilization.
3. Adhesives - Use on mineral soils only (not effective on muck soils). Keep traffic off these areas. The following table may be used for general guidance.

Type of Emulsion	Water Dilution	Type of Nozzle	Apply Gal/Ac.
Latex emulsion	12.5:1	Fine spray	235
Resin-in-water emulsion	4:1	Fine spray	300
Acrylic emulsion (non-traffic)	7:1	Coarse spray	450
Acrylic emulsion (traffic)	3.5:1	Coarse spray	350

4. Tillage - For emergency temporary treatment, scarify the soil surface to prevent or reduce the amount of blowing dust until a more appropriate solution can be implemented. Begin the tillage operation on the windward side of the site using a chisel-type plow for best results.
5. Sprinkling - Sprinkle site with water until the surface is moist . Repeat as needed.
6. Calcium Chloride - Apply as flakes or granular material with a spreader at a rate that will keep the soil surface moist. Re-apply as necessary.
7. Barriers - Place barriers such as solid board fences, snow fences, hay bales, etc. at right angles to the prevailing air currents at intervals of approx. 10X their height.

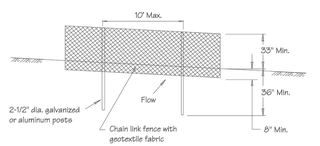
Permanent Methods:

1. Vegetative cover - See **DE-ESC-3.4.3**, Std. Detail and Specifications for Vegetative Stabilization.
2. Stone - Apply layer of crushed stone or coarse gravel to protect soil surface.

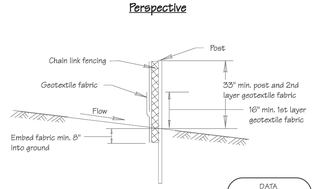
Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook		DE-ESC-3.4.8 Sheet 1 of 1

Effective February 2019

Standard Detail & Specifications
Super Silt Fence



Perspective



Section

DATA
Max. controlled slope

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SSF	DE-ESC-3.1.2.3 Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Super Silt Fence

Construction Notes:

1. The poles do not need to be set in concrete.
2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
3. Geotextile fabric shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Geotextile fabric shall be embedded a minimum of 8" into the ground.
5. When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

Materials:

1. Fencing: Fencing shall be 42 inches in height and constructed in accordance with the latest Delaware Department of Transportation (Del-DOT) Specifications for Chain Link Fencing Section 727). The Del-DOT specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.
2. Geosynthetic Fabric: Type GD-I

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SSF	DE-ESC-3.1.2.3 Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Vegetative Stabilization

TEMPORARY SEEDING BY RATES, DEPTHS AND DATES

Mix #	Species[4]	Seeding Rate		Optimum Seeding Dates [1] O = Optimum Planting Period, A = Acceptable Planting Period								Planting Depth[2]
				Coastal Plain				Piedmont			All*	
	Certified Seed	lb/Ac[3]	lb/1000 sq.ft.	2/1-4/30	7/1-8/14	8/15-10/31	2/1-4/30	2/1-4/30	8/15-10/31	9/1-10/31	10/31-2/1	
1	Barley	125	4	O	A	A	O	O	A	A	O	1-2 inches 2-3" sandy soils
2	Oats	125	4	O	A	A	O	O	A	A	A	0.5 inches 2-3" sandy soils
3	Rye	125	4	O	A	O	O	O	A	A	A	1-2 inches 2-3" sandy soils
4	Perennial Ryegrass	125	4	O	A	O	O	O	A	A	O	0.5 inches 1-2" sandy soils
5	Annual Ryegrass	125	4	O	A	O	O	O	A	A	A	0.5 inches 1-2" sandy soils
6	Winter Wheat	125	4	O	A	A	O	O	A	A	A	1-2 inches 2-3" sandy soils
7	Foxtail Millet	30 PLS	0.7		O				O			0.5 inches 1-2" sandy soils
8	Pearl Millet	20 PLS	0.5		O				O			0.5 inches 1-2" sandy soils

RECOMMENDED

1. Winter seeding requires 3 tons per acre of straw mulch for proper stabilization.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Applicable on slopes 3:1 or less.
4. Fifty pounds per acre of Annual Lespedeza may be added to 1/2 the seeding rate of any of the above species.
5. Use varieties currently recommended for Delaware. Contact a County Extension Office for information.
6. Warm season grasses such as Millet or Weeping Lovegrass may be used between 5/1 and 9/1 if desired. Seed at 3-5 lbs. per acre. Good on low fertility and acid areas. Seed after frost through summer at a depth of 0.5".

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 1 of 4

Effective February 2019

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES

Mix No.	Seeding Mixtures: Certified Seed*	Seeding Rate[3]		Optimum Seeding Dates [1] O = Optimum Planting Period, A = Acceptable Planting Period: Coastal Plain			Piedmont		All*	Remarks
	Well Drained Soils	lb/Ac	lb/1000 sq.ft.	2/1-4/30	4/1-8/14	8/15-10/31	2/1-4/30	3/1-7/31	10/1-2/1	
1	Tall Fescue Weeping Lovegrass	140 10	3.2 0.23		O	A	A	O	A	Add 100 lbs./ac Winter Rye	Good erosion control mix. Tolerant of low fertility soils. Lovegrass very difficult to mow; Germinates only in hot weather.
2	Deertongue Sheep Fescue Common Lespedeza[5]	50 50 15	0.69 0.69 0.35	A	O	A	A	O	A	Add 100 lbs./ac Winter Rye	Good erosion control mix. Tolerant of low fertility soils Good wildlife cover and food
3	Tall Fescue (Turf-type) or Strong Creeping Red Fescue or Perennial Ryegrass plus Flatpea[5]	90 50 50 15	1.10 1.15 1.15 0.34	O	A	O	O	A	O	Add 100 lbs./ac Winter Rye	Tolerant erosion control mix. Tall Fescue for drought/ conditions. Creeping Red Fescue for heavy shade. Flatpea is to-success woody vegetation.
4	Strong Creeping Red Fescue Kentucky Bluegrass Perennial Ryegrass or Redtop	100 70 15 8	2.3 1.61 0.26 0.11	O	A	O	O	A	O	Add 100 lbs./ac Winter Rye	Suitable waterway mix. Canada Bluegrass more drought tolerant. Use Redtop for increased drought tolerance.
5	plus White Clover[5] Switchgrass[6] or Coastal Panicgrass Big Bluestem Little Bluestem Indian Grass	3 10 10 5 5 5	0.07 0.23 0.23 0.11 0.11 0.11		O			O			Native warm-season mixture. Tolerant of low fertility soils. Drought tolerant. Poor shade tolerance. N. Switchgrass for wetter spots.
6	Tall Fescue (turf-type) Blend of 3 (ultivars)	130	3.0	O	A	O	O	A	O	Managed Mow only for nutrient uptake.
7	Tall Fescue Ky. Bluegrass (Blend) Perennial Ryegrass	150 20 20	3.5 0.46 0.46	O	A	O	O	A	O	Three cultivars of Kentucky Bluegrass. Traffic tolerant.
8	Big Bluestem[5] Indian Grass[5] Little Bluestem[5] plus one of the Fescue plus one of: Partridge Pea Bush Clover Wild Indigo Rhoss TVA-Trefoil	10 10 8 50 5 3 3 2	0.23 0.23 0.18 0.69 0.11 0.07 0.07 0.05	O	A			O	A		All species are native. Indian Grass and Bluestem have fluffy seeds. Plant with a specialized native seed drill. Creeping Red Fescue will provide erosion protection while the warm season grasses get established.

RECOMMENDED

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 2 of 4

Effective February 2019

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES (cont.)

Mix No.	Seeding Mixtures: Certified Seed*	Seeding Rate[3]		Optimum Seeding Dates [1] O = Optimum Planting Period, A = Acceptable Planting Period: Coastal Plain			Piedmont		All*	Remarks
	Poorly Drained Soils	lb/Ac	lb/1000 sq.ft.	2/1-4/30	4/1-8/14	8/15-10/31	2/1-4/30	3/1-7/31	10/31-2/1	
9	Redtop Sheep Fescue Sheep Fescue Rough Bluegrass	75 25 30 45	1.72 0.57 0.69 1	O	A	O	O	A	O	Add 100 lbs./ac Winter Rye	Quick stabilization of disturbed sites and waterways
10	Reed Canarygrass[6]	10	0.23	A		O	A		O		Good erosion control, wildlife cover and wetland revegetation.
	Residential Lawns									
11	Tall Fescue Perennial Ryegrass Kentucky Bluegrass Blend	100 25 30	2.3 0.57 0.69	O	A	O	O	A	O		High value, high maintenance, tight traffic, irrigation necessary; Well drained soils, full sun.
12	Tall Fescue Perennial Ryegrass Sheep Fescue	100 25 25	2.3 0.57 0.57	O	A	O	O	A	O		Moderate value, low maintenance, traffic tolerant
13	Creeping Red Fescue Chewings Fescue Rough Bluegrass	50 50 20	1.15 1.15 0.4	O	A	O	O	A	O		Shade tolerant, moderate traffic tolerance, moderate maintenance.
14	Tall Fescue Creeping Red Fescue Chewings Fescue	80 90	1.8 2.1	O	A	O	O	A	O		Shade tolerant, moisture tolerant.
15	K-31 Tall Fescue	150	3.5	O	A	O	O	A	O		Monoculture, but performs well alone in lawns. Discouraged.

1. When hydroseeding is the chosen method of application, the total rate of seed should be increased by 25%.
2. Winter seeding requires 3 tons per acre of straw mulch. Planting dates listed above are average for Delaware. These dates may require adjustment to reflect local conditions.
3. All seed shall meet the minimum purity and minimum germination percentages recommended by the Delaware Department of Agriculture. The maximum % of weed seeds shall be in accordance with Section 1, Chapter 24, Title 3 of the Delaware Code.
4. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
5. All leguminous seed must be inoculated.
6. Warm season grass mix and Reed Canary Grass cannot be mowed more than 4 times per year.
7. Warm season grasses require a soil temperature of at least 50 degrees in order to germinate, and will remain dormant until then.

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 3 of 4

Effective February 2019

Standard Detail & Specifications
Vegetative Stabilization

Construction Notes:

1. Site Preparation
   a. Prior to seeding, install needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, grassed waterways, and sediment basins.
   b. Finail grading and shaping is not necessary for temporary seedings.
2. Seedbed Preparation

   It is important to prepare a good seedbed to insure the success of establishing vegetation. The seedbed should be well prepared, loose, uniform, and free of large clods, rocks, and other objectionable material. The soil surface should not be compacted or crusted.
3. Soil Amendments
   a. Lime - Apply liming materials based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply dolomitic limestone at the rate of 1 to 2 tons per acre. Apply limestone uniformly and incorporate into the top 4 to 6 inches of soil.
   b. Fertilizer - Apply fertilizer based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply a formulation of 10-10-10 at the rate of 600 pounds per acre. Apply fertilizer uniformly and incorporate into the top 4 to 6 inches of soils.
4. Seeding
   a. For **temporary stabilization**, select a mixture from **Sheet 1** . For a **permanent stabilization**, select a mixture from **Sheet 2** or **Sheet 3** depending on the conditions. Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.
   b. Apply seed uniformly with a broadcast seeder, drill, cultipacker seeder or hydroseeder. All seed will be applied at the recommended rate and planting depth.
   c. Seed that has been broadcast should be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used and the seed and fertilizer is mixed, they will be mixed on site and the seeding shall be done immediately and without interruption.
5. Mulching

   All mulching shall be done in accordance with detail **DE-ESC-3.4.5**.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 4 of 4

Effective February 2019

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

EROSION & SEDIMENT CONTROL DETAILS

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

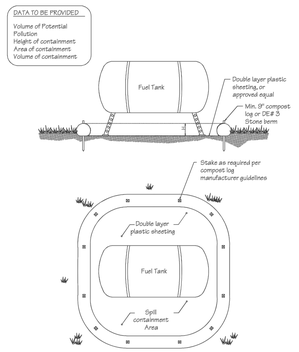
Revisions:

Date: JUNE 2020
Scale: AS SHOWN
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: C5.5

P:\2875\2875A001\current working folder\dwgs\PHASE 2\E&S PLAN.dwg Oct 15, 2020 - 10:57am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

Standard Detail & Specifications
Construction Site Waste Mgt & Spill Control



Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.6.1** Sheet 1 of 5

Effective February 2019

Standard Detail & Specifications
Construction Site Waste Mgt & Spill Control

Pollution Prevention – Spill Prevention

1. Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
2. Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
3. Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
4. Use barriers such as berms to prevent storm water run-on and runoff, and to contain spills.
5. Place a "Fueling Area" sign next to each fueling area.
6. Store hazardous materials such as fuel, solvents, oil and chemicals in secondary containment.
7. Inspect vehicles and equipment for leaks on each day of use. Repair fluid and oil leaks immediately.
8. Absorbent spill clean-up materials and spill kits must be available in fueling areas and on fuel trucks.
9. If fueling is to take place at night, make sure the fueling area is sufficiently illuminated.
10. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.

CLEAN UP SPILLS

1. If it is safe to do so, immediately contain and clean up any chemical and/or hazardous material spills.
2. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.
3. Do not bury spills or wash them down with water.

LEAKS AND DRIPS

1. Use drip pans or absorbent pads at all times. Place under and around leaky equipment.
2. Do not allow oil, grease, fuel or chemicals to drip onto the ground.
3. Have spill kits and clean up material on-site.
4. Repair leaky equipment promptly or remove problem vehicles and equipment from the site. Clean up contaminated soil immediately.
5. Store contaminated waste in sealed containers constructed of suitable material. Label these containers properly.
6. Clean up all spills and leaks. Promptly dispose of waste and spent clean up materials.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.6.1** Sheet 2 of 5

Effective February 2019

Standard Detail & Specifications
Construction Site Waste Mgt & Spill Control

Notes:

The Construction Site Pollution Prevention Plan should include the following elements:

1. **Material Inventory**

   Document the storage and use of the following materials:
   a. Concrete
   b. Detergents
   c. Paints (enamel and latex)
   d. Cleaning solvents
   e. Pesticides
   f. Wood scraps
   g. Fertilizers
   h. Petroleum based products
2. **Good housekeeping practices**
   a. Store only enough product required to do the job.
   b. All materials shall be stored in a neat, orderly manner in their original labeled containers and covered.
   c. Substances shall not be mixed.
   d. When possible, all of a product shall be used up prior to disposal of the container.
   e. Manufacturers' instructions for disposal shall be strictly adhered to.
   f. The site foreman shall designate someone to inspect all BMPs daily.
3. **Waste management practices**
   a. All waste materials shall be collected and stored in securely lidded dumpsters in a location that does not drain to a waterbody.
   b. Waste materials shall be salvaged and/or recycled whenever possible.
   c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed trash hauler is responsible for cleaning out dumpsters.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		**DE-ESC-3.6.1** Sheet 3 of 5

Effective February 2019

Standard Detail & Specifications
Construction Site Waste Mgt & Spill Control

Notes (cont.)

d. Trash shall be disposed of in accordance with all applicable Delaware laws.
e. Trash cans shall be placed at all lunch spots and littering is strictly prohibited. Recycle bins shall be placed near the construction trailer.
f. If fertilizer bags can not be stored in a weather-proof location, they shall be kept on a pallet and covered with plastic sheeting which is overlapped and anchored.

4. **Equipment maintenance practices**
   a. If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.
   b. If performed on-site, vehicles shall be washed with high-pressure water spray without detergents in an area contained by an impervious berm.
   c. Drip pans shall be used for all equipment maintenance.
   d. Equipment shall be inspected for leaks on a daily basis.
   e. Washout from concrete trucks shall be disposed of in a temporary pit for hardening and proper disposal.
   f. Fuel nozzles shall be equipped with automatic shut-off valves.
   g. All used products such as oil, antifreeze, solvents and tires shall be disposed of in accordance with manufacturers' recommendations and local, state and federal laws and regulations.
5. **Spill prevention practices**
   a. Potential spill areas shall be identified and contained in covered areas with no connection to the storm drain system.
   b. Warning signs shall be posted in hazardous material storage areas.
   c. Preventive maintenance shall be performed on all tanks, valves, pumps, pipes and other equipment as necessary.
   d. Low or non-toxic substances shall be prioritized for use.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		**DE-ESC-3.6.1** Sheet 4 of 5

Effective February 2019

Standard Detail & Specifications
Construction Site Waste Mgt & Spill Control

Notes (cont.)

e. Contact information for reporting spills through the DNREC 24-Hour Toll Free Number shall be prominently posted.

6. **Education**
   a. Best management practices for construction site pollution control shall be a part of regular progress meetings.
   b. Information regarding waste management, equipment maintenance and spill prevention shall be prominently posted in the construction trailer.

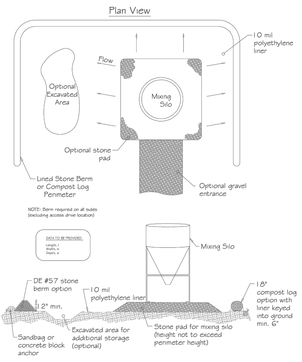
CONTACT INFORMATION

DNREC 24-Hour Toll Free Number	**800-662-8802**
DNREC Solid & Hazardous Waste Management Section	**302-739-9403**

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		**DE-ESC-3.6.1** Sheet 5 of 5

Effective February 2019

Standard Detail & Specifications
Concrete Mixing Operation



Source:	Symbol:	Detail No.
Adapted from MN/DOT Concrete Manual, Chap. 4	CMO	**DE-ESC-3.6.3** Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Concrete Mixing Operation

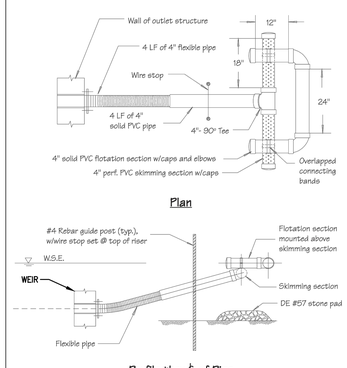
Construction Notes:

1. Locate concrete mixing and containment area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.
2. Locate concrete mixing and containment area so that it is accessible to telescopic lifts (service with a minimum 10 foot wide gravel or paved accessway), but so it is not in a highly active construction area causing accidental damage.
3. Minimum volume for installed containment areas are 3.5 cubic feet per cubic foot of mixing capacity. The installed containment area must encompass the storage silo and mixing unit, and be surround on three sides minimum by a 12" high stone berm (DE #57) or 18" compost log
4. The 10-mil poly liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing. The liner shall cover the perimeter control and be secured on the backside using cement or sand bags, or keyed into the ground a minimum of 6".
5. Allow cementitious waste to harden through evaporation of the wastewater. Once the facility has reached 75 percent of its capacity, remove the hardened concrete by reusing the broken aggregate onsite, recycling, or disposing of offsite. The hardened material can be buried on site with minimum of 1 foot of clean, compacted fill.
6. Apply a new liner before reusing the station for additional mixing after maintenance has occurred.

Source:	Symbol:	Detail No.
Adapted from MN/DOT Concrete Manual, Chap. 4	CMO	**DE-ESC-3.6.3** Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Skimmer Dewatering Device



Source:	Symbol:	Detail No.
Adapted from drawing by Vandemark & Lynch, Inc.	SDD	**DE-ESC-3.2.3.1** Sheet 1 of 2

Effective February 2019

Standard Detail & Specifications
Skimmer Dewatering Device

Construction Notes:

1. Pipe flotation section shall be solvent welded to ensure an airtight assembly. Contractor to conduct a test to check for leaks prior to installation.
2. Skimmer section shall have (12) rows of 1/2" dia. holes, 1-1/4" on center. If additional filtration is necessary, the filtering media shall consist of a Type GD-II geotextile fabric wrapped around the perforated portion of the skimmer and attached with plastic snap ties, bands, etc.
3. Flexible pipe shall be inserted into solid pipe and fastened with (2) #8 wood screws.
4. At a minimum, the structure shall be inspected after each rain and repairs made as needed. If vandalism is a problem, more frequent inspection may be necessary.
5. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
6. The structure shall only be removed when the contributing drainage area has been properly stabilized.

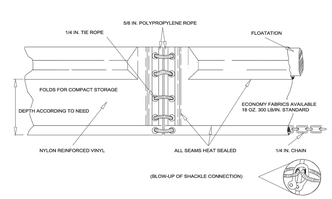
Materials:

1. Solid pipe - 4" Sched. 40 PVC
2. Perforated pipe - 4" Sched. 40 PVC
3. 90° Tee (1 ea.) - 4" Sched. 40 PVC
4. 90° Elbow (2 ea.) - 4" Sched. 40 PVC
5. Cap (4 ea.) - 4" Sched. 40 PVC, solid
6. Flexible pipe - 4" corrugated plastic tubing (non-perforated)

Source:	Symbol:	Detail No.
Delaware ESC Handbook	SDD	**DE-ESC-3.2.3.1** Sheet 2 of 2

Effective February 2019

Standard Detail & Specifications
Turbidity Curtain



Typical Section - Type 1

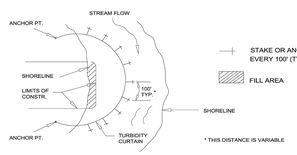
DATA
Curtain type (1,2, or 3)
Layout (Std. or Alt.)

Source:	Symbol:	Detail No.
Adapt. from Amer. Boom and Barrier Corp.	TC-(1/2/3) (Std/Alt)	**DE-ESC-3.5.3** Sheet 1 of 8

Effective February 2019

Standard Detail & Specifications
Turbidity Curtain

NOTE: The standard layout shown is intended for use in streams, ponds and other non-tidal waters



Plan - Std. Layout

Source:	Symbol:	Detail No.
Adapt. from Amer. Boom and Barrier Corp.	TC-(1/2/3) (Std/Alt)	**DE-ESC-3.5.3** Sheet 4 of 8

Effective February 2019

Standard Detail & Specifications
Turbidity Curtain

Construction Notes:

1. **Materials**
   a. Barriers should be a bright color (yellow or "international" orange are recommended) that will attract the attention of nearby boaters.
   b. The curtain fabric shall meet manufacturer's recommendations for the application.
   c. Seams in the fabric shall be either vulcanized welded or sewn and shall develop the full strength of the fabric.
   d. Floatation devices shall be flexible, buoyant units contained in an individual floatation sleeve or collar attached to the curtain. Buoyancy provided by the floatation units shall be sufficient to support the weight of the curtain and maintain a freeboard of at least 3 inches above the water surface level.
   e. Load lines must be fabricated into the bottom of all floating turbidity curtains. Type II and Type III must have load lines also fabricated into the top of the fabric. The top load line shall consist of woven webbing or vinyl-sheathed steel cable and shall have a break strength in excess of 10,000 pounds. The supplemental (bottom) load line shall consist of a chain incorporated into the bottom hem of the curtain of sufficient weight to serve as ballast to hold the curtain in a vertical position. Additional anchorage shall be provided as necessary. The load lines shall have suitable connecting devices which develop the full breaking strength for connection to load lines in adjacent sections as shown in the detail.
   f. External anchors may consist of wooden or metal stakes (2- x 4-inch or 2-1/2-inch minimum diameter wood or 1.33 lbs/linear foot steel) when Type I installation is used; when Type II or Type III installations are used, bottom anchors should be used.
   g. Bottom anchors must be sufficient to hold the curtain in the same position relative to the bottom of the watercourse without interfering withthe action of the curtain. The anchor may dig into the bottom (grappling hook, plow or fluke-type) or may be weighted (mushroom type) and should be attached to a floating anchor buoy via an anchor line. The anchor line should then run from the buoy to the to load line of the curtain. When used with Type III installations, these lines must contain enough slack to allow the buoy and curtain to float freely with tidal changes without pulling the buoy or curtain down and must be checked regularly to make sure they do not become entangled with debris. As previously noted, anchor spacing will vary with current velocity and potential wind and wave action; manufacturer's recommendations should be followed. See detail for orientation of external anchors and anchor buoys for tidal installations.

Source:	Symbol:	Detail No.
Adapt. from Amer. Boom and Barrier Corp.	TC-(1/2/3) (Std/Alt)	**DE-ESC-3.5.3** Sheet 6 of 8

Effective February 2019

Standard Detail & Specifications
Turbidity Curtain

Construction Notes (cont.)

2. **Installation**
   a. In the calm water of lakes or ponds (Type I installation) it is usually sufficient to set the curtain end stakes or anchor points (using anchor buoys if bottom anchors are employed), then tow the curtain in the furled condition out and attach it to the stakes or anchor points. Following this, any additional stakes or buoyed anchors required to maintain the desired location of the curtain may be set and these anchor points made fast to the curtain. Only then shall the furling lines be cut to allow the curtain skirt to drop.
   b. In rivers or in other moving waters (Type II and Type III installations) it is important to set all curtain anchor points. Care must be taken to ensure that anchor points are of sufficient holding power to retain the curtain under the existing current conditions, prior to putting the furled curtain into the water. Anchor buoys should be employed on all anchors to prevent the current from submerging the flotation at the anchor points. If the curtain is being installed into tidal areas which would be subject to currents in both directions, anchors should be provided on both sides of the curtain. This will minimize curtain movement and prevent the curtain from overrunning the anchors during tide reversals. After the anchors have been secured, the furled curtain should be secured to the upstream anchor point and then sequentially attached to each next downstream anchor point until the entire curtain is in position. Before unfurling, the "lay" of the curtain should be assessed and any necessary adjustments made to the anchors. Once the location has been deemed adequate, the furling lines may be cut to allow the skirt to drop.
   c. Anchor lines should be attached to the flotation device, not to the bottom of the curtain. The anchoring line attached to the flotation device on the downstream side will provide support for the curtain. Attaching the anchors to the bottom of the curtain could cause premature failure of the curtain due to the stresses imparted on the middle section of the curtain.
   d. Turbidity curtain shall not be installed across channel flows unless there is a danger of causing sediment deposition to occur in the middle of a watercourse, thereby blocking access or creating a sand bar. In such situations, the curtain may be installed so as to form a long-sided, sharp "V" to deflect clean water around a work site, confining most of the silt-laden water to the work area inside the "V" and directing it to the shoreline. In no case shall the curtain be installed perpendicular to the channel flow.

Source:	Symbol:	Detail No.
Adapt. from Amer. Boom and Barrier Corp.	TC-(1/2/3) (Std/Alt)	**DE-ESC-3.5.3** Sheet 7 of 8

Effective February 2019

Standard Detail & Specifications
Turbidity Curtain

Construction Notes (cont.)

3. **Maintenance**
   a. The individual(s) identified on the plan as responsible for maintenance of the curtain shall do so for the duration of the project in order to ensure the continuous protection of the watercourse.
   b. Should repairs to the geotextile fabric become necessary, repair kits are generally available from the manufacturer. The manufacturer's instructions must be followed to ensure the adequacy of the repair.
   c. When the curtain is no longer required as determined by the inspector, the curtain and related components shall be removed in such a manner as to minimize turbidity. Remaining sediment shall be sufficiently settled before removing the curtain. Sediment may be removed and the original depth (or plan elevation) restored. Any spoils must be taken to an approved upland disposal area and stabilized in accordance with the approved plan.

4. **Removal**
   a. Care shall be taken to protect the skirt from damage as the turbidity curtain is dragged from the watercourse.
   b. The site selected to bring the curtain ashore should be free of sharp rocks, broken cement, debris, etc. so as to minimize damage when hauling the curtain over the area.
   c. If the curtain has a deep skirt, it can be further protected by running a small boat along its length with a crew installing furling lines before attempting to remove the curtain from the water.

Source:	Symbol:	Detail No.
Adapt. from Amer. Boom and Barrier Corp.	TC-(1/2/3) (Std/Alt)	**DE-ESC-3.5.3** Sheet 8 of 8

Effective February 2019

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
SUSSEX, DELAWARE (302) 856-3344
EASTON, MARYLAND (410) 770-4744

EROSION & SEDIMENT CONTROL DETAILS

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date: JUNE 2020
Scale: AS SHOWN
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: **C5.6**

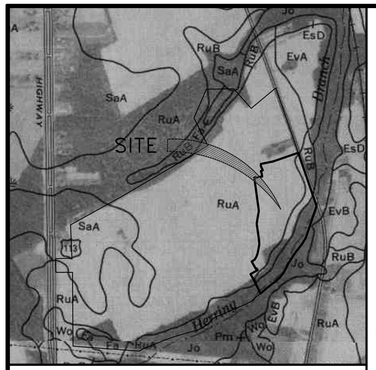
P:\2875\2875A001 current working folder\dwgs\PHASE 2\E&S PLAN.dwg Oct 15, 2020 - 10:57am mcka

MILFORD PONDS

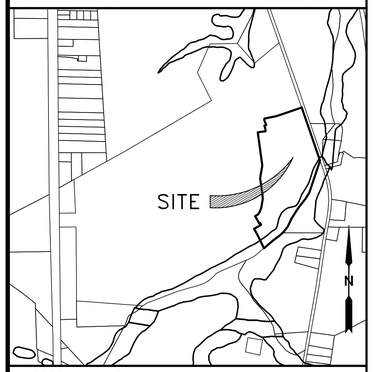
PHASE 2 - RECORD PLAN

CITY OF MILFORD, SUSSEX COUNTY, DELAWARE

DBF PROJECT NO. 2875A001 JUNE 2020



SOILS MAP SCALE: 1"=1000'

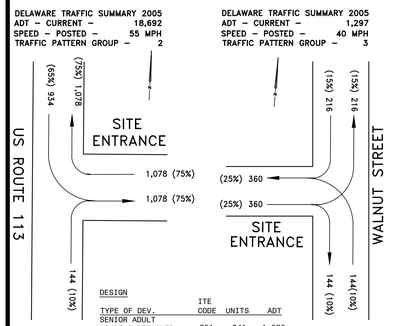


N.W.I. MAP SCALE: 1"=1000'



FLOODPLAIN MAP SCALE 1"=2000'

MAP PANEL: 10005C0039J DATED: JANUARY 6, 2005
10005C0043K MARCH 16, 2015



DESIGN	ITE CODE	UNITS	ADT
TYPE OF DEV.			
SENIOR ADULT HOUSING-DETACHED	251	341	1,536
SENIOR ADULT HOUSING-ATTACHED	252	385	1,340
TOTAL		726	2,876

NOTE: TRIP DISTRIBUTION DERIVED FROM TRAFFIC IMPACT STUDY
TRIP GENERATION IS BASED ON THE 7TH EDITION OF THE ITE TRIP GENERATION REPORT 7TH EDITION

TRAFFIC DIAGRAM
NO SCALE

CITY OF MILFORD GENERAL NOTES

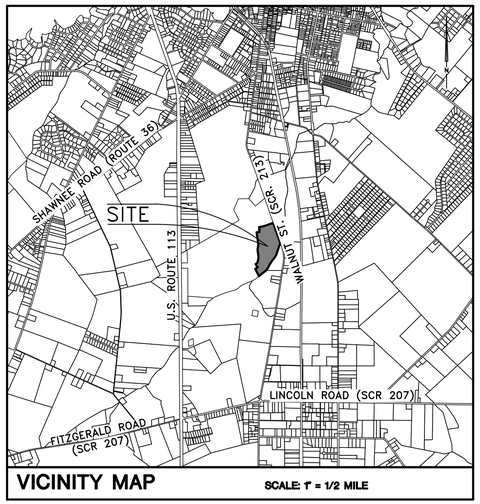
1. THE BOUNDARY INFORMATION SHOWN ON THESE DRAWINGS IS BASED ON A SURVEY PERFORMED BY DAVIS BOWEN AND FRIEDEL, INC, IN 2005.
2. A TOPOGRAPHIC SURVEY WAS PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC. OF MILFORD, DELAWARE IN 2018. ELEVATIONS ARE BASED ON CONTROL MONUMENT IRCS NEAR THE INTERSECTION OF CANNER'S COURT AND PATCHWORK DRIVE, WITH AN ELEVATION OF 36.04 NGVD88.
3. HORIZONTAL DATUM IS BASED ON DELAWARE STATE GRID, NAD83/91, CONTROL MONUMENTS IRCS NEAR THE INTERSECTION OF CANNER'S COURT AND PATCHWORK DRIVE, WITH AN ELEVATION OF 36.04.
4. HYDRIC SOILS ARE INDICATED AS BEING PRESENT ACCORDING TO THE SUSSEX COUNTY SOIL SURVEY
5. ALL FIRE LANES, FIRE HYDRANTS, EXITS, AND STANDPIPES WILL BE MARKED IN ACCORDANCE WITH STATE FIRE PREVENTION REGULATIONS.
6. DELAWARE REGULATIONS PROHIBIT THE BURIAL OF CONSTRUCTION DEMOLITION DEBRIS, INCLUDING TREES AND STUMPS ON CONSTRUCTION SITES. ANY SOLID WASTE FOUND DURING THE EXCAVATION FOR STRUCTURES AND UTILITY LINES ON AND OFF SITE MUST BE REMOVED AND PROPERLY DISCARDED. ANY REMEDIAL ACTION REQUIRED IS THE RESPONSIBILITY OF THE OWNER.
7. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
8. THE OWNER AND/OR THEIR CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE SERVICES OF A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF DELAWARE FOR THE PERMANENTLY RE-ESTABLISHING OF ANY PROPERTY MARKERS OR MONUMENTS DISTURBED DURING CONSTRUCTION. A SURVEY AND METES AND BOUNDS THAT INCLUDES THE RE-ESTABLISHED MARKER(S) OR MONUMENT(S) SHALL BE PRESENTED TO THE PROPERTY OWNER FOR COMPARISON WITH THE ORIGINAL PLAT, FOR VERIFICATION.
9. THE OWNER SHALL BE RESPONSIBLE FOR THE SHORT-TERM MAINTENANCE OF THE ANY AND ALL STORMWATER MANAGEMENT FACILITIES AND STORM SEWER SYSTEMS UNTIL SUCH TIME THAT THE LONG-TERM MAINTENANCE RESPONSIBILITIES CAN BE TRANSFERRED TO A LEGALLY-ESTABLISHED HOMEOWNERS ASSOCIATION OR OTHER RESPONSIBLE ENTITY.
10. THE CITY OF MILFORD WILL ASSUME OWNERSHIP AND MAINTENANCE RESPONSIBILITY OF WATER AND SEWER PIPES AND APPURTENANCES, INSTALLED WITHIN CITY RIGHT-OF-WAY AND EASEMENTS DEDICATED TO THE CITY, STORM SEWER PIPES AND CATCH BASINS, INSTALLED FULLY WITHIN CITY RIGHT-OF-WAY; ONCE THE FOLLOWING CONDITIONS HAVE BEEN MET:
    A. ALL ITEMS HAVE PASSED CITY INSPECTION;
    B. THE CITY HAS RECEIVED AND APPROVED DIGITAL AND HARD COPIES OF THE RECORD DRAWINGS; AND
    C. THE RIGHTS-OF-WAY AND/OR EASEMENTS HAVE BEEN DEEDED TO THE CITY AND RECORDED WITH THE RECORDER OF DEEDS.
11. SEWER AND WATER CAPACITY ARE NOT GUARANTEED UNTIL BUILDING PERMITS ARE ISSUED, ALL FEES ARE PAID AND SUITABLE UTILITIES ARE IN PLACE FOR PROPER CONVEYANCE, TREATMENT AND DISPOSAL.
12. PRELIMINARY APPROVAL FROM PLANNING COMMISSION SHALL BE VOID AFTER ONE (1) YEAR, UNLESS AN EXTENSION IS REQUESTED BY THE OWNER AND APPROVED, FOR GOOD CAUSE, BY THE PLANNING COMMISSION PRIOR TO THE DATE OF EXPIRATION.
13. THE APPROVAL OF A CONDITIONAL USE IS VALID FOR ONE YEAR. UNLESS PERMITS ARE OBTAINED OR CONSTRUCTION OR USE IS SUBSTANTIALLY UNDERWAY, ALL PROVISIONS OF THE CONDITIONAL USE ARE AUTOMATICALLY RESCINDED.
14. FINAL APPROVAL FROM THE CITY SHALL BECOME VOID IF THE FINAL RECORD PLAT IS NOT RECORDED WITHIN 90 DAYS OF THE DATE OF PLANNING COMMISSION'S GRANTING OF FINAL APPROVAL. IF CONSTRUCTION OF THE APPROVED IMPROVEMENTS IS NOT SUBSTANTIALLY UNDERTAKEN WITHIN ONE (1) YEAR OF FINAL SITE PLAN APPROVAL, THE SITE PLAN APPROVAL SHALL BE VOID. THE APPLICANT MAY REQUEST A ONE (1) YEAR EXTENSION FROM THE PLANNING COMMISSION FOR GOOD CAUSE.
15. SOURCE WATER PROTECTION AREAS ARE PRESENT ON SITE.
16. 8.31 ACRES OF WETLAND EXIST ON SITE NONE OF WHICH WILL BE DISTURBED BY THIS PROJECT.

GENERAL NOTES

1. THE SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE INSPECTION.
2. "THE SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, MODIFY, OR DELETE ANY EROSION AND SEDIMENT CONTROL MEASURES AS THEY DEEM NECESSARY."
3. THIS SITE IS NOT IMPACTED BY THE 100 YEAR FLOOD PLAIN AS DELINEATED ON FEMA MAP PANEL# 10005C0043K DATED 03/16/2015
4. WETLANDS DELINEATION PERFORMED BY ENVIRONMENTAL RESOURCES, INC. 38173 DUPONT BLVD. SELBYVILLE, DE 19975
5. NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED FOR ANY LOT WITHIN THIS DEVELOPMENT UNTIL ALL REQUIRED IMPROVEMENTS HAVE BEEN INSTALLED, CONSTRUCTED OR PLACED FOR THE LOT WHICH THE CERTIFICATE OF OCCUPANCY IS TO BE ISSUED IN A MANNER ACCEPTABLE TO THE CITY AND THE STATE, OR UNTIL THE DEVELOPER FILES A PERFORMANCE BOND OF OTHER GUARANTEE WITH THE CITY FOR ANY UNCOMPLETED PUBLIC OR PRIVATE STREET OR OTHER IMPROVEMENT.
6. NO CERTIFICATE OF OCCUPANCY SHALL BE ISSUED UNTIL A PROJECT, OR THE CURRENT PHASE OF A PROJECT, HAS BEEN PARTIALLY ACCEPTED BY THE CITY, AND UNTIL A MAINTENANCE BOND HAS BEEN SUBMITTED.
7. ALL FIRE LANES, FIRE HYDRANTS, EXITS, STANDPIPES, AND SPRINKLER CONNECTIONS WILL BE MARKED IN ACCORDANCE WITH STATE FIRE MARSHAL REGULATIONS.
8. THIS PROPERTY IS LOCATED IN THE VICINITY OF LAND USED PRIMARILY FOR AGRICULTURAL PURPOSES ON WHICH NORMAL AGRICULTURAL USES AND ACTIVITIES HAVE BEEN AFFORDED THE HIGHEST PRIORITY USE STATUS. IT CAN BE ANTICIPATED THAT AGRICULTURAL USES AND ACTIVITIES MAY NOW OR IN THE FUTURE INVOLVE NOISE, DUST, MANURE, AND OTHER ODORS, THE USE OF AGRICULTURAL CHEMICALS, AND NIGHTTIME FARM OPERATIONS. THE USE AND THE ENJOYMENT OF THIS PROPERTY IS EXPRESSLY CONDITIONED ON ACCEPTANCE OF ANY ANNOYANCE OR INCONVENIENCE WHICH MAY RESULT FROM SUCH NORMAL AGRICULTURAL USES OR ACTIVITIES.
9. PROPOSED OPEN SPACE TO BE OWNED AND MAINTAINED BY THE COMMUNITY HOMEOWNERS ASSOCIATION.
10. THE OWNER UNDERSTANDS THAT THE TRACT OF LAND DEPICTED HEREON IS IMPACTED BY WETLANDS REGULATED BY THE ARMY CORPS OF ENGINEERS AND IS ADVISED TO CONTACT THE ARMY CORPS OF ENGINEERS FOR INFORMATION AND GUIDANCE IN REGARD TO JURISDICTIONAL DETERMINATIONS AND FEDERAL PERMITS PRIOR TO THE START OF CONSTRUCTION.
11. ALL REQUIRED LANDSCAPE BUFFERS SHALL BE PLANTED AND ALL ACTIVE RECREATION AMENITIES INSTALLED PRIOR TO ISSUANCE OF 50% OF THE CERTIFICATES OF OCCUPANCY, AND MAINTAINED BY THE DEVELOPER UNTIL 75% OF THE CERTIFICATES OF OCCUPANCY APPROVED HAVE BEEN ISSUED. THE LANDSCAPE BUFFER AREA AND ANY OTHER LANDSCAPE PLAN DEPICTED ON THE RECORD PLAN SHALL BE MAINTAINED IN PERPETUITY BY THE HOMEOWNERS' ASSOCIATION OR MAINTENANCE ORGANIZATION.THESE DEED RESTRICTIONS SHALL RUN WITH THE LAND AND MAY NOT BE VACATED BY THE HOMEOWNERS' ASSOCIATION OR THE MAINTENANCE CORPORATION.
12. THE DEVELOPER WILL BE RESPONSIBLE FOR MAINTENANCE OF SEDIMENT & STORMWATER CONTROLS DURING CONSTRUCTION AND FOR LONG TERM MAINTENANCE OF STORMWATER CONTROLS UNTIL CONSTRUCTION IS COMPLETE. AT THAT TIME, RESPONSIBILITY FOR LONG TERM MAINTENANCE OF STORMWATER CONTROLS SHALL BE ASSUMED BY THE HOMEOWNER'S ASSOCIATION. IF A HOMEOWNER'S ASSOCIATION IS NOT FORMED, THE OWNER IS TO PROVIDE LONG TERM MAINTENANCE FOR THE SITE.
13. DELAWARE REGULATIONS PROHIBIT THE BURIAL OF CONSTRUCTION AND DEMOLITION DEBRIS, INCLUDING TREES AND STUMPS, ON CONSTRUCTION SITES, ANY SOLID WASTE FOUND DURING EXCAVATION FOR STRUCTURES AND UTILITY LINES, ON AND OFF SITE, MUST BE REMOVED AND PROPERLY DISCARDED. ANY REMEDIAL ACTION REQUIRED IS THE RESPONSIBILITY OF THE DEVELOPER/OWNER.
14. DRAWINGS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED, AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
15. DEVELOPER SHALL INSTALL ONSITE LIGHTING TO ILLUMINATE STREETS, PARKING AREAS, AND WALKWAYS, IN ACCORDANCE WITH CITY REGULATIONS.
16. PROPERTY OWNERS OWN AND MAINTAIN THE SIDEWALKS DIRECTLY IN-FRONT OF THEIR PROPERTY. SIDEWALKS ALONG OR IN OPEN SPACES SHALL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION.
17. SOURCE WATER PROTECTION AREA EXIST ON-SITE.

DATA COLUMN

TAX MAP ID:	1-30-6.00-108.00 1-30-3.00-264 & 264.01
PROJECT LOCATION:	TOWN OF MILFORD, CEDAR CREEK HUNDRED, SUSSEX COUNTY
OWNER/DEVELOPER:	MILFORD PONDS, LLC 179 REHOBOTH AVENUE, SUITE 1081 REHOBOTH BEACH, DE 19971
ENGINEER/SURVEYOR:	DAVIS, BOWEN & FRIEDEL, INC. 1 PARK AVENUE MILFORD, DE 19963 302-424-1441
EXISTING/PROPOSED ZONING:	R-1, R-2, R-3, W/PUD
TOTAL SITE AREA:	178.03 AC.± PHASE 1: 119.19 AC.± PHASE 2: 28.06 AC.± PHASE 3: 12.15 AC.± PHASE 4: 18.46 AC.±
GROSS AREA:	R-1 = 71.02 AC, R-2 = 50.19 AC, R-3 = 47.82 AC
NET DEVELOPMENT AREA:	R-1 = 53.27 AC, R-2 = 38.19 AC, R-3 = 35.86 AC
MAX DENSITY ALLOWED:	R-1 = 4, R-2 = 6, R-3 = 16
UNITS ALLOWED:	R-1 = 213(53.27 x 4), R-2 = 229(38.19 x 6), R-3 = 573(35.86 x 16)
TOTAL NUMBER OF UNITS ALLOWED:	1015
TOTAL NUMBER OF UNITS PROVIDED:	768
PHASE 2 TOTAL:	89
SINGLE FAMILY DWELLING:	89
BUILDING CONSTRUCTION TYPE:	MASONARY & TIMBER
TOTAL PROPOSED RIGHT-OF-WAY:	1.99 AC.±
TOTAL AREA OF LOTS:	14.70 AC.±
OVERALL DENSITY :	4.31 UNITS/ACRE
PHASE 1 TOTAL:	363
SINGLE FAMILY DWELLING:	363
PHASE 2 TOTAL:	89
SINGLE FAMILY DWELLING:	89
PHASE 3 TOTAL:	52
SINGLE FAMILY DWELLING:	52
PHASE 4 TOTAL:	264
11 APARTMENT BUILDINGS WITH 24 UNITS	264
COMMUNITY BUILDING SIZE:	±40'x ±95'
COMMUNITY BUILDING LOCATION:	CORNER OF W. HEIRLOOM WAY & CLUBHOUSE DR.
TOTAL PROPOSED RIGHT-OF-WAY:	18.90 AC.±
PHASE 1:	15.51 AC.±
PHASE 2:	1.99 AC.±
PHASE 3:	1.60 AC.±
PHASE 4:	0.00 AC.±
TOTAL AREA OF LOTS:	105.22 AC.±
PHASE 1:	65.44 AC.±
PHASE 2:	14.70 AC.±
PHASE 3:	10.55 AC.±
PHASE 4:	18.46 AC.±
TOTAL REQUIRED OPEN SPACE:	(768 DWELLING UNITS x 400 SF)= 7.05 AC.±
REQUIRED RECREATIONAL AREA:	(OPEN SPACE x 50%) = 3.525 AC.±
TOTAL SITE (ALL PHASES)	
WETLANDS:	8.31 Ac.±
OPEN SPACE AREA:	22.94 Ac.±
FUTURE CLUBHOUSE RESORT AREA:	6.32 Ac.±
TOTAL OPEN SPACE PROVIDED:	47.57 AC.±
RECREATIONAL AREA PROVIDED:	22.46 AC.±
AVERAGE DENSITY OF LOTS:	6.05 UNITS/ACRE
MINIMUM LOT SIZE:	5,772 SQ.FT.±
MAXIMUM LOT SIZE:	16,782 SQ.FT.±
AVERAGE LOT SIZE:	7,195 SQ.FT.±
MAXIMUM IMPERVIOUS COVERAGE:	35%
PROPOSED SEWER:	CITY OF MILFORD
PROPOSED WATER:	CITY OF MILFORD
ELECTRIC SERVICE:	CITY OF MILFORD
SCHOOL DISTRICT:	MILFORD
FIRE DEPARTMENT:	MILFORD
VERTICAL DATUM:	NAVD 88
HORIZONTAL DATUM:	NAD 83
NUMBER OF MONUMENTS FOUND:	14
NUMBER OF MONUMENTS SET:	12



VICINITY MAP SCALE: 1" = 1/2 MILE

INDEX OF DRAWINGS:

R2.0	PHASE 2 RECORD TITLE SHEET
R2.1	KEY MAP
R2.2	PHASE 2 RECORD PLAN
R2.3	PHASE 2 RECORD PLAN

DELDOT GENERAL NOTES

3/21/2019

1. ALL ENTRANCES SHALL CONFORM TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S (DELDOT'S) CURRENT DEVELOPMENT COORDINATION MANUAL AND SHALL BE SUBJECT TO ITS APPROVAL.
2. NO LANDSCAPING SHALL BE ALLOWED WITHIN THE RIGHT-OF-WAY UNLESS THE PLANS ARE COMPLIANT WITH SECTION 5.7 OF THE DEVELOPMENT COORDINATION MANUAL.
3. SHRUBBERY, PLANTINGS, SIGNS AND/OR OTHER VISUAL BARRIERS THAT COULD OBSTRUCT THE SIGHT DISTANCE OF A DRIVER PREPARING TO ENTER THE ROADWAY ARE PROHIBITED WITHIN THE DEFINED DEPARTURE SIGHT TRIANGLE AREA ESTABLISHED ON THIS PLAN. IF THE ESTABLISHED DEPARTURE SIGHT TRIANGLE AREA IS OUTSIDE THE RIGHT-OF-WAY OR PROJECTS ONTO AN ADJACENT PROPERTY OWNER'S LAND, A SIGHT EASEMENT SHOULD BE ESTABLISHED AND RECORDED WITH ALL AFFECTED PROPERTY OWNERS TO MAINTAIN THE REQUIRED SIGHT DISTANCE.
4. UPON COMPLETION OF THE CONSTRUCTION OF THE SIDEWALK OR SHARED-USE PATH ACROSS THIS PROJECT'S FRONTAGE AND PHYSICAL CONNECTION TO ADJACENT EXISTING FACILITIES, THE DEVELOPER, THE PROPERTY OWNERS OR BOTH ASSOCIATED WITH THIS PROJECT, SHALL BE RESPONSIBLE TO REMOVE ANY EXISTING ROAD TIE-IN CONNECTIONS LOCATED ALONG ADJACENT PROPERTIES, AND RESTORE THE AREA TO GRASS. SUCH ACTIONS SHALL BE COMPLETED AT DELDOT'S DISCRETION, AND IN CONFORMANCE WITH DELDOT'S DEVELOPMENT COORDINATION MANUAL.
5. SUBDIVISION STREETS CONSTRUCTED WITHIN THE LIMITS OF THE RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE SHOWN ON THIS PLAN ARE TO BE MAINTAINED BY THE CITY OF MILFORD FOLLOWING THE COMPLETION OF THE STREETS BY THE DEVELOPER TO THE SATISFACTION OF THE CITY. THE CITY ASSUMES NO MAINTENANCE RESPONSIBILITIES WITHIN THE DEDICATED STREET RIGHT-OF-WAY UNTIL THE STREETS HAVE BEEN ACCEPTED BY THE STATE.
6. THE SIDEWALK SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, THE PROPERTY OWNERS OR BOTH WITHIN THIS SUBDIVISION. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITY FOR THE FUTURE MAINTENANCE FOR THE SIDEWALK.
7. ALL LOTS SHALL HAVE ACCESS FROM THE INTERNAL SUBDIVISION STREET.
8. DRIVEWAYS WILL NOT BE PERMITTED TO BE PLACED AT CATCH BASIN LOCATIONS.
9. LOTS WILL BE PERMITTED TO HAVE ACCESS POINTS THAT COMPLY WITH THE DEVELOPMENT COORDINATION MANUAL (DCM) SPACING REQUIREMENTS OF CHAPTER 1 AND LIMITATIONS ON NUMBER OF ACCESS POINTS ESTABLISHED IN DCM CHAPTER 5. MULTIPLE DRIVEWAYS AND SECONDARY ENTRANCES REQUIRE ADDITIONAL DELDOT REVIEW AND SEPARATE PERMITTING, RESTRICTIONS AS DESCRIBED IN THE DCM CHAPTER 7 MAY PROHIBIT SOME SECONDARY ENTRANCE REQUESTS FROM BEING GRANTED.
10. TO MINIMIZE RUTTING AND EROSION OF THE ROADSIDE DUE TO ON-STREET PARKING, DRIVEWAY AND BUILDING LAYOUTS MUST BE CONFIGURED TO ALLOW FOR VEHICLES TO BE STORED IN THE DRIVEWAY BEYOND THE RIGHT-OF-WAY, WITHOUT INTERFERING WITH SIDEWALK ACCESS AND CLEARANCE.
11. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MONUMENTS IN ACCORDANCE WITH DELDOT'S DEVELOPMENT COORDINATION MANUAL.
12. THE DEVELOPER SHALL BE REQUIRED TO FURNISH AND PLACE RIGHT-OF-WAY MONUMENTS ON THE DESIGNATED SUBDIVISION STREET RIGHT-OF-WAY IN ACCORDANCE WITH SECTION 3.2.4.1 OF THE DEVELOPMENT COORDINATION MANUAL, AND THE REQUIREMENTS OF THE LAND USE AGENCY. RIGHT-OF-WAY MONUMENTS SHALL BE PLACED ALONG THE RIGHT-OF-WAY LINES, AT A MINIMUM ON ONE SIDE OF THE STREET AT EVERY CHANGE IN HORIZONTAL ALIGNMENT TO PROVIDE A PERMANENT REFERENCE FOR THE RE-ESTABLISHING THE CENTERLINE AND RIGHT-OF-WAY LINE.
13. THE DEVELOPER HAS ENTERED INTO A MEMORANDUM OF UNDERSTANDING DATED SEPTEMBER 18, 2017 AND IS ON FILE AT THE DEPARTMENT. THE DEVELOPER SHALL COMPLY WITH ITEM 4 OF THE MEMORANDUM AND IT STATES: "WHILE THE ACCESS IS UNDER REVIEW/RECONSTRUCTION AND THE UPDATED TRAFFIC IMPACT STUDY IS BEING PREPARED, DELDOT WILL ALLOW THE BUILDING PERMITS FOR THE FIRST 4 UNITS FOR THE 4 MODEL HOMES. ONCE THE PUNCH LIST IS COMPLETED DELDOT WILL ALLOW FOR 160 CERTIFICATES OF OCCUPANCY. NO OTHER BUILDING PERMITS OR C/O SHOULD BE ISSUED UNTIL SUCH TIME THE UPDATED TIS IS COMPLETED AND FINDINGS AGREED TO."

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

DELDOT TIS NOTES (11/6/2019 FINAL)

1. THE DEVELOPER SHOULD MODIFY THE EXISTING FULL-MOVEMENT SITE ACCESS ON S. WALNUT STREET. THE PROPOSED CONFIGURATION IS SHOWN IN THE TABLE BELOW.

APPROACH	EXISTING CONFIGURATION	PROPOSED CONFIGURATION
EASTBOUND SITE ACCESS	ONE SHARED LEFT-TURN/ RIGHT-TURN LANE (STUB IS CURRENTLY CONSTRUCTED)	ONE SHARED LEFT-TURN/ RIGHT-TURN LANE
NORTHBOUND S. WALNUT STREET	ONE SHARED LEFT-TURN/THROUGH LANE	ONE LEFT-TURN LANE AND ONE THROUGH LANE
SOUTHBOUND S. WALNUT STREET	ONE THROUGH LANE, ONE BICYCLE LANE, AND ONE RIGHT-TURN LANE	ONE THROUGH LANE, ONE BICYCLE LANE, AND ONE RIGHT-TURN LANE

INITIAL RECOMMENDED MINIMUM TURN-LANE LENGTHS (EXCLUDING TAPERS) OF THE SEPARATE TURN LANES ARE LISTED BELOW. THE DEVELOPER SHOULD COORDINATE WITH DELDOT'S DEVELOPMENT COORDINATION SECTION TO DETERMINE FINAL TURN-LANE LENGTHS DURING THE SITE PLAN REVIEW PROCESS.

APPROACH	LEFT-TURN LANE	RIGHT-TURN
EASTBOUND SITE ACCESS	N/A	N/A
NORTHBOUND S. WALNUT STREET	95 FEET*	N/A
SOUTHBOUND S. WALNUT STREET	N/A	100 FEET**

* INITIAL TURN-LANE LENGTH BASED ON DELDOT'S AUXILIARY LANE WORKSHEET

** INITIAL TURN-LANE LENGTH BASED ON DELDOT'S AUXILIARY LANE WORKSHEET. EXISTING TURN LANE EXCEEDS THIS LENGTH AND IS ACCEPTABLE TO REMAIN.

2. THE DEVELOPER SHOULD IMPROVE S. WALNUT STREET FROM THE BEGINNING OF THE TRANSITION FOR THE NORTHBOUND LEFT-TURN LANE (DESCRIBED ABOVE IN ITEM NO. 1) TO THE SOUTHERN EDGE OF TAX PARCEL 1-30-3.00-263 (APPROXIMATELY 1,550 FEET NORTH OF THE SITE ACCESS). THE ROAD SHOULD BE IMPROVED AS NEEDED TO PROVIDE ELEVEN-FOOT TRAVEL LANES AND FIVE-FOOT SHOULDERS. DETAILS OF THE IMPROVEMENT MUST BE COORDINATED WITH DELDOT'S DEVELOPMENT COORDINATION SECTION. THE DEVELOPER SHOULD PROVIDE A BITUMINOUS CONCRETE OVERLAY TO THE EXISTING TRAVEL LANES, AT DELDOT'S DISCRETION. DELDOT SHOULD ANALYZE THE EXISTING LANE'S PAVEMENT SECTION AND RECOMMEND AN OVERLAY THICKNESS TO THE DEVELOPER'S ENGINEER IF NECESSARY.
3. PRIOR TO ISSUANCE OF THE 227TH BUILDING PERMIT, THE DEVELOPER SHALL MODIFY THE EXISTING RIGHT-IN/LEFT-IN/RIGHT-OUT SITE ACCESS ON US ROUTE 113. THE PROPOSED CONFIGURATION IS SHOWN IN THE TABLE BELOW. ASIDE FROM THE RECOMMENDED EXTENSION OF THE RIGHT-TURN LANE ON NORTHBOUND US ROUTE 113, THE PROPOSED CONFIGURATION HAS ALREADY BEEN CONSTRUCTED.

APPROACH	EXISTING CONFIGURATION	PROPOSED CONFIGURATION
WESTBOUND SITE ACCESS	ONE RIGHT-TURN LANE	ONE RIGHT-TURN LANE
NORTHBOUND US ROUTE 113	ONE U-TURN LANE, TWO THROUGH LANES, AND ONE RIGHT-TURN LANE	ONE U-TURN LANE, TWO THROUGH LANES, AND ONE RIGHT-TURN LANE
SOUTHBOUND US ROUTE 113	ONE U-TURN / LEFT-TURN LANE AND TWO THROUGH LANES	ONE U-TURN / LEFT-TURN LANE AND TWO THROUGH LANES

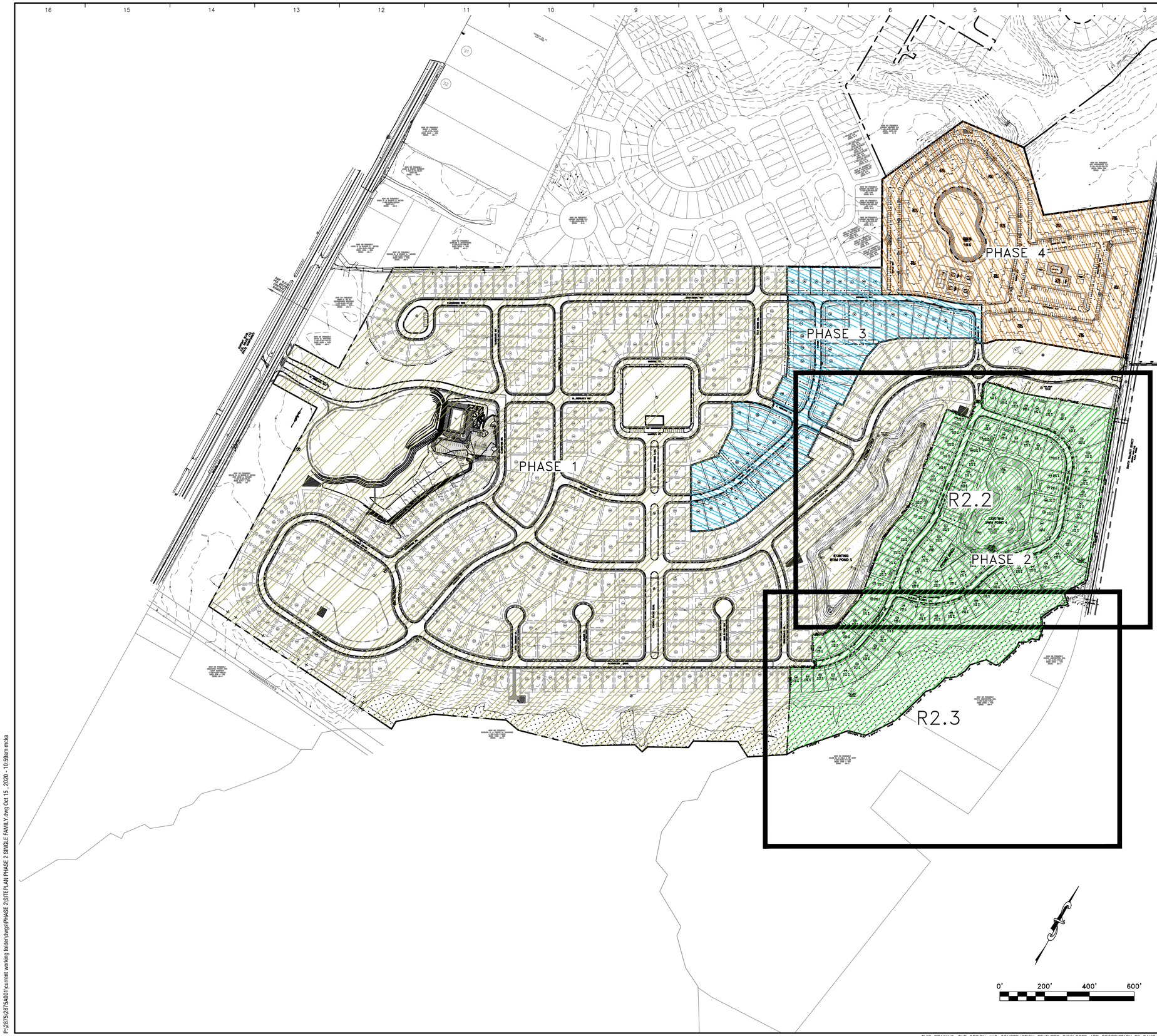
INITIAL RECOMMENDED MINIMUM TURN-LANE LENGTHS (EXCLUDING TAPERS) OF THE SEPARATE TURN LANES ARE LISTED BELOW. THE DEVELOPER SHOULD COORDINATE WITH DELDOT'S DEVELOPMENT COORDINATION SECTION TO DETERMINE FINAL TURN-LANE LENGTHS DURING THE SITE PLAN REVIEW.

APPROACH	LEFT-TURN LANE	RIGHT-TURN
WESTBOUND SITE ACCESS	N/A	N/A
NORTHBOUND US ROUTE 113	N/A	380 FEET*
SOUTHBOUND US ROUTE 113	315 FEET **	N/A

* INITIAL TURN-LANE LENGTH BASED ON COORDINATION WITH DELDOT. LENGTH OF THE FULL-WIDTH PORTION OF THE NORTHBOUND RIGHT-TURN LANE SHOULD BE APPROXIMATELY 380 FEET (EXTENDING TO WHERE THE EXISTING CURB BEGINS AND THE SHOULDER WIDTH CHANGES), AND SHOULD HAVE AN 80-FOOT TAPER.

** INITIAL TURN-LANE LENGTH BASED ON DELDOT'S AUXILIARY LANE WORKSHEET. EXISTING TURN LANE EXCEEDS THIS LENGTH AND IS ACCEPTABLE TO REMAIN.

4. THE DEVELOPER SHOULD ENTER INTO A TRAFFIC SIGNAL AGREEMENT WITH DELDOT FOR DESIGN AND CONSTRUCTION OF A FUTURE TRAFFIC SIGNAL FOR THE INTERSECTION OF N. OLD STATE ROAD AND JOHNSON ROAD. THE AGREEMENT SHOULD INCLUDE PEDESTRIAN SIGNALS, CROSSWALKS, INTERCONNECTION, AND ITS EQUIPMENT SUCH AS CCTV CAMERAS AT DELDOT'S DISCRETION. THE CONSTRUCTION SCHEDULE OF THE NEW TRAFFIC SIGNAL IS YET TO BE DETERMINED BY DELDOT. THE DEVELOPER SHOULD COORDINATE WITH DELDOT ON THE DESIGN DETAILS AND IMPLEMENTATION OF THE TRAFFIC SIGNAL. THE AGREEMENT SHOULD PROVIDE FOR INSTALLATION AND ACTIVATION OF THE SIGNAL AT DELDOT'S DISCRETION. ENTERING INTO A TRAFFIC SIGNAL REVOLVING FUND AGREEMENT FOR THIS INTERSECTION IS AN OPTION INSTEAD OF THE TRADITIONAL TRAFFIC SIGNAL AGREEMENT. THE DEVELOPER SHOULD COORDINATE WITH DELDOT'S DEVELOPMENT COORDINATION SECTION TO DETERMINE WHICH TYPE OF AGREEMENT NEEDED AND DETAILS THEREOF.
5. THE FOLLOWING BICYCLE, PEDESTRIAN, AND TRANSIT IMPROVEMENTS SHOULD BE INCLUDED:
    A. ADJACENT TO THE RIGHT-TURN LANE ON SOUTHBOUND S. WALNUT STREET AT THE SITE ENTRANCE, THERE IS AN EXISTING FIVE-FOOT WIDE BICYCLE LANE THAT MUST BE RETAINED AS THAT SITE ENTRANCE INTERSECTION IS RECONSTRUCTED IN ACCORDANCE WITH ITEM NO. 1 ABOVE. THIS BICYCLE LANE MUST BE DEDICATED AND STRIPED WITH APPROPRIATE MARKINGS FOR BICYCLISTS.
    B. APPROPRIATE BICYCLE SYMBOLS, DIRECTIONAL ARROWS, PAVEMENT MARKINGS, AND SIGNING SHOULD BE INCLUDED ALONG BICYCLE FACILITIES AND TURN LANES WITHIN THE PROJECT LIMITS.
    C. UTILITY COVERS SHOULD BE MADE FLUSH WITH THE PAVEMENT.
    D. IF A CLUBHOUSE OR OTHER COMMUNITY FACILITY IS CONSTRUCTED AS SHOWN ON THE PROVIDED MASTER PLAN, BIKE PARKING SHOULD BE PROVIDED NEAR THE BUILDING ENTRANCES, WHERE THE BUILDING ARCHITECTURE PROVIDES FOR AN AWNING OR OTHER OVERHANG, THE BIKE PARKING SHOULD BE COVERED.
    E. A MINIMUM 15-FOOT WIDE PERMANENT EASEMENT FROM THE EDGE OF THE RIGHT-OF-WAY SHOULD BE DEDICATED TO DELDOT WITHIN THE SITE FRONTAGE ALONG US ROUTE 113.
    F. A MINIMUM 15-FOOT WIDE PERMANENT EASEMENT FROM THE EDGE OF THE RIGHT-OF-WAY SHOULD BE DEDICATED TO DELDOT ALONG THE WEST SIDE OF S. WALNUT STREET FROM THE BEGINNING OF THE TRANSITION FOR THE NORTHBOUND LEFT-TURN LANE (DESCRIBED ABOVE IN ITEM NO. 1) TO THE SOUTHERN EDGE OF TAX PARCEL 1-30-3.00-263 (APPROXIMATELY 1,550 FEET NORTH OF THE SITE ACCESS).
    G. WITHIN THE ENTIRE LENGTH OF THE EASEMENT ALONG S. WALNUT STREET (AS DESCRIBED ABOVE IN ITEM NO. 5.F.), A MINIMUM OF A TEN-FOOT WIDE SHARED-USE PATH (SUP) THAT MEETS CURRENT AASHTO AND ADA STANDARDS SHOULD BE CONSTRUCTED ALONG THE SITE FRONTAGE. THE SUP SHOULD HAVE A MINIMUM OF A FIVE-FOOT BUFFER FROM THE ROADWAY. AT THE NORTH END OF ITS LENGTH, THE SUP SHOULD CONNECT TO THE ADJACENT PROPERTY. AT THE SOUTH END, THE SUP SHOULD CONNECT TO THE SHOULDER. THE DEVELOPER SHOULD COORDINATE WITH DELDOT'S DEVELOPMENT COOR



DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

KEY MAP

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD

SUSSEX COUNTY, DELAWARE

Revisions:
⚠ 08/05/20 PER DELDOT COMMENTS

Date:	JUNE 2020
Scale:	1"=200'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	R2.1

P:\2875\2875A001\current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15 , 2020 - 10:59am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020



DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
900 S. BOUNDARY LANE (410) 742-3115
EASTON, MARYLAND (410) 770-4744

PHASE 2 RECORD PLAN

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD

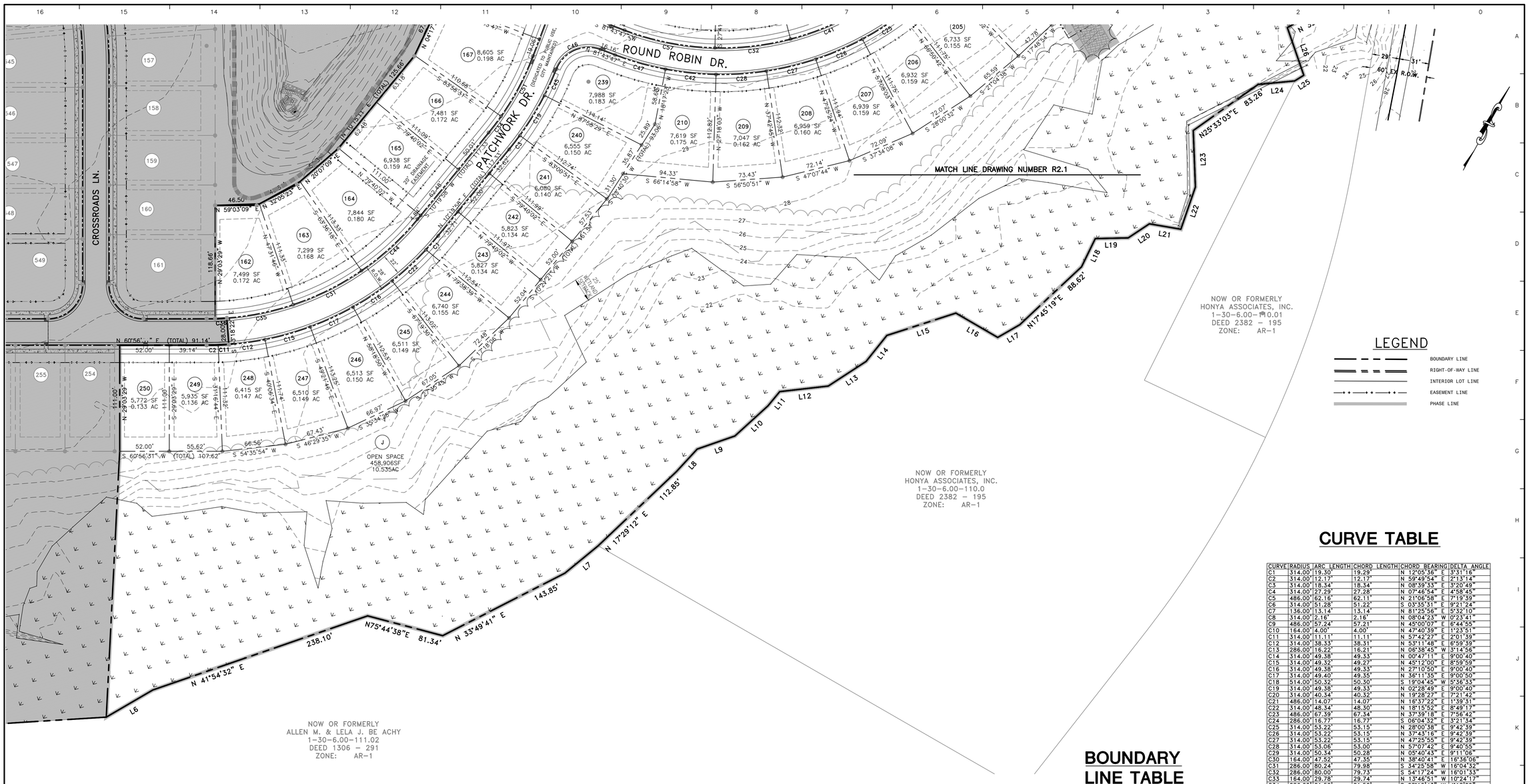
SUSSEX COUNTY, DELAWARE

Revisions:
⚠ 08/05/20 PER DELDOT COMMENTS

Date:	JUNE 2020
Scale:	1"=50'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	R2.2

P:\2875\2875A001\current working folder\dwgs\PHASE 2-SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15, 2020 - 10:59am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

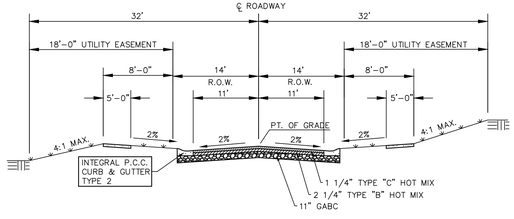


CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	314.00'	19.30'	19.29'	N 12°05'36" E	3°31'16"
C2	314.00'	12.17'	12.17'	N 59°49'54" E	2°13'14"
C3	314.00'	18.34'	18.34'	N 08°39'33" E	3°20'49"
C4	314.00'	27.29'	27.28'	N 07°46'54" E	4°58'45"
C5	486.00'	62.18'	62.11'	N 21°06'58" E	7°19'39"
C6	314.00'	51.28'	51.22'	S 03°25'51" E	9°21'24"
C7	136.00'	13.14'	13.14'	N 81°25'56" E	5°32'10"
C8	314.00'	2.16'	2.16'	N 08°04'23" W	0°23'41"
C9	486.00'	57.24'	57.21'	N 45°00'07" E	6°44'55"
C10	164.00'	4.00'	4.00'	N 47°40'39" E	1°23'51"
C11	314.00'	11.11'	11.11'	N 57°42'27" E	2°01'39"
C12	314.00'	38.33'	38.31'	N 53°11'48" E	6°59'39"
C13	286.00'	16.22'	16.21'	N 06°38'45" W	3°14'56"
C14	314.00'	49.38'	49.33'	N 00°47'11" E	9°00'40"
C15	314.00'	49.32'	49.27'	N 45°12'00" E	8°59'59"
C16	314.00'	49.38'	49.33'	N 27°10'50" E	9°00'40"
C17	314.00'	49.40'	49.35'	N 36°11'35" E	9°00'50"
C18	514.00'	50.32'	50.30'	S 19°04'45" W	5°36'53"
C19	314.00'	49.38'	49.33'	N 02°28'49" E	9°00'40"
C20	314.00'	40.34'	40.32'	N 19°28'27" E	7°21'42"
C21	486.00'	14.07'	14.07'	N 16°37'22" E	1°39'31"
C22	314.00'	48.34'	48.30'	N 18°15'52" E	8°49'17"
C23	486.00'	67.39'	67.34'	N 37°39'18" E	7°56'42"
C24	286.00'	16.77'	16.77'	S 06°04'32" E	3°21'34"
C25	314.00'	53.22'	53.15'	N 28°00'38" E	9°42'39"
C26	314.00'	53.22'	53.15'	N 37°43'16" E	9°42'39"
C27	314.00'	53.22'	53.15'	N 47°25'55" E	9°42'39"
C28	314.00'	53.06'	53.00'	N 57°07'42" E	9°40'55"
C29	314.00'	50.34'	50.28'	N 05°40'43" E	9°11'06"
C30	164.00'	47.52'	47.35'	N 38°40'41" E	16°36'06"
C31	286.00'	80.24'	79.98'	S 54°25'58" W	16°04'32"
C32	286.00'	80.00'	79.73'	S 54°17'24" W	16°01'33"
C33	164.00'	29.78'	29.74'	N 13°46'51" W	10°24'17"
C34	286.00'	21.50'	21.50'	S 08°10'43" W	4°18'29"
C35	286.00'	71.00'	70.81'	S 49°34'56" W	14°13'24"
C36	286.00'	12.34'	12.34'	S 57°55'47" W	2°28'19"
C37	286.00'	76.34'	76.11'	N 02°37'29" E	15°17'34"
C38	514.00'	4.32'	4.32'	S 18°02'02" W	0°28'52"
C39	286.00'	71.81'	71.62'	S 22°59'12" W	14°23'11"
C40	164.00'	35.22'	35.15'	N 25°08'05" W	12°18'11"
C41	286.00'	80.35'	80.09'	S 38°13'43" W	16°05'50"
C42	314.00'	53.38'	53.32'	N 66°50'24" E	9°44'28"
C43	164.00'	10.43'	10.43'	S 80°29'09" W	3°38'37"
C44	286.00'	80.18'	79.91'	S 18°21'50" W	16°03'44"
C45	314.00'	30.34'	30.33'	N 04°47'37" W	5°32'11"
C46	36.00'	56.10'	50.60'	N 37°05'02" E	89°17'29"
C47	314.00'	54.91'	54.84'	N 76°43'12" E	10°01'09"
C48	164.00'	51.71'	51.50'	N 21°20'39" E	18°03'59"
C49	36.00'	54.30'	49.30'	N 35°27'16" E	86°25'10"
C50	286.00'	73.21'	73.01'	S 02°56'16" W	14°40'01"
C51	286.00'	71.36'	71.17'	S 01°07'22" E	14°17'42"
C52	36.00'	49.30'	45.54'	N 62°06'15" W	78°27'47"
C53	214.00'	4.78'	4.78'	N 23°30'48" W	1°16'52"
C54	47.00'	34.65'	33.87'	N 03°01'56" W	42°14'35"
C55	164.00'	59.79'	59.46'	N 01°51'59" E	20°53'22"
C56	164.00'	47.52'	47.35'	N 39°35'13" W	16°36'06"
C57	286.00'	96.97'	96.51'	S 72°00'59" W	19°25'36"
C58	36.00'	56.55'	50.91'	N 53°16'13" W	90°00'00"
C59	164.00'	47.52'	47.35'	N 89°23'30" W	16°36'06"
C60	136.00'	159.87'	150.89'	S 14°41'36" W	67°21'10"
C61	136.00'	182.34'	168.98'	S 57°23'29" E	76°48'59"
C62	164.00'	47.52'	47.35'	N 56°11'18" W	16°36'06"
C63	164.00'	47.52'	47.35'	N 72°47'24" W	16°36'06"
C64	314.00'	22.12'	22.11'	N 05°44'14" W	4°02'10"
C65	486.00'	75.52'	75.44'	S 29°13'52" W	8°54'10"
C66	514.00'	237.66'	235.55'	N 35°07'48" E	26°29'33"
C67	186.00'	52.75'	52.57'	N 13°52'48" W	16°14'58"

BOUNDARY LINE TABLE

LINE	BEARING	DISTANCE
L6	S 30°42'10" W	56.55'
L7	S 21°29'35" W	45.05'
L8	S 13°36'32" W	32.30'
L9	S 41°41'39" W	41.84'
L10	S 18°34'52" W	46.92'
L11	S 10°34'32" W	19.34'
L12	S 54°25'00" W	51.14'
L13	S 27°54'47" W	47.33'
L14	S 09°35'35" W	34.89'
L15	S 42°58'33" W	76.02'
L16	N 88°51'15" W	50.74'
L17	S 30°54'31" W	26.75'
L18	S 03°00'55" E	32.86'
L19	S 59°38'18" W	34.50'
L20	S 27°19'36" W	26.67'
L21	S 70°41'53" W	33.44'
L22	S 09°58'45" E	46.81'
L23	S 31°12'39" E	59.31'
L24	S 55°23'17" W	38.64'
L25	S 28°42'11" W	11.17'
L26	S 48°08'15" E	52.86'



ROUND ROBIN DRIVE
0+00.00 - 16+55.46

PATCHWORK DRIVE
21+50.00 - 35+90.00

REQUIRED STRUCTURAL NUMBER = 2.00
PROPOSED STRUCTURAL NUMBER = 2.94

0' 50' 100' 150'

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
OCEAN CITY, MARYLAND (302) 641-1444
EASTON, MARYLAND (410) 770-4744

PHASE 2 RECORD PLAN

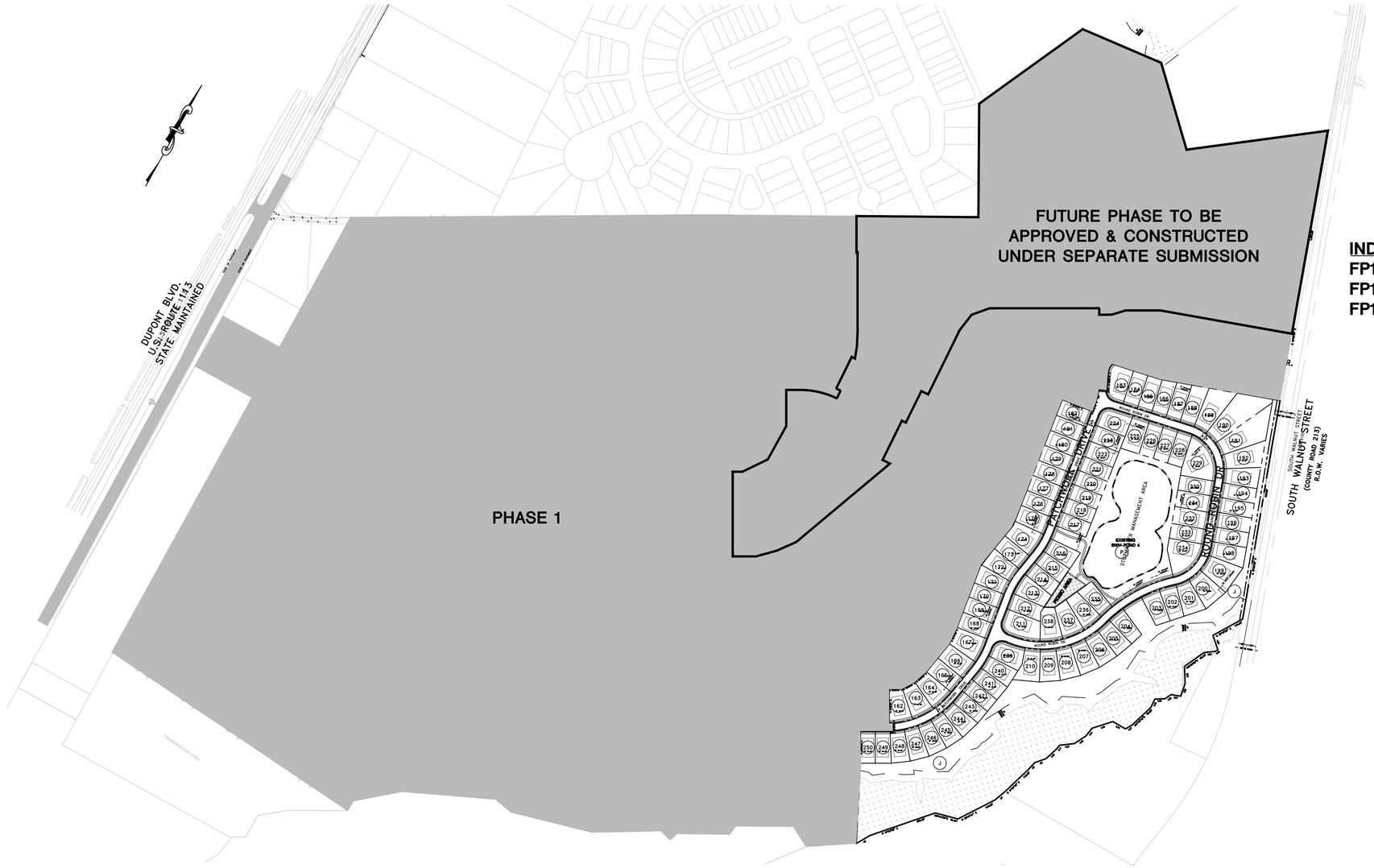
MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:
⚠ 08/05/20 PER DELDOT COMMENTS

Date: JUNE 2020
Scale: 1"=50'
Dwn.By: ADM
Proj.No.: 2875A001
Dwg.No.: R2.3

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\SITEPLAN PHASE 2 SINGLE FAMILY.dwg Oct 15 2020 - 11:01am mecka

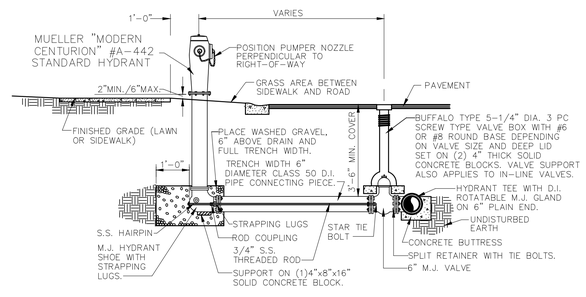


INDEX OF DRAWINGS

FP1.1 FIRE PROTECTION OVERVIEW PLAN & DETAILS
FP1.2 FIRE PROTECTION PLAN
FP1.3 FIRE PROTECTION PLAN

FIRE PROTECTION NOTES

1. TOWNHOUSE BUILDINGS WILL NOT BE SPRINKLERED BUT WILL CONTAIN WALL SEPARATION BETWEEN UNITS ACCORDING TO DETAIL FOUND ON THIS SHEET.
2. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
3. ALL PROPOSED BUILDINGS REQUIRE A 2 HOUR FIRE WALL RATING IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
4. PROPOSED BUILDING CONSTRUCTION IS NFPA TYPE V & 2 STORY WOOD FRAME TOWNHOUSES
5. WATER SUPPLIER: CITY OF MILFORD
6. NATURAL GAS SUPPLIER: CHESAPEAKE UTILITIES CORP.



FIRE HYDRANT DETAIL

N.T.S.

= SINGLE FAMILY RESIDENCE

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

FIRE PROTECTION OVERVIEW PLAN & DETAILS

MILFORD PONDS - PHASE 2
CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	AS SHOWN
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	FP1.1

P:\2875\2875A001\current working folder\dwgs\PHASE 2\FIRE PROTECTION.dwg Oct 15 , 2020 - 11:01am mcka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

MATCHLINE SHEET FP1.3

PHASE 1

PHASE 1

ROUND ROBIN DR.

PATCHWORK DRIVE

N 04°17'33" W

N 59°03'09" E

N 32°03'23" E

N 20°07'09" E

N 59°03'09" E

N 32°03'23" E

N 20°07'09" E

25' WETLAND SETBACK

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

28' R.O.W.

8" W

8" W

L6 N 41°54'32" E 238.10'

L7 N 75°44'38" E 81.34'

L8 N 33°49'41" E 143.85'

L9 N 17°29'12" E 112.85'

L10

L11

L12

L13

L14

L15

L16

L17 N17°45'19"E 88.62'

L18

L19

L20

L21

L22

NOTE LEGEND

(A) PROPOSED STOP SIGN (R1-1)

(B) PROPOSED HANDICAP RAMP

(C) PROPOSED FIRE HYDRANT ASSEMBLY

0' 50' 100' 150'

DAVIS, BOWEN & FRIEDEL, INC.

ARCHITECTS ENGINEERS SURVEYORS

SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

FIRE PROTECTION PLAN

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD

SUSSEX COUNTY, DELAWARE

Revisions:

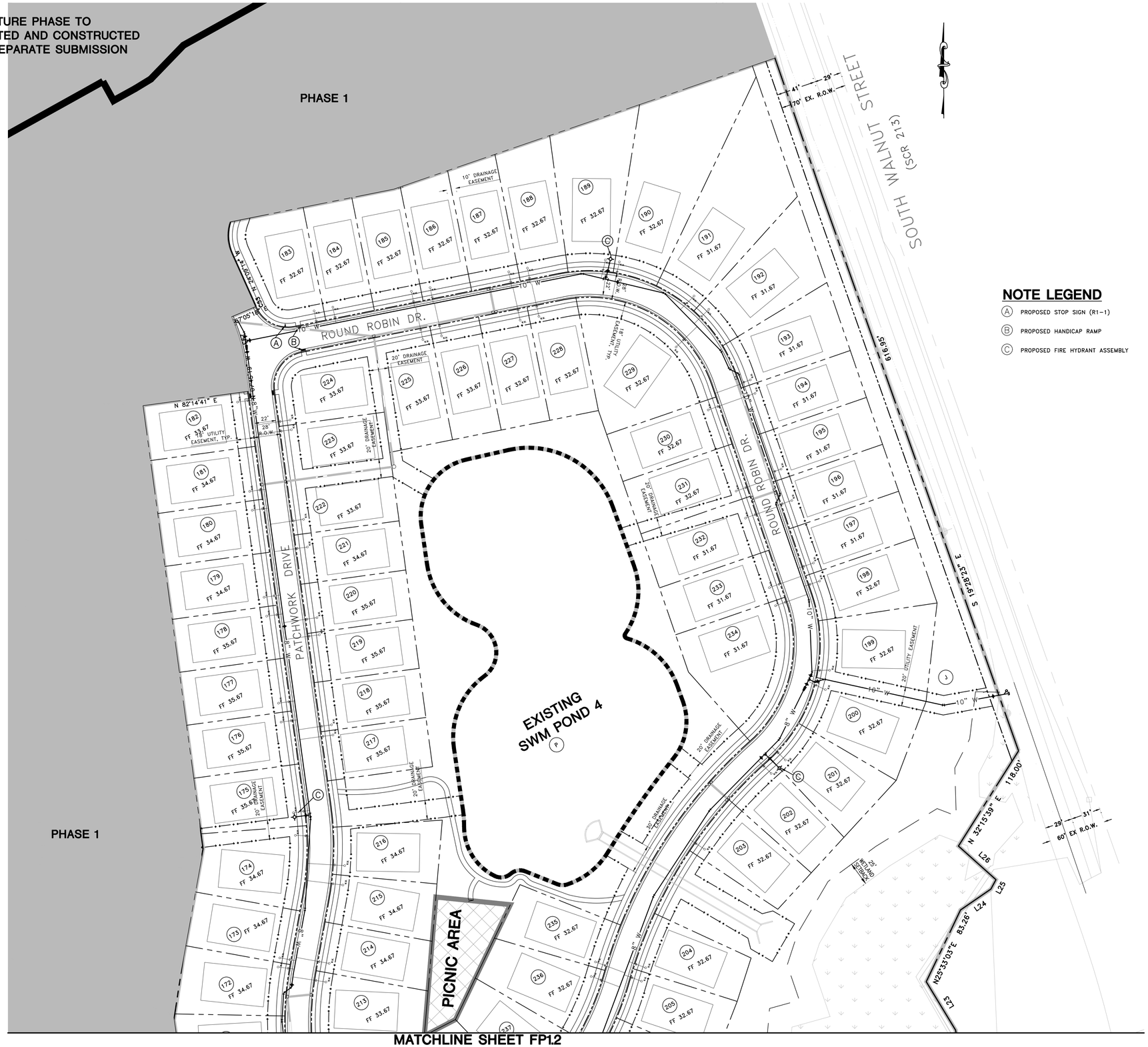
Date:	JUNE 2020
Scale:	1"=50'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	FP1.2

P:\2875\2875A001\current working folder\dwgs\PHASE 2\FIRE PROTECTION.dwg Oct 15, 2020 - 11:01am micka

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

FUTURE PHASE TO
BE SUBMITTED AND CONSTRUCTED
UNDER SEPARATE SUBMISSION

PHASE 1



NOTE LEGEND

(A) PROPOSED STOP SIGN (R1-1)

(B) PROPOSED HANDICAP RAMP

(C) PROPOSED FIRE HYDRANT ASSEMBLY

0' 50' 100' 150'

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

FIRE PROTECTION PLAN

MILFORD PONDS - PHASE 2

CEDAR CREEK HUNDRED, CITY OF MILFORD
SUSSEX COUNTY, DELAWARE

Revisions:

Date:	JUNE 2020
Scale:	1"=50'
Dwn.By:	ADM
Proj.No.:	2875A001
Dwg.No.:	FP1.3

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC., AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2020

P:\2875\2875A001\current working folder\dwgs\PHASE 2\FIRE PROTECTION.dwg Oct 15, 2020 - 11:01am mcka

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

JENNIFER COHAN
SECRETARY

September 15, 2020

Mr. Rob Pierce, Director
City of Milford
201 S Walnut St
Milford, Delaware 19963

SUBJECT: Letter of No Objection to Recordation
Milford Ponds
Tax Parcel # 130-6.00-108.00
SCR113-DUPONT BOULEVARD
SCR213-WALNUT STREET
Milford, Cedar Creek Hundred, Sussex County

Dear Mr. Pierce:

The Department of Transportation has reviewed the Site Plan, dated June 2020 (signed and sealed by the Engineer on August 19, 2020), for the above referenced site, and has no objection to its recordation as shown on the enclosed drawings. This "No Objection to Recordation" approval shall be valid for a period of **five (5) years**. If the Site Plan is not recorded prior to the expiration of the "No Objection to Recordation", then the plan must be updated to meet current requirements and resubmitted for review and approval.

This letter does not authorize the commencement of entrance construction. Entrance plans shall be developed in accordance with DelDOT's Development Coordination Manual and submitted to the Development Coordination Section for review and approval.

This "No Objection to Recordation" letter is not a DelDOT endorsement of the project discussed above. Rather, it is a recitation of the transportation improvements, which the applicant may be required to make as a pre-condition to recordation steps and deed restrictions as required by the respective county/municipality in which the project is located. If transportation investments are necessary, they are based on an analysis of the proposed project, its location, and its estimated impact on traffic movements and densities. The required improvements conform to DelDOT's published rules, regulations and standards. Ultimate responsibility for the approval of any project rests with the local government in which the land use decisions are authorized.

DelDOT

There may be other reasons (environmental, historic, neighborhood composition, etc.) which compel that jurisdiction to modify or reject this proposed plan even though DelDOT has established that these enumerated transportation improvements are acceptable.

If I can be of any further assistance, please call me at (302) 760-2266.

Very truly yours,



Susanne K. Laws
Sussex County Review Coordinator
Development Coordination

cc: Joel Sens, Stafford Street Capital, LLC
Ring Lardner, Davis, Bowen & Friedel, Inc.
William Kirsch, South District Entrance Permit Supervisor
Rusty Warrington, Sussex County Planning & Zoning
Jessica L. Watson, Sussex Conservation District
Gemez W. Norwood, South District Public Work Manager
James Argo, South District Project Reviewer
Robert Bragg, South District Subdivision Manager
Jennifer Pinkerton, Chief Materials & Research Engineer
Chris Sylvester, Traffic Studies Manager
Linda Osiecki, Pedestrian Coordinator
John Fiori, Bicycle Coordinator
Mark Galipo, Traffic Development Coordination Engineer
Tim Phillips, Maintenance Support Manager
Dan Thompson, Safety Officer North District
Jared Kauffman, DTC Planner
James Kelley, JMT
Wendy L. Polasko, Subdivision Engineer
Derek Sapp, Subdivision Manager, Development Coordination

October 1, 2020

Ring Lardner
Davis, Bowen & Friedel, Inc
rwl@dbfinc.com

RE: **Milford Ponds, Phase 2 – Millsboro, DE**

Mr. Lardner,

Sussex Conservation District has reviewed the sediment and stormwater management plans submitted for the above referenced project. The District has found the submittal to be acceptable, please provide the District with the following:

- ☑ Submit 5 sets of plans for approval.
- ☑ Submit 1 set scaled 12 x 18 for approval.
- ☑ Submit an electronic copy (PDF) of the project's complete construction set.
- ☑ Submit a paper and electronic copy (PDF) of the Stormwater Report (and all exhibits).
- ☑ Provide an inspection fee of $0 and a maintenance fee of $0. (These may be combined on one check.)

Please note:

- ☑ Every plan sheet is to be signed and sealed by a qualified design professional.
- ☑ The SCD Owners Certification Statement is to be signed in ink on each set of plans.

If plans are submitted with any of the above items missing, they will **not** be approved. Be advised if there are any deficiencies which cannot be addressed within 72 hours the plans will be considered withdrawn and therefore, you will need to entirely resubmit. We appreciate your cooperation in this matter as we are trying to maintain a professional and structured office to better serve you.

If ownership is going to change, the District will require a new application and two sets of plans with the new owner's information and signed certification statement. In addition, the authorization to discharge stormwater under the regulations *Part 2 Special Conditions for Storm*

Water Discharges Associated with Construction Activities, must be transferred by the original owner to the new owner, please contact DNREC at 302-739-9921 for assistance.

If you have any questions or concerns regarding the aforementioned, please do not hesitate to contact the District at 302-856-2105.

Sincerely,

John Justice

Plan Reviewer

Cc: Tim Metzner, DBF

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Office of Engineering
Phone: (302) 741-8640
Fax: (302) 741-8631

RECEIVED
JAN 28 2020
DAVIS, BOWEN & FRIEDEL, INC.

January 23, 2020

MILFORD WATER DEPARTMENT

APPROVAL TO CONSTRUCT
Milford Ponds- Phase 2 Connection
PWS #DE0000616
Approval #20W11

Mr. Christopher Kalil
Milford Ponds, LLC
179 Rehoboth Avenue, Suite 1081
Rehoboth Beach, DE 19971

Dear Mr. Kalil:

As provided by Section 2.11 of the *State of Delaware Regulations Governing Public Drinking Water Systems*, you are granted approval to connect Milford Ponds Phase 2 to the existing main in accordance with the plans submitted by Davis, Bowen & Friedel, Inc. The plans consist of:

1. Transmittal letter dated January 17, 2020.
2. Application for Construction of New or Existing Public Water System dated January 17, 2020.
3. Two copies of the plans entitled "Milford Ponds – Phase 2" dated December 2019.

These plans, as noted, are made a part of this approval. This approval is granted subject to the enclosed list of conditions. It is the owner's responsibility to ensure as-built drawings are maintained throughout all phases of construction. Prior to receiving an Approval to Operate, the Office of Engineering requires one set of as-built drawings, including profile markups.

The Office of Engineering recommends detectable tracer tape that is three inches wide and blue in color to be installed directly above all water mains larger than two inches in diameter.

I am sending one set of plans with a copy of this approval to Davis, Bowen & Friedel, Inc. that is signed and dated by the Office of Engineering.

Should you have any questions regarding this matter, please feel free to contact Bill Milliken at (302) 741-8646.

Plans reviewed by:

William J. Milliken, Jr.
Engineer III
Office of Engineering

Sincerely,

Doug Lodge, P.E.
Supervisor of Engineering
Office of Engineering

cc: Rob Pierce, City of Milford
Ring W. Lardner, P.E., Davis, Bowen & Friedel, Inc.
Ashley Kunder, Office of Drinking Water

1. The approval is void if construction has not started by January 23, 2021.

2. The project shall be constructed in accordance with the approved plans and all required conditions listed in this Approval to Construct. If any changes are necessary, revised plans shall be submitted and a supplemental approval issued prior to the start of construction. As-built plans including profile mark-ups must be submitted to the Office of Engineering after construction has been completed.

3. Representatives of the Division of Public Health may inspect this project at any time during the construction.

4. This approval does not cover the structural stability of any units or parts of this project.

5. The water system shall be operated in conformance with the *State of Delaware Regulations Governing Public Drinking Water Systems*.

6. All wells, pipes, tanks, and equipment which can convey or store potable water shall be disinfected in accordance with the current AWWA procedures. Plans or specifications shall outline the procedure and include the disinfectant dosage, contact time, and method of testing the results of the procedure. (Recommended Standards for Water Works 2018 Edition 2.15)

7. Water mains crossing sanitary and storm sewers should be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer, and the water main should be above the sewer. At crossings, one full length of water pipe should be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required. In cases where it is not practical to maintain an 18-inch separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

8. Water mains should be laid 10 feet horizontally from any existing or proposed sanitary or storm sewers. The distance should be measured edge to edge. In cases where it is not practical to maintain a 10-foot separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

9. All chemicals, materials, mechanical devices, and coatings in contact with potable water shall comply with National Sanitation Foundation/American National Standards Institute Standards (NSF/ANSI) 60 and 61 and shall be inert, nontoxic, and shall not import any taste, odor, or color to the water.

10. Sufficient valves should be provided so that inconvenience and sanitary hazards will be minimized during repairs. Valves should be located at not more than 500-foot intervals in commercial districts and at not more than one block or 800-foot intervals in other districts.

11. There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system.

12. Fire hydrant drains shall not be connected to or located within 10 feet of sanitary sewers, storm sewers, or storm drains.

13. Prior to usage of water from this new well, water plant, storage plant, or distribution system, approval for the water quality must be obtained from the Division of Public Health.

14. The water system should be capable of providing at least 25 psi at ground level at all times throughout the distribution system.

15. All plastic pipe utilized in this drinking water system shall be approved for potable water use (NSF-pw). If any piping is joined with solder or flux, the solder and flux shall be lead free (less than or equal to 0.2 percent lead).

16. All water lines should be buried to a depth of at least 3 feet.

17. This approval is for the distribution system only. Plans and specifications for all well plumbing, pumps, storage (including any interior coatings), and treatment must be submitted to and approved by this office prior to their installation.

18. The approval is subject to immediate revocation upon violation of any of the preceding conditions.

19. All other local (county/city/town) approvals or permits needed must be obtained prior to beginning construction.

20. Upon completion of construction and before the system is placed into operation, a "Notice of Completion" must be submitted to the Office of Engineering. Before placing the system into operation, the following must be adhered to:
    a. Submit a set of as-built plans with profile markups to the Office of Engineering.
    b. Obtain an Approval to Operate from the Office of Engineering.

OFFICE OF THE STATE FIRE MARSHAL
Technical Services

22705 Park Avenue
Georgetown, DE 19947

SFMO PERMIT

Plan Review Number: 2020-04-202812-MJS-01
Status: Approved as Submitted

Tax Parcel Number: 130-6.00-558.00
Date: 01/30/2020

Project

Milford Ponds Phase 2

Milford Ponds Property
Phase #: 2

East of Rt 113
Milford DE 19963

Scope of Project

Number of Stories:
Square Footage:
Construction Class:
Fire District: 42 - Carlisle Fire Co Inc

Occupant Load Inside:
Occupancy Code: 9601

Applicant

Ring Lardner
1 Park Avenue
Milford, DE 19963

This office has reviewed the plans and specifications of the above described project for compliance with the Delaware State Fire Prevention Regulations, in effect as of the date of this review.

The owner understands that this construction start approval is limited to preliminary site construction and foundation work only. No other construction of any kind shall be permitted until the required building plan review is completed.

A Review Status of "Approved as Submitted" or "Not Approved as Submitted" must comply with the provisions of the attached Plan Review Comments.

Any Conditional Approval does not relieve the Applicant, Owner, Engineer, Contractor, nor their representatives from their responsibility to comply with the plan review comments and the applicable provisions of the Delaware State Fire Prevention Regulations in the construction, installation and/or completion of the project as reviewed by this Agency.

This Plan Review Project was prepared by:

Jefferson Cerri
Fire Protection Specialist II

FIRE PROTECTION PLAN REVIEW COMMENTS

Plan Review Number: 2020-04-202812-MJS-01
Status: Approved as Submitted

Tax Parcel Number: 130-6.00-558.00
Date: 01/30/2020

PROJECT COMMENTS

1002 A	This project has been reviewed under the provisions of the Delaware State Fire Prevention Regulations (DSFPR) UPDATED March 11, 2016. The current Delaware State Fire Prevention Regulations are available on our website at www.statefiremarshal.delaware.gov. These plans were not reviewed for compliance with the Americans with Disabilities Act (ADA). These plans were not reviewed for compliance with any Local, Municipal, nor County Building Codes.
1030 A	This site meets Water Flow Table 2, therefore the following water for fire protection requirements apply: Main Sizes: 6" minimum. Minimum Capacity: 500 gpm @ 20 psi residual for 1 hour duration. Hydrant Spacing: 1,000' on center.
1180 A	This report reflects site review only. It is the responsibility of the applicant and owner to forward copies of this review to any other agency as required by those agencies.
1132 A	Fire hydrants shall be color coded in accordance with the DSFPR, Part III, Section 3 4. This includes both color coding the bonnet and 2" reflective tape around the barrel under the top flange.
1232 A	All threads provided for fire department connections, to sprinkler systems, standpipes, yard hydrants or any other fire hose connections shall be uniform to those used by the fire department in whose district they are located. DSFPR Part III,Section 1.1.5.1.
1432 A	The steamer connection of all fire hydrants shall be so positioned so as to be facing the street or fire lane. (DSFPR Regulation 705, Chapter 5, Section 10). The center of all hose outlet(s) on fire hydrants shall be not less than 18 inches above finalgrade (NFPA 24, Section 7.3.3).
1332 A	The distance between a fire hydrant and the fire lane shall not be greater than seven feet (DSFPR Part V, Chapter 5, Section 5 10.4).

1501 A	If there are any questions about the above referenced comments please feel free to contact the Fire Protection Specialist who reviewed this project. Please have the plan review number available when calling about a specific project. When changes orrevisions to the plans occur, plans are required to be submitted, reviewed, and approved.

KCI TECHNOLOGIES
ISO 9001:2008 CERTIFIED
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
1352 Marrows Road, Suite 100 • Newark, DE 19711 • Phone 302-731-9176 • Fax 302-731-7807

October 14, 2020

City of Milford
201 South Walnut Street
Milford, Delaware 19963

Attention: Rob Pierce

Subject: Milford Ponds – Phase 2
KCI Job No. 131803632 – Task 09

Dear Mr. Pierce,

As requested, KCI Technologies performed a review of the Phase II of Milford Ponds Record/Construction Plans. This review was based on the City's Standard Specifications, and general engineering best practices. These plans were submitted by DBF and are dated June 2020.

We find the plans generally acceptable as submitted, contingent on the plans receiving Sussex Conservation District approval.

Phase 2 Record Plan

1. Clarify what the gray hatching is for to verify that the SWM area will not negatively affect the lots. **Addressed.**

2. Add a fence along the path where it is close to the banks of the stormwater management pond. **Comment Removed.**

Phase 2 Construction Plans

3. Provide all required agency approvals (i.e. Fire Marshal, DHSS, SCD, etc.) **Comment Noted – Provide SCD Approval once received.**

4. (C2.3) Comment Remains – The detail still does not match what is shown on the plan. Based on measurements on the plan, the distance between the R.O.W. and the back of sidewalk is 9'. However, the detail shows this as 8'. **Addressed.**

5. (C3.3 and C3.4) The hydraulic grade line is provided in the profiles. However, it does not specify which storm the hydraulic grade line is for (i.e. 2 year, 10 year, etc.). Revise the profiles accordingly to specify which storm the hydraulic grade line is representing. The storm drain system shall be designed using the 10 year storm event and all downstream pipes entering a stormwater management facility or outfall shall be designed for the 25 year storm. **Addressed.**

6. (General) Some of the Storm Drain pipes that enter/leave the pond have a negative slope. Provide approval from Sussex Conservation District for the Stormwater Plans. **Comment Noted – Provide SCD Approval once received.**

If you have any questions or comments regarding this letter, please do not hesitate to contact me any time at (302) 318-1087.

Sincerely,

Eric T. Gibson,
Engineer in Training

Jason McClafferty, P.E.
Project Manager

THE CITY of Milford DELAWARE

TO: Mark Whitfield, City Manager

FROM: Michael Svaby, Director, Public Works

DATE: November 23, 2020

RE: Lease for Mill Street Property

The Milford Department of Public Works has been contacted about the possible leasing of the former Parks and Recreation base located at 5 Mill Street Milford DE. The Parks and Recreation Maintenance base is currently located at 207 Franklin Street, Milford.

The lease request came from Ms. Bridget Knoeller, the Business Manager of For Him Ministries, who would like to begin a food bank at this location. Ms. Knoeller operates a Food Bank out of a local Church where the allotted time to conduct this operation has been challenged by the growing needs of serving the community of Milford.

The attached draft lease has been reviewed and determined to address all concerns for the City. Original use of this property was restricted to Parkland Preservation based on the source of funding provided by the State of DE. I have worked with DNREC and determined how the needs Ms. Knoeller seeks could be met while still upholding funding restrictions the City is under for use of the Property.

Recommendation: Respectfully, the Department of Public Works is recommending that Council grant authorization for the City to enter into this lease arrangement that would be effective in January of 2021 and remain in effect for five (5) years through December 31, 2025 with two consecutive five (5) year renewal options.

LEASE

This Lease made this _____ day of _____, 2020 by and between **THE CITY OF MILFORD, DELAWARE**, 201 South Walnut St., Milford, Delaware, a municipal corporation of the State of Delaware (hereafter Lessor or Milford) and a Delaware non-profit corporation The Gathering at the Table (hereafter Lessee or GATT) with offices located at 7 Park Avenue Milford DE 19963.

WITNESSETH

WHEREAS, City owns real property located at 5 East Mill Street, Milford, DE (hereafter Premises); and,

WHEREAS, GATT is an organization formed to operate a soup kitchen and _____ _____; and,

WHEREAS, located on the Premises is a building owned by Landlord and used by or under the control of the City of Milford Department of Public Works that is currently used for storage purposes or for use by the Department of Parks & Recreation; and,

WHEREAS, a portion of the building may be suitable for use by GATT to operate its soup kitchen;

NOW THEREFORE, City and GATT in consideration of the mutual agreements set forth hereafter are desirous of entering into this Lease as follows:

TERMS

1. **Premises**. City hereby leases to GATT 1,875 square feet of the real property situated at ___ Mill Street, Milford, Kent County, Delaware, Kent County tax parcel _____ _____. Lessee agrees it has inspected the Premises and is accepting the Premises in its current AS IS WHERE IS condition. If at any time during the lease terms the City requests Lessee to move into other comparable space within the improvements on the Premises of the same square footage and condition, Lessee hereby agrees to do so. Lessee shall have thirty (30) days to move. The failure to do so without reasonable cause shall be deemed a termination of this Lease.

Draft for Council Approval

2. **Term.** The Lease shall commence at 12:00 a.m. on January 1, 2021 and end at 11:59 p.m. on December 31, 2025. Lessee shall have two (2) options of five (5) years each to renew the Lease subject to terms agreeable to both parties. Lessee shall provide to Lessor at least sixty (60) days written notice of its intent to exercise the options. In any event, the Lease will terminate on December 31, 2035.

3. **Rent.** GATT shall pay to City the sum of Twenty Dollars ($20.00) on the first day of the Term which shall be the rent for the initial five (5) year terms of this Lease. All payments shall be made to the address stated in Paragraph 30.

4. **Use.** **Lessee** may use the Premises for a Soup Kitchen and _____ but for no other purpose without Lessor's prior written consent. In no event shall Lessee make any use of the Premises which: (i) violates any lawful governmental laws, rules or regulations, (ii) violates any restrictive covenants applicable to the Premises or (iii) is or might constitute a nuisance. Lessee agrees to comply with all Terms of Occupancy set forth on Exhibit A attached hereto. In the event of a conflict between Exhibit A and other terms, Exhibit A shall control.

5. **Damages.** In the event the improvements are rendered untenantable by fire, rain, wind, or other cause beyond the control of Lessor or Lessee or are condemned and ordered torn down by the properly constituted authorities of the state, county, or city, then, in either of these events, the Lease shall cease and terminate as of the date of notice of condemnation or of such destruction, unless Lessor shall determine in its sole discretion to rebuild in which case the lease will remain in effect. If Lessor decides not to rebuild it, Lessor shall be responsible for any demolition, clean up and repair to the Premises unless it is determined the cause of the destruction is the fault of GATT in which case GATT shall be solely responsible for such clean up or repair.

6. **Liability.** City shall not be held liable for any injury or damage whatsoever which may arise by reason of the use, occupancy and enjoyment of the Premises or improvements by GATT of any agent thereof; damages being hereby expressly waived by GATT.

7. **Inspection.** City, in person or by agent, shall have the right at all reasonable times to enter the leased premises and inspect the same to determine if any health, safety or building code provisions of the Milford City Code have been violated. GATT shall make such

Draft for Council Approval

repairs and alterations as may be deemed by City necessary to bring the improvements into compliance if violations exist.

8. **Alterations or Repairs to Premises and/or Improvements.** GATT shall not construct, install, remove and/or modify Premises leased or the improvements erected thereon without submitting for approval by the City, its plans and specifications for any proposed project, as well as complying with such other conditions considered by the City to be necessary. In the event that GATT makes further improvements or alterations on the Premises, the use thereof shall be enjoyed by GATT during the term hereof without additional rent. GATT shall be responsible for ordinary and routine repair and maintenance to the interior of the Premises as set forth on Exhibit B attached hereto.

9. **Title to Improvements, Removal of Equipment.** GATT shall not own any Improvements existing or which it may make on the Premises and shall not have the right at any time during this lease to remove said improvements.

The improvements shall remain with the Premises at the termination of the Lease and shall be owned by the Lessor. Any personal property owned by GATT shall remain the property of GATT and shall be removed at any time prior to the termination of the Lease. Any personal property that is not removed by GATT at the termination of the Lease shall be deemed abandoned and shall be disposed of by the City as it shall solely determine.

10. **Net Lease.** The use and occupancy of the Leased Premises by Lessee will be without costs or expense to City. It shall be the sole responsibility of GATT to maintain, repair and operate the entirety of the Leased Premises and Improvements and facilities constructed thereon at GATT's sole cost and expense.

11. **Maintenance of Premises and Operations.** GATT shall maintain the Leased Premises at all times in a safe, neat and attractive condition, and shall not permit the accumulation of any trash, paper or debris on the Premises. GATT shall repair all damages to the Leased Premises caused by its employees, patrons, or its operation thereon and shall maintain and repair all equipment thereon, including any Improvements.

GATT shall be responsible for and perform all maintenance, including but not limited to:

Draft for Council Approval

1. Supply and replacement of exterior lighting;
2. Cleaning of stoppages in plumbing fixtures, drain line and sewer system;
3. Maintenance of all building and overhead doors;
4. Keep the building interior and exterior in safe and clean condition;
5. Repair or replacement of equipment and utility systems;
6. GATT shall be responsible for all snow removal at the Leased Premises;
7. GATT shall perform all maintenance on GATT constructed structures, pavements, and equipment.
8. GATT is responsible for maintaining electric loads within the designed capacity of the system;
9. GATT shall provide all safety equipment and meet all requirements imposed on its operations by any State, Local or Federal agency;
10. GATT shall maintain and replace all landscaping and grounds as originally approved and installed at the end of the Lease for any reason stated in this Lease.
11. GATT shall pay for all public utilities that serve the Premises and Improvements.
12. GATT shall perform such other maintenance as stated on Exhibit C attached hereto.
13. GATT will undertake all necessary pest control to assure its activities do not attract insects, rodents or other animals.
14. GATT will provide its own security guards or system.

City, at its discretion shall be the sole judge of the quality of exterior maintenance; and GATT, upon notice by City to GATT shall be required to perform whatever maintenance City deems necessary. If said maintenance is not undertaken by GATT within thirty (30) days after receipt of written notice, City shall have the right to enter upon the Leased Premises and perform the necessary maintenance, the cost of which shall be borne by GATT

Snow removal from Leased Premises is the responsibility of GATT. Snow removal may be performed by the City as a courtesy and is not an obligation of the City. The City may cease to provide snow removal to GATT or snow removal may not be provided on a particular occasion, at the City's sole discretion. City shall have no liability whatsoever for any damage to the Leased Premises caused by such snow removal.

13. **Trash, Garbage, Etc.** GATT shall pick up, and provide for, a complete and proper arrangement for the adequate sanitary handling and disposal of all trash, garbage, and other refuse caused as a result of the operation of its business. Piling of boxes, cartons, barrels, pallets, debris, or similar items in an unattractive or unsafe manner, on or about the Leased Premises, shall not be permitted. The City shall provide trash removal services but it shall be the responsibility of GATT to have all trash and garbage in City approved containers.

14. **Signs.** GATT shall not erect, maintain, or display upon the outside of the Improvements on the Leased Premises any billboards or advertising signs; provided however, that

Draft for Council Approval

GATT may maintain on the outside of said buildings, its own name(s) and services on signs, the size, location and design of which shall comply with the Milford City Code.

15. **Observance of Statutes, Etc.** The granting of this Lease and its acceptance by GATT is conditioned upon the right to use the Premises and Improvements in common with others authorized to do so, provided, however, that GATT shall observe and comply with any and all requirements of the constituted public authorities and with all Federal , State or Local statutes, ordinances, regulations and standards applicable to GATT for its use of the Leased Premises. This shall include but not be limited to obtaining all required licenses, certificates and health inspections. Lessee shall provide proof of compliance with this requirement within seven (7) business days of receipt or upon request of the City.

16. **Indemnification.** GATT agrees to fully indemnify, and save forever harmless the City from and against all claims and actions and all reasonable expenses including attorneys fees, based on or arising out of claims for damages or injuries to third persons, including wrongful death, and arising out of GATT's use or occupancy of the Leased Premises; provided however, that City shall give to GATT prompt and reasonable notice of any such claims or actions, and GATT shall have the right to investigate, compromise and defend the same; and provided further that GATT shall not be liable for any claims, actions, injury, damage or loss occasioned by any negligence or intentional action of City, its agents or employees. GATT shall indemnify and save and hold City harmless from and against any claim by carriers serving GATT.

17. **Public Liability Insurance.** GATT shall, at its expense, procure and keep in full force at all times during the term of this Lease from a financially sound and reputable company acceptable to City, public liability insurance, insuring GATT and City for personal injury and property damage, and such other insurance necessary to protect City from such claims and actions aforesaid. Insurance shall be obtained in the name of or shall expressly provide coverage for the liabilities of GATT identified in this Lease and for GATT's use of the Leased Premises.

Without limiting its liability, GATT agrees to carry and keep in force public liability insurance in a reasonable amount as determined from time to time by the City and GATT but no less than limits of $500,000 per person and $1,000,000 per occurrence with said policy designating City as an additional insured. GATT shall furnish City with a certificate of insurance as evidence of such coverage. Said insurance shall not be cancelled or materially modified except upon ten

Draft for Council Approval

(10) days advance written notice to City. Coverage is to be written on the broadest liability form which is customarily available at reasonable cost.

18. **Fire and Extended Coverage Insurance.** GATT may, at its expense procure and keep in force at all times during the term of this Lease with the company suitable to City, insurance on the improvements, personal property and contents owned by GATT on the Leased Premises against loss and damage by fire, wind, water and extended coverage perils. Such policy shall by in an amount of not less than one hundred percent (100%) of the replacement cost of improvements, with satisfactory evidence of such coverage furnished to City. GATT shall furnish City with a certificate of insurance as evidence of such coverage. Said insurance shall not be cancelled or materially modified except upon ten (10) days advance written notice to City. Coverage is to be written on the broadest liability form which is customarily available at reasonable cost.

19. **GATT Fixtures.** GATT shall be permitted to install trade fixtures on the Premises. In addition GATT shall be permitted to remove said trade fixtures from the Premises upon the termination of this Lease; provided that if GATT does so remove such trade fixtures, GATT shall return the Premises to the same condition as existed at the time of original entry, ordinary wear and tear excepted. If GATT does not remove the trade fixtures at termination, City may declare such fixtures abandoned and City the owner thereof.

20. **Termination.** If, during the time of this Lease GATT's source of funding for its intended use is terminated, GATT may terminate this Lease on thirty (30) days written notice to City and proof of such termination of funding. Otherwise, this Lease shall terminate in accordance with the provisions of this Lease.

21. **Successors and Assignment.** GATT shall not assign this Agreement or any part thereof in any manner whatsoever or assign any of the privileges recited herein without the prior written consent of City, which consent will not be unreasonably withheld.

22. **Quiet Enjoyment.** If GATT promptly and punctually complies with all of its obligations hereunder, it shall peacefully have and enjoy the possession of the Premises during the term hereof, providing that no action of City in work performed in other space on the Premises, or in repairing or restoring the Premises, shall be deemed a breach of this covenant, or give GATT

Draft for Council Approval

any right to modify this Lease. Lessee shall provide to City a schedule of all activities to occur on the Premises at least weekly.

23. **Sale of Premises.** Should City sell, convey or otherwise transfer its interest in the Premises this Lease will be assigned as part of such sale, and, the provisions of this Lease shall remain the same, but the City shall have no further liability hereunder. GATT shall thereafter look solely to the new owner for any subsequent performance due hereunder by the City hereof. GATT by execution hereof attorns to all such subsequent owners and no further documents shall be required to effectuate such attornment.

24. **Holding Over.** This Lease shall automatically terminate on the last day of the term set forth above (including any properly exercised extension period(s) set forth above) without the requirement of notice from either party. Provided however, if GATT shall continue to occupy the Premises after the last day of the Lease term with the approval of City as herein set forth, either party may terminate such month to month tenancy upon 30 days written notice to the other party. During such holdover period the rent shall be equal to double the rent payable at the termination of this Lease Agreement.

25. **Condemnation.** Of the whole or any part of the Leased Premises shall be taken under the power of condemnation or eminent domain, then this Lease shall terminate as to the part so taken on the day when Tenant is required to yield possession thereof. Landlord shall make such repairs and alterations as may be necessary in order to restore the portion not taken to use condition. Such repairs shall be completed within sixty (60) days of the date Tenant is requires to yield possession. Pending the restoration by Landlord of the Leased Premises, the rent due hereunder shall be reduced proportionately as to the part of the Leased Premises rendered untenantable due to the restoration. If the amount of the Leased Premises so taken is such as to substantially impair the usefulness of said Leased Premises for the purpose for which the same are hereby leased, then Tenant shall have the option to terminate this Lease (by written notice to Landlord) as of the date when tenant is required to yield possession. The compensation awarded for such taking, both as the Landlord's reversionary interest and Tenant's interest under this Lease, shall belong to and be the property of Landlord; provided, however, that Landlord shall not be entitled to any portion of the award made to Tenant for loss business and for the cost of removal of its stock and fixtures.

Draft for Council Approval

26. **Miscellaneous.** The Premises are leased subject to all easements, restrictions, and rights of way legally affecting the same.

This Lease shall not be recorded but, at the request of either party and at such party's expense, a memorandum hereof, containing such information as is necessary to provide adequate record notice of the existence of the Lease, including the parties, the term, the property involved, and whether options to renew or purchase exist, shall be prepared and recorded in the Kent County Office of the Recorder of Deeds.

The invalidity of any portion of this Lease shall not have any effect on the balance hereof. This Lease shall be binding upon the respective parties hereto, and upon their heirs, executors, successors and assigns. This Lease supersedes and cancels all prior negotiations between the parties and all changes in this Leases shall be in writing signed by the party affected by such change. The singular shall include the plural, and the masculine or neuter includes the other.

27. **Taxes.** GATT shall pay all taxes, if any, levied upon its property or property interests.

28. **License Fees and Permits.** GATT shall obtain and pay for all licenses, permits, fees or other authorization or charges as required under Federal, State or local laws and regulations insofar as they are necessary to comply with the requirements of this Agreement and the privileges extended hereunder.

29. **Paragraph Headings.** The paragraph headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provisions of the Lease.

30. **Governing Law.** This Agreement shall be governed and construed in all respects and the rights of the parties hereto shall be determined in accordance with the laws of the State of Delaware. The Lease is deemed a commercial lease and not subject to the Residential Landlord – Tenant Code pursuant to 25 Del. C. §5101(b).

31. **Notices.** Whenever any notice or payment is required by this Lease to be made, given or transmitted to the parties hereto, such notice or payment shall be enclosed in an envelope with sufficient postage attached to insure delivery and deposited in the United States

Draft for Council Approval

PUBLIC WORKS FACILITY
180 Vickers Drive
Milford, DE 19963

THE CITY of Milford DELAWARE

PHONE 302.422.1110
FAX 302.422.1117
www.cityofmilford.com

November 9, 2020

Randy E. Marvel, Managing Member
Walnut Village, LLC.
PO Box 358
Milford, DE 19963

R Clay Foltz, Attorney-in-Fact
Aegis Security Company
PO Box 3153
Harrisburg, PA 17105

Re: Bond Release
Walnut Village, Phase II
Performance Bond-Final Completion Items Bond
No. BDS-400-457

Sir or Madam,

The City of Milford has completed its inspection of the work completed for Final Completion of Phase II of the Walnut Village subdivision and find the work to be in satisfactory condition. The above-referenced bond was to serve as a surety for the work to be completed. A final inspection has since been performed and the work is found to be in satisfactory condition. The above referenced bond, number BDS-400-457, is formally released per this letter.

Should you have any questions or concerns feel free to contact me at (302) 393-5395 or jpuddicombe@milford-de.gov.

Respectfully,

James Puddicombe
City Engineer

Cc: Mark Whitfield, City of Milford (via email)
Mike Svaby, City of Milford (via email)
Terri Hudson, City of Milford (via email)
Zach Lawson, City of Milford (via email)

City of Milford

RESOLUTION 2020-32

Acceptance of Walnut Village Subdivision, Phase 2 Water, Sewer, Storm, Road and Sidewalk Systems

WHEREAS, Chapter 200 provides that public roads and public utilities shall be accepted into the City of Milford's street system and public utility system by Resolution of City Council; and

WHEREAS, the Public Works Director and City Engineer have determined the water distribution, sewer and stormwater system included in Phase 2 of Walnut Village Subdivision have been completed in accordance to City standards and requirements; and

WHEREAS, the portion to be accepted includes the utilities within the Right-of-Way ("ROW") and public utilities within associated open spaces adjacent to, but within the phases, as depicted on the phasing plan sealed and dated October 4, 2006 and recorded with the Sussex County Recorder of Deeds on Book 0108, Page 145; and

WHEREAS, the phase to be accepted is phase 2 which encompass lots 30 through 45; and 70 through 77; and

WHEREAS, the utilities within the following rights-of-way are to be included: Eleanor Lane from Lot 70 to the West end of Eleanor Lane and the portion of Thelma Lane fronting Lots 45 and 77; and

WHEREAS, this Resolution includes acceptance of the sidewalks and public streets within this phase; and

WHEREAS, approval to operate the utilities has been obtained from the applicable State agencies; and

WHEREAS, the maintenance bond for the completed utilities is to be relinquished to the developer in an amount equivalent to that withheld for maintenance of the accepted utilities; and

WHEREAS, said developer has provided as-built drawings of the utilities to the City of Milford.

NOW, THEREFORE BE IT RESOLVED that the City Council of the City of Milford, during a lawful session duly assembled on the 23rd day of November, 2020, by a favorable majority vote, accepts the water distribution, sewer and stormwater systems in the Walnut Village Subdivision, Phase 2, that are being dedicated for public use into the City of Milford's public utility system; and

BE IT FURTHER RESOLVED, that the City of Milford accepts the Road and Sidewalk systems in the Walnut Village Subdivision, Phase 2, that are being dedicated for public use into the City of Milford's public utility system; and that the City of Milford shall assume responsibility for the future maintenance and repair of the aforementioned systems in the Walnut Village Subdivision, Phase 2, as noted in this Resolution.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Official Seal of the City of Milford to be affixed this 23rd day of November, 2020.

_____

Mayor Arthur J. Campbell

Attest: _____

City Clerk Teresa K. Hudson

CITY OF MILFORD
RESOLUTION 2020-33
PLANNING & ECONOMIC DEVELOPMENT DEPARTMENT FEE SCHEDULE

Section 1.

WHEREAS, the City Council has adopted certain rules and regulations for the purposes of promoting the health, safety, morals, convenience, order, prosperity, and the general welfare of the present and future inhabitants of the City of Milford; and

WHEREAS, City Council, through ordinance, has adopted associated codes requiring specific actions and services; and

WHEREAS, the cost of providing these various services consistent with applicable codes, regulations, and policies periodically increase or decrease, or certain services or practices are discontinued and fees are no longer needed; and

WHEREAS, it is the intent of the City Council to charge appropriate fees and charges that are consistent with the services provided, and to cover the public cost of providing these various services, so that the public is not subsidizing individual benefits derived therefrom; and

WHEREAS, these various codes set forth that fees shall be set by Resolution.

NOW, THEREFORE, THE CITY OF MILFORD HEREBY ORDAINS:

PLANNING & DEVELOPMENT FEES		
Description		Fee
Major Residential Subdivision / Land Development Plan (up to 25 lots)	Preliminary Plan Review	$1,750.00 plus $85.00 per unit/lot
	Final Construction and Record Plan Review	$3,500.00 plus $185.00 per unit/lot
Major Residential Subdivision / Land Development Plan (greater than 25 lots)	Preliminary Plan Review	$3,000.00 plus $30.00 per unit/lot
	Final Construction and Record Plan Review	$6,500.00 plus $85.00 per unit/lot
Minor Subdivision or Lot Line Adjustment (up to 5 lots)	Final Residential	$300.00 plus $50.00 per unit
	Final, Other than Residential	$500.00 plus $100.00 per unit
	Engineering Construction Review	Fees charged to the City of Milford by engineering consultant, plus 10%
Land Development Plan (up to 9,999 sf of GFA)	Preliminary Plan Review	$2,000.00 plus $75 per 1K SF of GFA
	Final Construction and Record Plan Review	$3,000.00 plus $50 per 1K SF of GFA
Land Development Plan (10,000 sf to 50,000 sf of GFA)	Preliminary Plan Review	$2,500.00 plus $30 per 1K SF of GFA
	Final Construction and Record Plan Review	$4,000.00 plus $50 per 1K SF of GFA
Land Development Plan (greater than 50,000 sf of GFA)	Preliminary Plan Review	$3,500.00 plus $10 per 1K SF of GFA
	Final Construction and Record Plan Review	$5,000.00 plus $40 per 1K SF of GFA
Conditional Use or Amendment to a Conditional Use		$700.00
Zoning Map Amendment/Comprehensive Plan Amendment		$1,000.00 plus $100.00 per acre
Zoning Code Amendment Request		$700.00
	Residential, less than 2 acres	$700.00
	Residential, 2+ acres	$1,000.00 plus $100.00 per acre
	Other than Residential	$2,500.00 plus $500.00 per acre

Variance(s)	1-3 variances	$300.00
	4-6 variances	$400.00
	7+ variances	$500.00
Board of Adjustment Hearing (no variance)		$300.00
Subdivision Agreement		$2,500.00
Zoning Verification Letter		$20.00
Certificate of Use		$75.00
Legal Interpretation of Subdivision or Zoning Code		Cost of legal services provided plus 10% administration fee
~~Street or Alley Closing~~		~~$300.00~~
~~Application Resubmission or Rescheduling Fee~~		~~$200.00~~
Professional Service Fees (including but not limited to Legal Fees, Engineering Review Fees)		Fees charged the City of Milford, plus 10%; Billed as encumbered.
Incomplete/Resubmission/Re-review Engineering Fee		$1,000.00
Transfer of Development Rights (TDR) Credit		$3,000 per dwelling unit
Engineering Construction Inspection		4% of Construction Costs for all infrastructure to be owned, operated and maintained by the City of Milford.
ENGINEERING REVIEW: At the time of filing an application for plan review, the applicant shall submit to the City the fees required to cover the engineering plan review in accordance with the adopted Fee Schedule listed in this Resolution. Incomplete submissions, plans that have changed significantly from a prior submission, or plan submissions that fail to adequately address mandated requirements may be charged an additional fee as determined by the City Manager in order to cover expenses associated with the additional cost for the engineering review.		

BUILDING INSPECTION AND PERMITTING FEES		
Description		Fee
Building Permit, Residential, Use groups R3 or R4	New Dwelling Unit	$50 per 100 heated square feet plus $13 per 100 unheated square feet
	Interior/Exterior Renovations, Accessory Building, Pool, Deck, Ramp, Solar Panels	$50 plus $5 per $1,000 up to $1M and $2 per $1,000 over $1M based on cost of project
	Demolition	$50.00
	Certificate of Occupancy	$25.00
Building Permit, Other than use groups R3 or R4	New Construction, Commercial Fit-Out, Interior/Exterior Renovations, Footer, Foundation	$100 plus $5 per $1,000 up to $1M and $2 per $1,000 over $1M based on cost of project
	Sign, Sales/Construction Trailer, Solar Panel	$50 plus $5 per $1,000 up to $1M and $2 per $1,000 over $1M based on cost of project
	Demolition	$100.00
	Certificate of Occupancy	$25.00
Building Permit, Renewal		$50 or 10% of permit fee, whichever is greater
Violation Fee		$100.00 plus the building permit fee or double the normal permit fee, whichever is greater.
Re-inspection		$50.00
Temporary Certificate of Occupancy		$50.00
Carlisle Enhancement Fund		1/4 of 1% of heated square feet cost

Police and General Government Facilities Enhancement Fund	3/4 of 1% of heated square feet cost

CODE ENFORCEMENT AND LICENSING FEES		
Description		Fee
Licensing	Contractors	$100.00 annually, prorated semi-annually
	Residential Rental Operating	$50.00 per unit
	Transfer of Rental License	$50.00 per license
	Peddler, Solicitor, and Transient Merchant	$50.00 annually, prorated semi-annually
	Business	$30.00 per location
Inspection	Re-Inspection / Follow Up Inspection	$50.00

Section 2. This Resolution replaces in its entirety Resolution 2020-24.

Section 3. Dates.
Adopted: November 23, 2020
Effective: November 23, 2020

City of Milford

RESOLUTION 2020-39

PERMISSION FOR SANTA CLAUS TO USE THE CITY OF MILFORD DRIVE+THRU

WHEREAS, a global pandemic has impacted nearly every part of our lives; and

WHEREAS, even the youngest of children have missed out on holiday traditions; and

WHEREAS, due to the pandemic, the normal visitation to the Santa House on Walnut Street by Mr. Claus has now been affected; and

WHEREAS, Downtown Milford Incorporated has requested the use of the City's Customer Service drive-thru for visitations by Santa Claus; and

WHEREAS, the City's Customer Service drive-thru will provide a safe way for children to express their wish lists to Santa from the safety of a vehicle after which they can be on their merry way; and

WHEREAS, DMI Elves will provide traffic management for two lines of vehicles, one from SE 2nd & Pearl Alley and the other from SE Front Street and Pearl Alley; and

WHEREAS, visits with Santa will occur on Fridays from 5pm to 8pm and on Saturdays from 11am to 3pm from November 28th to December 20th; and

WHEREAS, the Santa House on Walnut Street will be decorated for children of all ages to peek in and see the magic of the season from November 26 to December 25; and

NOW, THEREFORE BE IT RESOLVED, that the Mayor and City Council of the City of Milford, during a lawful session duly assembled on the 23rd day of November 2020, by a favorable and jolly majority vote, authorize the use of the City's Customer Service drive-thru by Santa Claus and DMI Elves, which will allow children of all ages to visit Santa from the comfort and safety of their vehicle; and

BE IT FURTHER RESOLVED, Mayor and City Council wish all Milford residents the Hope, Wonder and Joy the Season can bring!

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Official Seal of the City of Milford to be affixed this 23th day of November 2020.

_____

Mayor Arthur J. Campbell

Attest: _____

City Clerk Teresa K. Hudson

Application Cover Sheet and Check List

Drinking Water Utility Name: City of Milford, Delaware

Date of Application: September 10, 2020

Check List for Application Materials

- ☐ This Sheet
- ☐ Information Sheet
- ☐ Approval Resolution
- ☐ Letter(s) to the nearest municipal and/or private drinking water utility advising them of the planning activity
- ☐ Copy of a letter sent to the Office of State Planning if a possible territorial expansion is included in the planning activity.
- ☐ Scope of Work Document

Information Sheet

Drinking Water Utility Contact Information:

- Contact Name: James Puddicombe, City Engineer
- Contact Phone: 302.422.1110 x1108
- Contact Email: jpuddicombe@milford-de.gov

Consultant Contact Information:

- Consulting Firm: KCI Technologies, Inc.
- Contact Name: Daniel R. String, PE
- Contact Phone: Contact Phone
- Contact Email: daniel.string@kci.com

Project Name, Description, and Dates:

Project Name:_Southeast Region Water Supply Study

Project Description:
Develop long term plan for service to the Southeast Region.

Project Start Date: November 2020

Project Completion Date: May 2021.

Cost Summary:

- Estimated Total Project Cost: $73,500.00
- Grant Amount Requested: $36,750.00

Name of Authorizing Representative:Mark Whitfield, City Manager

_____

Signature of Authorizing Representative Date

SCOPE OF WORK:

The City is applying for a Drinking Water Planning Grant to develop a long term plan for water service to the Southeast region of the City. The City has identified the Southeast area as having high probably of development in the future. Previously the City had invested significant capital funds to construct a new 750,000 gallon elevated storage tower and large diameter water mains to provide connectivity to the existing supply and distribution system. The City has already invested significant effort and capital to develop new water supply wells specifically to support the demand within the growth area. As part of this effort, two wells were installed in the vicinity of the water tower. However, due to limited capacity and water quality concerns, the City does not believe these wells will provide the long-term water supply required for this service area. As a result, the City is exploring alternatives for long term water supply to this area.

As part of this study a minimum of three alternatives are to be evaluated during this study:

Alternative 1: New High Yield Production and Treatment Facility within Southeast Area
Alternative 2: Implement Well Field Approach at Existing Tower Site
Alternative 3: Convey Water from Existing Production Facilities outside Southeast Area

Task #1: Data Review and Research

KCI will review existing hydrogeologic information and consult with personnel with historical knowledge of the available aquifers, water quality, and previous subsurface explorations in the region.

- Review available information of existing wells, previous tests and investigations, and readily available geological mapping information.
- Meet/Discuss with DNREC for permitting/allocation concerns.
- Meet/Discuss with DGS and AC Schultes regarding existing knowledge of the area and aquifers.
- Interview at least one other Delaware water supply well contractor with knowledge of the area.

Task #2: Alternative Development

Based on the information collected in Task 1, KCI will further develop the selected alternatives for feasibility, conceptual design, and cost. Scope will include:

<u>Alternative #1</u>

- Identify target areas with respect to potential well capacity.
- Evaluate real estate within or adjacent to existing Milford service area for potential supply and treatment facilities. Identify owners if possible.
- Develop a scoring system for these sites, identifying target aquifers, assessing yield, estimating water quality issues to address, measure proximity to service area.
- Screen out non-viable locations.
- Develop a concept development plan for up to three (3) properties, addressing cost of: property, drilling, treatment, and connection to existing distribution system.

<u>Alternative #2</u>

- Review the two (2) test wells: construction, flow rate, water level interference.
- Identify target aquifer(s), assessing possible yield, estimating water quality issues to address.
- Develop conceptual wellfield requirements to provide sufficient supply (# of wells, spacing, etc.).
- Evaluate existing site and adjacent real estate (if any) that may support this concept. Identify owners if possible.

- Develop a concept development plan addressing cost of: property, drilling, and treatment.

Alternative #3

- 10th Street Expansion Feasibility: KCI will review the information obtained through existing test well results to determine the feasibility of a new permanent supply well at the 10th Street facility. Based on the estimated production values and water quality testing from the test well, KCI will assess the existing facility to determine what upgrades are required to incorporate the additional flow and new well location. As part of the assessment KCI will consult with the Office of Drinking Water engineering department to identify any current or anticipated requirements that must be included in the upgrade project as a result of the well addition.
- KCI will develop a hydraulic model to evaluate the feasibility of conveying water from northern supply facilities (10th Street or others) through the existing distribution system. The modeling will focus on the conveyance to the Southeast Region with reduced detail outside of that region. Model development will include:
    - Data gathering - obtain the following system information: GIS water database, water metering data, location and data of major facilities (wells, WTPs, WTs etc.), system operation control, and available fire flow testing records.
    - Flow analysis – preliminary analysis on system demand, water supply and storage and determine approach for base model set up.
    - Base model set up - set up skeletonized base model to include major facilities and key water mains. Bundle and allocate demands based on type and location of customers.
    - Base model calibration – calibrate the base model by utilizing available fire flow testing results and/or performing additional fire flow testing as needed.
    - Modeling of new well scenarios– preliminary modeling to assist with new well options.
    - Identify system improvements (water mains, pressure booster, chemical injection, controls/communications) required to implement this alternative including conceptual layout and estimated costs.
    - Executive summary of the modeling to include the in Alternative Development

Task #3: Preliminary Engineering Report

KCI will prepare a Preliminary Engineering Report in accordance with funding requirements to document the results of the analysis above. KCI will rely on the City of Milford to provide service area information and proposed water demands based on previous studies and available growth projections. As part of the PER development, KCI will compare the alternatives and provide an overall recommendation while considering capital costs, O&M, and non-monetary factors. Utilizing readily available environmental mapping information, KCI will perform an initial environmental screening of potential impacts of each alternative. KCI will provide two (2) copies of the draft report for review and comment by the City.

City of Milford

RESOLUTION 2020-40

Grant Application for Southeast Regional Water System Evaluation Authorization

WHEREAS, the Public Works Department has determined that water quality issues exist in the Southeast region of the City predominantly contained within Ward 1; and

WHEREAS, the Public Works Director and City Engineer have determined the water distribution system issues stem from well water quality at wells 15 and 16; and

WHEREAS, the Public Works Department has removed one well from service temporarily to improve water quality in the Southeast Region, however, the Southeast Regional Production facility is considered a critical asset as it provides water to regional medical facilities; and

WHEREAS, operating the Southeast Production facility on a single well puts the water supply in the Southeast Region at a high risk; and

WHEREAS, the City seeks to replace the production from wells 15 and 16 with higher quality sources and desires to acquire funding assistance to perform an evaluation of the options available to the City;

NOW, THEREFORE BE IT RESOLVED that the City Council of the City of Milford, during a lawful session duly assembled on the 23rd day of November, 2020, by a favorable majority vote, wish to proceed with a grant application for evaluation of the Southeast Regional Water System and the subsequent work required by said grant within the Scope of Work; and

BE IT FURTHER RESOLVED, that the City of Milford shall provide 50% of the funds necessary to meet the grant stipulations in the amount of $36,750 from the Water Reserves, upon award of the grant.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Official Seal of the City of Milford to be affixed this 23rd day of November, 2020.

_____

Mayor Arthur J. Campbell

Attest: _____

City Clerk Teresa K. Hudson

MARK A. WHITFIELD, CITY MANAGER
201 South Walnut Street
Milford, DE 19963

THE CITY of Milford DELAWARE

PHONE 302.422.1111
FAX 302.424.8394
www.cityofmilford.com

To: Mayor and Council
From: Mark Whitfield, City Manager
Subject: Appropriation and Contract for the City Emergency Operation Plan
Date: November 16, 2020

The City's Emergency Operations Plan has not been updated since the 1970s, and was identified as needing to be completed in the Strategic Plan adopted by Council. Staff submitted a grant application for funding the plan through the DEMA (Delaware Emergency Management Administration) and the Department of Homeland Security, and was awarded a $45,000 grant.

In September, staff submitted a RFP for interested firms for the development of a Emergency Operations Plan. Two firms submitted proposals. The lowest cost proposal that meets the minimum qualifications was submitted by AARC Consultants, LLC of Philadelphia, PA. AARC Consultants proposal was for $56,630, or $11,630 more than the DEMA grant. The other proposal was from Marsh, USA, Inc of New York, NY for $96,750.

The project was expected to be paid for entirely through the DEMA grant and not City money was budgeted for the project. In order to proceed with completing the project, an appropriation of $11,630 is needed from General Fund Reserves.

Recommendation: Staff recommends Council authorize $11,630 from General Fund Reserves for the development of the Emergency Operations Plan for the City, and award the contract for the project to AARC Consultants, Inc of Philadelphia, PA in the amount of $56,630.

CITY OF MILFORD, DELAWARE



PROPOSAL FOR
EMERGENCY OPERATIONS PLAN
EVALUATION, REVIEW, AND REVISION

October 12, 2020

AARC CONSULTANTS, LLC

1650 Market Street, Suite 3600
Philadelphia, Pennsylvania 19103

Tel (267) 996-3577 - Fax (833) 771-AARC

Contact: Scott Thomas, PhD - sthomas@aarcgroup.com

TABLE OF CONTENTS

A. COVER LETTER 2
B. COMPANY INFORMATION 3
C. PRICING INFORMATION AND TIMELINE FOR COMPLETION 4
D. HOURLY RATES AND ESTIMATED HOURS 4
E. EMERGENCY OPERATIONS PLAN OUTLINE 5
F. PLAN IMPLEMENTATION 8
G. PLAN TRAINING 9
H. REFERENCES 9
APPENDIX 12
Team Resumes
Signed Addendum #1





Regional Offices:

Philadelphia, PA
(267) 996-3577

Atlanta, GA
(404)-443-4571
Baton Rouge, LA
(225) 406-7400
Bethesda, MD
(240) 479-4717
Buffalo, NY
(716) 800-2272
Charlotte, NC
(704)-972-2272
Chicago, IL
(312) 210-7264
Cincinnati, OH
(513) 589-2272
Denver, CO
(833) 493-2272
Lansing, MI
(517) 657-5666
Lexington KY
(859) 407-5990
Phoenix, AZ
480-631-7770
Portland, ME
(207) 888-4773
Portland, OR
(971) 339-4555
Tampa, FL
(813) 249-2272
Wichita, KS
(316) 618-9130

Escondido, CA
(442) 237-4906
Los Angeles, CA
(213) 553-9309
Sacramento, CA
(916) 822-6823

Brownsville, TX
(956) 338- 2070
Dallas, TX
(214) 388-2272
San Antonio, TX
(210) 444-2272

City Clerk's Office
Attn: Terri Hudson
City Hall
201 South Walnut Street
Milford, Delaware 19963

RE: Emergency Operations Plan Evaluation, Review, and Revision

AARC Consultants LLC stands ready to provide professional services to support the City of Milford (the City) as it updates and improves its Emergency Operations Plan. An optimized plan requires specialized knowledge and experience from a consultant experienced in building realistic, sustainable, and resilient community support systems. This proposal will demonstrate that the AARC Team, grounded in practical experience, is well-qualified and meets all of the City's project criteria.

Necessary Experience and Technical Skills:

AARC is currently engaged on **21** Emergency Operations Plans serving a combined nationwide population of **4.2** million people. AARC team members have direct experience in Homeland Security matters at sensitive infrastructures, including municipal utilities, ports and harbors, food preparation and chemical factories, airports, and other critical infrastructure. AARC has completed **60+** Vulnerability Assessments, **130** Risk Assessments, **6** Claims Management Plans, and **40+** Disaster Preparedness and Business Continuity Presentations.

Unique and authoritative qualifications:

- In addition to **21** Emergency Operations Plans, AARC Principal-in-Charge Dr Scott Thomas has performed resilience analyses at **13** military installations, focusing upon on-base and off-base resources and infrastructure, including potential effects of drought and changing climate.
- AARC Project Manager David Siburg has restructured **55** Public Utility Systems to improve service and environmental outcomes. He has provided contract operations and data management services to **100+** Public Utility Systems. He has also served as a Board President and General Manager of a Public Utility District.
- AARC Senior Emergency Response Advisor, Dr. Stephen Baruch, has completed **21** Emergency Operations Plans and **20** Business Continuity Plans.

The enclosed cost proposal will remain valid for a period of 90 days. Please contact me at 916-822-6823 if you have any questions or need any additional information during your review of our proposal.

Scott Thomas, PhD, Principal Scientist
Vice President, Resiliency, Sustainability, and Emergency Operations Planning

B. COMPANY INFORMATION

AARC Environmental Inc. has been in business for 26 years.

AARC Consultants, LLC (AARC) emerged from the parent company in 2012 as a Woman-Owned and Minority-Owned Small Business Enterprise. The Owner is Archna Chainani, and the President is Rick Chainani. Contact information appears below.

AARC's mission is to assist communities and organizations to become more sustainable over the long term, mitigate potential hazards, build resilience to disruption into their systems, and respond to emergency events. Services include emergency response planning, disaster preparedness and business continuity planning; 3rd party auditing; hazard mitigation assessment and planning; risk management consulting; physical and cybersecurity consulting; regulatory compliance;; and related planning support for cities, municipalities, counties, and other public and private entities.

AARC by the numbers. . .

26	Years in Business	Combined Populations served	4.2M
40+	Gap Analyses	Risk Assessments	130
13	Resilience Assessments of Military Bases	Marine Port Security Plans	25+
50+	Chemical Facility Anti-Terrorism Plans	Vulnerability Assessments	60
18	Evacuation Plans	Business Continuity Plans	20
6	Wildfire Response Plans	Active Shooter Response Plans	4
25	Table Top Exercises	Field Exercises	4
6	Claims Management Plans	Disaster Preparedness and Business Continuity Presentations	40+

AARC will document the full insurance requirements for this project as outlined in the City's RFP. AARC is not party to any pending or current litigation which might adversely affect performance on this project. No City officials or employees are related to any AARC personnel or have any ownership interest in the firm. AARC has not terminated any client contracts in its history.

Federal Employment Identification (FEIN) Number: **46-2542494.** Dun & Bradstreet (D&B DUNS) Number: **142546394.**

AARC's point of contact and authorized signatory is Dr. Scott Thomas, Principal Scientist and Vice President, who can be reached at our Philadelphia office:

1650 Market Street, Suite 3600
Philadelphia, Pennsylvania 19103
Tel (267) 996-3577 · Fax (833) 771-2272
sthomas@aarcgroup.com



Remit-to billing address:

PO Box 421168
Houston, Texas 77242

AARC's "Deep Bench" Staffing Strategy ensures that our local expertise is supported, as needed, by nationwide specialists in Risk/Hazard Mitigation and Emergency Operations Planning.

C. PRICING INFORMATION AND TIMELINE FOR COMPLETION

AARC recognizes that the City's project is being funded through a grant from the US Department of Homeland Security, Grant Program CFDA 97.067, Grant EMW-20190SS-00058.

The AARC Consultants cost for performing an EOP Evaluation, Review, and Revision is **$56,830.** A detailed cost breakdown by personnel, hourly rates, and tasks is included below in **Section D.**

▶ **AARC is also able to assist the City with federal and state grant applications.**

The following proposed timeline can be adjusted in accord with City requirements and COVID-19 restrictions.

Emergency Operations Plan (EOP) Evaluation, Review, and Revision		
Tasks	Contract Award; Notice to Proceed	Late October 2020
	1 – Review of Existing EOP Information	November – December 2020
	2 – Meetings with Stakeholders; Develop EOP Update Approach	February 2021
	3 – Draft EOP	March 2021
	4 – Final Updated EOP (City deadline)	April 2021
	Plan Implementation	May 2021
	Plan Training	TBD

D. HOURLY RATES AND ESTIMATED HOURS

AARC Consultants Detailed Fee Proposal Calculation

$56,830

Milford DE Cost - EOP

		AARC Consultants							
		Scott Thomas Principal Scientist	David Siburg Project Manager	Pacia Diaz Assist PM / Senior Engineer	Joe McCroy Senior Cybersecurity Analyst	Stephen Baruch Senior Emergency Response Advisor	David Auchter Technical Editor	Administrative	Subtotal
Tasks	**Billing Rate $/hour**	$225	$190	$165	$190	$190	$135	$85	
Task 1 Review of Existing EOP Information									
Project Management		4	14	2					$3,890
Kickoff Meeting (Virtual)		1	2	1		1			$960
Data Collection and Review			12	4	4	12		1	$6,065
Gap Analysis			3		0	4		1	$1,415
Expenses									$0
	Subtotal	5	31	7	4	17	0	2	$12,330
Task 2 Develop EOP Update Approach									
Interviews and Meetings (Mix of in-person and virtual)			12	4		16		8	$6,660
Presentation on Approach (Virtual)		1	5			4		2	$2,105
Expenses									$1,200
	Subtotal	1	17	4	0	20	0	10	$9,965
Task 3 Prepare Draft EOP									
Develop Draft EOP		3	32	6	6	48	3	10	$19,260
Review Meeting and Presentation (Virtual)		0	4			3			$1,330
Review and Respond to Comments on Draft EOP		2	10	4	2	10			$5,290
Expenses									$0
	Subtotal	5	46	10	8	61	3	10	$25,880
Task 4 Prepare Final EOP									
Produce Final EOP		2	14	4		20	3	8	$8,655
Expenses									$0
	Subtotal	2	14	4	0	20	3	8	$8,655
Total Labor Hours / Cost:	312	13	108	25	12	118	6	30	$55,630
								TOTAL COST	**$56,830**
billing rates		$225	$190	$165	$190	$190	$135	$85	
total hours		13	108	25	12	118	6	30	
cost		$2,925	$20,520	$4,125	$2,280	$22,420	$810	$2,550	$55,630

E. EMERGENCY OPERATIONS PLAN OUTLINE

AARC recognizes that the City of Milford has unique physical, geographical, and geological conditions that require a customized, updated Emergency Operations Plan (EOP). The City's area encompasses approximately ten square miles and includes residential, commercial, industrial assets, as well as linkages to the City of Wilmington, the City of Dover, and the Delaware beach communities of Lewes and Rehoboth Beach through the Delaware Route 1 corridor.

The City uniquely straddles two counties, each of which have their own Emergency Operations Centers. They each have their own political subdivisions and public/private response organizations. There are also a number of volunteer organizations in each county which must be included in the City's EOP update. The City uses the National Incident Management System (NIMS) through the Delaware Emergency Management Agency (DEMA), Kent County Emergency Management, and Sussex County Emergency Management.

The City's EOP update will not address day-to-day emergencies and will only address responses to extraordinary emergency situations associated with natural disasters, technological incidents, national security emergencies, or other catastrophic events. The EOP will be a preparedness document designed to be read, understood, and exercised prior to an emergency. The Plan will assign responsibility to organizations and individuals for carrying out specific actions in an emergency that exceeds the routine responsibility of any one agency. It will set forth lines of authority and organizational relationships and show how all actions will be coordinated.

AARC will review pertinent City documents, interview City staff and all local stakeholders and organizations, and conduct several meetings and workshops, as described below.

Goals for the updated EOP include, but are not limited to:

- Prevention - Property and lives protection by identifying and deterring an incident from occurring and incorporating the AARC "Near Miss Approach."
- Mitigation - Reduce the chance of emergencies happening, or reduce the impact of unavoidable emergencies.
- Preparedness & Training - City of Milford's ability to respond when a disaster occurs.
- Response - Emergency plans that enable coordination of resources to carry out immediately before, during, and after a hazard impact with the focus on saving lives, reducing economic loss, and alleviating suffering.
- Recovery - Starts after the immediate threat to human life has subsided with the goal to bring the affected area back to a degree of normalcy.
- Identification - Set forth lines of authority and organizational relationships, and show how all actions will be coordinated. And, identify personnel, equipment, facilities, supplies, and other resources available--within the jurisdiction or by agreement with other jurisdictions--for use during response and recovery operations.

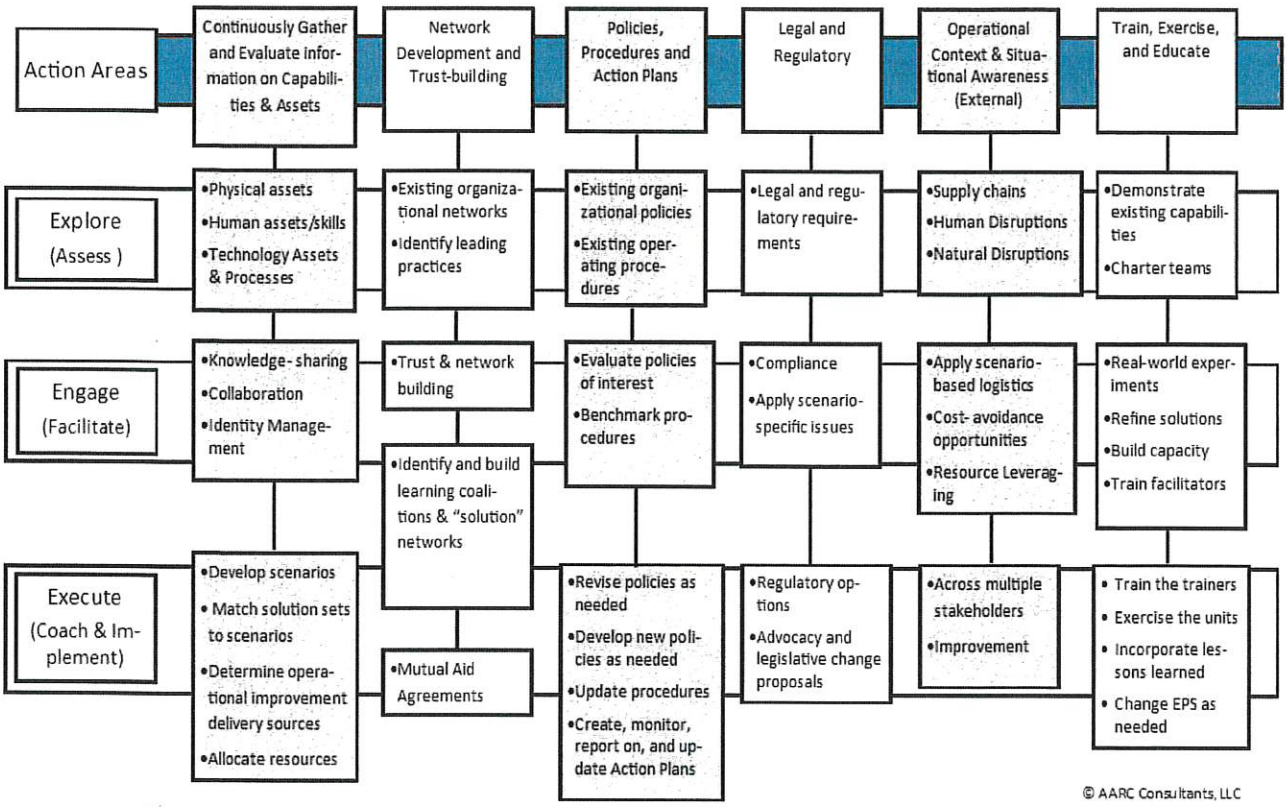
1 – Review of Existing EOP Information:

AARC will review the City's overall emergency preparedness, response and recovery policies, and crisis communication procedures. The analysis will include department and agency mission-critical functions, SOPs, and Mutual Aid Agreements. AARC will request and review existing plans, emergency training records, and policies, which may include:

- Current City Standard Operating Procedures and Departmental Plans.
- Current City Emergency Operations Plan (EOP) and any associated annexes.
- Supplemental Plans (public and private sectors).
- Public Utility Emergency Response Plans (ERPs).
- Operational Area Emergency Plans (Kent and Sussex Counties; DEMA and FEMA Regional Offices).

In reviewing the City's existing EOP, we will employ AARC's proprietary evaluation framework which will guide all subsequent phases of the project.

Emergency Preparedness Systems to Guide Strategic Responses and Actions



▶ ***Deliverable:*** Gap Analysis; overview of any significant deficiencies and best-practice recommendations for the EOP update based upon comparative review of documents, team experience, and matrix detailed above.

2 – Develop EOP Update Approach: AARC will interview City staff and conduct several meetings and workshops. Depending upon current and emerging COVID-19 restrictions, these tasks can be performed virtually.

AARC will reach out to the appropriate local stakeholders and schedule Microsoft Teams meetings to discuss their EOP experience and recommendations. This includes identifying partners with whom the City will work to meet emergency response and recovery capabilities within and outside of City government. AARC will also focus on identifying partners City will contact when the response exceeds their own capabilities.

AARC will identify all relevant jurisdictions, officials, and offices for partnership coordination, including but not limited to:

- City of Milford (Police, Public Works, Code Enforcement, Planning and Economic Development, etc.)
- Carlisle Fire Company (Fire and Ambulance)
- Kent County Emergency Management
- Sussex County Emergency Management
- DEMA
- FEMA

The AARC Team will capture embedded wisdom and insights through facilitation and appreciative inquiry. Meeting(s) will consist of a comprehensive overview of the project to:

- Clearly articulate shared expectations.
- Identify specific areas of concern or special interest, including possible time and resource constraints.
- Articulate any changed conditions that need to be addressed.

► ***Deliverable:*** Outline of the EOP document identifying sections requiring updates and any new sections.

3 – Prepare Draft EOP: AARC will prepare a best practices EOP and present the Draft EOP to the City. The EOP will designate responsibility to organizations & individuals for specific actions and projected times and places in an emergency that exceeds the capability or routine responsibility of any one agency or department. It will also set forth lines of authority & organizational relationships and how all actions will be coordinated.

The City will review and comment on the draft. AARC will make requested edits to address comments and produce the Final EOP. The Draft EOP will include review of existing and proposed policies/procedures:

- Biological/Hazardous Materials handling and disposal.
- Chemical/Hazardous Material Spill.
- Disease/Virus Infections, including Pandemic Response.
- High Pressure Gas Pipelines - within or city adjacent.
- Natural Disasters (Earthquakes, Wildfires, Floods, Tornados, Hurricanes, Nor'Easters, Blizzards, Ice Storms, Snow Storms, etc.).
- Homeland Security, including new trends in domestic/ foreign terrorist activities.
- Active Shooter(s).
- Bomb(s).
- Aircraft Crash, Train Wreck, other Vehicular Incidents.
- Mass Fatality Incidents.

► ***Deliverables:*** Electronic copy of the Best Practices EOP - printable PDF version and all electronic files used in preparing the report (e.g., Microsoft Word and Adobe Acrobat); response to comments; Presentation to City.

4 – Final Updated EOP: AARC will incorporate City recommendations into the Final Updated EOP.

► ***Deliverable:*** Printable PDF version of Final EOP and all electronic files used in preparing the Plan.

F. PLAN IMPLEMENTATION

Communication with the City: Clear and open lines of communication are essential to successful projects and have a major impact on project efficiency, cost control, and timeliness. Documents will be maintained and shared via a secure *SharePoint* system to disseminate key information and facilitate shared work and version control. The Project Manager will regularly update City staff with reports detailing team management, project coordination, regulatory compliance, submittals and deliverables, budgeting and invoicing.

Documenting the Planning Process: AARC will encourage transparency in the documentation planning process so that all jurisdictions understand how decisions were reached. The documented planning process may include:

- Identification of agencies and organizations that participate in Plan development.
- Narrative description of how the current Plan was prepared and the processes followed.
- Outline of Plan development and updates, Team meeting dates, attendees, and agendas.
- Coordination with existing planning mechanisms.
- Details of public involvement and strategy for public outreach/meetings.

Public Involvement: The AARC Team will assist the City with planning and executing community outreach to both online and in-person focus groups or stakeholders. The Team will evaluate the outreach activities involved in the previous planning process. Outreach activities to foster public involvement in the EOP may include:

- Public notices announcing community workshop sessions on City website(s).
- Consideration, approval, issuing, and tracking of Press and Media Releases.
- Utilization of appropriate Social Media.

Cost and Schedule Control: Cost control begins early in the project. AARC ensures that senior technical experts are involved in the process early to evaluated expectations about what is feasible given budget, staffing, and time constraints. Early involvement of the technical staff ensures that project objectives and constraints are carried through the project planning and implementation processes. It also helps managers establish appropriate milestones and anticipate potential challenges.

Data Security: AARC's computing infrastructure is geared towards Security as the core of its operations, utilizing a full spread of System-level, Network-level, and Organization-level planned and managed enterprise-class software and hardware solutions. Cybersecurity is built from the ground up with anti-virus, encrypted firewalls and VPNs, well-defined password policies, and security training for everyone within the organization. These are the measures taken for the hardware and software levels:

- All hardware is tightly controlled with remote monitoring and system wipe implementations as needed. Project laptops and desktops have Multi-Factor Authentication utilizing complex passwords, pushed authentication to mobile devices, and Biometric Authentication. These methods secure data beyond the simple password layer.
- Project data are provisioned on the Microsoft SharePoint Online platform. Client data can only be accessed via a secured terminal server within an isolated Microsoft Azure environment, ensuring confidentiality.

Quality Assurance / Quality Control: The AARC Project Manager will ensure that stringent quality procedures are performed. QA/QC also incorporates a general review of personnel to ensure an acceptable level of expertise is maintained for quality products. Deliverables prepared under this contract will be subjected to three levels of review:

- Level 1: Deliverables will undergo a detailed review by the PM and Technical Leads to ensure that the documents are technically accurate, consistent, clear, and actionable.
- Level 2: Deliverables will be reviewed by the Technical Editor for grammar, clarity, and formatting.
- Level 3: Deliverables will be reviewed by the Principal in Charge for overall quality prior to submission.

G. PLAN TRAINING

In coordination with the City, relevant participants will be selected and trained in the efficient operation of the City's revised and updated EOP. As appropriate, trainees may include City staff, officials, and personnel as well as representatives from local stakeholders, local emergency planning committees and partners, police and fire departments, schools, hospitals, community organizations, and others to be identified.

AARC's Dr. Stephen Baruch, DEnv, has more than 20 years of experience as a private and public sector Emergency Operations expert, including training programs, table-top exercises, and field exercises for severe weather evacuation plans, wildfire response plans, cyber-system attacks, acts of vandalism or terrorism, earthquakes, and susceptibility to pandemics.

- **The experience and expertise of Dr. Stephen Baruch are value-added differentiating features that position the AARC Team far ahead of our competitors.**
- **AARC is able to offer additional security, environmental, and regulatory compliance consulting services to meet any emerging needs for the City.**

H. REFERENCES

AARC has completed or is currently engaged on 21 Emergency Operations Plans for Cities, Counties, and other public entities across the nation. All projects are being conducted on schedule and within budget. Projects typically include:

- Infrastructure Vulnerability and Risk Assessments - Physical, Operational, Fiscal, and Cyber.
- Risk and Hazard Mitigation Planning.
- Emergency Operations and Emergency Response Planning, including Cyber Security Response and Recovery.
- Pandemic Planning.

- **The three requested references are provided below, followed by additional relevant experience.**

Contra Costa Water District, Concord, California (EOP Completed 2020; BCP Ongoing)

Project Description: Emergency Operations Plan and Business Continuity Plan for more than 500,000 residents. EOP was provided on time under a very accelerated schedule while preserving client review needs. Adjusted the manner of conducting workshops and facility assessments to accommodate COVID-19 conditions.

Contact: James Larot: 925-688-8393; jlarot@cwater.com

City of Wichita, Kansas (Completed 2020)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 500,000 residents, with some facilities constructed circa 1940. Brought together utility IT and OT personnel who had not previously met to jointly address key cybersecurity issues and potential vulnerabilities related to system interface.

Client Contact: Laura Quick, Compliance Manager: 316-942-4482; lquick@wichita.gov

Cleveland County Water, Lawndale, North Carolina (2020-2021)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 52,700 residents. Developed an Excel spreadsheet-based J100 analytic tool to enhance transparency, user-friendliness, and graphics capability to aid presentation to laypersons and support decision-making. Provided risk mitigation measures giving a rationale supporting investment decisions.

Client Contact: Jeff Earl, Operations Director: 704-538-8033; jearl@clevelandcountywater.com

ADDITONAL RELEVANT EXPERIENCE

City of Orem, Utah (2020-2021)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 97,000 residents.
Contact: Neil Winterton, Water Resources Manager: 801-229-7510; rwinterton@orem.org

Parker Water & Sanitation District, Parker, Colorado (2020-2021)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 50,000 residents in the Town of Parker, as well as areas of Lone Tree, Castle Pines, and parts of Douglas County.
Contact: Jarod Baylie, Engineering Supervisor: 720-842-4262; jbaylie@pwsd.org

City of Rialto, California (2020 – 2021)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 55,000 residents.
Contact: Bob Chandler, Interim Director of Finance; 909-820-2544, procurement@rialtoca.gov

Western Municipal Water District, Riverside, California (Completed 2020)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 1,000,000 residents in the Inland Empire east of Los Angeles.
Contact: Anita Wilcox: 951-789-5141; awilcox@wmwd.com

Rancho California Water District, Temecula, California (Completed 2020)
Project Description: Risk/Hazard Mitigation Plan for more than 150,000 residents, as well as agricultural fields and vineyards in one of the most rapidly growing communities in the country.
Contact: Tom Marcoux Safety & Risk Officer: 951-296-6948; marcouxt@ranchowater.com

Sweetwater Authority, San Diego, California (Completed 2020)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 190,000 residents in the City of National City, the unincorporated area of Bonita, and the western portion of the City of Chula Vista.
Contact: Clay Clifton: 619-409-6861; cclifton@sweetwater.org

City of Fresno, California (Completed 2020)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 500,000 residents.
Contact: Jesus Gonzalez, PE: 559-621-2489; jesus.gonzalezjr@fresno.gov

City of Santa Clara, California (Completed 2020)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan, plus Wastewater Emergency Response Plan, for more than 130,000 residents.
Contact: Shilpa Mehta, PE: 408-615-2011; smehta@santaclaraca.gov

City of Redwood City, California (2020 – 2021)
Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 90,000 residents.
Contact: Aaron Nair, Management Analyst: 650-780-7474; anair@redwoodcity.org

City of Merced, California (2020 – 2021)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 83,000 residents.

Contact: Ken Elwin, PE, Director of Public Works: 209-385-6803; publicwks@cityofmerced.org

City of Burlingame, California (2020 -2021)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 30,500 residents.

Contact: Kevin Okada, PE, Senior Civil Engineer

City of South Gate, California (2020 - 2021)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 94,000 residents, with two interconnections to a Metropolitan Water District for major emergencies (inactive for more than 100 years).

Contact: Arturo Cervantes, PE, Assistant City Manager / Director of Public Works: 323-563-9567; acervantes@sogate.org

City of Gilroy, California (2020 – 2021)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 59,000 residents.

Contact: Carina Baksa, Management Analyst / Interim Purchasing Coordinator: 408-846-0460; carina.baksa@cityofgilroy.org

City of Laredo, Texas (Completed 2020)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 260,000 residents on the US / Mexico border.

Contact: Arturo Garcia, Jr., PE, Utilities Engineering Manager: 956-721-2000; agarcia10@ci.laredo.tx.us

San Patricio Municipal Water District, Ingleside, Texas (2020-2021)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan P for more than 88,000 customers in nine municipal utility systems, with industrial customers on the Corpus Christi Ship Channel.

Contact: Jake Krumnow, O&M Manager: 361-777-4015; jjk@spmwd.net

Public Utilities Board, Brownsville, Texas (Completed 2020)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 185,000 residents – Met EPA Tier 1 EPA deadline on a very short schedule.

Contact: Fernando Saenz, PE, COO / Assistant General Manager: 956-466-3105, fsaenz@brownsville-pub.com

City of San Juan, Texas (2020 - 2021)

Project Description: Risk/Hazard Mitigation Plan and Emergency Operations Plan for more than 37,000 residents in the McAllen - Reynosa metro area in the Lower Rio Grande Valley.

Contact: Rene Jaime, Purchasing Agent: 956.223.2200; rjaime@sjtx.us

APPENDIX – TEAM RESUMES

Scott Thomas, PhD – *Principal Scientist in Charge*



Dr. Scott Thomas has more than 27 years of experience in critical infrastructure and natural resource management, including 13 years of experience performing resiliency assessments for critical infrastructure. He was an officer in the United States Marine Corps for 20 years, retiring as a Lieutenant Colonel. He served as Director of Water Resources for four years at Marine Corps Base Camp Pendleton and as Environmental Officer for nine years at three other military bases. He has planning experience in support of projects at Federal and local levels, serving in various roles as Director, Project Manager, Group Facilitator, Technical Advisory Committees, and Grant Support.

Education:

- PhD, Environmental Science and Public Policy, George Mason University
- MA, Business and Management, Webster University
- BA, History, Hampden-Sydney College

Specialized Training and Certifications:

- FEMA IS-393b Hazard Mitigation
- AWWA Utility Risk and Resilience Certificate
- Health and Environmental Risk Communication
- Multi-Factor Evaluation for Decision Support
- EPA Hazardous Materials Incident Management Response Operations
- EPA Hazardous Material First Responder Operations
- Alternative Futures Analysis Scenario-Based Planning

Relevant Planning Experience Highlights:

- Principal in Charge for 21 Emergency Operations Plans focused upon Natural and Manmade Hazards, including: Wind, Fire, Earthquake, Drought, Flood, Hail, Subsidence, Environmental Contamination, Vehicular Accident, Terrorism, Vandalism, Theft, and Cyber Attack. Support Integration of risk mitigation measures into capital improvement plans:
- As Chairman of Board of Commissioners for Diamondhead Water and Sewer District in Mississippi, directed planning and development of $100+ M Sewage Treatment Plant during recovery following Hurricane Katrina.
- Participated in Hurricane Katrina response and recovery operations including debris removal, emergency protective measures and public services, and security and repair of damaged public property.
- Member of Planning Team for coastal community resilience planning in Hancock County, MS under NOAA.
- Committee Member, Gulf of Mexico Alliance Priority Issue Team on Coastal Resilience.
- Facilitator for the Santa Margarita River Watershed Executive Management Team and Stakeholder Advisory Group for the U.S. Bureau of Reclamation in Temecula, CA. Performed Threats Analysis for the watershed.
- Analysis of water resource and infrastructure vulnerability and resilience for eight Marine Corps installations.
- Resilience planning support to 6M customers of Santa Ana Watershed Project Authority.
- Developed Water Resources Education and Outreach Plan and Water Shortage Contingency Plan for Marine Corps Base Camp Pendleton.
- Developed innovative methodology to assess water & energy resilience of Army combat outposts in Afghanistan.
- Coordinated Delphi method stakeholder input and data analysis for three-state regional scenario study (Alternative Futures Analysis) evaluating development-related stresses upon natural resources and military training facilities in the southwest US.

- Performed water resource resilience and sustainability evaluation of five military bases for US EPA and DoD.
- Editor for two Environmental Assessments per the National Environmental Policy Act (NEPA).
- Editor, Indian Wells Valley Groundwater Sustainability Plan, California.
- Watershed Coordinator, Rotten Bayou in Mississippi.
- As Director of Water Resources for Marine Corps Base Camp Pendleton:
  - Directed safety evaluation of two dams and a levee.
  - Represented installation in watershed planning initiatives.
  - Directed water policies, plans, and programs relating to surface and groundwater supply, source water supply, monitoring and modeling for water quality, quantity, and flood protection.
  - Developed and directed water conservation and recycling programs and watershed planning.
  - Project Manager for planning $100 million conjunctive use water project.
  - Chair of Base Water Steering Committee. Established metrics and benchmarks for water management and built these into an installation water resources plan.

Awards:

- Secretary of Defense Environmental Security Award – Citation for Meritorious Achievement (Installation) (2001); Secretary of Defense Environmental Security Award – Honorable Mention (Installation) (2000); Secretary of the Navy Pollution Prevention Award – Citation for Superior Achievement (Installation) (1999).
- Awarded Meritorious Service Medal and Navy and Marine Corps Commendation Medal. Marine Corps nominee to serve as General Tommy Franks' Aide at CENTCOM.

Selected Publications and Conferences:

Thomas, S. and D. Kerner. 2019. Compounding Disruptions and Cascading Failures: A Framework for Assessing and Enhancing Resilience. Challenges of Natural Resource Economics and Policy 6th National Forum on Socioeconomic Research in Coastal Systems. May 22. New Orleans, LA.

Trammell, E.J., J.S. Thomas, D.A. Mouat. Q. Korbulic, S. D. Bassett. 2017. Developing alternative land use scenarios to facilitate natural resource management across jurisdictional boundaries. Journal of Environmental Planning and Management. pp. 1-22; 21 March.

Thomas, J. S. and D. A. Kerner. 2015. Measuring Water Resource Resilience. The Water Report #132.

Thomas, S., C. Cantu, L. McKenney, and D. Kerner. 2015. Developing Water Resource Metrics Based on Resilience Attributes: a Case Study in the Santa Ana River Watershed. American Water Resources Association Spring Specialty Conference. March 30-April 1, CA.

Thomas, J. S. and D. A. Kerner. 2014. Attributes of Resilience in Coastal Systems. Bays and Bayous Symposium. Dec 2, 2014. Mobile, AL.

Kerner, D. A. and J. S. Thomas. 2014. Resilience attributes of social-ecological systems: framing metrics for management. Resources Journal; 3 672-702.

Thomas, J. S. and D. A. Mouat. 2011. Alternative futures analysis as a complement to planning processes for the use of military land. Air and Space Power Journal. Fall.

Thomas J.S. 2008. Graphical tools to clarify planning decisions. The Water Report. No. 51

Professional Affiliations:

- University of Denver, Adjunct Teaching Professor (Courses in Environmental Management; Sustainability, Food and Water Sustainability; Leadership; and Environmental Economics)
- American Water Resources Association; American Water Works Association

David Siburg – *Project Manager / Senior Emergency Operations Planner*



David Siburg has more than 30 years of experience in the public sector with large and small organizations. He served as General Manager of a Public Utility District for more than 24 years with focus on capacity building for resource-challenged organizations, stakeholder engagement, and risk management. He has served on numerous regulatory and advisory committees and has facilitated many multi-stakeholder planning efforts. He also has significant experience in land use planning and Asset-Based Community Development.

Education:

- Master of Planning, (AICP Planning Student Award) Humphrey Institute of Public Affairs, University of Minnesota
- BA, Economics (cum laude), Environmental/Ecosystem Studies, Pacific Lutheran University

Relevant Experience Highlights:

- Senior Risk & Resilience Analyst for Emergency Operations Plans for City of Merced, CA; City of Redwood City, CA; City of Rialto, CA; Contra Costa Water District, CA; City of Orem, Utah; Parker Water District, Parker CO.
- General Manager, Kitsap Public Utility District, Kitsap County, Washington. Created Community Access Readiness Empowerment Systems (CARES) Platform, integrating Broadband, Information, Environment and Systems for Community Resilience. Utilized ISO 22301:2012, ISO 9001, Galbraith Star framework, Total Quality Management (TQM), Six Sigma, Lean processes, and Appreciative Inquiry.
- Facilitated the Strategic Direction and Mission of the multi-organizational Northwest Open Access Network (NoaNet) and a number of Strategic Workshops for the Washington PUD Association – composed of 28 different Power, Water, Telecommunications and Wastewater Members.
- 55 Public Systems Restructured to improve Business Continuity and Environmental Outcomes.
- 100+ Public Systems provided with Contract Operations and Data Management Services.
- Coached executive directors and CEO of Saudi Arabia National Water Company serving 12 million people with 7,000+ employees to become more customer centric and quality assurance-oriented.
- Worked with Tribes, Federal Agencies, State Legislators and Regulators, Regional / Local Stakeholders, and Boards of Commissioners on Complex Resource and Infrastructure Projects.

Selected Professional Affiliations and Multi-Stakeholder Participant Processes:

- Member, Board of Directors – Northwest Open Access Network (from 2003, President 2011-2014)
- Chair, Washington Public Utility Districts Association, General Managers Section
- Member, Measures Testing Group for National Aggregate Measures of Water Security
- Member, Water Security Working Group of the National Drinking Water Advisory Council
- Chair, American Water Works Association Small Systems Division
- Washington State Department of Health (WDOH) Satellite Management Agency Advisory Committee
- WDOH Operating Permit Financial Feasibility Advisory Committee
- Washington State Department of Ecology (WDOE) Water Resources Advisory Committee
- Technical Advisor for Governor's Transition Team on Natural Resources

Stephen Baruch, D Env, MBCI, CBCP – *Lead Emergency Operations Planner*



Dr. Stephen Baruch has more than 20 years of experience as a private and public sector expert in Hazard Mitigation, Emergency Preparedness, and Business Continuity Planning. Past clients include Stanford University's Office of Real Estate, Jazz Pharmaceuticals, and the San Jose California Water Company. He also developed BCP and ERP plans for MetricStream, Stanford Management Company, Facebook, D.W. Morgan, Netflix, Celera, and the Office of Emergency Services in San Mateo, California.

Education:

- D Env, Environmental Science and Engineering, UCLA
- MS, Public Health, Yale University
- MS, Public Administration, University of Southern California
- BA, Brooklyn College

Specialized Training and Certifications:

- AWWA Utility Risk and Resilience Certificate
- Vice Chair, AWWA Security and Emergency Planning Committee, California-Nevada Section
- Certified Business Continuity Professional (CBCP)
- Member Business Continuity Institute (BCI)
- Carlsbad California Emergency Response Team (CERT)

Relevant Experience Highlights:

- Lead Emergency Response Planner Western Municipal Water District, Riverside CA; Cleveland County Water, Lawndale NC; City of Wichita KS; Brownsville Public Utilities Board TX; City of Laredo TX; San Patricio Municipal Water District, Portland TX.
- Senior Emergency Response Advisor for City of Santa Clara CA, City of Redwood CA, City of Fresno CA; City of Merced CA, City of Rialto CA, Parker Water District CO, City of Orem UT.
- Business Continuity Consultant – San Jose Water Company (SJWC), California.
  Implemented improvements to company documentation of life safety, Emergency Response and Business Continuity programs. Proposed recommendations for integrating existing approaches into a best-practice BCM program.
- 20+ Business Continuity Plans – Enhanced public and private organizational capabilities for more effective recovery from disasters and emergencies:
  - Developed and implemented Pandemic Plans.
  - Prioritized the recovery of mission-critical functions using business impact analysis techniques.
  - Aligned with ISO 22301 requirements.
  - Achieved comprehensive situational awareness required for effective response and recovery.
  - Improved Crisis Communication plans.
  - Conducted broad range of exercises.
  - Developed Emergency Operations Center procedures.
  - Established processes for post-disaster damage assessment and reimbursement.

Pacia Díaz, PhD – *Assistant Project Manager / Senior Engineer*



Dr. Pacia Díaz is an Environmental Engineer with more than 21 years of experience with specializing training in Climate Change, Vulnerability Assessments, and developing Hazard Mitigation strategies for cities. She participated in several European Union projects which critically assessed community resilience, working with stakeholders from Portugal, Spain, and India. She is currently part of a team which conducts All-Hazards Risk & Resilience Assessments throughout the United States.

Education:

- PhD, Environmental Engineering, University of South Florida (USF)
- MA, Civil Engineering, University of South Florida
- BS, Civil Engineering, University of South Florida
- Diplomate, Urban Management Tools for Climate Change, Erasmus University, Rotterdam
- Fulbright Scholarship Recipient, Institute of Environmental Science and Technology, Autonomous University of Barcelona, Spain

Specialized Training and Certifications:

- Graduate Certificate, Community Development, USF
- Graduate Certificate, Water, Health and Sustainability, USF
- AWWA Utility Risk and Resilience Certificate
- AWWA Security Practices for Operations and Management
- LEED AP BD+C (Leadership in Energy & Environmental Design)
- FEMA Disaster Management for Water & Wastewater Utilities (Mgt-343)
- FEMA IS-00235b Emergency Planning
- FEMA IS-00015b Special Events Contingency Planning for Public Safety Agencies
- FEMA IS-00139 Exercise Design
- FEMA IS-00393a Introduction to Hazard Mitigation
- FEMA IS-00547a Introduction to Continuity of Operations

Relevant Experience Highlights:

- Assistant Project Manager for Emergency Operations Plans: Cleveland County Water, Lawndale NC; Brownsville Public Utilities Board TX; City of Laredo TX; San Patricio Municipal Water District, Portland TX.
- Senior Engineer for Emergency Operations Plans: Parker Water District, Parker CO; Western Municipal Water District, Riverside CA; Sweetwater Authority, San Diego CA; City of Merced, CA. Cleveland County Water, Lawndale NC; City of Wichita KS; City of Orem UT; Brownsville Public Utilities Board TX; City of Laredo TX; San Patricio Municipal Water District, Portland TX.
- Doctoral researcher for EU project IMPRESSIONS to help decision-makers apply integrated adaptation and mitigation strategies within two river basins at high risk to climate change impacts in Iberia.
- Co-instructor for a study abroad (southern Spain) for an architectural studio; delivered lectures on environmental/sustainability aspects to be incorporated in proposed interventions in the community.
- Graduate researcher investigating the challenges and response strategies by Spanish water managers in highly urbanized and water scarce region.
- Graduate student cohort studying comparative water law, key Dutch water infrastructure interventions, and water management strategies throughout the Netherlands.

Selected Publications:

Díaz, P., Morley, K., and Yeh, D. H (2017). *Resilient Urban Water Supply: Preparing for the Slow-Moving Consequences of Climate Change*. IWA Water Practice and Technology, 12 (1): 123-138.

Díaz, P., Stanek, P., Frantzeskaki, N., & Yeh, D. H. (2016). *Shifting Paradigms, Changing Waters: Transitioning to Integrated Urban Water Management in the Coastal City of Dunedin, USA.* Sustainable Cities and Society 26 (October 2016): 555-567.

Díaz, P., and Yeh, D. (2014). *Adaptation to Climate Change for Water Utilities*. In S. Ahuja, Water Reclamation and Sustainability. Elsevier.

Joseph McCroy – *Senior Physical Security and Cybersecurity Specialist*



Joseph McCroy is a retired Army Reserve Major with experience in Cyber Threat Intelligence and Supervisory Control and Data Acquisition (SCADA) system components, Industrial Control Systems (ICS), and US Critical Infrastructure. He has two decades of experience in the IC community, including nine years specializing in Military Intelligence training and doctrine; eight years involvement as an MI Staff Officer responsible for strategic communications, curriculum development, policy writing, and enforcement.

Education:

- MS, Military Intelligence, Command Control and Information Operations, American Military University.
- BS, Criminal Justice, Chapman University.

Specialized Training and Certifications:

- AWWA Utility Risk and Resilience Certificate.
- Certified SCADA Network Security Architect (CSSA).
- Specialized in Supervisory Control and Data Acquisition (SCADA) system components.
- Industrial Control Systems (ICS) and U.S. Critical Infrastructure.
- Active Top Secret (TS) with Sensitive Compartmented Information (SCI) with Counterintelligence Polygraph; trained in OSI model and underlying network protocols (e.g., TCP/IP).

Relevant Experience Highlights:

- Assistant Project Manager or Senior Cybersecurity Analyst for 21 Emergency Operations Plans in California, Texas, Utah, Colorado, Kansas, and North Carolina.
- Knowledge of SCADA-ICS and OT systems across several critical infrastructure industries and public utilities which includes water and wastewater treatment plants, oil and gas refineries and power transmission system.
- Applied comprehension of tactical to strategic level intelligence analysis of cyber threats, vectors, and actors to support cyber defense and computer network operations.
- Advised the Army and Air Force on vulnerability to identify Indicators of Compromise (IOC) in ICS-SCADA systems for utilities, water and wastewater treatment plants; oil and gas refineries and power transmission systems.
- Used open source data and classified reporting to analyze and document the political, economic, social, and behavioral aspects of malicious cyber activity. Provide situational awareness of local, regional, and international cyber threats, including attribution analysis of cyber organizations, programs, capabilities, motivations, and intent to conduct cyberspace operations.
- Understanding of cyber-attack stages (e.g., reconnaissance, scanning, enumeration, gaining access, escalation of privileges, maintaining access, network exploitation, covering tracks) commonly used on ICS-SCADA and OT systems used in water and wastewater treatment plants and utilities.

TEAM COLLABORATION

	Scott Thomas, PhD	David Siburg	Stephen Barush, Denv	Pacia Diaz, PhD	Joseph McCoy
Brownsville Public Utilities District, TX	●		●	●	●
Burlingame, CA	●	●	●	●	●
Cleveland County Water, NC	●		●	●	●
Contra Costa Water District, CA	●	●	●	●	●
Fresno, CA	●		●		●
Gilroy, CA	●	●	●		●
Laredo, TX	●		●	●	●
Merced, CA	●	●	●	●	●
Orem, UT	●	●	●	●	●
Parker Water District, CO	●	●	●	●	●
Rancho Water District, CA	●		●	●	●
Redwood City, CA	●	●	●	●	●
Rialto, CA	●	●	●	●	●
San Juan, TX	●		●		●
San Patricio Water District, TX	●		●	●	●
Santa Clara, CA	●		●	●	●
South Gate, CA	●	●	●	●	●
Sweetwater Authority, CA	●		●	●	●
Western Municipal Water District, CA	●		●	●	●
Wichita, KS	●		●	●	●
Years of Relevant Experience	27	30	21	21	20
AWWA Risk & Resilience Certification	●	●	●	●	●

OFFICE OF THE CITY MANAGER
201 South Walnut Street
Milford, DE 19963
www.cityofmilford.com

THE CITY of Milford DELAWARE

MARK A. WHITFIELD
City Hall 302.422.1111
Direct 302.424.8394
MWhitfield@milford-de.gov

Date: October 2, 2020

To: Potential Responders

From: Mark A. Whitfield, City Manager

Re: Emergency Operations Plan Evaluation, Review, and Revisions, RFP Addendum #1

The Request for Proposals (RFP) is modified as set forth in this Addendum. The original RFP Documents and any previously issued addenda remain in full force and effect, except as modified by this Addendum, which is hereby made part of the RFP. Respondent shall take this Addendum into consideration when preparing and submitting its Proposal.

The Proposal submittal deadline remains the same and is not changed by this Addendum.

Amend item 7 titled Organization of Proposal to remove a portion of sub item E as follows:

E. Emergency Operations Plan ~~and Continuity of Operations Plan~~ outline

Amend item 8 titled Evaluation Process to remove a portion as follows:

An evaluation team will rank the proposals received in accordance with the terms of this RFP in the following manner:
Emergency Operations Plan ~~and Continuity of Operations Plan~~ outline – 40 pts
Plan Implementation – 20 pts
Plan Training – 20 pts
Pricing information and time for completion – 20 pts

If any additional questions arise please contact the Deputy City Clerk, Christine Crouch, at ccrouch@milford-de.gov.

City of Milford
201 S. Walnut Street
Milford, DE 19963

Addendum Acknowledgement Form
Emergency Operations Plan Evaluation, Review, and Revisions
October 2, 2020

We acknowledge that we have received and acknowledge the following Addendum(s) to the Emergency Operations Plan Evaluation, Review, and Revisions:

Addendum No.1:
Amend item 7 titled Organization of Proposal to remove a portion of sub item E as follows:

E. Emergency Operations Plan ~~and Continuity of Operations Plan~~ outline

Amend item 8 titled Evaluation Process to remove a portion as follows:

An evaluation team will rank the proposals received in accordance with the terms of this RFP in the following manner:
Emergency Operations Plan ~~and Continuity of Operations Plan~~ outline – 40 pts
Plan Implementation – 20 pts
Plan Training – 20 pts
Pricing information and time for completion – 20 pts

THE ADDENDUM ACKNOWLEDGMENT FORM MUST BE ACKNOWLEDGED, SIGNED, AND RETURNED PRIOR TO THE OPENING DEADLINE. FAILURE TO ACKNOWLEDGE IN THIS MANNER MAY RENDER THE PROPOSAL NON-RESPONSIVE.

AARC Consultants, LLC	10-08-2020
Company Name	Date
Authorized Signature	Scott Thomas, PhD, Principal Scientist in Charge Vice President, Resiliency, Sustainability, and Emergeny Response Planning Printed

PUBLIC WORKS DEPARTMENT
180 Vickers Drive
Milford, DE 19963

THE CITY of Milford DELAWARE

PHONE 302.422.1110
FAX 302.422.1117
www.cityofmilford.com

Date: November 20, 2020

To: Mayor and City Council

Through: Mark A. Whitfield, City Manager
Michael Svaby, Public Works Director

From: James Puddicombe, City Engineer

Re: Shawnee Acres and Truitt Avenue I&I Investigation

The City has listed $250,000 for Inflow and Infiltration (I&I) within the Truitt Avenue Pump Station for Investigation and Repair and $250,000 under a separate line for General I&I Investigation and Repair in the most recent Capital Improvements Plan. The Public Works Department seeks to assign some of these funds for their intended uses. The Public Works Department wishes to have $16,634.15 from the General I&I line allotted to pay KCI for I&I work performed within the Shawnee Acres Pump Station from Sewer Reserves. The Public Works Department also seeks to have $50,000 allotted to pay for proposed investigation into I&I within the Truitt Avenue Pump Station from Sewer Reserves. Additionally, $75,000 is requested to pay for the lining of approximately 700 feet of Vitrified Clay Pipe known to have significant I&I issues near the Washington Street Pump Station. A photo illustrating some of the I&I issue near Washington Street is attached below.

Recommendation: We recommend Council fund $91,634.15 previously approved in the CIP as general I&I investigation and repair from sewer reserves and $50,000 be funded as previously approved in the CIP for investigation of I&I in the Truitt avenue pump station from sewer reserves.



THE CITY of Milford DELAWARE

The governing body has recessed to Executive Session. The regular meeting will resume shortly.