



NONRESIDENTIAL SITE PLAN APPLICATION

City of Rochester, New Hampshire

Date: July 8, 2019 Is a conditional use needed? Yes: No:_X Unclear: (If so, we encourage you to submit an application as soon as possible conditional use needed?	
Property information	
Tax map #: 268 ; Lot #('s): 2 ; Zoning district: Agricultural	
Property address/location: 214 Rochester Neck Road	
Name of project (if applicable): Container Storage Area	
Size of site: 32.2 acres; overlay zoning district(s)? Conservation Overlay District	
Property owner	
Name (include name of individual): Waste Management of New Hampshire, Inc.	
Mailing address: 30 Rochester Neck Road Rochester, NH	
Telephone #: (603) 330-2164 Email: bmagnusson@wm.com	
Applicant/developer (if different from property owner) Name (include name of individual):	
Mailing address:	
Telephone #: Email:	
Engineer/designer Name (include name of individual): Sanborn, Head & Associates, Inc. (Eric S. Steinhauser, P.E., CPESC, CPSWQ) Mailing address: 20 Foundry Street Concord, NH 03301	
Telephone #: (603) 415-6138 Fax #: (603) 415-1919	
Email address: esteinhauser@sanbornhead.com Professional license #: 11494	
Proposed activity (check all that apply) New building(s): Site development (other structures, parking, utilities, etc.): X Addition(s) onto existing building(s): Demolition: Change of use:	
raye r (or 3 payes)	

Updated

Describe proposed activity/use: Expansion of the existing gravel storage area and installation of additional stormwater
conveyance and treatment features to allow for a single location for storing containers and continued use of the property.
Describe existing conditions/use (vacant land?): Existing gravel storage area, office building, and a container
and compactor maintenance building.
Utility information
City water? yes no _X; How far is City water from the site? Not Applicable.
City sewer? yes no _X; How far is City sewer from the site? Not Applicable.
If City water, what are the estimated total daily needs? Not Applicable. gallons per day
If City water, is it proposed for anything other than domestic purposes? yes no ×_
If City sewer, do you plan to discharge anything other than domestic waste? yes no \times
Where will stormwater be discharged? Cocheco River and wetlands
Building information Type of building(s): Existing Office Building and Container/Compactor Maintenance Facility
Building height: Unknown Finished floor elevation: Unknown
Other information
parking spaces: existing: 0 total proposed: 0; Are there pertinent covenants? No
Number of cubic yards of earth being removed from the site 1,575 Number of existing employees: N/A , number of proposed employees total: N/A
Check any that are proposed: variance _X_; special exception; conditional use
Wetlands: Is any fill proposed? Yes; area to be filled: 0.26 acres; buffer impact? Yes

Proposed post-development disposition of site (should total 100%)			
	Square footage	% overall site	
Building footprint(s) – give for each building	10,259	0.7	
Parking and vehicle circulation	6,364	0.5	
Planted/landscaped areas (excluding drainage)	124,529	8.9	
Natural/undisturbed areas (excluding wetlands)	1,162,326	83.0	
Wetlands	30,077	2.1	
Other – drainage structures, outside storage, etc.	67,335	4.8	

 $\label{lem:lemma} $$\operatorname{Plan-Nonresidential.doc} 3/27/2019$

Updated

Page 2 (of 3 pages)

Comments	
Please feel free to add any comments, additional information, or requests for waivers he	ere:
Requests for waivers are included with the application	
Submission of application	
This application must be signed by the property owner, applicant/developer (if different to	from
property owner), and/or the agent.	ii Oiii
I(we) hereby submit this Site Plan application to the City of Rochester Planning Board	
pursuant to the City of Rochester Site Plan Regulations and attest that to the best of my	
knowledge all of the information on this application form and in the accompanying application	
materials and documentation is true and accurate. As applicant/developer (if different fr	om
property owner)/as agent, I attest that I am duly authorized to act in this capacity.	
Signature of property owner:	
Signature of property owner.	
Date: 7/2/19	
Signature of applicant/developer:	
Date:	
Signature of agent:	
Date:	
Authorization to enter subject property	
I hereby authorize members of the Rochester Planning Board, Zoning Board of Adjustme	ent.
Conservation Commission, Planning Department, and other pertinent City departments,	,
boards and agencies to enter my property for the purpose of evaluating this application	
including performing any appropriate inspections during the application phase, review ph	
post-approval phase, construction phase, and occupancy phase. This authorization appl	
specifically to those particular individuals legitimately involved in evaluating, reviewing, or	
inspecting this specific application/project. It is understood that these individuals must us	e all
reasonable care, courtesy, and diligence when entering the property.	
of glot & Whanson	
Signature of property owner:	
Date: 7/2/19	
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Date: 7/2/19
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TURNKEY RECYCLING & ENVIRONMENTAL ENTERPRISE

30 Rochester Neck Road Rochester, NH 03839 603 330 2197 603 330 2130 Fax

July 8, 2019

Mr. James B. Campbell, Director Planning and Development Department City of Rochester 31 Wakefield Street Rochester, New Hampshire 03867

Re: Letter of Intent – Application for Site Plan Approval

Container Storage Area

Turnkey Recycling and Environmental Enterprise (TREE)

Rochester, New Hampshire

Dear Mr. Campbell:

Waste Management of New Hampshire, Inc. (WMNH) is proposing to expand the Container Storage Area (CSA), located at 214 Rochester Neck Road. Prior to WMNH's ownership in 2007, the property was used for industrial purposes. Recently, WMNH learned that the property was subdivided in 1999 by the owner at that time, but deeds describing the subdivided parcels were not recorded with the Strafford County Registry of Deeds. Because WMNH owns both parcels, and consistent with WMNH's desire to simplify its land ownership records, on June 18, 2019 WMNH submitted a Lot Combination Application for the subdivided lots with the City. For the purposes of this Site Plan Application, WMNH assumes that the Lot Combination Application will be approved and hence property references herein are for 214 Rochester Neck Road, Tax Map 268 Lot 2.

Additionally, WMNH submitted a Zoning Variance Application on June 19, 2019 for the facility because the property, which has been in industrial use since approximately 1999, lies within the City of Rochester's (City's) Agricultural Zoning District. Based on discussions and emails with the City's Department of Planning and Development, we understand that the CSA should be categorized as a "Truck Terminal," a zoning category that most closely describes the current CSA operations. Because "Truck Terminal" does not meet the objectives or development standards of the City's Agricultural District and is not listed in the Tables of Uses in Section 18 of the City's Zoning Ordinance as a use that meets the requirements for a special exemption from the Zoning Ordinance, we requested a variance from the terms of the zoning ordinance to continue the existing non-conforming use of the property. For the purposes of this Site Plan Application, WMNH assumes that the Zoning Variance Application will be approved.



July 8, 2019 James B. Campbell

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The following information is provided for this Site Plan Review application.

Applicant's Name:

Waste Management of New Hampshire, Inc. (property owner)

Property Locations:

214 Rochester Neck Road, Parcel 268-2

Size and Use:

~2-acre area for recycling and waste container storage.

Proposed Use:

WMNH is proposing to expand the gravel storage area at the CSA to allow for a single location for storing its containers and continue the

current use of the property.

Previous Use:

The CSA is used for container storage and includes an office building and

a container and compactor maintenance building.

Existing Conditions:

The existing CSA consists of a gravel storage area, an office building, and a container and compactor maintenance building. The facility is accessed by a paved driveway accessed by Rochester Neck Road. The paved driveway ends, and the remaining storage and work area is gravel. The area surrounding the storage area is well vegetated and an existing

wetland is located south of the CSA.

Resulting Employees:

WMNH is not proposing to increase employees as a result of this project.

Hours of Operation:

7 AM to 5PM, Mon through Fri.

Off-street Parking:

No additional parking is required.

Proposed Site Changes:

The CSA will become the central repository for recycling and waste containers. At present, WMNH stores containers at numerous locations across the TREE property. These containers are either in a que to be refurbished or to be deployed to customers. The expansion of the landfill and the associated relocation of the other TREE operations directly impacts the available areas for storing the containers. This project includes expanding the existing gravel storage area at the CSA to allow for a single location for storing containers versus having them at several locations on the TREE property. Stormwater management features will

also be installed.

Property Access:

Access to the Container Storage Area will not change.

July 8, 2019 James B. Campbell Page 3

Please contact me at (603) 330-2142 and or mdevine@wm.com should you require additional information regarding this proposed development.

Sincerely,

WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.

Mark P. Delme Mark P. DeVine

Construction Project Manager

Enclosures: Nonresidential Site Plan Application

Site Plan Checklist Abutters List

Mailing Labels (2 per abutter, provided separately)

Waiver Requests

Narrative

11" x 17" Drawings (2 additional copies provided separately)

22" x 34" Drawings (3 copies, provided separately) Drainage Report (2 copies, provided separately)

Application Fee (provided separately)

Copies to:

Bob Magnusson, WMNH

Eric Steinhauser, Sanborn Head



TURNKEY RECYCLING & ENVIRONMENTAL ENTERPRISE

30 Rochester Neck Road Rochester, NH 03839 603 330 2197 603 330 2130 Fax

July 8, 2019

Mr. James B. Campbell, Director Planning and Development Department City of Rochester 31 Wakefield Street Rochester, New Hampshire 03867

Re: Waiver Request

Site Plan Application – Container Storage Area (CSA) Turnkey Recycling and Environmental Enterprise (TREE)

Rochester, New Hampshire

Dear Mr. Campbell:

Waste Management of New Hampshire, Inc. (WMNH) is requesting a waiver from the Site Plan Regulations (Regulations) for the above referenced project with respect to wetland areas (classified as Conservation Overlay District [COD] by the City's Zoning Ordinance). The waiver request is related to impacts to delineated jurisdictional wetland areas within or adjacent to the proposed project. Specifically, the waiver request is from Article III, Section 8 (C)(1) of the Regulations. We note that the proposed wetland impacts were discussed with the City's Conservation Commission (who visited the project site on July 15, 2017), the New Hampshire Department of Environmental Services (NHDES), the US Army Corps of Engineers (USACE), and the United States Environmental Protection Agency (USEPA). A Wetlands Permit Application, which included this project, was submitted to the NHDES Wetlands Bureau on May 19, 2017. The City was provided a copy of the Wetlands Permit Application, which included additional information regarding wetland impacts for this proposed project. The Conservation Commission approved the NHDES Wetland Permit Application on January 24, 2018 and a NHDES Wetlands Permit was issued on June 29, 2018, followed by a USACE General Permit on August 30, 2018.

BACKGROUND

Section 8 Part (C)(1) of the Regulations requires that applicants adhere to the regulations of the COD defined in the City's Chapter 42.12 of the Ordinance. For this project, the COD includes jurisdictional wetland areas and the 50-foot buffer from the edge of the wetland, as defined in the Ordinance. The enclosed Wetland Impact Figure 6¹ illustrates the proposed impacts to wetland Area CC and associated buffers from the CSA proposed project.

(4)

Previously provided to the City of Rochester in the initial submittal of the Site Plan Application for the TLR-III South Area in October 2017.

July 8, 2019
Mr. James B. Campbell
Page 2

WAIVER

This waiver request is for Article III, Section 8 (C)(1) of the Regulations. The impacted wetlands and buffer areas that are the subject of this waiver include approximately 0.26 acres of jurisdictional wetland area impact and 0.97 acres of impacted wetland buffer area, as shown on Figure 6. This wetland area and associated buffer, as defined in Ordinance Chapter 42.12(c), will be disturbed, in whole or in part, as discussed in the NHDES Wetland Permit Application (i.e., application for a dredge and fill permit as required by Ordinance Chapter 42.12(j)), approved on June 29, 2018. WMNH's proposed expansion of the CSA is needed to allow for continued operation of the facility, which supports the larger TREE Facility. The TREE Facility provides reliable and environmentally safe waste disposal for the citizens of the City and the State of New Hampshire.

The impacted wetland areas will be mitigated through land preservation as discussed with the NHDES Wetlands Bureau, US Army Corps, USEPA, and the City's Conservation Commission. Specifically, WMNH placed conservation restrictions on approximately 49 acres of Tax Map 267, Lot 62. This lot is located on the north side of the Cocheco River, a New Hampshire Rivers Management and Protection Program "Designated River," and is adjacent to approximately 35.1 acres (Tax Map 263, Lot 63) also protected under a conservation easement held by the Southeast Land Trust. These protected lands also abut the City of Rochester owned lands and are in the vicinity of other conservation lands along the river corridor.

We trust that the above information fully addresses the City's need for a waiver and Conditional Use request from COD requirements for this project. Should you require additional information, please contact me at (603) 330-2142 or mdevine@wm.com.

Sincerely,

WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.

Mark R. DeVine

Construction Project Manager

Manh P. Delline

Enclosures

Wetland Impact Figure

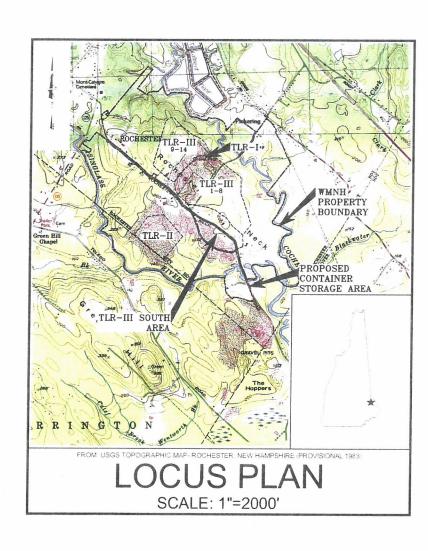
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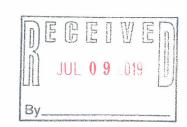
CONTAINER STORAGE AREA WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.

ROCHESTER, NEW HAMPSHIRE **JULY 2019**



SHEET INDEX

SHEET NO.	TITLE
1	NOTES, LEGEND, AND ABBREVIATIONS
2	OVERALL SITE AND ZONING PLAN
3	LOT PLAN
4	EXISTING CONDITIONS PLAN
5	PROPOSED SITE PLAN
6-7	STORMWATER MANAGEMENT DETAILS
8	EROSION & SEDIMENTATION CONTROL DETAILS



FOR MORE INFORMATION ABOUT THESE PLANS CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT 33 WAKEFIELD STREET, ROCHESTER NH 03867 (603) 335-1338

ROCHESTER PLANNING BOARD

DATE:

THE DEVELOPMENT DEPICTED IN THESE DRAWINGS MUST BE IN COMPLIANCE WITH ALL APPLICABLE LAW-INCLUDING ALL PERTINENT PROVISIONS OF THE "CITY OF ROCHESTER SITE PLAN REGULATIONS"- UNLESS OTHERWISE WAIVED.

PREPARED FOR:



PREPARED RY

SANBORN



WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. ROCHESTER, NEW HAMPSHIRE

> 20 FOUNDRY STREET, CONCORD, NEW HAMPSHIRE 03301 (603) 229-1900 FAX (603) 229-1919

REFERENCE NOTES

- EXISTING TOPOGRAPHY AND SITE FEATURES WERE PROVIDED TO SANBORN HEAD IN ELECTRONIC FILES TITLED "TREE19-01.DWG" THROUGH "TREE19-12.DWG" COMPILED USING PHOTOGRAMMETRIC METHODS BY QUANTUM SPATIAL OF DULLES VIRGINIA FOR WASTE MANAGEMENT OF NEW HAMPSHIRE. INC. (WMNH) USING AERIAL PHOTOGRAPHY DATED MAY 25, 2019 AT AN ORIGINAL SCALE OF 1" = 100 AND
- 2. VERTICAL DATUM IS BASED ON NGVD 1929. GRID IS BASED ON NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM NAD 1983.
- 3. WETLAND AREAS REPRESENT A COMPILATION OF INFORMATION DETERMINED USING EXISTING AERIAL PHOTOGRAPHY SOILS INFORMATION. U.S.F.W.S. NATIONAL WETLAND INVENTORY MAPS, AND DELINEATIONS WITHIN THE PROJECT AREA CONDUCTED IN OCTOBER AND DECEMBER 2014 AND SUPPLEMENTED WITH ADDITIONAL DELINEATIONS PERFORMED BETWEEN SEPTEMBER 2000 AND JUNE 2015 SEY BARRY H. KEITH, NH. CWS. 8087 I IN ACCORDANCE WITH HAVE ADMINISTRATIVE RULE WT 301.01 (1.4.C.) USING THE METHODS OUTLINED IN THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JANUARY 1987) AND FIELD IDENTIFYING HYDRIC SOILS IN NEW ENGLAND IVERSION II PUBLISHED BY THE N.E. INTERSTATE WATER POLLUTION CONTROL COMMISSION. WETLAND AREAS WERE CLASSIFIED IN ACCORDANCE WITH HAVES ADMINISTRATIVE RULE WT 301.02 USING THE USPWS/OBS-79/31 MANUAL. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES (COWARDIN ET AL. 1979)
- 4. LIMIT OF WETLANDS WERE MAPPED BY WSP TRANSPORTATION AND INFRASTRUCTURE, INC. USING TOTAL STATION SURVEY METHODS AND PROVIDED ELECTRONICALLY ON NOVEMBER 7: 2014 AND FEBRUARY 3, 2015, AND SUPPLEMENTED WITH LIMIT OF WETLANDS PREVIOUSLY
- 5. PROPERTY LINE INFORMATION WAS TAKEN FROM A PLAN TITLED "BOUNDARY COMPILATION AND FOOTPRINT COMPILATION OF TLR-I AND TLR-III. ROCHESTER NECK ROAD, GONIC NEW HAMPSHIRE" PREPARED FOR WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. BY CHAS H. SELLS. INC. OF NASHUA, NEW HAMPSHIRE DATED JANUARY 29, 2002 AT A SCALE OF 1" = 300.
- THE 100-YEAR FLOODPLAIN IS BASED ON INFORMATION PROVIDED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) "FLOOD INSURANCE RATE MAP. STRAFFORD COUNTY, NEW HAMPSHIRE" PANEL 302 OF 405. EFFECTIVE DATE SEPTEMBER 30, 2015. A PORTION OF THE PROPOSED PROJECT IS LOCATED WITHIN THE 100-YEAR FLOOD AREA.
- ZONING INFORMATION IS BASED ON THE CITY OF ROCHESTER, NH ZONING MAY PREPARED BY NORWAY PLAINS ASSOCIATES, INC. OF ROCHESTER, NH, ADOPTED ON April 14, 2014.
- 8 THE CONSERVATION OVERLAY DISTRICT INCLUDES JURISDICTIONAL WETLAND AREAS AND THE 50-FOOT BUFFER FROM THE EDGE OF WETLAND. AS DEFINED IN THE CITY OF ROCHESTER ZONING ORDINANCE. CHAPTER 42:12.

ABBREVIATIONS

DIAMETER	MH	MANHOLE
ASPHALT	MIN.	MINIMUM
ABOVE-GROUND STORAGE TANK	MSE	MECHANICALLY STABILIZED EARTH
CATCH BASIN	MW	MONITORING WELL
CEMETERY	N	NORTHING
CUBIC FEET PER MINUTE	O.C.	ON CENTER
CONCRETE	OD	OUTER DIAMETER
CORRUGATED METAL PIPE	P	PRIMARY
CORRUGATED POLYETHYLENE PIPE	PC	PERIMETER CHANNEL
CHANNEL WIDTH	PE	POLYETHYLENE
DROP INLET	PROJ	PROJECTING
DRAIN MANHOLE	PT	POINT OF TANGENCY
EASTING	PVC	POLYVINYL CHLORIDE
ELEVATION	RCP	REINFORCED CONCRETE PIPE
ENDWALL	RMC	RIGID METAL CONDUIT
FLARED END SECTION	S	SECONDARY
FIBERGLASS REINFORCED PLASTIC	SCH	SCHEDULE
GEOSYNTHETIC CLAY LINER	SDR	STANDARD DIMENSION RATIO
GROUND FAULT CIRCUIT INTERRUPTER	SS	STAINLESS STEEL
GAS PROBE	TC	TEMPORARY CULVERT
HIGH DENSITY POLYETHYLENE	TP	TEST PIT
HEAD WALL	TLR	TURNKEY LANDFILL OF ROCHESTER
HIGH POINT, HORSEPOWER	TRANS	TRANSFORMER
INVERT	TYP	TYPICAL
LEACHATE COLLECTION SYSTEM	UST	UNDER-GROUND STORAGE TANK
LEACHATE MANHOLE	W	WELL. GAS WELL
LANDFILL GAS	WD	WOOD
MAXIMUM	WH	WELLHEAD
	ASPHALT ABOVE-GROUND STORAGE TANK CATCH BASIN CEMETERY CUBIC PEET PER MINUTE CONCRETE CORRUGATED METAL PIPE CORRUGATED POL YETHYLENE PIPE CHANNEL WIDTH DROP INLET DRAIN MANHOLE EASTING ELEVATION ENDWALL FLARED END SECTION FIBERGLASS REINFORCED PLASTIC GEOSYNTHETIC CLAY LINER GROUND FAULT CIRCUIT INTERRUPTER GAS PROBE HIGH DENSITY POL YETHYLENE HEAD WALL HIGH POINT. HORSEPOWER INVERT	ASPHALT ABOVE-GROUND STORAGE TANK ABOVE-GROUND STORAGE TANK CATCH BASIN CEMETERY N CUBIC FEET PER MINUTE CORRUGATED METAL PIPE CORRUGATED POLYETHYLENE PIPE PCORRUGATED POLYETHYLENE PIPE DROP INLET DRAIN MANHOLE PT EASTING PVC ELEVATION RCP ELEVATION FIBERGLASS REINFORCED PLASTIC GEOSYNTHETIC CLAY LINER GROUND FAULT CIRCUIT INTERRUPTER SS GROUND FAULT CIRCUIT INTERRUPTER SS GAS PROBE HIGH DENSITY POLYETHYLENE HEAD WALL HIGH POINT. HORSEPOWER TRANS INVERT LEACHATE COLLECTION SYSTEM UST LEACHATE MANHOLE W LANDFILL GAS W UST

LEGEND

EXISTING CONDITIONS

PROPERTY LINE _ _ _ LOT LINE 2-FOOT ELEVATION CONTOUR ---- 10-FOOT ELEVATION CONTOUR EDGE OF ROAD - UNPAVED ROAD LIMIT OF WETLANDS EDGE OF WATER LIMIT OF 100-YEAR FLOODPLAIN OVERHEAD UTILITIES

FENCE

RIPRAP-LINED SWALE GABION-LINED SWALE

TREE LINE

WETLAND AREA

NATURAL WETLAND BUFFER AREA (50-FOOT)

UTILITY POLE

POST MISC OBJECT

> LIGHT POST TREE/BUSH

PROPOSED CONDITIONS

PHASE LIMIT 182 2-FOOT ELEVATION CONTOUR 180 10-FOOT ELEVATION CONTOUR LIMIT OF WORK -0-0-0-0- FILTER LOG ----- EDGE OF ROAD TREE LINE C-1 DRAINAGE CULVERT DESIGNATION BBBBB VEGETATED STORMWATER FEATURE × 213.50 SPOT ELEVATION \times HP HIGH POINT 8% SLOPE TRAFFIC FLOW ARROW SLOPE DIRECTION ARROW CATCH BASIN AND DESIGNATION CB-1 WETLAND IMPACT AREA

WETLAND BUFFER IMPACT AREA

FOR MORE INFORMATION ABOUT THESE PLANS. CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT. 33 WAKEFIELD STREET. ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD APPROVAL CERTIFIED BY:

DATE:

FOR PERMITTING PURPOSES ONLY

NOT FOR CONSTRUCTION



SCALE AS NOTED



DRAWN BY: S. SANTIAGO DESIGNED BY: S. SANTIAGO

REVIEWED BY: L. DAMIANO PROJECT MGR: L. DAMIANO

> PIC: E. STEINHAUSER DATE: JULY 2019

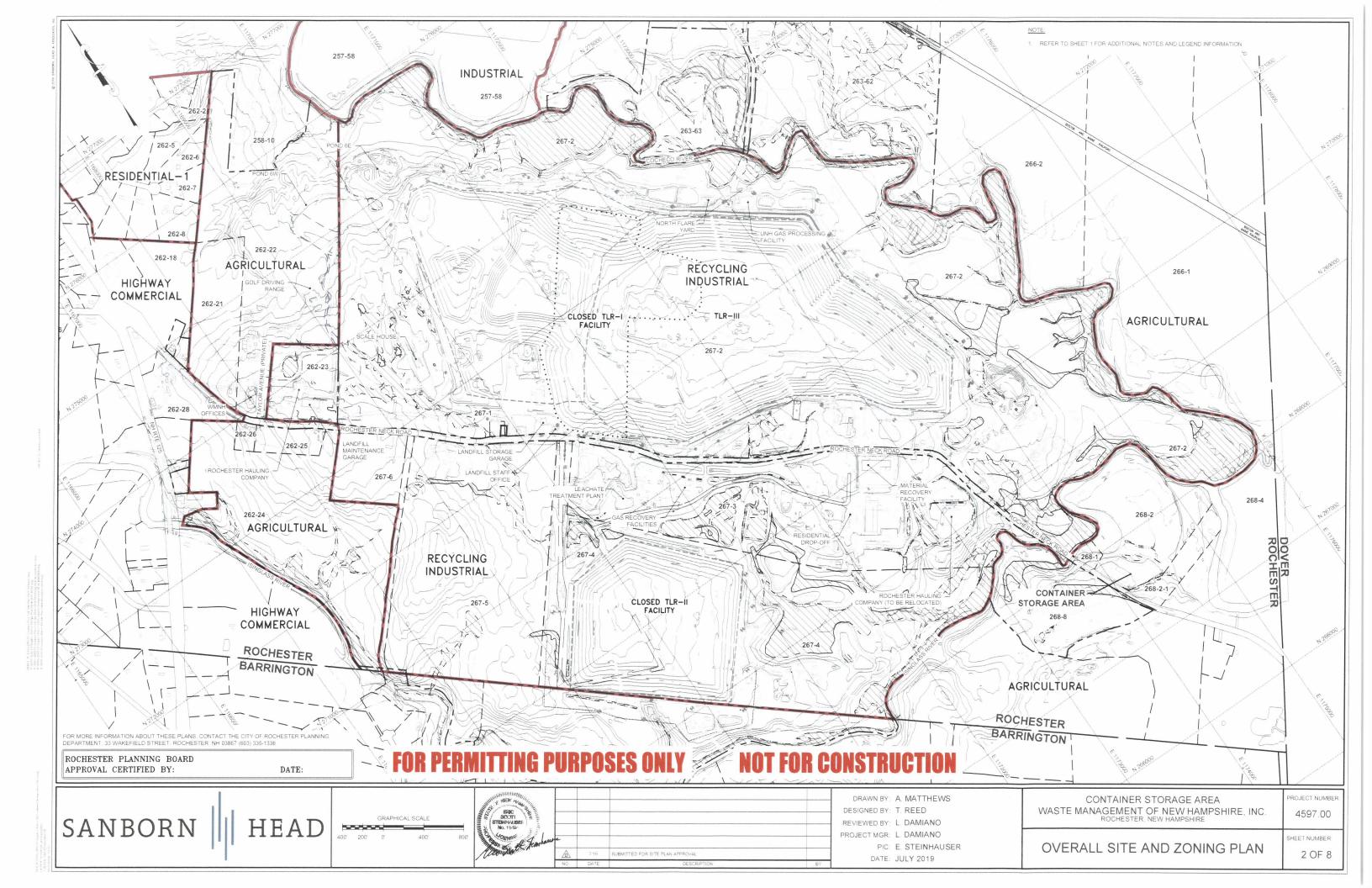
CONTAINER STORAGE AREA WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. ROCHESTER, NEW HAMPSHIRE

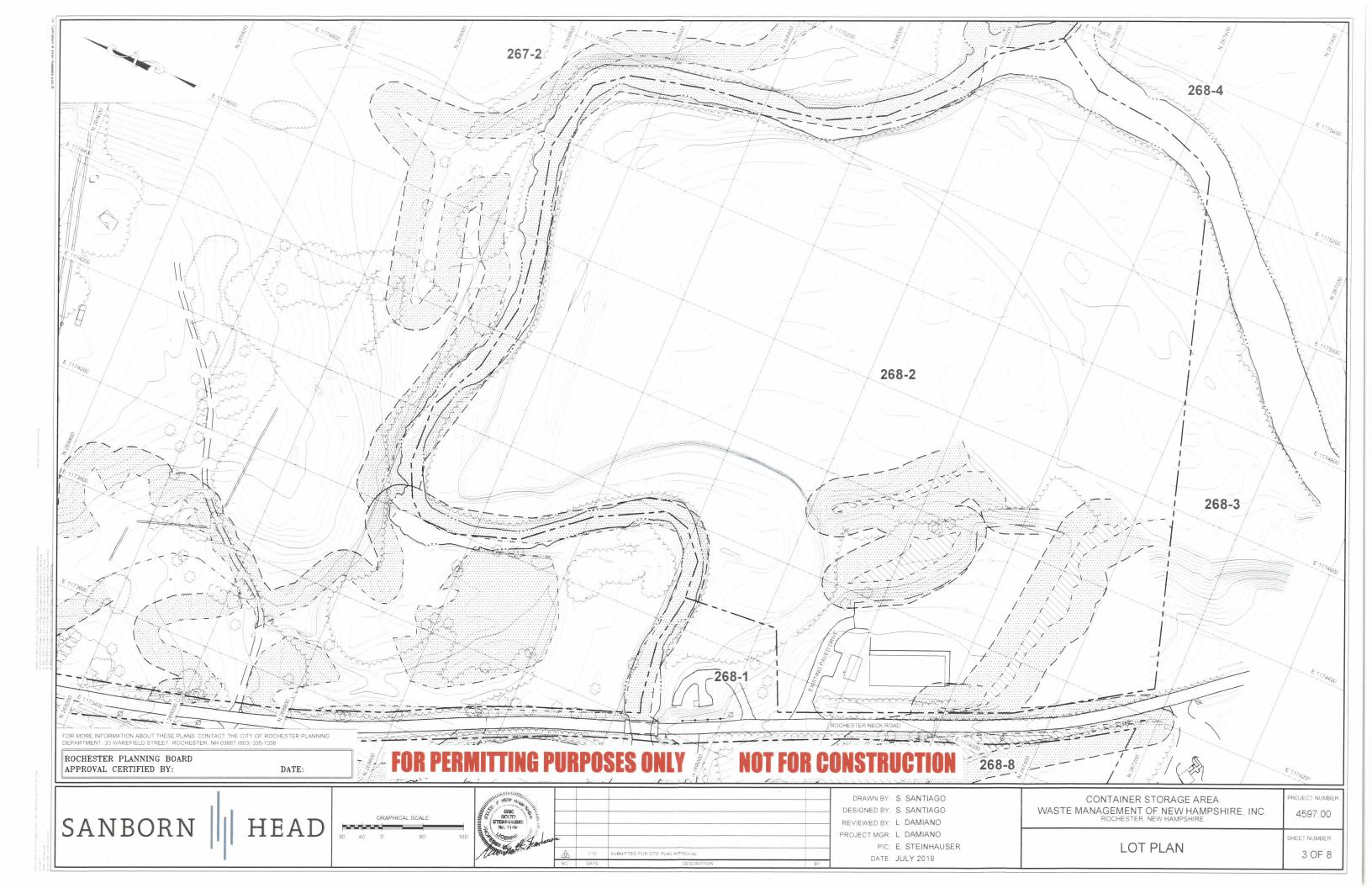
> NOTES, LEGEND, AND **ABBREVIATIONS**

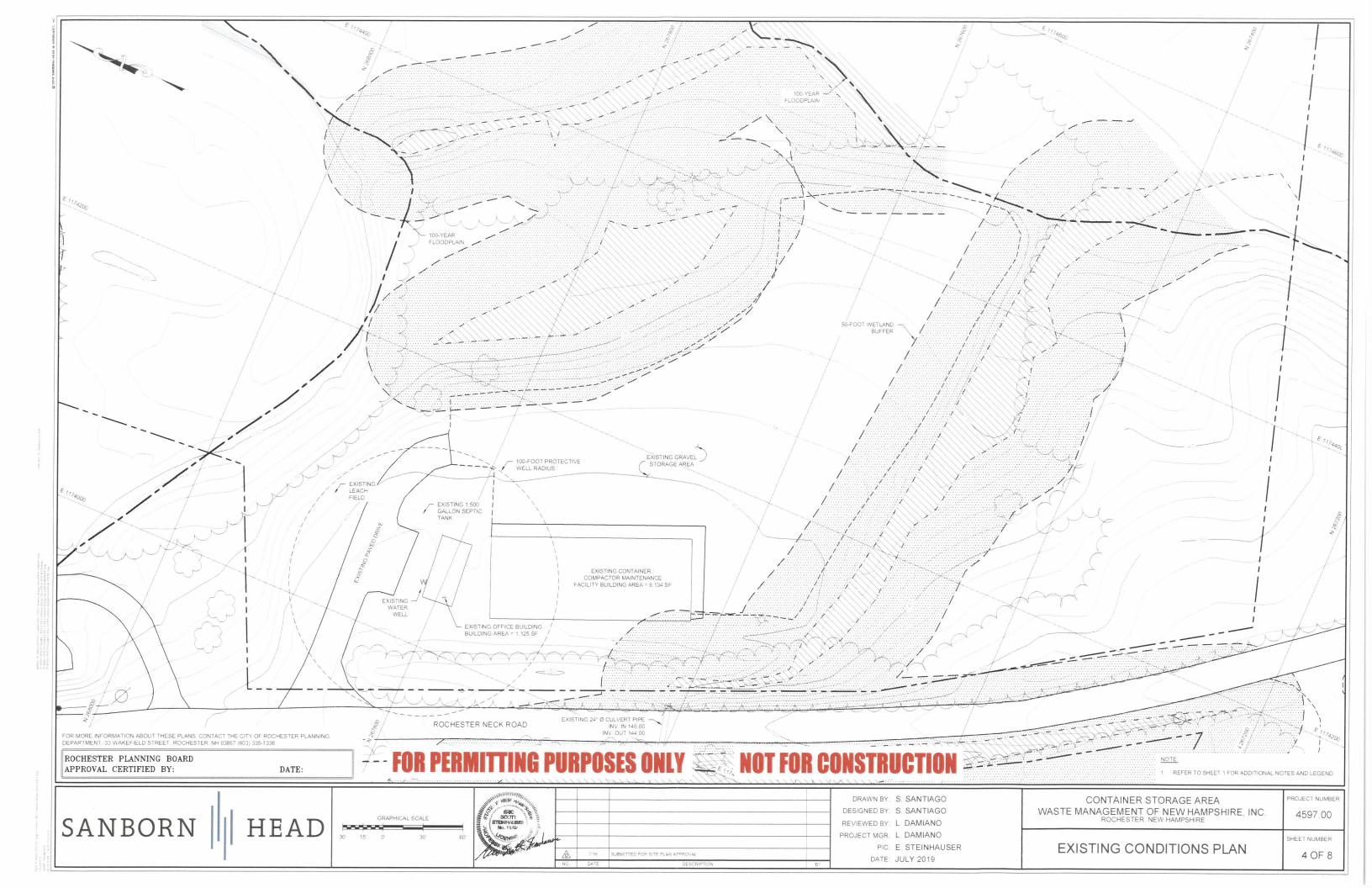
4597.00 HEET NUMBER

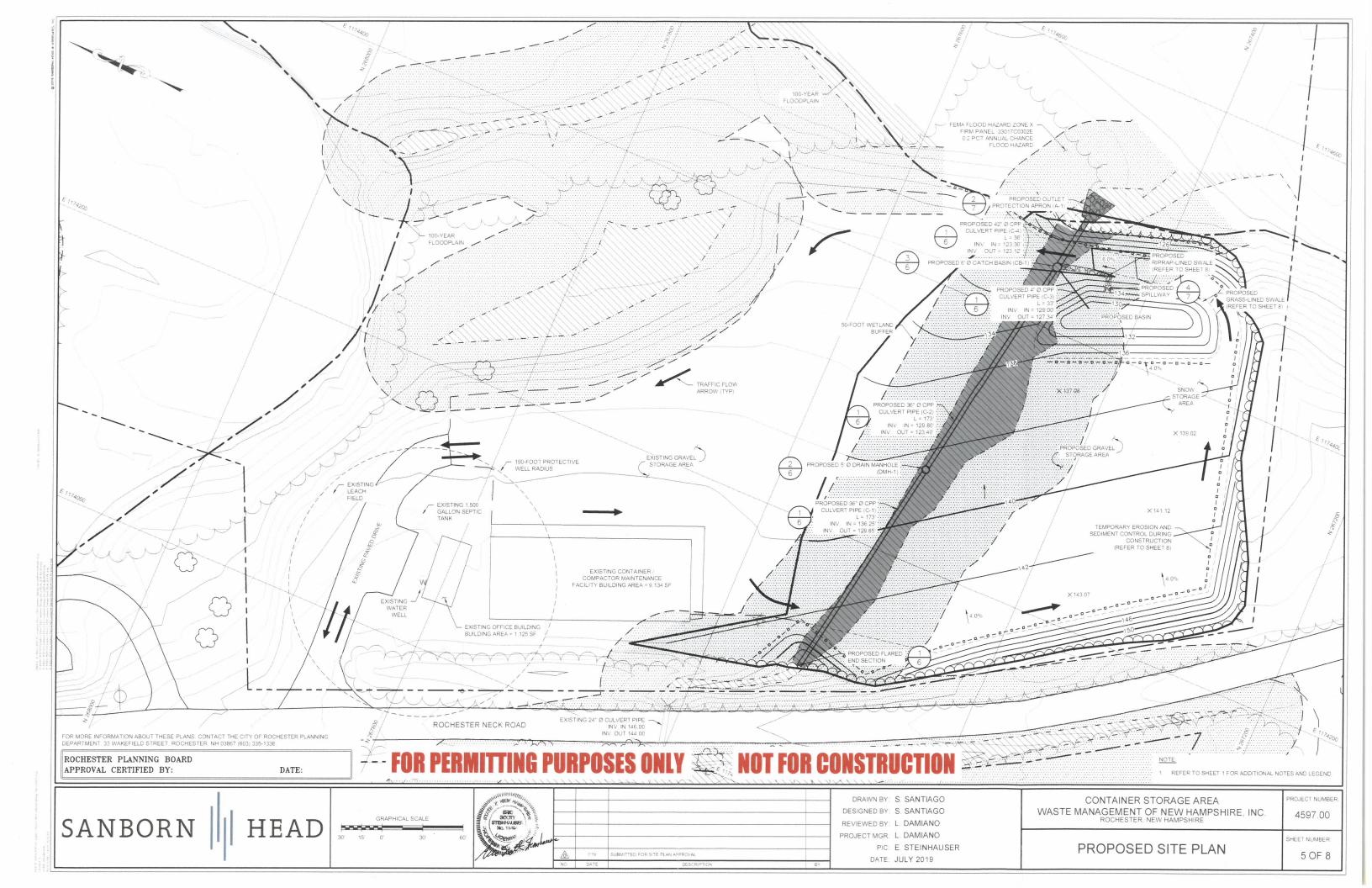
1 OF 8

ROJECT NUMBER











CULVERT SCHEDULE

CULVERT	TYPE	DIAMETER (IN)	LENGTH (FT)	SLOPE (FT/FT)	INLET END	OUTLET END	INV. IN (FT)	INV. OUT
C-1	CPP	36	173	0.0371	FES	DMH-1	136.25	129.85
C-2	CPP	36	173	0.0371	DMH-1	CB-1	129.80	123.40
C-3	CPP	4	33	0.0200	PROJ	CB-1	129.00	128.34
C-4	CPP	42	36	0.0050	CB-1	PROJ	123.30	123.12

NOTES:

- 1. THE PROPOSED INVERT ELEVATIONS SHOWN IN THE SCHEDULE ABOVE REPRESENT DESIGN ELEVATIONS THAT ARE BASED ON DESIGN OR EXISTING SWALE INVERT ELEVATIONS INTERPOLATED FROM AERIAL TOPOGRAPHY. THE INTENT IS THAT THE CULVERTS WILL BE INSTALLED WITH THE PROPOSED SLOPE AND ELEVATIONS AT THE INVERTS OF CORRESPONDING EXISTING SWALES OR CHANNELS. IF THE ACTUAL SWALE INVERT ELEVATIONS DIFFER SIGNIFICANTLY DURING INSTALLATION FROM THOSE INDICATED. OBTAIN APPROVAL FROM ENGINEER PRIOR TO BACKFILLING OVER THE PIPES. GRADES SHALL BE CONFIRMED FOR SHOP DRAWING APPROVAL BY ENGINEER.
- 2. THE LIST BELOW CONTAINS ABBREVIATIONS SHOWN SPECIFICALLY IN THIS SCHEDULE

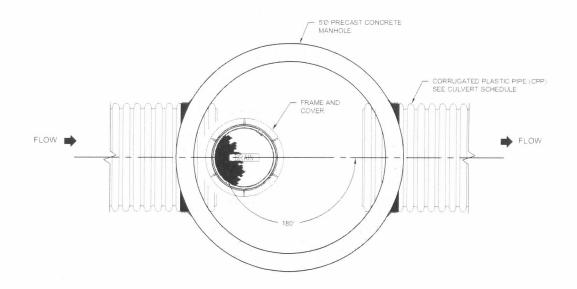
CB=CATCH BASIN
CPP = CORRUGATED POLYETHYLENE PIPE
PROJ=PROJECTING
FES = FLARED END SECTION
DMH = DRAIN MANHOLE

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE	SIZE	RIM ELEV.	INLET	OUTLET
CB-1	6'Ø	129.15	C-2/C-3/SWALE	C-4
DMH-1	5'0	138 55	G-1	C=2

NOTE:

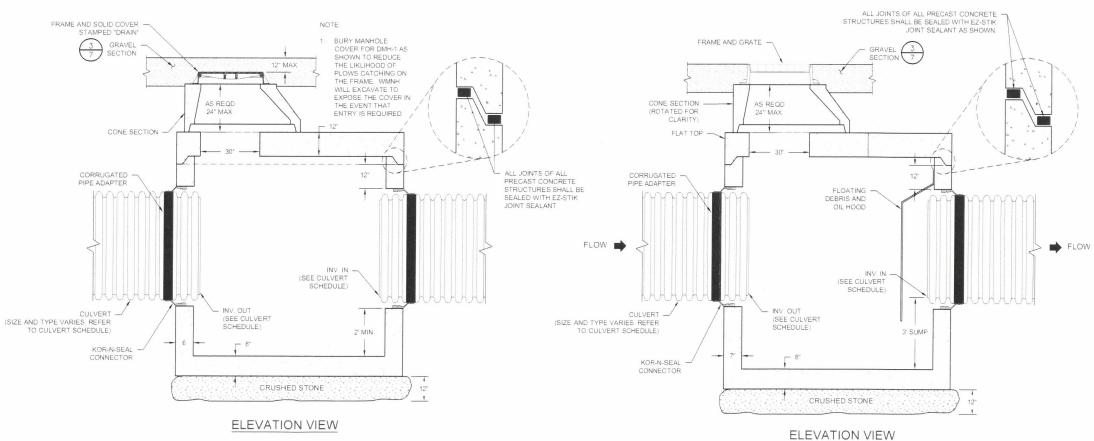
- PROVIDE FRAME AND SOLID COVER ON DRAIN MANHOLES AND FRAME AND GRATE ON CATCH BASINS. SEE DRAINAGE STRUCTURE PARTS LIST.
- 2 WALL THICKNESSES SHOWN ARE FOR REFERENCE ONLY. ACTUAL WALL THICKNESSES SHALL BE DETERMINED BY THE PRECAST CONCRETE MANUFACTURER AT TIME OF CONSTRUCTION.



FLOW FRAME AND GRATE TOP OF RIPRAP-LINED SWALE PLAN VIEW

 6'Ø PRECAST CONCRETE MANHOLE

PLAN VIEW





CATCH BASIN CB-1

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338

ROCHESTER PLANNING BOARD APPROVAL CERTIFIED BY:

DATE:

FOR PERMITTING PURPOSES ONLY

NOT FOR CONSTRUCTION



SCALE: AS NOTED



DRAWN BY: S. SANTIAGO

DESIGNED BY: S. SANTIAGO
REVIEWED BY: L. DAMIANO

PROJECT MGR: L. DAMIANO
PIC: E. STEINHAUSER
DATE: JULY 2019

STORMWATER MANAGEMENT DETAILS

CONTAINER STORAGE AREA
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.
ROCHESTER. NEW HAMPSHIRE

SHEET NUMBER:

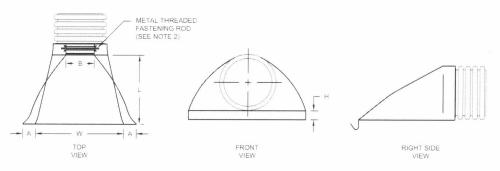
6 OF 8

ROJECT NUMBER

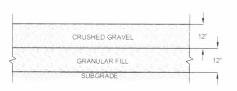
4597.00



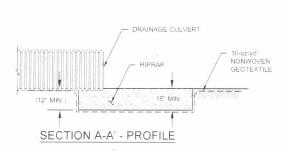
- THE INVERT OF THE PIPE AND THE END SECTION SHALL BE INSTALLED AT THE SAME ELEVATION
- METAL THREADED FASTENING ROD SHALL BE STAINLESS STEEL



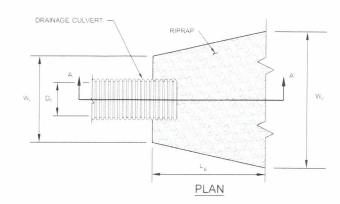
FLARED END SECTION







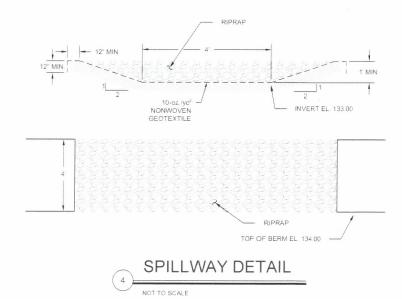
- $\begin{array}{l} D_0 = \text{CHANNEL DEPTH} \\ W_{0} = \text{UPGRADIENT APRON WIDTH} \\ L_0 = \text{APRON LENGTH} \\ W_{0} = \text{DOWNGRADIENT APRON WIDTH} \\ g_{0,0} = \text{REQUIRED SIZE OF 50% (BY WEIGHT) OF THE} \\ \text{RIPRAP STONE} \\ h = \text{MINIMUM RIPRAP BLANKET THICKNESS} \end{array}$



	RIPRAP	OUTLET PR	ROTECTION	APRON SC	HEDULE	
APRON	D ₀ (ft)	W _o (ft)	La (ft)	W _d (ft)	d ₈₀ (in)	h (in)
A-1	3.50	10.50	20	23.50	8	15

OUTLET PROTECTION APRON DETAIL

NOT TO SCALE



FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338

ROCHESTER PLANNING BOARD APPROVAL CERTIFIED BY:

DATE:

FOR PERMITTING PURPOSES ONLY

NOT FOR CONSTRUCTION

SANBORN

SCALE: AS NOTED



DRAWN BY: S. SANTIAGO DESIGNED BY: S. SANTIAGO REVIEWED BY: L. DAMIANO

PROJECT MGR: L. DAMIANO

PIC: E. STEINHAUSER DATE: JULY 2019

CONTAINER STORAGE AREA WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. ROCHESTER, NEW HAMPSHIRE

STORMWATER MANAGEMENT DETAILS

HEET NUMBER:

7 OF 8

ROJECT NUMBER

4597.00

- CONDUCT EARTHWORK ACTIVITIES SO THAT THE SMALLEST PRACTICAL AREA IS EXPOSED AT ANY ONE TIME PRIOR TO FINAL GRADING AND STABILIZING WITH SEED AND MULCH UNSTABILIZED AREA NOT WITHIN THE LANDFILL FOOTPRINT SHALL BE LIMITED TO NOT MORE THAN 2 CONTIGUOUS ACRES AT ANY ONE TIME. THE TERM "STABLE" IS DEFINED AS MEETING ONE OF THE FOLLOWING CRITERIA.
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED:
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
 A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE RIPRAP HAS BEEN INSTALLED. OR
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- APPLY SEED, LIME, FERTILIZER, AND HAY MULCH TO DISTURBED AREAS, NEWLY-PLACED FILL SLOPES, AND GRASS-LINED SWALES WITHIN 7 DAYS OF ACHIEVING FINAL GRADE, ALSO APPLY SEED AND HAY MULCH TO THOSE AREAS OUTSIDE OF THE LANDFILL FOOTPRINT WHICH WILL NOT BE RE-DISTURBED FOR A PERIOD OF 30 DAYS OR MORE. HAY MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TO 2 TONS PER ACRE.
- EROSION CONTROL STRUCTURES SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS AND AT THE DISCRETION OF THE ENGINEER AND OWNER. FILTER LOGS SHALL BE INSTALLED ALONG THE CONTOUR AND TOED UPSLOPE AND ARE TO BE MAINTAINED AND CLEANED UNTIL
- ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM EVENT WHICH PRODUCES 0.25 INCHES OF RAINFALL. ALL DAMAGED EROSION CONTROL BARRIERS SHALL BE REPAIRED PROMPTLY.
- TRACK UP AND DOWN REGRADED SLOPES (GROUSER TRACKS PERPENDICULAR TO THE SLOPE) WITH A BULLDOZER TO LIMIT EROSION
- REMOVE SEDIMENT RESULTING FROM CONSTRUCTION ACTIVITY AS NEEDED FROM DETENTION PONDS TO MAINTAIN STORAGE CAPACITY AND AT THE DIRECTION OF THE ENGINEER OF OWNER. DISPOSE SEDIMENT IN A SECURE LOCATION SO AS TO PREVENT SILTATION OF NATURAL WATERWAYS.
- REMOVE SEDIMENT BUILD UP FROM BEHIND EROSION AND SEDIMENT CONTROL DEVICES MAINTAIN TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES UNTIL FULL ESTABLISHMENT OF PERMANENT GROUND COVER.
- DITCHES, SWALES, AND PONDS SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING OF THE SITE) AND STABILIZED BEFORE RUNOFF IS DIRECTED TO THEM.
- CONDUCT SOIL BORROW EXCAVATION ACTIVITIES IN SUCH A MANNER THAT ALL RUNOFF FROM THE EXCAVATION AREAS IS CONTAINED WITHIN THE
- THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER Agr 3800 RELATIVE TO INVASIVE SPECIES

- FERTILIZER (10-10-10) SHALL BE LOW PHOSPHATE AND SLOW RELEASE NITROGEN AND APPLIED UNIFORMLY OVER THE DISTURBED AREA AT A RATE OF TWENTY (20) POUNDS PER 1,000 SQUARE FEET (APPROXIMATELY 875 POUNDS PER ACRE).
- GRASS SEED SHALL BE FROM THE SAME OR PREVIOUS YEAR'S CROP. EACH VARIETY OF SEED SHALL HAVE A PERCENTAGE OF GERMINATION NOT LESS THAN NINETY (90). A PERCENTAGE OF PURITY NOT LESS THAN EIGHTY-FIVE (85), AND SHALL HAVE NOT MORE THAN ONE PERCENT (1%) WEED
- MULCH SHALL CONSIST OF DRY HAY OR STRAW AND BE FREE OF NOXIOUS WEEDS OR MOLD
- APPLICATION OF FERTILIZER LIME, SEED. AND MULCH SHALL ONLY BE PERFORMED DURING THOSE PERIODS WITHIN THE SEASONS WHICH ARE NORMAL FOR SUCH WORK AS DETERMINED BY THE WEATHER AND LOCALLY ACCEPTED PRACTICE, AND AS APPROVED BY THE ENGINEER.
- ANY PART OF THE SEEDED AREA WHICH FAILS TO YIELD AN ACCEPTABLE STAND OF GRASS AS DETERMINED BY THE ENGINEER OR OWNER SHALL BE RETREATED WITH ADDITIONAL SEED. FERTILIZER. AND MULCH.

	GENERAL SEED) MIX
MIXTURE	POUNDS PER ACRE	POUNDS PER 1.000 SQ. FT.
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDSFOOT TREFOIL	8	0.20
TOTAL	48	1.10

NOTE: GENERAL SEED MIXTURE TO BE APPLIED TO AREAS OTHERWISE NOT SPECIFIED TO BE SEEDED WITH ANOTHER MIX.

- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3.1, AND SEEDING AND PLACING 3.TO 4.TONS OF MULCH PER ACRE. SECURED WITH ANCHORED NETTING. ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES. WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

TEMPORARY EROSION CONTROL MEASURES

- THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME
- EROSION CONTROL STRUCTURES SHALL BE INSTALLED ALONG THE EXISTING CONTOUR IN LOCATIONS SHOWN ON THE PLANS AND ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE BEEN ADEQUATELY STABILIZED
- ALL DISTURBED AREAS SHALL BE FINE GRADED BEFORE BEING SEEDED AND MULCHED
- FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL STRUCTURES ARE TO BE REMOVED AND ACCUMULATED SEDIMENT DISPOSED OF IN A SECURE LOCATION.
- EROSION CONTROL STRUCTURES SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED.

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338

ROCHESTER PLANNING BOARD APPROVAL CERTIFIED BY:

DATE:

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GEOTEXTILE

NOT FOR CONSTRUCTION



DESIGNED BY: S. SANTIAGO REVIEWED BY: L. DAMIANO PROJECT MGR: L. DAMIANO SUBMITTED FOR SITE PLAN APPROVA

SLOPE INSTALLATION SLOPE INSTALLATION NOTES DIMENSIONS GIVEN IN THE DRAWINGS ARE EXAMPLES: MATERIAL SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS

INSTALL FROSION CONTROL

BLANKETS IF REQUIRED

GRASS-LINED SWALE SWALE

RIPRAP-LINED SWALE SECTION

- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT
- APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH

CHANNEL INSTALLATION NOTES:

DIMENSIONS GIVEN IN THE DRAWINGS ARE EXAMPLES; MATERIAL SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

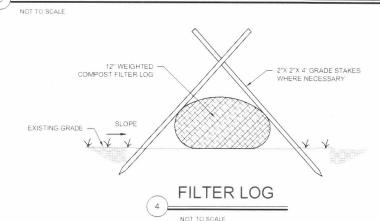
CHANNEL INSTALLATION

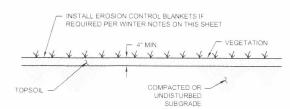
HECK SLOT AT 25' TERVALS

- CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURER'S SPECIFICATIONS.
- 3. STAKING OR STAPLING LAYOUT PER MANUFACTURER'S SPECIFICATIONS

SOURCE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3 EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" REVISION 1.0, DECEMBER 2008, PAGES 74 AND 75.

EROSION CONTROL BLANKET INSTALLATION





LOAM AND SEED

WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. ROCHESTER, NEW HAMPSHIRE **EROSION & SEDIMENTATION**

HEET NUMBER 8 OF 8

ROJECT NUMBER

4597.00

SANBORN ||| HEAD

SCALE: AS NOTED

PIC: E. STEINHAUSER DATE: JULY 2019

DRAWN BY: S. SANTIAGO

CONTROL DETAILS

CONTAINER STORAGE AREA