PROPOSED COMMERCIAL DEVELOPMENT

BRALEY ROAD
MAP 106 – LOT 309
NEW BEDFORD, MASSACHUSETTS

MAY 6, 2019
PROJECT NARRATIVE
PROJECT NARRATIVE
MAY 6, 2019

PROJECT:
PROPOSED COMMERCIAL DEVELOPMENT
BRALEY ROAD
NEW BEDFORD, MASSACHUSETTS
ASSESSORS MAP 136 – LOT 309

PROPERTY OWNER/APPLICANT:
BRALEY NORTH REALTY TRUST
80 LAMBETH STREET
NEW BEDFORD, MA 02745

ZONING DISTRICT:
MIXED USE BUSINESS

EXISTING CONDITIONS

The subject property is a 30,130 SF lot located on the east side of Braley Road at the entrance to the New Bedford Industrial Park. The property is bordered by a single family house lot on the north, Route 140 on the east and Braley Road Extension on the south.

The subject property was previously approved for the construction of a mixed use business building with associated parking and utilities. The construction was started and the perimeter retaining walls were constructed in accordance with the original design plans. The area within the walls was graded and the construction was suspended due to changing market conditions. The area outside of the wall is a combination of grass, scrub brush and woodlands that include areas identified as Bordering Vegetated Wetlands.

PROPOSED DEVELOPMENT

The Applicant is proposing to construct a 2,800 SF mixed use business structure with a potential drive thru lane for a non-fast food restaurant use. The parking plan will create 22 parking spaces including (1) ADA, van accessible compliant space. The project will be serviced by municipal water and sewer with connections onto Braley Road.
Access to the site will be via a 24’ wide driveway located on the north side of the development in order to maximize the separation to the Industrial Park entrance road. A new 5’ side concrete ribbon sidewalk will be installed from the intersection of Braley Road Extension to the new curb cut driveway apron. An ADA access ramp with painted crosswalk will be added to match the recently constructed ramp located on the west side of Braley Road.

As originally approved, the stormwater runoff from the building and parking lot will be directed to a water quality treatment unit and subsurface detention system for water quality and peak flow mitigation.

It is anticipated that this project will take 6 to 8 months to complete at a cost of $800,000.
SITE PLAN REVIEW
APPLICATION / CHECKLIST
PLANNING BOARD

CITY OF NEW BEDFORD
JONATHAN F. MITCHELL, MAYOR

SITE PLAN REVIEW APPLICATION

The undersigned, being the Applicant, seeks Site Plan Approval for property depicted on a plan entitled: Commercial Development Braley Road by: SITEC, Inc dated: March 27, 2019

1. Application Information

Street Address: Braley Road

Assessor’s Map(s): 136 Lot(s) 309
Registry of Deeds Book: 5577 Page: 11
Zoning District: Mixed Use Business

Applicant’s Name (printed): Braley North Realty Trust
Mailing Address: 70 Lambeth St New Bedford MA 02745
(Street) (City) (State) (Zip)
(508)294-7974 danielpmoniz@gmail.com

Contact Information:

Applicant’s Relationship to Property: ☐ Owner ☐ Contract Vendee ☐ Other

List all submitted materials (include document titles & volume numbers where applicable) below:

Site Plans - Cover Sheet and Sheets 1-8
Building Floor Plan/Elevations
Project Report w/Drainage Calculations

By signing below, I/we acknowledge that all information presented herein is true to the best of my/our knowledge. I/we further understand that any false information intentionally provided or omitted is grounds for the revocation of the approval(s). I/we also give Planning Department staff and Planning Board Members the right to access the premises (both interior and exterior) at reasonable times and upon reasonable notice for the purpose of taking photographs and conducting other visual inspections.

May 6, 2019

Date

Signature of Applicant

City Hall • 133 William Street • Room 303 • New Bedford, MA 02740 • www.newbedford-ma.gov
PH: (508)979-1488 • FX: (508)979-1576
2. **Review Applicability** (Check All That Apply to Your Proposal)

Category
- [ ] Residential
- [x] Commercial
- [ ] Industrial
- [ ] Mixed (Check all categories that apply)

**Construction**
- [x] New Construction
- [ ] Expansion of Existing
- [ ] Conversion
- [ ] Rehabilitation

**Scale**
- [ ] < 2,000 gross sq feet
- [x] > 2,000 gross sq feet
- [ ] 3 or more new residential units
- [ ] 1 or more new units in existing res. multi-unit
- [x] Drive Thru Proposed
- [ ] Ground Sign Proposed
- [ ] Residential Driveway With > 1 curbcut

3. **Zoning Classifications**

Present Use of Premises: Vacant Land

Proposed Use of Premises: Mixed Use Commercial

Zoning Relief Previously Granted (Variances, Special Permits, with Dates Granted):

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4. **Briefly Describe the Proposed Project:**

The Applicant is proposing to construct a 2800 SF single story commercial building with associated parking and utilities on a 30,130 SF parcel.

The property was previously reviewed and approved for a similar development several years ago, however, due to economic conditions work completed on the property was limited to grading and the construction of retaining walls which form the outer limit of the development.

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5. **Please complete the following:**

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>Allowed/Required</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Area (sq ft)</td>
<td>30,130 SF</td>
<td>0</td>
<td>30,130 SF</td>
</tr>
<tr>
<td>Lot Width (ft)</td>
<td>225'</td>
<td>0</td>
<td>225'</td>
</tr>
<tr>
<td>Number of Dwelling Units</td>
<td>0</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Total Gross Floor Area (sq ft)</td>
<td>0</td>
<td>-</td>
<td>2800 SF</td>
</tr>
<tr>
<td>Residential Gross Floor Area (sq ft)</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Non-Residential Gross Floor Area (sq ft)</td>
<td>0</td>
<td>-</td>
<td>2800 SF</td>
</tr>
<tr>
<td>Building Height (ft)</td>
<td>0</td>
<td>100'</td>
<td>22'</td>
</tr>
<tr>
<td>Front Setback (ft)</td>
<td>N/A</td>
<td>0</td>
<td>68'</td>
</tr>
<tr>
<td>Side Setback (ft)</td>
<td>N/A</td>
<td>0</td>
<td>49'</td>
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<tr>
<td>Side Setback (ft)</td>
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<td>0</td>
<td>84'</td>
</tr>
<tr>
<td>Rear Setback (ft)</td>
<td>N/A</td>
<td>10'</td>
<td>23'</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Lot Coverage by Buildings (% of Lot Area)</td>
<td>0</td>
<td>-</td>
<td>9.3%</td>
</tr>
<tr>
<td>Permeable Open Space (% of Lot Area)</td>
<td>100%</td>
<td>0</td>
<td>60%</td>
</tr>
<tr>
<td>Green Space (% of Lot Area)</td>
<td>100%</td>
<td>0</td>
<td>60%</td>
</tr>
<tr>
<td>Off-Street Parking Spaces</td>
<td>0</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>Long-Term Bicycle Parking Spaces</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Short-Term Bicycle Parking Spaces</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Loading Bays</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

6. Please complete the following:

   a) Number of customers per day:
      Existing | Proposed
      0 | 100
   b) Number of employees:
      Existing | Proposed
      0 | 5
   c) Hours of operation:
      Existing | Proposed
      N/A | 7AM-10PM
   d) Days of operation:
      Existing | Proposed
      N/A | Su-Sa
   e) Hours of deliveries:
      Existing | Proposed
      N/A | M-Sa
   f) Frequency of deliveries:  
      □ Daily  □ Weekly  □ Monthly  □ Other: 3-4 days/week

7. Planning Board Special Permits:

   □ The applicant is also requesting a Special Permit from the Planning Board.

   Specify the requested Special Permit(s) below, and set forth within attached Development Impact Statement how the request meets approval criteria listed in §5320 of the zoning code.

   ____________________________________________________
   ____________________________________________________

8. ZBA Variances and Special Permits:

   NOTICE: Checking below does not constitute application for a special permit or a variance. The applicant must also file the proper application form and fee with the Zoning Board of Appeals.

   □ The applicant is also requesting a special permit from the ZBA:

   Specify zoning code section & title
   ____________________________________________________
   ____________________________________________________

   □ The applicant is also requesting a variance from the ZBA:

   Specify zoning code section & title
   ____________________________________________________
   ____________________________________________________
9. OWNERSHIP VERIFICATION

This section is to be completed & signed by the property owner:

I hereby authorize the following Applicant: **Braley North Realty Trust**

at the following address: 70 Lambeth Street, New Bedford, MA 02745

to apply for: **Site Plan Review**

on premises located at: **Braley Road Map 136, Lot 309**

in current ownership since: **June 26, 2002**

whose address is: **Braley Road Map 136, Lot 309**

for which the record title stands in the name of: **Braley North Realty Trust**

whose address is: 70 Lambeth St, New Bedford, MA 02745

by a deed duly recorded in the: **Bristol**

Registry of Deeds of County: Book __________ Page __________

OR Registry District of the Land Court, Certificate No.: Book __________ Page __________

I/we acknowledge that all information presented herein is true to the best of my/our knowledge. I/we further understand that any false information intentionally provided or omitted is grounds for the revocation of the approval(s). I/we also give Planning Department staff and Planning Board Members the right to access the premises (both interior and exterior) at reasonable times and upon reasonable notice for the purpose of taking photographs and conducting other visual inspections.

5-6-19 ____________________________
Date Signature of Land Owner (If authorized Trustee, Officer or Agent, so identify)
NOTICE BY PUBLICATION & ABUTTERS NOTIFICATION
(Follow Massachusetts General Laws, Chapter 40A, Section 5)

1) The applicant shall be responsible for paying for the legal advertisements in the New Bedford Standard-Times once in each of two (2) successive weeks, the first publication to be not less than fourteen (14) days prior to the date of said hearing. This cost is included in the Application Fee. The City of New Bedford Planning Division shall be responsible for placing the legal ad in the New Bedford Standard-Times.

2) The applicant shall be responsible for certifying the abutters list and mailing, by Certified Mail, with Return Receipt Requested, a copy of the notice to each affected abutter.

3) A Legal Advertisement will be drafted by Planning Staff, including the date, time and location of the public hearing, and provided to the Applicant upon submittal of a complete application. This Legal Advertisement may not be altered or amended by the Applicant prior to use in notifying Abutters.
Site Plan Review Application Checklist

In order for the City of New Bedford Planning Board to accurately review your project in a timely manner, plan sets submitted with applications must be complete and thorough. A comprehensive understanding of this handout and submittal of all required documents and plans ensures an efficient review of your project.

Unless otherwise noted or determined by Planning Division Staff to not be required, the following information and drawings must be included in the submittal package for your application. For an application to be accepted, each and every item is required at the time of application submittal.

In certain instances, plans, or portions of plans, may be waived when not applicable for the review of a particular type of development, at the discretion of the City Planner. Requests for any such waiver(s) must be submitted, in writing, to Planning Division for consideration prior to application submittal.

All submitted materials must be legible, organized & bound (where appropriate) in a manner that allows for distribution of all proposal materials as 1 package. Please utilize double-sided printing for submitted reports, studies and statements when possible.

<table>
<thead>
<tr>
<th>Staff</th>
<th>Applicant</th>
</tr>
</thead>
</table>

1. **Completed Application Form** (with all required signatures; 16 Copies)

2. **Completed Site Plan Review Application Checklist** (1 original & 15 copies)

3. **Plans**

   - Four (4) stapled and folded sets of full-sized plans (24" x 36") and Twelve (12) sets of reduced plans (11" x 17") are required for all applications. Staff reserves the right to require additional copies.

   - One (1) electronic copy (PDF & CAD) of all proposed activity plans (See Section 10 of Checklist for Requirements)

- All plans oriented so that north arrow points to top of sheet
- All plans shall be drawn at a minimum scale of 1" = 40' or less
- All plans shall be stamped by Commonwealth of Massachusetts-registered Professional Engineer, Professional Land Surveyor, and/or Professional Landscape Architect, as appropriate
- Plan sets shall be comprised of separate sheets as listed below unless otherwise approved by the City Planner

   - All plans shall have a title block comprised of the following: Project Title, Sheet Title, Sheet Number; Registrant Stamp (i.e. PE, PLS, LA); Registrant's name and address; Street addresses of the project area parcels; Scale at which the plan is drawn; Plan Issue Date; and all plan revision dates (with corresponding revision descriptions).
3a. **Cover Sheet**, to include the following information:

- **Title Block**
  - Project name/title
  - Assessor’s map and parcel number(s)
  - Registry Book and Page
  - Name and address of property owner

- **Zoning Requirements Table** (Indicate Required vs. Provided)
  - Zoning District
  - Lot Area
  - Lot Frontage
  - Front, Side & Rear Setbacks of Buildings and Parking Areas
  - Building Height
  - Lot Coverage
  - Green Space
  - Off-Street Parking Spaces

- **Locus Map** (At a scale of 1 inch = 100 feet, showing the entire project and its relation to existing areas, buildings and roads within a distance of 1,000 feet from the project boundaries or such other distances as may be approved or required by the Planning Board.)

- **Plan Index** with latest revision date of each individual plan

3b. **Existing Conditions Plan**

- Name of Surveyor or Surveyor Firm
- Date of survey
- Property lines with bearings and distances
- Monuments set/found at all lot corners
- Easements with bearings and distances suitable for registry filing

- Names of all abutters
- Street names
- Benchmark locations (Based on USGS NGVD – show year)
- NHESP mapped areas (Areas of Estimated and Priority Habitats)
- Existing 21E Contaminated Site Information

- **Existing Buildings and Structures**
  - Area of building
  - Number of stories
  - Principal use
  - Setbacks from property lines
  - Floor elevations
  - Door locations with sill elevations
Staff

Applicant

☑ Listed Topography:
☑ Contours at 2' intervals (1' contours or additional spot grades if site is flat)
☑ Overhead and underground utilities including but not limited to water, sewer, drainage, electric, telephone, cable TV, gas, septic systems, detention structures, wells
☑ Existing parking/paved areas including pavement type (parking, walkways, etc.)
☑ All Existing Curbcuts
☑ Listing of all existing utility owners and contact info located within the project limits
☑ Adequate utility information outside the site to verify proposed utility connections
☑ All utility pipe types, sizes, lengths, and slopes
☑ All utility structure information including rim and invert elevations
☑ All existing easements within 50 feet of property line - Identify any utility within the easement
☑ All existing utility easements with bearings and distances
☑ Existing pavement markings within site and on connecting roads
☑ Existing features such as walls, curbing, landscaping, trees, walks, fences, trees over 12" caliper, lighting, poles, guys, signs, loading areas, fire hydrants, dumpster locations, known buried slabs, etc...
☑ Wetlands, floodplain, water protection district delineation including offsets and buffer zones
☑ Streams, water courses, swales and all flood hazard areas
☑ Rock Outcroppings
☑ Test pit locations including groundwater depths when encountered
☑ Historic buildings within 250 feet of the subject property

3c. Demolition Plan

☑ Existing Conditions Plan plus:
☑ Existing Buildings and Structures to be removed/demolished
☑ Existing parking/paved areas to be removed/demolished
☑ Existing utilities to be removed/demolished
☑ Existing hydrants to be removed
☑ Existing features to be removed/demolished such as walls, curbing, landscaping trees, walks, fences, trees over 6" caliper, lighting, poles, guys, signs, etc.
☑ Dust Control Measures
☑ Proposed construction phase drainage infrastructure plan including (but not limited to) piping and natural watercourse profiles & cross-sections, retention/detention structures, drain manholes, catch basins, gutter inlets, headwalls, water quality BMPs, and erosion & sedimentation control features, etc.

3d. Construction/Layout Plan

☑ Proposed Buildings and Structures
Staff

Applicant

- Area of building or additions
- Number of stories
- Principal use
- Floor elevations
- Door locations with sill elevations

Proposed Topography, including but not limited to:

- Proposed contours at 2’ intervals
- Parking lot setbacks to property line
- Parking lot grades (not to exceed 5% or be less than 0.5%)
- Walls
- Parking spaces (delineated and dimensioned)
- Accessible parking spaces & aisles
- Wheelchair ramps
- Sidewalks
- Pavement type(s)

- Critical dimensions including aisle widths, parking stall dimensions, curb radius, driveway openings, etc.

- Grading at entrance—show spot grades if required
- Emergency Vehicle Access

- Truck Access (WB-50 unless otherwise approved by City Engineer)

- Snow Storage Areas, with limits of any fence protection (if applicable)

Construction notes, including the following notes:

- Any minor modifications (as determined by the City Engineer) to the information shown on the approved site plans shall be submitted to the City Engineer as a Minor Plan Revision for approval prior to the work being performed.

- Any work and material within the City right-of-way shall conform to the City of New Bedford requirements

- All handicap parking, ramps, and access shall conform to AAB & MAAB requirements

- All erosion control measures shall be in place prior to construction. Erosion Control shall conform to the City of New Bedford Conservation Commission requirements as stated in the Order of Conditions. (Refer to Erosion Control Plan if part of submission)

- All pavement markings and signs shall conform to MUTCD requirements

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2e. Grading and Drainage Plan

- Existing Conditions Plan and Construction/ Layout Plan plus:

- Existing and proposed site grading/ topography-Contours at 2’ intervals (1’contours or additional spot grades if site is flat)
Staff | Applicant

- Proposed parking lots, sidewalks, islands, etc.
  - Parking lot grades shall not exceed 5% or be less than 0.5%
- Floor elevations & door locations
- Proposed drainage infrastructure plan including but not limited to piping and natural watercourse profiles & cross-sections, infiltration/retention/detention structures, drain manholes, headwalls, roof recharge systems, flow direction, water quality BMPs, etc.
- Adequate information off-site to verify proposed drain connections
- Drainage system profiles including rim and invert elevations, material, types, sizes, lengths, utility crossings and slopes
- Utility easements with bearings and distances suitable for registry filing
- Delineation of all stockpile areas
- Provide safety fencing around stockpiles over 10' in height or otherwise restrict site access
- For applications associated with residential or commercial/industrial subdivisions, include an overall development plan showing all construction activity and proposed grading for all project phases, and show the proposed building envelope within each house lot and the proposed grading, drainage, and storm water disposal for each lot.
- A design for the stormwater drainage systems prepared by a Registered Professional Engineer demonstrating that proposed development rates of runoff do not exceed pre-development rates, as required under Massachusetts Stormwater Management Standards.

3f. Utility and Grading Plan (Show appropriate info from Existing Conditions & Construction/Layout Plan)

- Include all proposed utilities, including, but not limited to, Water, Sewer, Drainage, Electric, Telephone, Cable TV, Gas, Lighting, Title V Septic Systems & Detention and Retention Structures
  - Adequate utility information outside the site to verify proposed utility connections
  - All utility pipe types, sizes, lengths, and slopes
  - All utility structure information including rim and invert elevations
  - Any utility access vaults
  - All utility access handholes
  - All water services, hydrants, gates, shutoffs, tees
  - Utilities shall be underground if possible
  - All transformer locations
  - Required utility easements with dimensional bearings and distances
- Force main, if required, conforming to City of New Bedford requirements
- Water main loop
- Sewer profile showing all utility crossings
- Sections through detention basin(s)
- Include the following notes:
  - The contractor shall obtain a Street Disturbance & Obstruction Permit prior to any construction within the right-of-way
  - All water and sewer material and construction shall conform to the City of New Bedford requirements
3g. **Landscape Plan**
- Location, species & size of all proposed plantings
- All existing landscaping to be removed or retained
- Plant and tree legend
- Delineate & label all existing and proposed groundcovers, lawn areas, driveways, walkways, patios and other surface treatments
- Snow storage areas
- Proposed irrigation methods (on-site wells to be used unless otherwise approved)
- Verify sight distances at entrances

3h. **Erosion Control Plan** (show appropriate information from Existing Conditions and Construction/Layout Plans)
- Straw bales or straw bale/silt fence combination and compost filter tubes
- Anti-tracking BMP area at all construction entrances
- Dust Control (Methods of)
- Protection of existing and proposed drainage structures with straw bales and/or silt sacks
- Delineation of all temporary stockpile areas
- Safety fencing around stockpiles over 10' in height or otherwise restricted site access
- Straw bales or straw bale/silt fence combination around all stockpiles
- Include the following notes:
  - All BMP erosion control measures shall be in place prior to demolition or any site work.
  - Erosion Control BMPs shall conform to US EPA, NPDES, MA DEP and Massachusetts Erosion and Sedimentation Control Guidelines for Urban and Suburban Areas.
  - Maintenance specifications for all proposed erosion and sedimentation controls.

3i. **Floor Plan**
- Include complete floor plan of all floors (entire building), including existing & proposed work
- Label all rooms (e.g., bedroom, kitchen, bathroom), and include dimensions of room sizes
- Show the location of all existing and proposed doors, windows, and walls
- For non-residential projects: show all existing and proposed seating areas, mechanical/kitchen equipment, backup generators and/or other major functional components of the proposed project
3j. Building Elevations
- Identify waste storage and disposal area(s), including detail(s) for dumpster(s) and dumpster pick-up and trash & garbage compaction areas (if any)
- Show all structural building elevations (front, sides and rear façades) that will be affected by the proposed project
- For additions/alterations: label existing and new construction, as well as items to be removed
- Identify all existing and proposed exterior materials, treatments and colors including roofing, roof eaves, eave brackets, siding, doors, trim, sills, windows, fences, and railings. Show details of proposed new exterior elements
- Show any exterior mechanical, duct work, and/or utility boxes
- Include dimensions for building height, wall length and identify existing and proposed floor elevations

3k. Sign Plan
- Fully-dimensioned color elevations for all proposed signs
- Total square footage of existing signs and total square footage of proposed signs
- Existing and proposed sign locations on site plan
- Existing and proposed materials and methods of lighting for all signs

3l. Lighting Plan
- Location and orientation of all existing and proposed exterior lighting, including building and ground lighting and emergency spot lighting (if any)
- Height and initial foot-candle readings on the ground and the types of fixtures to be used
- Plan Must Show Illumination Patterns On-Site and Areas Off-Site
- New Bedford Washingtonian Type Fixtures Should Be Used, Where Applicable
- Provide Cut Sheet for All Lighting Fixtures

3m. Detail Sheets (Typical Details)
- Pavement Section Detail
- Sidewalk Detail
- Curb Detail
- Driveway Detail
- Wheel Chair Ramp Detail
- Concrete Pad Detail
- Catch Basin Detail
- Drainage Manhole Detail
- Water/Sewer Trench Details (12" envelope)
- Sewer Manhole Detail (26" cover)
- Detention / Retention Basin Sections (from plan)
- Detention Basin Outlet Structure Detail
- Miscellaneous Detention / Retention Basin Details
- Infiltration Device Details
- Stormwater BMPs (Water Quality Structure Details, etc.)
- Bollards
1. **Project Narrative** (16 Copies), to include adequate summary & description of the proposed project and indicating, where appropriate:
   - The number of dwelling units to be built and the acreage in residential use
   - Evidence of compliance with parking and off-street loading requirements
   - The forms of ownership contemplated for the property and a summary of the provisions of any ownership or maintenance thereof
   - Identification of all land that will become common or public land
   - Any other evidence necessary to indicate compliance with the zoning ordinance
   - A written statement indicating the estimated time required to complete the proposed project and any and all phases thereof
   - A written estimate showing, in detail, the projected costs of all site improvements (and off-site improvement) planned
   - Drainage calculations by a registered professional engineer, with storm drainage design conforming to City of New Bedford subdivision regulations, as well as wetland delineations determined by a certified wetland scientist if applicable, for 1, 10, 25 & 100 year storm events

2. **Certified Abutters List** (16 copies)

3. **Proof of Ownership** (Copy of Deed(s) for All Involved Parcels; 16 Copies)

4. **Development Impact Statement (DIS)**, completed per §5350 of Zoning Code, (16 Copies), if required by Board

5. **Traffic Impact & Access Study (TIAS)** (16 Copies), if required by Board

6. **Stormwater Management Report** (9 Copies), if required, comprised of the following:
   - MADEP Stormwater Standards Compliance Checklist (signed & stamped)
   - Overall Project Description
   - Existing Conditions
Electronic PDF and AutoCAD Files

- Shall consist of a CD with a printed CD Label in a CD case
- CAD files shall be 2010 format or the latest revision of AutoCAD Civil 3D
- All project submissions shall include the following file types. All project related Drawing Files shall be provided in all 2 supported formats, listed below.
  - AutoCAD Drawing format (.dwg)
  - Adobe Portable Document Format (.pdf)
- PDF files shall be created from within the AutoCAD environment and contain Layer information.
- It is a requirement that each project drawing/sheet created for a project shall be published/plotted to DWG and PDF, and placed in the appropriate folder in the CD submission. All external references (DWG, DWF, DGN, PDF, TIFF, MrSID, JPG, etc.) which are used in support of the creation of these project sheets shall be stored within the XREF folder only (Subfolder of DWG) on the CD. Also the AutoCAD support files (fonts, plot style, etc.) should be supplied on the CD.

File Naming:
The following file naming standard for all CAD related files created, used, or submitted to the Planning Department shall be followed. This applies to all CAD drawings, DWF’s, PDF’s used in support of, or used in conjunction with this CAD Standard.
Staff  Applicant

File names shall begin with their project Planning Board Case number assigned (available through the Planning Department), followed by an underscore and the appropriate discipline code. In the instance where there is more than one file, assign an appropriate sequential number to the end (ex. 1,2,3). Special characters are not permitted except for the following; hyphens [-], underscores [_], and/or parenthesis [ ( ) ].

Example 1.
A set of engineering design plans and documents were prepared for project file number 12-34; acceptable filenames would be as follows:
12-34_Existing Conditions1.dwg
12-34_Existing Conditions2.dwg
12-34_Generali.dwg
12-34_Generale.dwg

11. Application Fee (All fees are due at time of application submission)

Official Use Only:

For the Planning Board, this application has been received by the Planning Division of the Department of Planning, Housing & Community Development on the date specified below:

Review date: ________________  All materials submitted:  Yes  No
Signature: _________________________  Fee: _________________________
BUILDING DEPARTMENT
REJECTION PACKAGE
X. HOMEOWNER LICENSE EXEMPTION

Supplement #1
The current exemption for "homeowner" was extended to include owner-occupied dwellings of two units or less and to allow such homeowners to engage an individual for hire who does not possess a license, provided that the owner acts as supervisor. (State Building Code Section 110.5)

DEFINITION OF HOMEOWNER:
Person(s) who own a parcel of land on which he/she resides or intends to reside, on which there is, or is intended to be, a one to two family dwelling, attached or detached structures accessory to such use and/or farm structures. A person who constructs more than one home in a two-year period shall be considered a homeowner. Such "homeowner shall submit to the Building Official, on a form acceptable to the Building Official, that he/she shall be responsible for all such work performed under the building permit. (Section 110.5)

The undersigned "homeowner assumes responsibility for compliance with the State Building Code and other applicable codes, ordinance, rules and regulations, and will comply with the City of New Bedford Building Department minimum inspection procedures and requirements.

HOMEOWNERS SIGNATURE

X. CONSTRUCTION DEBRIS DISPOSAL

Supplement #2
In accordance with provisions of Massachusetts General Law C40, S54, debris resulting from this work shall be disposed of in a properly licensed solid waste disposal facility as defined by Massachusetts General Law C111, S150A.

The debris will be disposed of in:

(Location of Facility)

Signature of Permit Applicant __________________________ Date _____________

XI. HOME IMPROVEMENT CONTRACTOR LAW AFFIDAVIT

(Residential Use Only) Supplement to Permit Application

Supplement #3
M.G.L. C. 142 A requires that the "reconstruction, alteration, renovation, repair, modernization, conversion, improvement, removal, demolition, or construction of an addition to any pre-existing owner-occupied building containing at least one but not more than four dwelling units... or to structures which are adjacent to such residence of building" be conducted by registered contractors, with certain exceptions, along with other requirements.

Type of Work: Erect a Commercial Building
Est. Cost: $1,000,000

Address of Work: E.S. Braley Road
Owner Name: Braley North Realty Trust
Date of Permit Application: __________________________

I hereby certify that: Registration is not required for the following reason(s):

Work excluded by law ____________ Job under $1,000 ____________ Building not owner-occupied ____________ Owner obtaining own permit

Other (specify) __________________________

Notice is hereby given that:

OWNERS OBTAINING THEIR OWN PERMIT OR EMPLOYING UNREGISTERED CONTRACTORS FOR APPLICABLE HOME IMPROVEMENT WORK

DO NOT HAVE ACCESS TO THE ARBITRATION PROGRAM OF GUARANTY FUND UNDER M.G.L. C. 142A.

I hereby apply for a permit as the agent of the owner:

Date __________________________ Contractor Signature __________________________ Registration No. __________________________

OR:

Notwithstanding the above notice, I hereby apply for a permit as the owner of the above property:

Date __________________________ Owner Signature __________________________

XII. BUILDING COMMISSIONERS REVIEW COMMENTS AND CONDITIONS

C. Building Permit Rejected □ Site Plan Review - Planning Board

Reason For Rejection: See Attachments

Comments and Conditions: __________________________

Signed __________________________ Date: 5/3/2019

Title __________________________

Not valid unless signed (not stamped) by Building Commissioner
New Bedford Comprehensive Zoning Code Review
Code of Ordinances – Chapter-9

Site Plan Review & Special Permit Required from the Planning Board

Zoning Code Review as follows:

Site Plan Review

<table>
<thead>
<tr>
<th>Planning Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECTIONS</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>• 5400 – Site Plan Review</td>
</tr>
<tr>
<td>• 5410 – Purpose</td>
</tr>
<tr>
<td>• 5420 – Applicability</td>
</tr>
<tr>
<td>• 5421 – Any new industrial or commercial construction or expansion over two thousand (2,000) gross square feet or any new industrial or commercial construction or expansion requiring more than five (5) additional parking spaces</td>
</tr>
<tr>
<td>• 5423 – Any new construction or expansion of existing construction where a drive-thru window for any service including self-service is proposed; and any expansion of a structure presently containing a drive-thru; or any facility currently containing a drive-thru, at which the owner or operator of the drive-thru is altered or changed; or at which the drive-thru is closed for a period of 10 days or more and to be reopened.</td>
</tr>
<tr>
<td>• 5427 – Commercial or industrial ground signs</td>
</tr>
<tr>
<td>• 5430-5490B</td>
</tr>
</tbody>
</table>

Notes:

• Drive-through is not to be utilized for fast food as stated by Sitec.
• No information provided for the new ground sign. If the new ground sign is greater than 25sf a variance will be required as per Chapter 9 Comprehensive Zoning Section 3255 - Area restrictions for ground signs.
• Only one ground sign is allow in a mixed-use-business district. Once the new ground sign is installed, the existing billboard must be removed Chapter 9 Comprehensive Zoning Section3255 - Area restrictions for ground signs.
5400. - SITE PLAN REVIEW.

5410. Purpose. The purpose of this Section is to provide for individual detailed review of development proposals which have an impact on the natural or built environment of the City in order to promote the health, safety and general welfare of the community; to ensure adequate parking, safe and accessible pedestrian and vehicular circulation; and to minimize traffic impact on City streets.

(Ord. of 12-23-03, § 1)

5420. Applicability. The following types of activities and uses require site plan review by the Planning Board:

5421. Any new industrial or commercial construction or expansion over two thousand (2,000) gross square feet or any new industrial or commercial construction or expansion requiring more than five (5) additional parking spaces;

5422. New multiple-family residential construction of three (3) or more units or expansion of existing multifamily residential structures resulting in the creation of one or more additional units.

5423. Any new construction or expansion of existing construction where a drive-thru window for any service including self-service is proposed; and any expansion of a structure presently containing a drive-thru; or any facility currently containing a drive-thru, at which the owner or operator of the drive-thru is altered or changed; or at which the drive-thru is closed for a period of 10 days or more and to be reopened.

5424. Any residential subdivision which is submitted under the subdivision control process;

5425. New industrial or commercial construction or additions less than two thousand (2,000) square feet if requiring a new curb cut or driveway or if substantially affecting existing internal circulation.

5426. Driveways in residential areas which require more than one new curb cut.

5427. Commercial or industrial ground signs.

(Ord. of 12-23-03, § 1; Ord. of 12-31-08, § 1)

5430. Procedures. Applicants for site plan approval shall submit seventeen (17) copies of the site plan to the Planning Board for distribution to City departments and commissions for their review. The Planning Board shall review and act upon the site plan, with such conditions as may be deemed appropriate and notify the applicant of its decision. In the event two (2) meetings have lapsed after the application for site plan approval is filed, without the Planning Board taking action on said site plan said Applicant may file a statement with the Board that the Board has received complete information in accordance with this Ordinance and has had adequate time to consider the Site Plan. Upon receiving said statement, the Planning Board shall act on said Site Plan at its next meeting, if said Board determines that the Board has, in fact, received complete information in accordance with this Ordinance. The decision of the Planning Board
shall be a vote of a majority of the members of the Planning Board and shall be in writing. No building permit, for activities requiring site plan approval, shall be issued by the Inspector of Buildings without the written approval of the site plan by the Planning Board.

5431. Application for Building Permit. An application for a building permit to perform work as set forth in Section 5410 available as of right shall be accompanied by an approved site plan.

5432. Application for Special Permit or Variance. An application for a special permit or a variance to perform work as set forth in Section 5420 shall be accompanied by an approved site plan; in the alternative, any special permit or variance granted for work set forth in Section 5420 shall contain the following condition and cause the same to be written on such special permit or variance:

The work described herein requires the approval of a site plan by the New Bedford Planning Board pursuant to Section 5400 of the Zoning Ordinance. Any conditions imposed in such site plan approval shall also be conditions of this special permit/variance.

5433. Where the Planning Board approves a site plan "with conditions", and said approved site plan accompanies a special permit or variance application to the Board of Appeals, the conditions imposed by the Planning Board shall be incorporated into the issuance, if any, of a special permit or variance by the Board of Appeals.

5434. Where the Planning Board serves as the special permit granting authority for proposed work, it shall consolidate its site plan review and special permit procedures.

5435. The applicant may request, and the Planning Board may grant by majority vote of its' membership, an extension of the time limits set forth herein.

5436. No deviation from an approved site plan shall be permitted without modification thereof.

5437. Site plan approval does not constitute a certification that the proposed plan conforms to applicable zoning regulations, wetland regulations and/or any other City, state or federal requirements that must be obtained prior to implementation the of elements of the site plan.

(Ord. of 12-23-03, § 1)

5440. Preparation of Plans. Applicants are invited to submit a pre-application sketch of the proposed project to the Planning Department and are encouraged to schedule a pre-submission meeting with the Planning Department. Site Plans shall be submitted on 24-inch by 36-inch sheets. Plans shall be prepared by a Registered Professional Engineer, Registered Land Surveyor, Architect, or Landscape Architect, as appropriate. Dimensions and scales shall be adequate to determine that all requirements are met and to make a complete analysis and evaluation of the proposal. All plans shall have a minimum scale of 1" = 40'.

(Ord. of 12-23-03, § 1)
5450. Contents of Plan. The contents of the site plan are as follows:

5451. Plan sheets prepared at a scale of one inch equals forty (40) feet or such other scale as may be approved by the Planning Board. The plans are as follows:

5451.a. Site layout, which shall contain the boundaries of the lot(s) in the proposed development, proposed structures, general circulation plan for vehicles and pedestrians, drive-thru windows, curb cut locations, parking, fences, walls, walks, outdoor lighting including proposed fixtures, loading facilities, solid waste storage locations, and areas for snow storage after plowing. The first sheet in this plan shall be a locus plan, at a scale of one inch equals one hundred (100) feet, showing the entire project and its relation to existing areas, buildings and roads for a distance of one thousand (1,000) feet from the project boundaries or such other distance as may be approved or required by the Planning Board.

5451.b. Topography and drainage plan, which shall contain the existing and proposed final topography at two-foot intervals and plans for handling stormwater runoff drainage.

5451.c. Utility plan, which shall include all facilities for refuse and sewerage disposal or storage of all these wastes, the location of all hydrants, fire alarm and firefighting facilities on and adjacent to the site, all proposed recreational facilities and open space areas, and all wetlands including floodplain areas.

5451.d. Architectural plan, which shall include the ground floor plan, proposed exterior building materials, treatments and colors and architectural elevations of all proposed buildings and a color rendering where necessary to determine the proposal’s affect on the visual environment.

5451.e. Landscaping plan, showing the limits of work, existing tree lines as well as those tree lines to remain, and all proposed landscape features and improvements including screening, planting areas with size and type of stock for each shrub or tree, and including proposed erosion control measures during construction.

5451.f. Lighting plan showing the location and orientation of all existing and proposed exterior lighting, including building and ground lighting. The plan shall note the height, initial foot-candle readings on the ground and the types of fixtures to be used.

5452. The site plan shall be accompanied by a written statement indicating the estimated time required to complete the proposed project and any and all phases thereof. There shall be submitted a written estimate, showing in detail the costs of all site improvements planned.

5453. A written summary of the contemplated project shall be submitted with the site plan indicating, where appropriate, the number of dwelling units to be built and the acreage in residential use, the evidence of compliance with parking and off-street loading requirements, the forms of ownership
contemplated for the property and a summary of the provisions of any ownership or maintenance thereof, identification of all land that will become common or public land, and any other evidence necessary to indicate compliance with this Ordinance.

5454. The site plan shall be accompanied by drainage calculations by a registered professional engineer as well as wetland delineations, if applicable. Storm drainage design must conform to City of New Bedford subdivision regulations.

5455. The Planning Board may require a DIS as set forth in Section 5300, above.

5456. Certification that the proposal is in compliance with the provisions, if applicable, of the Americans with Disabilities Act and the Massachusetts Architectural Barriers Board.

(Ord. of 12-23-03, § 1)

5460. Waivers. The Planning Board may, upon written request of the applicant, waive any of the submittal or technical requirements of Section 5430 and 5440 where the project involves relatively simple development plans.

(Ord. of 12-23-03, § 1)

5470. Approval. Site Plan approval shall be granted upon determination by the Planning Board that the plan meets the following objectives: The Planning Board may impose reasonable conditions at the expense of the applicant, including performance guarantees, to promote these objectives. Any new building construction or other site alteration shall provide adequate access to each structure for fire and service equipment and adequate provision for utilities and stormwater drainage consistent with the functional requirements of the Planning Board's Subdivision Rules and Regulations. New building construction or other site alteration shall be designed in the Site Plan, after considering the qualities of the specific location, the proposed land use, the design of building form, grading, egress points, and other aspects of the development, so as to:

5471. Minimize: the volume of cut and fill, the number of removed trees six-inch caliper or larger, the length of removed stone walls, the area of wetland vegetation displaced, the extent of stormwater flow increase from the site, soil erosion, and the threat of air and water pollution;

5472. Maximize: pedestrian and vehicular safety to and from the site;

5473. Minimize obstruction of scenic views from publicly accessible locations;

5474. Minimize visual intrusion by controlling the layout and visibility of parking, storage, or other outdoor service areas viewed from public ways or premises which are residentially used or zoned;

5475. Minimize glare from vehicle headlights and lighting fixtures;
5476. Minimize unreasonable departure from the character, materials, and scale of buildings in the vicinity, as viewed from public ways and places.

5477. Minimize contamination of groundwater from on-site wastewater disposal systems or operations on the premises involving the use, storage, handling, or containment of solid and liquid wastes and hazardous substances;

5478. Ensure compliance with the provisions of this Zoning Ordinance.

5479. Minimize damage to existing adjacent public ways.

5479A. Promote orderly and reasonable internal circulation within the site so as to protect public safety and not unreasonably interfere with access to a public way or circulation of traffic on a public way in general.

(Ord. of 12-23-03, § 1)

5480. Lapse. Site plan approval shall lapse after one year from the final approval if a substantial use in accordance with such approved plans has not commenced except for good cause. Such approval may, for good cause, be extended in writing by the Planning Board upon the written request of the applicant, within this one-year period.

(Ord. of 12-23-03, § 1)

5490. Regulations. The Planning Board may adopt and from time to time amend reasonable regulations for the administration of these Site Plan guidelines.

(Ord. of 12-23-03, § 1)

5490A. Fee. The Planning Board may, from time to time, adopt reasonable administrative fees and technical review fees for site plan review.

(Ord. of 12-23-03, § 1)

5490B. Appeal. Any person aggrieved by a decision of the Planning Board rendered pursuant to Section 5400 may appeal such decision to the Zoning Board of Appeals as provided in M.G.L.A. c. 40A, § 8.

(Ord. of 12-23-03, § 1)
3254. Ground Signs. Ground sign shall mean and include any sign having as supports wood or metal columns, pipes, angle iron framing, masonry, plastic or any combination of these materials unattached to any building or other structure.

3255. Area restrictions for ground signs. In Mixed-Use Business districts, no ground sign shall exceed one square foot in area for each linear foot of street frontage of the lot upon which it is erected, but in no event shall such sign exceed twenty-five (25) square feet in area, nor shall there be a distance of more than ten (10) feet from the ground to the bottom of the sign and not more than fifteen (15) feet from the ground to the top of the sign.

3256. Location restrictions. No ground sign shall project over a public way, nor shall a ground sign be located closer than six (6) feet from a lot line. Only one ground sign shall be permitted per lot in a Mixed-Use Business district.

3257. Deleted.

3258. Shopping Center signs. Each shopping center in a Mixed-Use Business district is authorized to have a ground sign of the size allowed in Section 3212. This sign may identify the shopping center or list the several businesses therein, or a combination of the two. Separate ground signs identifying separate establishments are prohibited.

3259. Signs on nonconforming buildings. When a building used for business or industrial purposes exists in a residential district as a nonconforming use, wall signs in existence on the date of enactment of this Ordinance may be maintained, repaired or replaced provided in the latter case that the sign area is neither increased nor larger than would be allowed in a Mixed-Use Business district, whichever is smaller. Projecting, roof or ground signs are prohibited and cannot be replaced.

(Ord. of 12-23-03, § 1)

3260. Application for and Issuance of Permits. Upon application, the City Clerk may issue permits to the owner, lessee, or occupant of a building, structure or other support, for activities regulated by Section 3203, subject to the conditions, limitations and requirements of this Section. Every applicant for a permit shall sign an agreement on the application blank to observe and conform with the conditions, limitations and requirements, subject to which the permit is granted. The City Clerk shall not grant any such permit until such Clerk shall have submitted the application therefor to the Inspector of Buildings, and such Inspector shall have approved the definite location and construction thereof. In each application the specifications of the proposed construction shall be stated and said superintendent may require a plan thereof to be filed along with the application.

3261. Permit fee. A fee of one dollar ($1.00) shall be charged by the City Clerk upon the issuance of any permit as required by the provisions of this Section.
City of New Bedford, Massachusetts
Building Department
Application for Plan Examination
and Building Permit

II. TYPE AND COST OF BUILDING - all applicants complete parts A through D - PRINT

A. TYPE OF IMPROVEMENT
1. [ ] New Building
2. [ ] Alteration (alteration, change, repair, replacement of existing building)

D. TYPE OF OCCUPANCY - for building occupancy classification
14. [ ] Church, other religious
25. [ ] Residential - noninstitutional
26. [ ] Amusement, recreational
31. [ ] Office, business professional
40. [ ] Educational

B. OWNERSHIP
1. [ ] Private individual
2. [ ] Corporation (corporation, company, association, etc.)
3. [ ] Public (Federal, State, or local government)

E. COST
1. Cost of construction $1,000,000

F. APPRAISAL VALUE
1. Total appraised value $1,000,000

C. SELECTED CHARACTERISTICS OF BUILDING

The Applicant proposes to construct a restaurant.

III. SELECTED CHARACTERISTICS OF BUILDING

The Applicant proposes to construct a restaurant.

1. Principal Type of Frame
2. Type of Sewage Disposal
3. Type of Water Supply
4. Type of Heating Fuel

The Applicant proposes to construct a restaurant.

5. Principal Type of Heating Fuel
6. Type of Mechanical

The Applicant proposes to construct a restaurant.

7. Dimensions
8. Roof Type
OTHER APPLICABLE REVIEWS

K. FLOODPLAIN
   Is location within flood hazard area? yes ( ) no
   If yes, zone: ___________ and base elevation ___________

L. WETLANDS PROTECTION
   Is location subject to flooding? No
   Is location part of a known wetland? Yes
   Has local conservation commission reviewed this site? Yes, a previous Order of Conditions was issued, but an Amendment is being requested.

<table>
<thead>
<tr>
<th>IV. IDENTIFICATION – ALL APPLICANTS – PLEASE PRINT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OWNER OR LESSEE NAME</strong></td>
</tr>
<tr>
<td>Daniel Moniz, Trustee of</td>
</tr>
<tr>
<td>Braley North Realty Trust</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CONTRACTOR NAME</strong></th>
<th><strong>MAILING ADDRESS</strong></th>
<th><strong>ZIP CODE</strong></th>
<th><strong>TELEPHONE NO.</strong></th>
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<tr>
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<th><strong>MAILING ADDRESS</strong></th>
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<tr>
<th>SIGNATURE OF OWNER</th>
<th>APPLICANT SIGNATURE</th>
<th>DATE</th>
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</table>

Omission of reference to any provision shall not nullify any requirement of this code nor exempt any structure from such requirement.

The applicants understands and warrant that they will comply with all pertinent federal and state statutes, local ordinances and all federal, state, and local regulations, including those of the Architectural Barriers board, Department of Environmental Protection Agency and may be forwarded for review to all pertinent local city agencies which may express specific concerns. It is understood that the issuance of a permit shall not serve as an acceptance or acknowledgment of compliance nor exempt any structure from such requirement. The permit shall be a license to proceed with the work and shall not be construed as authority to violate, cancel, or set aside any of the provisions of the State Building Code or local code of ordinances, except as specifically stipulated by modification or legally granted variation in accordance with Section 122.0 of State Building Code or local code of ordinances.

I have read the above and sign under pain and penalty of perjury as to the truth of all of the information and statements contained in sections I through IV of this application.

{Handwritten Signature}

Applicant's Signature  Address  City
V. OTHER JURISDICTION APPROVALS AND NOTIFICATION

<table>
<thead>
<tr>
<th>APPROVAL</th>
<th>CHECK</th>
<th>DATE OBTAINED</th>
<th>BY</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Plumbing</td>
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<tr>
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</tbody>
</table>

VI. ZONING REVIEW

<table>
<thead>
<tr>
<th>DISTRICT</th>
<th>USE</th>
<th>FRONTAGE</th>
<th>LOT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUB</td>
<td>Restaurant</td>
<td>227.18'</td>
<td>2,800 SF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SETBACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT: 68'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERCENTAGE OF LOT COVERAGE</th>
<th>PRIMARY BUILDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%</td>
<td></td>
</tr>
</tbody>
</table>

| VARIANCE HISTORY | N/A |

VII. WORKER'S COMPENSATION INSURANCE AFFIDAVIT

[ ] I am an employer providing worker's compensation coverage for my employees working on this job.

Insurance Company: ____________________________ Policy Number: ____________________________

[ ] I am a sole proprietor and have no one working for me.

[ ] I am a sole proprietor, general contractor, or homeowner and have hired the contractors listed below who have the following worker's compensation insurance policies:

<table>
<thead>
<tr>
<th>Name of contractor</th>
<th>Insurance Company/policy number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of contractor</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[ ] I am a homeowner performing all the work myself.

NOTE: Please be aware that while homeowners who employ persons to do maintenance, construction or repair work on a dwelling of not more than three units in which the homeowner also resides or on the grounds appurtenant thereto are not generally considered to be employers under the Workers' Compensation Act (G.L. C. 175, sect. 115), application by a homeowner for a license or permit may evidence the legal status of an employer under the Workers Compensation Act.

I understand that a copy of this statement will be forwarded to the Department of Industrial Accidents and the Office of Insurance for notifiable verification and that failure to secure coverage as required under Section 25A of MGL 152 can lead to the imposition of criminal penalties consisting of a fine of up to $1500.00 and/or imprisonment of up to one year and civil penalties in the form of a Stop Work Order and a fine of $100.00 a day against me.

Signed this day of ___________ 70
TO

Department of Inspectional Services
133 William Street - Room 308
New Bedford, MA 02740

WE ARE SENDING YOU □ Attached □ Under separate cover via delivery the following items:

□ Shop drawings □ Prints □ Plans □ Samples □ Specifications
□ Copy of letter □ Change order □ Request

<table>
<thead>
<tr>
<th>COPIES</th>
<th>DATE</th>
<th>NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>03/27/2019</td>
<td></td>
<td>Site Layout</td>
</tr>
<tr>
<td>1</td>
<td>04/03/2019</td>
<td></td>
<td>Memo regarding building permit rejection</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>Building Department Application for Plan Examination &amp; BP</td>
</tr>
</tbody>
</table>

THESE ARE TRANSMITTED as checked below:

□ For approval rejection □ Approved as submitted □ Resubmit copies for approval
□ For your use □ Approved as noted □ Submit copies for distribution
□ As requested □ Returned for corrections □ Return corrected prints
□ For review and comment

FOR BIDS DUE ____________________ □ PRINTS RETURNED AFTER LOAN TO US

REMARKS


COPY TO

SIGNED: William Ream
MEMORANDUM

TO: DANNY ROMANOWICZ
DIRECTOR OF INSPECTIONAL SERVICES

FROM: ALISON CESAR

DATE: APRIL 26, 2019

SUBJECT: ES BRALEY ROAD
BRALEY NORTH REALTY TRUST
ASSESSORS MAP 136 LOT 309

Attached please find a building permit application for the above referenced project. Per the Planning Board Site Plan Review Application process, a building permit rejection is required as part of the application package.

The subject property is bordered by Braley Road, Braley Road Extension, and the Route 140 southbound exit ramp. The site is zoned Mixed Use Business. The property is currently a vacant lot.

A Site Plan Review Application is being submitted for the purpose of a commercial construction of more than 2,000 square feet (Section 5421) and construction of a drive-thru (Section 5423). The Applicant intends to construct a restaurant with a drive-thru at this location, including a pylon sign.

At this time we hereby respectfully request a rejection letter so that we can submit our application to the Planning Board.

Thank you in advance for your time. Should you have any questions or comments, please do not hesitate to contact me.
In order to get a proper print out of this parcel, please be sure to use the print button located directly above this text and not your browser's print option.

Location: ES BRALEY RD Parcel ID: 136 309 Zoning: MUB Fiscal Year: 2019

Current Owner Information:
ADAMOWSKI MICHAEL F "TRUSTEE"
BRALEY NORTH REALTY TRUST (THE
70 LAMBETH STREET

NEW BEDFORD, MA 02745
This Property contains 0.692 acres of land mainly classified for assessment purposes as LAND-C
Building Value: 0 Land Value: 135000 Yard Items Value: 41300 Total Value: 176300

No Sketch Available

No Image Available

Fiscal Year 2019
Tax Rate Res.: 16.47 Tax Rate Res.: 16.63 Tax Rate Res.: 16.69
Tax Rate Com.: 34.84 Tax Rate Com.: 35.65 Tax Rate Com.: 36.03
Total Bldg Value: 0 Total Bldg Value: 0 Total Bldg Value: 0
Total Yard Value: 41300 Total Yard Value: 41300 Total Yard Value: 41300
Total Land Value: 135000 Total Land Value: 128000 Total Land Value: 120800
Total Value: 176300 Total Value: 169300 Total Value: 162100
Tax: $6,142.29 Tax: $6,035.55 Tax: $5,840.46

Disclaimer: Classification is not an indication of uses allowed under city zoning.
This information is believed to be correct but is subject to change and is not warranted.
Hello Matthew,

We used the calculation of 1 parking space per every 200 square-feet of a non-fast food restaurant to come up with the number on the plan. After consulting with the client, there will be a maximum capacity of 25 seats for the non-fast food restaurant. Please let me know if you require anything further.

Alison Cesar
Project Engineer
SITEC, Inc.
449 Faunce Corner Road
Dartmouth, MA 02747
Email: acesar@sitec-engineering.com
Telephone: (508)998-2125, Extension: 28
Fax: (508)998-7554

--------- Original Message ---------
Subject: RE: ES Braley Road
From: "Matthew J. Silva" <Matthew.Silva@newbedford-ma.gov>
Date: 5/1/19 6:42 pm
To: "acesar@sitec-engineering.com" <acesar@sitec-engineering.com>
Cc: "Danny Romanowicz" <DRomanowicz@newbedford-ma.gov>

Hi Alison,

Yes I would like number for the seating. The number of seating is directly ties into the parking for your definition of a restaurant in our city zoning.

Definitions:

Restaurant: A building, or portion thereof, containing tables and/or booths for at least two-thirds (2/3) of its legal capacity, which is designed, intended and used for the indoor sales and consumption of food prepared on the premises, except that food may be consumed outdoors in landscaped terraces, designed for dining purposes, which are adjuncts to the main indoor restaurant facility. The term "restaurant" shall not include "fast food establishments."

Fast-food or take-out: An establishment whose principal business is the sale of pre-prepared or rapidly prepared food in edible or disposable containers directly to the customer in a ready to consume state for consumption either within the restaurant building or off-premises which usually requires ordering food at a counter or drive through lane or window

Parking Requirements:
**Fast-food drive-in, carry-out restaurants** - One (1) space per each employee per shift for a minimum of five (5) spaces plus one (1) space per 100 sq. ft. of gross floor area with a minimum of twenty (20) spaces.

**Places of assembly (Restaurant)** - One (1) space per five (5) seats for which the building is designed or one (1) spaces for each 200 sq. ft. of gross floor area whichever results in the greatest number.

The regulation copy above states that a restaurant is basically 2/3 of the gross area for the seating. Us knowing the exact occupancy would ensure that your client going for more relief for parking than required.

Please get as soon as you can.

Sincerely,

Matthew Silva

Local Building Inspector

City of New Bedford Inspectional Services

133 William Street, Room 308, New Bedford, MA 02740

508.979.1540 | email: mattew.silva@newbedford-ma.gov

---

From: acesar@sitec-engineering.com [mailto:acesar@sitec-engineering.com]
Sent: Wednesday, May 01, 2019 9:54 AM
To: Matthew J. Silva
Cc: Danny Romanowicz
Subject: RE: ES Braley Road

Good morning Matthew,

Thank you for your prompt attention to the two filings I submitted. The building will be comprised of two units: one being a retail use and the other being a non-fast food restaurant use; the building is divided by a dash line on the plan to separate the two uses. As this is the case, we made two separate calculations based on the square footage of each unit. There is no seating plan for the restaurant. Would you like me to ask the client how many seats they plan
to have in the restaurant? I have attached the floor plan and elevations to this email along with the design plan we put together.

Thank you,

Alison Cesar
Project Engineer
SITEC, Inc.
449 Faunce Corner Road
Dartmouth, MA 02747

Email: acesar@sitec-engineering.com

Telephone: (508)998-2125, Extension: 28

Fax: (508)998-7554

-------- Original Message --------

Subject: RE: ES Braley Road
From: "Matthew J. Silva" <Matthew.Silva@newbedford-ma.gov>
Date: 4/30/19 7:42 pm
To: "acesar@sitec-engineering.com"
Cc: "Danny Romanowicz" <DRomanowicz@newbedford-ma.gov>

Good Afternoon,

Upon review of the site plan submitted, you are showing two separate calculations for parking. Will there be two separate units for the building for each separate use or will one unit for both uses? Can please provide me with the seating plan for the restaurant portion of this building? Will this restaurant be used for fast food, because this will affect the parking calculation? Do you have any floor plans and/or elevations of the building for this project and if so can you please provide it to me? I need to know this so I can properly finish the rejection package. Please get back to me as soon as possible.

Sincerely,
From: Matthew J. Silva  
Sent: Tuesday, April 30, 2019 6:38 PM  
To: acesar@sitec-engineering.com  
Cc: Danny Romanowicz  
Subject: ES Braley Road

Good Afternoon,

I am currently working on the rejection package for ES Braley Road. Can you please send me over the PDF copy of the site plan submitted? Please get back to me as soon as possible.

Sincerely,
CERTIFIED ABUTTERS LIST
This information is needed so that an official abutters list as required by MA General Law may be created and used in notifying abutters. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor’s office (city hall, room #109).

<table>
<thead>
<tr>
<th>SUBJECT PROPERTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAP # 136</td>
</tr>
<tr>
<td>ADDRESS: ES Braley Road</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OWNER INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME: Braley North Realty</td>
</tr>
<tr>
<td>MAILING ADDRESS: 70 Lambeth Street, New Bedford</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>APPLICANT/CONTACT PERSON</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME (IF DIFFERENT):</td>
</tr>
<tr>
<td>Representative: Alison Cesarano</td>
</tr>
<tr>
<td>MAILING ADDRESS (IF DIFFERENT):</td>
</tr>
<tr>
<td>449 Faunce Corner Road, Dartmouth, MA 02747</td>
</tr>
<tr>
<td>TELEPHONE #: (508)998-2125</td>
</tr>
<tr>
<td>EMAIL ADDRESS: <a href="mailto:ACesar@Sitec-Engineering.com">ACesar@Sitec-Engineering.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REASON FOR THIS REQUEST:</th>
<th>Check appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ PLANNING BOARD APPLICATION</td>
<td></td>
</tr>
<tr>
<td>✓ CONSERVATION COMMISSION APPLICATION</td>
<td></td>
</tr>
<tr>
<td>LICENSE BOARD APPLICATION</td>
<td></td>
</tr>
<tr>
<td>OTHER (Please explain):</td>
<td></td>
</tr>
</tbody>
</table>

Once obtained, the Certified List of Abutters must be attached to this Certification Letter.

Submit this form to the Planning Division Room 303 in City Hall, 133 William Street. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor’s office (city hall, room #109).

**Official Use Only:**

As Administrative Assistant to the City of New Bedford’s Board of Assessors, I do hereby certify that the names and addresses as identified on the attached “abutters list” are duly recorded and appear on the most recent tax.

Carlos Amado  
Printed Name

[Signature]  
[Date 4/29/2019]
April 26, 2019

Dear Applicant,

Please find below the List of Abutters within 300 feet of the property known as ES Braley Road (Map: 136, Lot: 309). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor’s Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

<table>
<thead>
<tr>
<th>Parcel</th>
<th>Location</th>
<th>Owner and Mailing Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>136-308</td>
<td>1230 BRALEY RD</td>
<td>COMPASS BANK FOR SAVINGS, C/O TRAMMELL CROW SOVEREIGN BANK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P O BOX 14115</td>
</tr>
<tr>
<td></td>
<td></td>
<td>READING, PA 19612-4115</td>
</tr>
<tr>
<td>136-323</td>
<td>200 THEODORE</td>
<td>HIGHLAND NEW BEDFORD ASSOCIATES LIMITED, PARTNERSHIP</td>
</tr>
<tr>
<td></td>
<td>RICE BLVD</td>
<td>65 SPRAGUE STREET</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HYDE PARK, MA 02136-2061</td>
</tr>
<tr>
<td>136-468</td>
<td>PHILLIPS RD</td>
<td>PHILLIPS RD, NORTH LLC,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P O BOX 7924-7171</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEW BEDFORD, MA 02742</td>
</tr>
<tr>
<td>136-309</td>
<td>BRALEY RD</td>
<td>ADAMOWSKI MICHAEL F &quot;TRUSTEE&quot;, BRALEY NORTH REALTY TRUST (THE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70 LAMBETH STREET</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEW BEDFORD, MA 02745</td>
</tr>
<tr>
<td>136-523</td>
<td>2284 PHILLIPS RD</td>
<td>PINE PHILLIP J, UMBELINA MELANIE M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2284 PHILLIPS ROAD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEW BEDFORD, MA 02745</td>
</tr>
<tr>
<td>136-322</td>
<td>209 THEODORE</td>
<td>CORNISH PARTNERS LLC</td>
</tr>
<tr>
<td></td>
<td>RICE BLVD</td>
<td>P O BOX 4025</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEW BEDFORD, MA 02741</td>
</tr>
<tr>
<td>136-5</td>
<td>1301 BRALEY RD</td>
<td>SOUZA LANI L,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1301 BRALEY RD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEW BEDFORD, MA 02745</td>
</tr>
</tbody>
</table>
SITE PHOTOGRAPHS
THE 1855 CORPORATION, a Massachusetts corporation, having a usual place of business at One Compass Place, New Bedford, Massachusetts, for consideration paid, and in full consideration of One Hundred Twenty-five Thousand Dollars and No Cents ($125,000.00), the receipt and sufficiency of which are hereby acknowledged, grants to MICHAEL F. ADAMOWSKI, TRUSTEE OF THE BRALEY NORTH REALTY TRUST under Declaration of Trust dated June 26, 2002, and recorded herewith, having a mailing address of 1502 Purchase Street, New Bedford, Massachusetts 02740, with quitclaim covenants, the land situated in New Bedford, Bristol County, Massachusetts, bounded and described as follows:

NORTHWESTERLY by the junction of Phillips Road and Braley Road, fifty-four and 89/100 (54.89) feet, more or less; on the

NORTHEASTERLY by the southwesterly line of Braley Road, six hundred twenty-nine and 10/100 (629.10) feet, more or less; on the

SOUTHERLY by Theodore H. Rice Boulevard, one hundred fifty-one (151) feet, more or less; and on the

SOUTHWESTERLY by the northeasterly line of Phillips road, five hundred twenty-six and 29/100 (526.29) feet.

CONTAINING 56,500 square feet, more or less.

This conveyance includes any rights the said grantor may have in the fee of Phillips Road, Braley Road and Theodore H. Rice Boulevard.

This conveyance is subject to an easement in favor of the City of New Bedford dated July 30, 1957, and recorded in said Registry of Deeds in Book 1224, Page 238.

This conveyance is also subject to a restrictive covenant prohibiting any use that is noxious, illegal, immoral or violates any statute, code, regulation, or ordinance of the federal, state or city governments; prohibiting the use of the property for financial services to the extent permitted by law or in any manner that will interfere with the Grantor’s use of its property, including without limitation, tire recycling, junk or scrap processing, sale or repair of cars, any use that generates hazardous wastes, noxious fumes, odor or excessive traffic, gas stations, buildings higher than two floors, bars, adult entertainment facilities or any other use which adversely affects Grantor’s customers or employees.
Being the same premises conveyed to this Grantor by deed of Acushnet Saw Mills Company dated October 3, 1979 and recorded with the Bristol County (S.D.) Registry of Deeds in Book 1792, Page 975.

Subject to any unpaid real estate taxes which the Grantee assumes and agrees to pay.

This conveyance does not constitute a sale of all or substantially all of the assets of Grantor.

In Witness Whereof, The 1855 Corporation has caused its corporate seal to be hereto affixed and these presents to be signed, acknowledged and delivered in its name and behalf by hereto duly authorized, this twenty-sixth day of June, 2002.

The 1855 Corporation

[Signature]

By: Arthur W. Short, Executive Vice President

COMMONWEALTH OF MASSACHUSETTS

Bristol, ss. June 26, 2002

Then personally appeared the above-named Arthur W. Short, Executive Vice President of The 1855 Corporation, and acknowledged the foregoing to be the free act and deed of The 1855 Corporation, before me—

[Signature]

Notary Public
My commission expires:

LIGHTING SPECIFICATIONS
### ALED3T105N

**Specification grade area lights available in IES Type III distributions. For use for roadway, general parking and other area lighting applications where a larger pool of lighting is required. Patent pending thermal management system. 5 Year Warranty.**

- **Color:** Bronze
- **Weight:** 32.0 lbs

<table>
<thead>
<tr>
<th>Driver Info</th>
<th>LED Info</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type:</strong> Constant Current</td>
<td><strong>Watts:</strong> 105W</td>
</tr>
<tr>
<td>120V: 0.89A</td>
<td><strong>Color Temp:</strong> 4000K</td>
</tr>
<tr>
<td>208V: 0.58A</td>
<td><strong>Color Accuracy:</strong> 72 CRI</td>
</tr>
<tr>
<td>240V: 0.50A</td>
<td><strong>L70 Lifespan:</strong> 100000</td>
</tr>
<tr>
<td>277V: 0.44A</td>
<td><strong>Lumens:</strong> 12042</td>
</tr>
<tr>
<td>Input Watts: 108W</td>
<td><strong>Efficacy:</strong> 112 LPW</td>
</tr>
<tr>
<td>Efficiency: 97%</td>
<td></td>
</tr>
</tbody>
</table>
Effective Projected Area:
EPA = 0.75

Maximum Ambient Temperature:
Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:
Minimum starting temperature is -40°C (-40°F)

Thermal Management:
Superior thermal management with external "Air-Flow" fins.

Lens:
Tempered glass lens.

Housing:
Die-cast aluminum housing, lens frame and mounting arm.

Mounting:
Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease.

Reflector:
Specular vacuum-metallized polycarbonate

Gaskets:
High-temperature silicone gaskets

IP Rating:
Ingress Protection rating of IP66 for dust and water

Finish:
Formulated for high-durability and long lasting color.

Green Technology:
Mercury and UV free, RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

For use on LEED Buildings:
IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

Electrical

Drivers:
Two Drivers, Constant Current, Class 2, 1400mA, 100-277V, 50/60Hz, 0.8A, Power Factor 95%

THD:
7.9% at 120V, 16.8% at 277V

Surge Protection:
4kV

Other

 Compatibility:
Compatible with Round Poles with a diameter of 2.5" to 6"

Technical Specifications (continued)

Other

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

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

Optical

BUG Rating:
B1 U0 G2
ALED3T105N

**Dimensions**

![Diagram of ALED3T105N](image)

**Features**

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type III distribution
- 5-year warranty

**Ordering Matrix**

<table>
<thead>
<tr>
<th>Family</th>
<th>Optics</th>
<th>Wattage</th>
<th>Mounting</th>
<th>Color Temp</th>
<th>Finish</th>
<th>Driver Options</th>
<th>Photocell Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALED</td>
<td>3T</td>
<td>105</td>
<td>N</td>
<td>N</td>
<td>Blank</td>
<td>Blank = 120-277V</td>
<td>Blank = No Option</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/480 = 480V (not available for 150W)</td>
<td>/PC = 120V Button Photocell (Pole mount models only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/RG = Roadway Gray</td>
<td>/PC2 = 277V Button Photocell (Pole mount models only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/Y = 3000K</td>
<td>/BL = BI-Level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/W = White</td>
<td>/PCT = 120-277V Twistlock Photocell (Pole mount models only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/JD10 = 0-10V Dimming</td>
<td>/PC74 = 480V Twistlock Photocell (Pole mount models only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/WS2 = Multi-Level Motion Sensor 20 ft. (Only available 0-10V dimming models)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/WS3 = 277V Swivel Photocell</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/WS4 = 480V Swivel Photocell</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/WS5 = Multi-Level Motion Sensor 40 ft. (Only available 0-10V dimming models)</td>
<td></td>
</tr>
</tbody>
</table>

Need help? Tech help line: (888) RAB-1000 Email: sales@rabweb.com Website: www.rabweb.com

Copyright © 2018 RAB Lighting Inc. All Rights Reserved Note: Specifications are subject to change at any time without notice Page 3 of 3
DESCRIPTION

The Lumark WPMLED wall luminaire provides traditional architectural style with high performance energy efficient illumination. Rugged die-cast aluminum construction, stainless steel hardware along with a sealed and gasketed optical compartment make the Wal-Pak virtually impervious to contaminants. IP66 Rated. UL/cUL wet location listed. Replaces up to 320W metal halide equivalent. The WPMLED wall luminaire is ideal for pathway illumination, building entrances, vehicle ramps, schools, tunnels, stairways and loading docks.

SPECIFICATION FEATURES

**Housing**
Rugged die-cast aluminum housing and hinged, removable die-cast aluminum door. One-piece silicone gasket seals the optical chamber. UL 1598 wet location listed and IP66 ingress protection rated. Three 1/2” threaded conduit entry points allow for thru-branch wiring.

**Optical**
Highly reflective anodized aluminum reflectors provide high efficiency illumination. Optical assemblies include impact resistant borosilicate refractive glass, and full cutoff IESNA compliant configurations. Patented, solid state LED luminaires are thermally optimized with a lumen package. Available in cool 5000K or neutral 4000K LED color temperature (CCT).

**Electrical**
LED driver and related electrical components are hard mounted to the die-cast housing for optimal heat sinking and operating efficiency. Wiring is extended through a silicone gasket at the back of the housing. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from LED source. Integral LED electronic driver incorporates internal fusing designed to withstand a 4kV surge test and is Class 2 rated for 120-277V, 50-60Hz with an operating temperature of -40°C to 40°C. 10kV surge protection available as an option. Wal-Pak LED systems maintain greater than 94% of the initial light output after 50,000 hours of operation.

**Finish**
Finished in UV stabilized polyester powder coat paint for superior protection against fade and wear. Standard color is bronze.

**Options**
Optional wire guard and visor are available.

**Warranty**
Five-year warranty.

---

**DIMENSIONS**

- 14-3/16" (361mm)
- 9-5/16" (231mm)
- 7-1/8" (181mm)

---

**TECHNICAL DATA**
- UL/cUL Wet Location Listed
- IP66 Rated
- 40°C Maximum Ambient Temperature
- DesignLights Consortium® Qualified®

**SHIPPING DATA**
- Approximate Net Weight: 9.01 lbs. (4.08 kgs.)

---

*www.designlights.org*
# POWER AND LUMENS

<table>
<thead>
<tr>
<th>4000K</th>
<th>WPMLED-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivered Lumens</td>
<td>8683</td>
</tr>
<tr>
<td>CCT (Kelvin)</td>
<td>4000</td>
</tr>
<tr>
<td>CRI (Color Rendering Index)</td>
<td>70</td>
</tr>
<tr>
<td>Power Consumption (Watts)</td>
<td>76</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5000K</th>
<th>WPMLED-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivered Lumens</td>
<td>8818</td>
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<tr>
<td>CCT (Kelvin)</td>
<td>5000</td>
</tr>
<tr>
<td>CRI (Color Rendering Index)</td>
<td>70</td>
</tr>
<tr>
<td>Power Consumption (Watts)</td>
<td>76</td>
</tr>
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</table>

## CURRENT DRAW

<table>
<thead>
<tr>
<th>Voltage (V)</th>
<th>Model Series</th>
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<tbody>
<tr>
<td>120V</td>
<td>WPMLED-75</td>
</tr>
<tr>
<td>208V</td>
<td>0.64</td>
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<tr>
<td>240V</td>
<td>0.37</td>
</tr>
<tr>
<td>277V</td>
<td>0.28</td>
</tr>
</tbody>
</table>

## LUMEN MAINTENANCE

<table>
<thead>
<tr>
<th>Ambient Temperature</th>
<th>TM-21 Lumen Maintenance (50,000 Hours)</th>
<th>Theoretical L70 (Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000K / 5000K</td>
<td>25°C &gt; 94.88%</td>
<td>&gt; 346,000</td>
</tr>
<tr>
<td></td>
<td>40°C &gt; 94.03%</td>
<td>&gt; 294,000</td>
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</tbody>
</table>

## LUMEN MULTIPLIER

<table>
<thead>
<tr>
<th>Ambient Temperature</th>
<th>Lumen Multiplier</th>
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<tbody>
<tr>
<td>10°C</td>
<td>1.03</td>
</tr>
<tr>
<td>15°C</td>
<td>1.02</td>
</tr>
<tr>
<td>25°C</td>
<td>1.00</td>
</tr>
<tr>
<td>40°C</td>
<td>0.97</td>
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## ORDERING INFORMATION

Sample Number: WPMLED-75-GL-UNV

<table>
<thead>
<tr>
<th>Product Family</th>
<th>Lamp Wattage</th>
<th>Door/Glass</th>
<th>Voltage</th>
<th>Options (Add as Suffix)</th>
<th>Accessories (Order Separately)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPMLED</td>
<td>75=75W</td>
<td>GL=Borosilicate Glass Door</td>
<td>UNV=120-277V</td>
<td>347=347V</td>
<td>Blank=70 CRI / 4000K</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7050=70 CRI / 5000K</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PG=120-277V Button Photocell</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>10KV=10KV Surge Protection</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Bronze color only.
3. Extended lead times apply.
STORMWATER MANAGEMENT REPORT
A. Introduction

A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:
- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals. This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

---

1 The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

2 For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

[Signature and Date]

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☒ New development

☐ Redevelopment

☐ Mix of New Development and Redevelopment
Checklist for Stormwater Report

Checklist (continued)

**LID Measures:** Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- No disturbance to any Wetland Resource Areas

- Site Design Practices (e.g. clustered development, reduced frontage setbacks)

- Reduced Impervious Area (Redevelopment Only)

- Minimizing disturbance to existing trees and shrubs

- LID Site Design Credit Requested:
  - Credit 1
  - Credit 2
  - Credit 3

- Use of "country drainage" versus curb and gutter conveyance and pipe

- Bioretention Cells (includes Rain Gardens)

- Constructed Stormwater Wetlands (includes Gravel Wetlands designs)

- Treebox Filter

- Water Quality Swale

- Grass Channel

- Green Roof

- Other (describe):

**Standard 1: No New Untreated Discharges**

- No new untreated discharges

- Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth

- Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.
Checklist (continued)

Standard 2: Peak Rate Attenuation

☒ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
☒ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
☒ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☒ Soil Analysis provided.
☒ Required Recharge Volume calculation provided.
☐ Required Recharge volume reduced through use of the LID site Design Credits.
☒ Sizing the infiltration, BMPs is based on the following method: Check the method used.
  ☒ Static ☐ Simple Dynamic ☐ Dynamic Field

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.
☒ Runoff from all impervious areas at the site is not discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☒ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume only to the maximum extent practicable for the following reason:
  ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
  ☒ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
  ☒ Solid Waste Landfill pursuant to 310 CMR 19.0000
  ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

\[1\] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.
Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:
• Good housekeeping practices;
• Provisions for storing materials and waste products inside or under cover;
• Vehicle washing controls;
• Requirements for routine inspections and maintenance of stormwater BMPs;
• Spill prevention and response plans;
• Provisions for maintenance of lawns, gardens, and other landscaped areas;
• Requirements for storage and use of fertilizers, herbicides, and pesticides;
• Pet waste management provisions;
• Provisions for operation and management of septic systems;
• Provisions for solid waste management;
• Snow disposal and plowing plans relative to Wetland Resource Areas;
• Winter Road Salt and/or Sand Use and Storage restrictions;
• Street sweeping schedules;
• Provisions for prevention of illicit discharges to the stormwater management system;
• Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
• Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
• List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☒ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

☐ is within the Zone II or Interim Wellhead Protection Area

☐ is near or to other critical areas

☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)

☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☒ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.
Checklist for Stormwater Report

Checklist (continued)

**Standard 4: Water Quality (continued)**

- The BMP is sized (and calculations provided) based on:
  - The ½" or 1" Water Quality Volume or
  - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the proprietary BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

**Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)**

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted prior to the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does not cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

- All exposure has been eliminated.

- All exposure has not been eliminated and all BMPs selected are on MassDEP LUHPPL list.

- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

**Standard 6: Critical Areas**

- The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

- Critical areas and BMPs are identified in the Stormwater Report.
Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☐ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
  ☐ Limited Project
  ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
  ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
  ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
  ☐ Bike Path and/or Foot Path
  ☐ Redevelopment Project
  ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

An Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.
Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has not been included in the Stormwater Report but will be submitted before land disturbance begins.

☐ The project is not covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

☐ Name of the stormwater management system owners;

☒ Party responsible for operation and maintenance;

☒ Schedule for implementation of routine and non-routine maintenance tasks;

☒ Plan showing the location of all stormwater BMPs maintenance access areas;

☒ Description and delineation of public safety features;

☒ Estimated operation and maintenance budget; and

☐ Operation and Maintenance Log Form.

☐ The responsible party is not the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

☐ A copy of the legal instrument (deed, homeowner’s association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;

☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☒ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted prior to the discharge of any stormwater to post-construction BMPs.
ADDENDUM TO STORMWATER REPORT CHECKLIST
Braley North Commercial
Braley Road
New Bedford, Massachusetts

STANDARD NO. 1 – No New Untreated Discharges

The runoff from the development is being directed to a Stormceptor Unit and onsite recharge system.

STANDARD NO. 2 – Peak Rate Mitigation

The comparison of the pre- and post-improvement runoff rates contained in the following project summary report illustrates the proper mitigation of post-development stormwater runoff:

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Year</td>
<td>&lt;0.5 CFS</td>
<td>&lt;0.5 CFS</td>
</tr>
<tr>
<td>10 Year</td>
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<td>1 CFS</td>
</tr>
<tr>
<td>100 Year</td>
<td>2 CFS</td>
<td>2 CFS</td>
</tr>
</tbody>
</table>

STANDARD NO. 3 - Groundwater Recharge

The total project contains 18,000 SF(0.41 AC) of pavement, sidewalk, and building impervious areas. From the Stormwater Management Standards, 0.35” of runoff per acre of impervious area located in Hydrologic Soil Group B series soils must be recharged. Therefore, in order to bring the site into full compliance with the standards the calculation for the required recharge volume is as follows:

Recharge Volume Req’d: B Series Soils = (0.41 ac)(0.35” of runoff)(1’/12”) = 0.0119ac-ft(521 CF)

This recharge volume is provided in the recharge system.

The time required to dewater the recharge volume is as follows:

\[
\frac{[521\text{CF} \div .11\text{CFS}]}{3600\text{sec/hr}} = 1.3 \text{ hours}
\]

STANDARD NO. 4 - Water Quality

From the Stormwater Management Standards, the volume of runoff to be treated is calculated as 0.5” of runoff per acre of impervious area less rooftop runoff. For this
project, all of the impervious surface is directed to either the roof recharge or porous pavement. Stormceptor provides 80% TSS removal.

STANDARD NO. 5 – Land with Higher Potential Pollutant Loads

Does not apply to this project.

STANDARD NO. 6 – Critical Areas

Does not apply to this project.

STANDARD NO. 7 – Redevelopment Projects

Does not apply to this project.

STANDARD NO. 8 – Construction Period Pollution and Erosion and Sedimentation Control

A construction period pollution prevention and erosion and sedimentation control plan is attached.

STANDARD NO. 9 – Operation and Maintenance Plan

The maintenance of the stormwater management system for the proposed project shall be the responsibility contractor during the construction period. Upon the completion of construction the responsibility for the maintenance will shift to the property owner.

The stormwater management system will require periodic inspections and cleaning. To insure the long term effectiveness of the system the following measures will be taken by the property owner. An Operation and Maintenance Plan schedule and outline is contained on the site Detail Sheet (Sheet 8 of 8).

All sediment and hydrocarbons shall be properly handled and disposed of in accordance with local, state, and federal guidelines and regulations. Where lack of maintenance is causing or contributing to a water quality program, immediate action shall be taken by the owner to correct the problem within 14 days. All remedial actions required to maintain the stormwater management system for the purpose it was designed must be performed within 30 days following the inspection.
STANDARD NO. 10 – Prohibition of Illicit Discharges

There are no illicit discharges either existing or proposed on this site.
CONSTRUCTION EROSION AND SEDIMENT CONTROL PLAN

Commercial Development
Braley Road
Map 136 Lot 309
New Bedford, MA
May 6, 2019

1. SITE DESCRIPTION:

OWNER: Braley North Realty Trust
70 Lambeth Street
New Bedford, MA

PROJECT NAME AND LOCATION

Proposed Commercial Development
Braley Road, New Bedford, MA

DESCRIPTION: (Purpose and Types of Soil Disturbing Activities)

This project involves the construction of a commercial Building and parking lot/loading area to accommodate a mixed use commercial facility with associated, landscaping and drainage on a 30,130 SF parcel. The site is relatively flat and currently includes a combination of gravel, brush, woods and a concrete retaining wall which surrounds the proposed building and parking area. The onsite soils have been classified by a licensed soil evaluator and consist of fill material over a medium to coarse sand.

Soil disturbing activities will include: installing perimeter and other sediment controls, finish grading of the site, followed by the installation of the stormwater infiltration systems, parking facility, utilities, curbing and sidewalks. Upon completion of construction, landscaping will be installed and all disturbed areas will be stabilized.
SEQUENCE OF MAJOR ACTIVITIES

1. Install all erosion and sediment control measures per the enclosed approved plans. The Contractor will implement the use of widely accepted principles for erosion and sediment control during construction.

2. Adjust site grades to design base elevations.

3. Installation of foundation, utilities, drainage, and retention system.

4. Construct building, sidewalks, and parking. Stabilize site with landscaping

5. Construction sequence may vary to minimize disturbance on site.

2. EROSION AND SEDIMENT CONTROLS

In addition to the perimeter controls, erosion control will be accomplished using temporary measures such as tracking entrance, seeding or mulching, spraying of liquid stabilizers or any combination of these measures. Seeds should be applied at a rate of 2 lbs/1000 square feet at a depth of ½ inch. Soil netting or covering should be used in extreme conditions.

Only minor stockpiling of soils will be allowed on site. Soil stockpiles will be ringed with hay bales/silt fencing or covered in extreme conditions.

Maintenance / Inspection Procedures for Erosion and Sediment Controls

- Construction to commence in a phased manner.
- All control measures will be inspected at least once each week and following any storm event of 0.5 inches of precipitation or greater.
- All measures will be maintained in good working order; if repair is necessary, it will be initiated within 24 hours of report.
- Built up sediment will be removed from erosion control when it has reached one-third the height of the fence or bale.
- Silt fence will be inspected for depth of sediment, tears and to see if fabric is securely attached to the fence posts, are firmly in the ground.
- Any temporary sediment basin used will be inspected for depth of sediment. Any build up of sediment will be removed when it
reaches 10% of the design capacity or at the end of project completion.

- Temporary and permanent seeding and planting will be inspected for bare spots, washouts and healthy growth.
- A maintenance and inspection report will be made after each inspection. A copy of the report form to be completed by the inspector and kept on site.
- Construction site supervisor will be responsible for training workers in all inspection and maintenance practices necessary for keeping erosion and sediment controls in good working order.

3. **OTHER CONTROLS**

**Waste Disposal**

All waste materials will be disposed of off site in accordance with all applicable local, State, Federal regulations. No construction waste is to be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal. The individual, who manages the day-to-day site operations, will be responsible for seeing that these procedures are followed.

**Hazardous Waste**

All hazardous waste materials will be disposed of in a manner specified by local, State, Federal regulations and in accordance with any manufactures recommendations.

**Sanitary Waste**

All sanitary waste will be collected in portable units installed on site. The portable units will be cleaned and emptied by a qualified licensed contractor.

**Concrete Waste**

All concrete washings will be disposed on in a designated area away from wetlands and any property line. When the concrete hardens it will be removed from the site.
4. **POLLUTION AND SPILL PREVENTION**

**INVENTORY FOR POLLUTION PREVENTION PLAN**

The following substances listed below are expected to be present onsite during construction:

- General construction materials
- Asphalt/concrete
- Paints
- Petroleum based products
- Cleaning solvents

**MATERIAL MANAGEMENT PRACTICES**

**Good Housekeeping Practices**

- Store only enough products on site to do the job.
- All materials stored outside will be stored in a neat, orderly manner in the original containers.
- Products will be kept in their original containers with the original manufacture’s label.
- Whenever possible, all products will be used up before disposing of the container.
- The site contractor will inspect daily to ensure proper use and disposal of materials onsite.

**Product Specific Practices**

**Petroleum Products:**

- Refueling vehicles will be DOT Certified and have SPCC Plans in place and contain emergency equipment to contain and clean up small spills.
- All on site construction vehicles will be inspected for leaks and receive regular preventative maintenance to reduce the chance of leakage.
- Petroleum products will be stored in tightly sealed containers, which are properly marked.

**Fertilizers:**

- All fertilizers will be stored in a dry protected area and only used according to manufacturers recommendations.
Paints:

- All containers will be tightly sealed and stored when not required for use.
- All procedures will be followed to minimize spills and to keep products in the original containers.

Concrete Trucks:

- The site contractor is responsible for designating a safe area, away from abutting property and resource areas, for excess concrete disposal.

**SPILL CONTROL PRACTICES**

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will followed for Spill Prevention and clean up during construction:

- Manufacturers recommended methods for spill clean up will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- All spills will be cleaned up immediately after discovery.
- If any threat of explosion of life threatening condition, all personnel will evacuate the area to safety and then contact the local fire department for assistance.
- The spill area will be ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- The site contractor responsible for day-to-day operations will be the spill prevention and clean up coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of the responsible personnel will be posted in the material storage area in the office trailer onsite.
NPDES Construction Permit Storm Water Pollution Prevention Plan

Due to the limited size of the project, a filing for an NDPES permit is not required.

---

**STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION**

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or person directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: [Signature]

Steven D. Gioiosa, President
SITEC, Inc.

---

**CONTRACTOR'S CERTIFICATION**

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

<table>
<thead>
<tr>
<th>Signature</th>
<th>For</th>
<th>Responsible for</th>
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<tbody>
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</tbody>
</table>

Date
Summary for Subcatchment E-1: Pre-Development

Runoff = 0.23 cfs @ 12.14 hrs, Volume= 0.024 af, Depth> 0.43" 

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs 
Type III 24-hr 2 Year Storm Rainfall=3.40"

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<td>&gt;75% Grass cover, Good, HSG B</td>
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<td>60</td>
<td>Woods, Fair, HSG B</td>
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<td>60</td>
<td>Weighted Average</td>
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<td>100.00% Pervious Area</td>
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<table>
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<th>Length (feet)</th>
<th>Slope (ft/ft)</th>
<th>Velocity (ft/sec)</th>
<th>Capacity (cfs)</th>
<th>Description</th>
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<td>0.19</td>
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<td>Unpaved  Kv= 16.1 fps</td>
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</tbody>
</table>

6.7 245 Total

Subcatchment E-1: Pre-Development

Hydrograph

Type III 24-hr 2 Year Storm Rainfall=3.40"
Runoff Area=0.660 ac
Runoff Volume=0.024 af
Runoff Depth>0.43"
Flow Length=245'
Tc=6.7 min
CN=60
Summary for Subcatchment S-1: Proposed Site Runoff

Runoff = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af, Depth> 2.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Storm Rainfall=3.40"

<table>
<thead>
<tr>
<th>Area (ac)</th>
<th>CN</th>
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<tbody>
<tr>
<td>* 0.400</td>
<td>98</td>
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</tr>
<tr>
<td></td>
<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
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<tr>
<td>0.450</td>
<td>94</td>
<td>Weighted Average</td>
</tr>
<tr>
<td>0.050</td>
<td>11.11% Pervious Area</td>
<td></td>
</tr>
<tr>
<td>0.400</td>
<td>88.89% Impervious Area</td>
<td></td>
</tr>
</tbody>
</table>

Tc | Length | Slope | Velocity | Capacity | Description
---|--------|-------|----------|----------|-------------
6.0 | Direct Entry, AB

Subcatchment S-1: Proposed Site Runoff

Hydrograph

Type III 24-hr
2 Year Storm Rainfall=3.40"
Runoff Area=0.450 ac
Runoff Volume=0.097 af
Runoff Depth>2.59"
Tc=6.0 min
CN=94
Summary for Subcatchment S-2: Proposed Culvert Bypass

Runoff = 0.09 cfs @ 12.11 hrs, Volume = 0.008 af, Depth > 0.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Storm Rainfall=3.40"

<table>
<thead>
<tr>
<th>Area (sf)</th>
<th>CN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,000</td>
<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
</tr>
<tr>
<td>4,600</td>
<td>56</td>
<td>Brush, Fair, HSG B</td>
</tr>
<tr>
<td>*</td>
<td>98</td>
<td>Impervious</td>
</tr>
<tr>
<td>9,200</td>
<td>61</td>
<td>Weighted Average</td>
</tr>
<tr>
<td>8,600</td>
<td></td>
<td>93.48% Pervious Area</td>
</tr>
<tr>
<td>600</td>
<td></td>
<td>6.52% Impervious Area</td>
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<table>
<thead>
<tr>
<th>Tc (min)</th>
<th>Length (feet)</th>
<th>Slope (ft/ft)</th>
<th>Velocity (ft/sec)</th>
<th>Capacity (cfs)</th>
<th>Description</th>
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<tbody>
<tr>
<td>4.4</td>
<td>50</td>
<td>0.0900</td>
<td>0.19</td>
<td></td>
<td>Sheet Flow, AB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grass: Dense</td>
<td>n= 0.240   P2= 3.40&quot;</td>
</tr>
<tr>
<td>0.9</td>
<td>70</td>
<td>0.0070</td>
<td>1.35</td>
<td></td>
<td>Shallow Concentrated Flow, BC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unpaved</td>
<td>Kv= 16.1 fps</td>
</tr>
</tbody>
</table>

5.3 120 Total

Subcatchment S-2: Proposed Culvert Bypass

Hydrograph

Type III 24-hr 2 Year Storm Rainfall=3.40"
Runoff Area=9,200 sf
Runoff Volume=0.008 af
Runoff Depth >0.47"
Flow Length=120'
Tc=5.3 min
CN=61
Summary for Reach 2R: Combined Post Development Flow

Inflow Area = 0.661 ac, 62.58% Impervious, Inflow Depth > 0.78" for 2 Year Storm event
Inflow = 0.42 cfs @ 12.36 hrs, Volume= 0.043 af
Outflow = 0.42 cfs @ 12.36 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: Combined Post Development Flow

Hydrograph

Inflow Area=0.661 ac
Summary for Pond 1P: S-2 Culvert

Inflow Area = 0.211 ac, 6.52% Impervious, Inflow Depth > 0.47" for 2 Year Storm event
Inflow = 0.09 cfs @ 12.11 hrs, Volume = 0.008 af
Outflow = 0.04 cfs @ 12.47 hrs, Volume = 0.008 af, Atten= 55%, Lag= 21.3 min
Primary = 0.04 cfs @ 12.47 hrs, Volume = 0.008 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 89.14' @ 12.47 hrs Surf.Area= 710 sf Storage= 69 cf

Plug-Flow detention time= 40.1 min calculated for 0.008 af (95% of inflow)
Center-of-Mass det. time= 24.4 min (875.3 - 850.9)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail. Storage</th>
<th>Storage Description</th>
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<tbody>
<tr>
<td>#1</td>
<td>89.00'</td>
<td>3,725 cf</td>
<td>Custom Stage Data (Prismatic) Listed below (Recalc)</td>
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</table>

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>(feet)</td>
<td>(sq-ft)</td>
<td>(cubic-feet)</td>
<td>(cubic-feet)</td>
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</tr>
<tr>
<td>89.00</td>
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<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>90.00</td>
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<tr>
<td>90.50</td>
<td>4,400</td>
<td>1,925</td>
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Device | Routing | Invert | Outlet Devices |
<table>
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<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Primary</td>
<td>89.00'</td>
<td>10.0&quot; Round Culvert</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L= 138.0' CPP, square edge headwall, Ke= 0.500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inlet / Outlet Invert= 89.00' / 87.88' S= 0.0081 '/' Cc= 0.900</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.55 sf</td>
</tr>
</tbody>
</table>

Primary OutFlow Max=0.04 cfs @ 12.47 hrs HW=89.14' (Free Discharge)
Up 1=Culvert (Barrel Controls 0.04 cfs @ 1.08 fps)
Pond 1P: S-2 Culvert

Hydrograph

Inflow Area = 0.211 ac
Peak Elev = 89.14'
Storage = 69 cf
10.0"
Round Culvert
n = 0.020
L = 138.0'
S = 0.0081 ' / ”

Pond 1P: S-2 Culvert

Stage-Discharge
Pond 1P: S-2 Culvert

Stage-Area-Storage
Surface/Horizontal/Wetted Area (sq-ft)

Elevation (feet)

Storage (cubic-feet)
Summary for Pond 2P: Cultec Detention System

Inflow Area = 0.450 ac, 88.89% Impervious, Inflow Depth > 2.59" for 2 Year Storm event
Inflow = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af
Outflow = 0.49 cfs @ 12.35 hrs, Volume= 0.097 af, Atten= 63%, Lag= 15.6 min
Discarded = 0.11 cfs @ 11.35 hrs, Volume= 0.062 af
Primary = 0.38 cfs @ 12.35 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 90.18' @ 12.35 hrs Surf.Area= 0 sf Storage= 1,004 cf

Plug-Flow detention time= 18.2 min calculated for 0.097 af (100% of inflow)
Center-of-Mass det. time= 17.9 min (774.4 - 756.5)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
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<tr>
<td>#1</td>
<td>89.00'</td>
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<table>
<thead>
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<th>Inc.Store (cubic-feet)</th>
<th>Cum.Store (cubic-feet)</th>
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</thead>
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<td>545</td>
<td>827</td>
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<tr>
<td>90.50</td>
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<tr>
<td>91.54</td>
<td>282</td>
<td>2,006</td>
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Device     Routing     Invert     Outlet Devices
#1 Discarded 89.00' 0.11 cfs Exfiltration at all elevations
#2 Primary 89.25' 4.0" Vert. Orifice/Grate C= 0.600
#3 Primary 90.10' 6.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.11 cfs @ 11.35 hrs HW=89.03' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.11 cfs)

Primary OutFlow Max=0.38 cfs @ 12.35 hrs HW=90.17' (Free Discharge)
2=Orifice/Grate (Orifice Controls 0.37 cfs @ 4.19 fps)
3=Orifice/Grate (Orifice Controls 0.02 cfs @ 0.93 fps)
Pond 2P: Cultec Detention System

Hydrograph

Inflow Area = 0.450 ac
Peak Elev = 90.18' 
Storage = 1,004 cf

Pond 2P: Cultec Detention System

Stage-Discharge

[Graph showing discharge and elevation]
Pond 2P: Culetco Detention System

Stage-Area-Storage

Elevation (feet)

Storage (cubic-feet)
Summary for Subcatchment E-1: Pre-Development

Runoff = 0.78 cfs @ 12.11 hrs, Volume = 0.059 af, Depth > 1.07"

Runoff by SCS TR-20 method, UH=SCS, Time Span = 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall=4.80"

<table>
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<th>Area (ac)</th>
<th>CN</th>
<th>Description</th>
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<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
</tr>
<tr>
<td>0.110</td>
<td>56</td>
<td>Brush, Fair, HSG B</td>
</tr>
<tr>
<td>0.350</td>
<td>60</td>
<td>Woods, Fair, HSG B</td>
</tr>
<tr>
<td>0.660</td>
<td>60</td>
<td>Weighted Average</td>
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<tr>
<td>0.660</td>
<td>100.00% Pervious Area</td>
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</table>

<table>
<thead>
<tr>
<th>Tc (min)</th>
<th>Length (feet)</th>
<th>Slope (ft/ft)</th>
<th>Velocity (ft/sec)</th>
<th>Capacity (cfs)</th>
<th>Description</th>
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<tbody>
<tr>
<td>4.4</td>
<td>50</td>
<td>0.0900</td>
<td>0.19</td>
<td></td>
<td>Sheet Flow, AB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grass: Dense n= 0.240 P2= 3.40&quot;</td>
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<tr>
<td>2.3</td>
<td>195</td>
<td>0.0080</td>
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<tr>
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<td></td>
<td></td>
<td>Unpaved Kv= 16.1 fps</td>
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</tbody>
</table>

6.7 245 Total

Subcatchment E-1: Pre-Development

Hydrograph

Type III 24-hr 10 Year Storm Rainfall=4.80"
Runoff Area=0.660 ac
Runoff Volume=0.059 af
Runoff Depth >1.07"
Flow Length=245'
Tc=6.7 min
CN=60
Summary for Subcatchment S-1: Proposed Site Runoff

Runoff = 1.98 cfs @ 12.09 hrs, Volume = 0.145 af, Depth > 3.88"

Runoff by SCS TR-20 method, UH=SCS, Time Span = 5.00-20.00 hrs, dt = 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall = 4.80"

<table>
<thead>
<tr>
<th>Area (ac)</th>
<th>CN</th>
<th>Description</th>
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<tbody>
<tr>
<td>0.400</td>
<td>98</td>
<td>Impervious</td>
</tr>
<tr>
<td>0.050</td>
<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
</tr>
<tr>
<td>0.450</td>
<td>94</td>
<td>Weighted Average</td>
</tr>
<tr>
<td>0.050</td>
<td></td>
<td>11.11% Pervious Area</td>
</tr>
<tr>
<td>0.400</td>
<td></td>
<td>88.89% Impervious Area</td>
</tr>
<tr>
<td>Tc</td>
<td>Length</td>
<td>Slope</td>
</tr>
<tr>
<td>6.0</td>
<td>(min)</td>
<td>(feet)</td>
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Direct Entry, AB

Subcatchment S-1: Proposed Site Runoff

Hydrograph

Type III 24-hr
10 Year Storm Rainfall = 4.80"
Runoff Area = 0.450 ac
Runoff Volume = 0.145 af
Runoff Depth > 3.88"
Tc = 6.0 min
CN = 94
Summary for Subcatchment S-2: Proposed Culvert Bypass

Runoff = 0.28 cfs @ 12.10 hrs, Volume = 0.020 af, Depth > 1.13"

Runoff by SCS TR-20 method, UH=SCS, Time Span = 5.00-20.00 hrs, dt = 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall = 4.80"

<table>
<thead>
<tr>
<th>Area (sf)</th>
<th>CN</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>4,000</td>
<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
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<tr>
<td>4,600</td>
<td>56</td>
<td>Brush, Fair, HSG B</td>
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<td>*</td>
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<td>Impervious</td>
</tr>
<tr>
<td>9,200</td>
<td>61</td>
<td>Weighted Average</td>
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<tr>
<td>8,600</td>
<td>93.48% Pervious Area</td>
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<tr>
<td>600</td>
<td>600</td>
<td>6.52% Impervious Area</td>
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<table>
<thead>
<tr>
<th>Tc (min)</th>
<th>Length (feet)</th>
<th>Slope (ft/ft)</th>
<th>Velocity (ft/sec)</th>
<th>Capacity (cfs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4</td>
<td>50</td>
<td>0.0900</td>
<td>0.19</td>
<td></td>
<td>Sheet Flow, AB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grass: Dense n = 0.240 P2 = 3.40&quot;</td>
</tr>
<tr>
<td>0.9</td>
<td>70</td>
<td>0.0070</td>
<td>1.35</td>
<td></td>
<td>Shallow Concentrated Flow, BC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unpaved Kv = 16.1 fps</td>
</tr>
</tbody>
</table>

5.3 120 Total

Subcatchment S-2: Proposed Culvert Bypass

Hydrograph

Type III 24-hr
10 Year Storm Rainfall = 4.80"
Runoff Area = 9,200 sf
Runoff Volume = 0.020 af
Runoff Depth > 1.13"
Flow Length = 120'
Tc = 5.3 min
CN = 61
Summary for Reach 2R: Combined Post Development Flow

Inflow Area = 0.661 ac, 62.58% Impervious, Inflow Depth > 1.53" for 10 Year Storm event
Inflow = 1.06 cfs @ 12.23 hrs, Volume = 0.084 af
Outflow = 1.06 cfs @ 12.23 hrs, Volume = 0.084 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: Combined Post Development Flow

Hydrograph

Inflow Area=0.661 ac
Summary for Pond 1P: S-2 Culvert

Inflow Area = 0.211 ac, 6.52% Impervious, Inflow Depth > 1.13" for 10 Year Storm event
Inflow = 0.28 cfs @ 12.10 hrs, Volume= 0.020 af
Outflow = 0.14 cfs @ 12.31 hrs, Volume= 0.019 af, Atten= 49%, Lag= 13.0 min
Primary = 0.14 cfs @ 12.31 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 89.25' @ 12.31 hrs Surf.Area= 1,048 sf Storage= 168 cf
Plug-Flow detention time= 28.8 min calculated for 0.019 af (97% of inflow)
Center-of-Mass det. time= 18.8 min (846.4 - 827.6)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>89.00'</td>
<td>3,725 cf</td>
<td>Custom Stage Data (Prismatic) Listed below (Recalc)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>89.00</td>
<td>300</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>90.00</td>
<td>3,300</td>
<td>1,800</td>
<td>1,800</td>
</tr>
<tr>
<td>90.50</td>
<td>4,400</td>
<td>1,925</td>
<td>3,725</td>
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</table>

<table>
<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
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<tbody>
<tr>
<td>#1</td>
<td>Primary</td>
<td>89.00'</td>
<td>10.0&quot; Round Culvert</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L= 138.0', CPP, square edge headwall, Ke= 0.500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inlet / Outlet Invert= 89.00' / 87.88', S= 0.0081 '/'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>n= 0.020, Corrugated PE, corrugated interior, Flow Area= 0.55 sf</td>
</tr>
</tbody>
</table>

Primary OutFlow Max=0.14 cfs @ 12.31 hrs HW=89.25' (Free Discharge)
Direct Culvert (Barrel Controls 0.14 cfs @ 1.55 fps)
Pond 1P: S-2 Culvert

Inflow Area = 0.211 ac
Peak Elevation = 89.25'
Storage = 168 cf

Round Culvert
n = 0.020
L = 138.0'
S = 0.0081 '/'

Pond 1P: S-2 Culvert

Stage-Discharge
Pond 1P: S-2 Culvert
Stage-Area-Storage
Surface/Horizontal/Wetted Area (sq-ft)

Elevation (feet)

Storage (cubic-feet)
Summary for Pond 2P: Cultec Detention System

Inflow Area = 0.450 ac, 88.89% Impervious, Inflow Depth > 3.88" for 10 Year Storm event
Inflow = 1.98 cfs @ 12.09 hrs, Volume= 0.145 af
Outflow = 1.03 cfs @ 12.23 hrs, Volume= 0.145 af, Atten= 48%, Lag= 8.5 min
Discarded = 0.11 cfs @ 10.65 hrs, Volume= 0.080 af
Primary = 0.92 cfs @ 12.23 hrs, Volume= 0.065 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 90.59' @ 12.23 hrs Surf.Area= 0 sf Storage= 1,400 cf

Plug-Flow detention time= 19.0 min calculated for 0.145 af (100% of inflow)
Center-of-Mass det. time= 18.7 min (767.7 - 749.0)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 89.00'</td>
<td>2,006 cf</td>
<td>Custom Stage Data Listed below</td>
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<table>
<thead>
<tr>
<th>Elevation (feet)</th>
<th>Inc.Store (cubic-feet)</th>
<th>Cum.Store (cubic-feet)</th>
</tr>
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<tbody>
<tr>
<td>89.00</td>
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<td>89.50</td>
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<tr>
<td>90.00</td>
<td>545</td>
<td>827</td>
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<td>90.50</td>
<td>507</td>
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<td>91.04</td>
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<td>91.54</td>
<td>282</td>
<td>2,006</td>
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<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Discarded</td>
<td>89.00'</td>
<td>0.11 cfs Exfiltration at all elevations</td>
</tr>
<tr>
<td>#2</td>
<td>Primary</td>
<td>89.25'</td>
<td>4.0&quot; Vert. Orifice/Grate C= 0.600</td>
</tr>
<tr>
<td>#3</td>
<td>Primary</td>
<td>90.10'</td>
<td>6.0&quot; Vert. Orifice/Grate C= 0.600</td>
</tr>
</tbody>
</table>

Discarded OutFlow Max=0.11 cfs @ 10.65 hrs HW=89.03' (Free Discharge)
Exfiltration (Exfiltration Controls 0.11 cfs)

Primary OutFlow Max=0.92 cfs @ 12.23 hrs HW=90.59' (Free Discharge)
Pond 2P: Cultec Detention System

Hydrograph

Inflow Area=0.450 ac
Peak Elev=90.59'
Storage=1,400 cf

Pond 2P: Cultec Detention System

Stage-Discharge
Pond 2P: Cultec Detention System

Stage-Area-Storage
Summary for Subcatchment E-1: Pre-Development

Runoff = 1.94 cfs @ 12.11 hrs, Volume = 0.135 af, Depth > 2.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span = 5.00-20.00 hrs, dt = 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall = 7.10"

<table>
<thead>
<tr>
<th>Area (ac)</th>
<th>CN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.200</td>
<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
</tr>
<tr>
<td>0.110</td>
<td>56</td>
<td>Brush, Fair, HSG B</td>
</tr>
<tr>
<td>0.350</td>
<td>60</td>
<td>Woods, Fair, HSG B</td>
</tr>
<tr>
<td>0.660</td>
<td>60</td>
<td>Weighted Average</td>
</tr>
<tr>
<td>0.660</td>
<td>100% Pervious Area</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tc (min)</th>
<th>Length (feet)</th>
<th>Slope (ft/ft)</th>
<th>Velocity (ft/sec)</th>
<th>Capacity (cfs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4</td>
<td>50</td>
<td>0.0900</td>
<td>0.19</td>
<td></td>
<td>Sheet Flow, AB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grass: Dense n = 0.240 P2 = 3.40&quot;</td>
</tr>
<tr>
<td>2.3</td>
<td>195</td>
<td>0.0080</td>
<td>1.44</td>
<td></td>
<td>Shallow Concentrated Flow, BC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unpaved Kv = 16.1 fps</td>
</tr>
</tbody>
</table>

6.7 245 Total

Subcatchment E-1: Pre-Development

Type III 24-hr 100 Year Storm Rainfall = 7.10"
Runoff Area = 0.660 ac
Runoff Volume = 0.135 af
Runoff Depth > 2.45"
Flow Length = 245'
Tc = 6.7 min
CN = 60
Summary for Subcatchment S-1: Proposed Site Runoff

Runoff = 2.99 cfs @ 12.09 hrs, Volume= 0.225 af, Depth> 6.00''

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall=7.10''

<table>
<thead>
<tr>
<th>Area (ac)</th>
<th>CN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 0.400</td>
<td>98</td>
<td>Impervious</td>
</tr>
<tr>
<td>0.050</td>
<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
</tr>
<tr>
<td>0.450</td>
<td>94</td>
<td>Weighted Average</td>
</tr>
<tr>
<td>0.050</td>
<td></td>
<td>11.11% Pervious Area</td>
</tr>
<tr>
<td>0.400</td>
<td></td>
<td>88.89% Impervious Area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tc</th>
<th>Length</th>
<th>Slope</th>
<th>Velocity</th>
<th>Capacity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Direct Entry, AB</td>
</tr>
</tbody>
</table>

Subcatchment S-1: Proposed Site Runoff

Type III 24-hr 100 Year Storm Rainfall=7.10''
Runoff Area=0.450 ac
Runoff Volume=0.225 af
Runoff Depth>6.00''
Tc=6.0 min
CN=94
Summary for Subcatchment S-2: Proposed Culvert Bypass

Runoff = 0.67 cfs @ 12.09 hrs, Volume = 0.045 af, Depth > 2.55"

Runoff by SCS TR-20 method, UH=SCS, Time Span = 5.00-20.00 hrs, dt = 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall = 7.10"

<table>
<thead>
<tr>
<th>Area (sf)</th>
<th>CN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,000</td>
<td>61</td>
<td>&gt;75% Grass cover, Good, HSG B</td>
</tr>
<tr>
<td>4,600</td>
<td>56</td>
<td>Brush, Fair, HSG B</td>
</tr>
<tr>
<td>600</td>
<td>98</td>
<td>Impervious</td>
</tr>
<tr>
<td>9,200</td>
<td>61</td>
<td>Weighted Average</td>
</tr>
<tr>
<td>8,600</td>
<td></td>
<td>93.48% Pervious Area</td>
</tr>
<tr>
<td>600</td>
<td></td>
<td>6.52% Impervious Area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tc (min)</th>
<th>Length (feet)</th>
<th>Slope (ft/ft)</th>
<th>Velocity (ft/sec)</th>
<th>Capacity (cfs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4</td>
<td>50</td>
<td>0.0900</td>
<td>0.19</td>
<td></td>
<td>Sheet Flow, AB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grass: Dense n = 0.240 P2 = 3.40&quot;</td>
</tr>
<tr>
<td>0.9</td>
<td>70</td>
<td>0.0070</td>
<td>1.35</td>
<td></td>
<td>Shallow Concentrated Flow, BC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unpaved Kv = 16.1 fps</td>
</tr>
</tbody>
</table>

5.3 120 Total

Subcatchment S-2: Proposed Culvert Bypass

Hydrograph

Type III 24-hr 100 Year Storm Rainfall = 7.10"
Runoff Area = 9,200 sf
Runoff Volume = 0.045 af
Runoff Depth > 2.55"
Flow Length = 120'
Tc = 5.3 min
CN = 61
Summary for Reach 2R: Combined Post Development Flow

Inflow Area = 0.661 ac, 62.58% Impervious, Inflow Depth > 3.04" for 100 Year Storm event
Inflow = 2.00 cfs @ 12.21 hrs, Volume = 0.167 af
Outflow = 2.00 cfs @ 12.21 hrs, Volume = 0.167 af, Atten = 0%, Lag = 0.0 min

Routing by Stor-Ind+Trans method, Time Span = 5.00-20.00 hrs, dt = 0.05 hrs

Reach 2R: Combined Post Development Flow

Inflow Area = 0.661 ac
Summary for Pond 1P: S-2 Culvert

Inflow Area = 0.211 ac, 6.52% Impervious, Inflow Depth > 2.55" for 100 Year Storm event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.045 af
Outflow = 0.37 cfs @ 12.23 hrs, Volume= 0.044 af, Atten= 45%, Lag= 8.6 min
Primary = 0.37 cfs @ 12.23 hrs, Volume= 0.044 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 89.41' @ 12.23 hrs Surf.Area= 1,526 sf Storage= 373 cf

Plug-Flow detention time= 23.0 min calculated for 0.044 af (98% of inflow)
Center-of-Mass det. time= 16.3 min (825.3 - 809.0)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>89.00'</td>
<td>3,725 cf</td>
<td>Custom Stage Data (Prismatic) Listed below (Recalc)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>89.00</td>
<td>300</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>90.00</td>
<td>3,300</td>
<td>1,800</td>
<td>1,800</td>
</tr>
<tr>
<td>90.50</td>
<td>4,400</td>
<td>1,925</td>
<td>3,725</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Primary</td>
<td>89.00'</td>
<td>10.0&quot; Round Culvert</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L= 138.0' CPP, square edge headwall, Ke= 0.500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inlet / Outlet Invert= 89.00' / 87.88' S= 0.0081 '/' Cc= 0.900</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.55 sf</td>
</tr>
</tbody>
</table>

Primary OutFlow Max=0.37 cfs @ 12.23 hrs HW=89.41' (Free Discharge)

↑ 1=Culvert (Barrel Controls 0.37 cfs @ 2.04 fps)
Pond 1P: S-2 Culvert

Hydrograph

Inflow Area = 0.211 ac
Peak Elev = 89.41'
Storage = 373 cf
Round Culvert
n = 0.020
L = 138.0'
S = 0.0081 '/"
Summary for Pond 2P: Cultec Detention System

Inflow Area = 0.450 ac, 88.89% Impervious, Inflow Depth > 6.00" for 100 Year Storm event
Inflow = 2.99 cfs @ 12.09 hrs, Volume= 0.225 af
Outflow = 1.74 cfs @ 12.21 hrs, Volume= 0.225 af, Atten= 42%, Lag= 7.3 min
Discarded = 0.11 cfs @ 9.40 hrs, Volume= 0.102 af
Primary = 1.63 cfs @ 12.21 hrs, Volume= 0.123 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 91.52' @ 12.21 hrs Surf.Area= 0 sf Storage= 1,993 cf

Plug-Flow detention time= 19.8 min calculated for 0.224 af (100% of inflow)
Center-of-Mass det. time= 19.3 min (761.9 - 742.6 )

Volume Invert Avail.Storage Storage Description
#1 89.00' 2,006 cf **Custom Stage Data** Listed below

<table>
<thead>
<tr>
<th>Elevation (feet)</th>
<th>Inc.Store (cubic-feet)</th>
<th>Cum.Store (cubic-feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>89.00</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>89.50</td>
<td>282</td>
<td>282</td>
</tr>
<tr>
<td>90.00</td>
<td>545</td>
<td>827</td>
</tr>
<tr>
<td>90.50</td>
<td>507</td>
<td>1,334</td>
</tr>
<tr>
<td>91.04</td>
<td>390</td>
<td>1,724</td>
</tr>
<tr>
<td>91.54</td>
<td>282</td>
<td>2,006</td>
</tr>
</tbody>
</table>

Device Routing Invert Outlet Devices
#1 Discarded 89.00' 0.11 cfs **Exfiltration at all elevations**
#2 Primary 89.25' 4.0" Vert. Orifice/Grate C= 0.600
#3 Primary 90.10' 6.0" Vert. Orifice/Grate C= 0.600

**Discarded OutFlow** Max=0.11 cfs @ 9.40 hrs HW=89.03' (Free Discharge)
**1=Exfiltration** (Exfiltration Controls 0.11 cfs)

**Primary OutFlow** Max=1.62 cfs @ 12.21 hrs HW=91.51' (Free Discharge)
**2=Orifice/Grate** (Orifice Controls 0.61 cfs @ 8.96 fps)
**3=Orifice/Grate** (Orifice Controls 1.02 cfs @ 5.18 fps)
Pond 2P: Cultec Detention System

Hydrograph

Inflow Area=0.450 ac
Peak Elev=91.52'
Storage=1,993 cf

Pond 2P: Cultec Detention System

Stage-Discharge