324-B-1
2000 Forest Ave.
Master Plan
Waste Mgmt. of Maine

on Spreadsheet

WMX Technologies, Inc. Corporate Information

Common Stock Listings

The Company's common stock is traded on the New York Stock Exchange under the symbol WMX.

The common stock is also listed for trading on the Chicago, Frankfurt and London Stock Exchanges, and the Swiss Stock Exchanges in Geneva, Zurich and Basle.

Common Stock Activity

The table below sets forth by quarter, for the last two years, the high and low sales prices of the Company's common stock on the New York Stock Exchange Composite Tape and the volume of shares traded as reported by The Wall Street Journal (Midwest edition).

1995	Volume
First Quarter	89,716,300
Second Quarter	71,824,200
Third Quarter	76,302,300
Fourth Quarter	81,227,200

	High	Low
First Quarter	29⅜	25¾
Second Quarter	28¾	26¾
Third Quarter	32½	28⅛
Fourth Quarter	30⅞	26⅝

1996	Volume
First Quarter	114,642,000
Second Quarter	135,600,700
Third Quarter	73,527,800
Fourth Quarter	78,738,100

	High	Low
First Quarter	32⅛	27⅓
Second Quarter	36⅛	31⅓
Third Quarter	33¼	28⅜
Fourth Quarter	36⅜	32⅛

At March 1, 1997, the Company had approximately 50,000 stockholders of record.

Additional Information

You may obtain, at no cost, copies of WMX Technologies' 1996 Form 10-K report, annual environmental report and quarterly reports by writing to:

WMX Technologies, Inc.
3003 Butterfield Road
Oak Brook, Illinois 60521
Attention: Communications Department

In addition, any stockholder may be placed on the Company's mailing list to receive quarterly reports by contacting the Company at (630) 572-8878. For information regarding other matters concerning your stockholdings in the Company, you may call toll-free at (800) WMX-1190.

Corporate Responsibility and Community Investment

WMX Technologies, Inc. is committed to serve the communities in which it operates. The Company supports and encourages this commitment through grants and resources that match not only the financial contributions of its people, but their volunteer service time as well. WMX has made communities all over the world better places in which to live by our people's participation in the Company's educational, environmental, health and medical, and community enhancement programs.

Transfer Agent and Registrar

Harris Trust and Savings Bank
311 West Monroe Street
Chicago, Illinois 60606

Dividend Reinvestment and Stock Purchase Plan

The WMX Technologies Dividend Reinvestment and Stock Purchase Plan provides owners of the Company's stock a convenient way to increase their holdings through automatic reinvestment of cash dividends, voluntary contributions of between $25 and $2,000 per month, or a combination of the two. WMX stockholders may enroll in the plan at any time.

For further information, call or write to:

Harris Trust and Savings Bank
Dividend Reinvestment Service
P.O. Box A3309
Chicago, Illinois 60690
(312) 360-5150

Consolidation of Multiple Accounts

To avoid receiving duplicate mailings, stockholders with more than one WMX Technologies registered account may wish to consolidate their stockholdings. For more information, contact Harris Trust and Savings Bank, Shareholder Services Division, 311 West Monroe Street, Chicago, Illinois 60606, Telephone (312) 360-5150.

Annual Meeting

The Annual Meeting of Stockholders will be conducted at 2:00 p.m. Friday, May 9, 1997 at the Drury Lane Theatre, 100 Drury Lane (Illinois Highway 83 and Roosevelt Road), Oakbrook Terrace, Illinois.

This book is printed on recycled paper and is recyclable.

ATTACHMENT 5

TECHNICAL QUALIFICATIONS

The engineering and operations staff at WMME include:

Jeff Taylor - General Manager
Jim Brown - Operations Manager
Paul Burns - Environmental Engineer

Resumes detailing personal experience are attached.

Jeffrey F. Taylor
5 Wynmoor Drive
Scarborough, Me. 04074

EMPLOYMENT

Waste Management of Maine, Inc.
General Manager June 1994 to present

Browning Ferris Industries
Various positions and locations August 1986 to June 1994

Pittsburgh, PA. - Assistant District Manager February 1992 to June 1994

Philadelphia, PA. - Assistant District Manager September 1991 to February 1992

Valley Forge, PA. - Operations Manager February 1990 to September 1991

Frederick, MD. - Satellite Manager May 1989 to February 1990

Hagerstown, MD. - Operations Manager September 1988 to May 1989

Baltimore, MD. - Safety Manager August 1986 to September 1988

EDUCATION

Anne Arundle Community College
Arnold, Maryland

Lyndon State College
Lyndonville, Vermont

CIVIC

Board of Directors Christmas in April
NSWMA Chairman legislative Committee
Lacrosse coach Back Bay Lacrosse Club

James J. Brown
16 Plummer Road
Raymond, Maine 04071
(207) 892-1448

EDUCATION:

Deering High School: Stevens Avenue, Portland, Maine.
Graduated: June 1981

Portland Regional Vocational Technical Center:
Allen Avenue, Portland, Maine.
Area of concentration: Building Construction

EMPLOYMENT:

Jan 1990 to Present

Operations Manager - Waste Management of Maine, Inc.
Portland, Maine (207) 797-8290
Supervisor: Jeff Taylor

April 1987 to Dec. 1989

Self Employed - Paradis Excavating
RFD 1 Box 38, Farmington, Maine (207) 778-3668
Duties: Heavy Equipment Operator

July 1981 to April 1987

Heavy Equipment Operator - White Brothers Contractors
95 Warren Avenue, Westbrook, Maine (207) 854-0436
Supervisor: Tim White

PAUL FRANCIS BURNS

40 Lake Ridge Drive
Sidney, Maine 04330
(207) 547-4229

EDUCATION

1986 BS Civil Engineering
University of Maine at Orono - Orono, Maine 04469

1984 Civil Engineering Technician Course
USAF Shepard AFB, Texas

PROFESSIONAL REGISTRATION

Registered Professional Engineer
Maine #7215 - New Hampshire #7646

EMPLOYMENT

AUG 1991 TO PRESENT:

SENIOR ENVIRONMENTAL ENGINEER - WASTE MANAGEMENT, INC.
WASTE MANAGEMENT DISPOSAL SERVICES OF MAINE, INC. - CROSSROADS, NORRIDGEWOCK, ME

- Responsible for interface with regulatory agency personnel for permitting, compliance and reporting activities associated with the active special waste landfill, closed municipal solid waste and asbestos waste landfills, inactive special waste landfills, two solid waste transfer stations, recycling facility, woodwaste recycling facility and associated administrative, maintenance and support facilities.

- Project management and engineering support for technical consulting and construction projects at Crossroads. Examples are:

    - Phases 9, 11 & 12 landfill expansion
    - Phase 10 landfill permitting and construction
    - Phase 7 landfill construction
    - MSW closure construction
    - Asbestos landfill closure construction

- Work closely with site operations personnel to continue Crossroads proactive environmental approach to ensure compliance with local, State, and Federal requirements as well as company policy.

MAR 1989 TO AUG 1991:

SENIOR PROJECT ENGINEER - WASTE MANAGEMENT, INC.
TURNKEY RECYCLING AND ENVIRONMENTAL ENTERPRISES, ROCHESTER, NH

- Project management and engineering support for technical consulting and construction projects at the TREE facility. Examples are:

    - acres of double synthetic lined landfill (TLR-11)
    - gas management system for the 46 acre TLR-1 landfill

- Provided technical support and assistance to landfill operations staff to ensure facility compliance with local, State and Federal requirements as well as company policy.

AUG 1988 TO MAR 1989:

PROJECT ENGINEER - CMA ENGINEERS, INC., PORTSMOUTH, NEW HAMPSHIRE

- Resident engineering during construction of a double synthetic liner system for a five acre residue landfill. Reviewed shop drawings, evaluated QA/QC documents, recommended acceptance of completed liner to client. Evaluated monthly pay requisitions, recommended payments by client. Prepared change orders, corresponded with NHDES relative to permit modifications required with construction changes.

- Solid Waste Landfill, Preliminary Design: Compiled survey, hydrogeologic data and prepared preliminary design of double lined landfill for a Solid Waste District in northern New Hampshire.

MAY 1986 TO AUG 1988:

PROJECT ENGINEER - KIMBALL CHASE COMPANY, INC., PORTSMOUTH, NEW HAMPSHIRE

- Construction plans and specifications for the first stage of a double lined ash landfill for a two state Solid Waste District involving expansion and detailing of permit level drawings, with inclusion of new state permit issues. Construction administration duties included shop drawing review change orders, resident engineering, construction meetings.

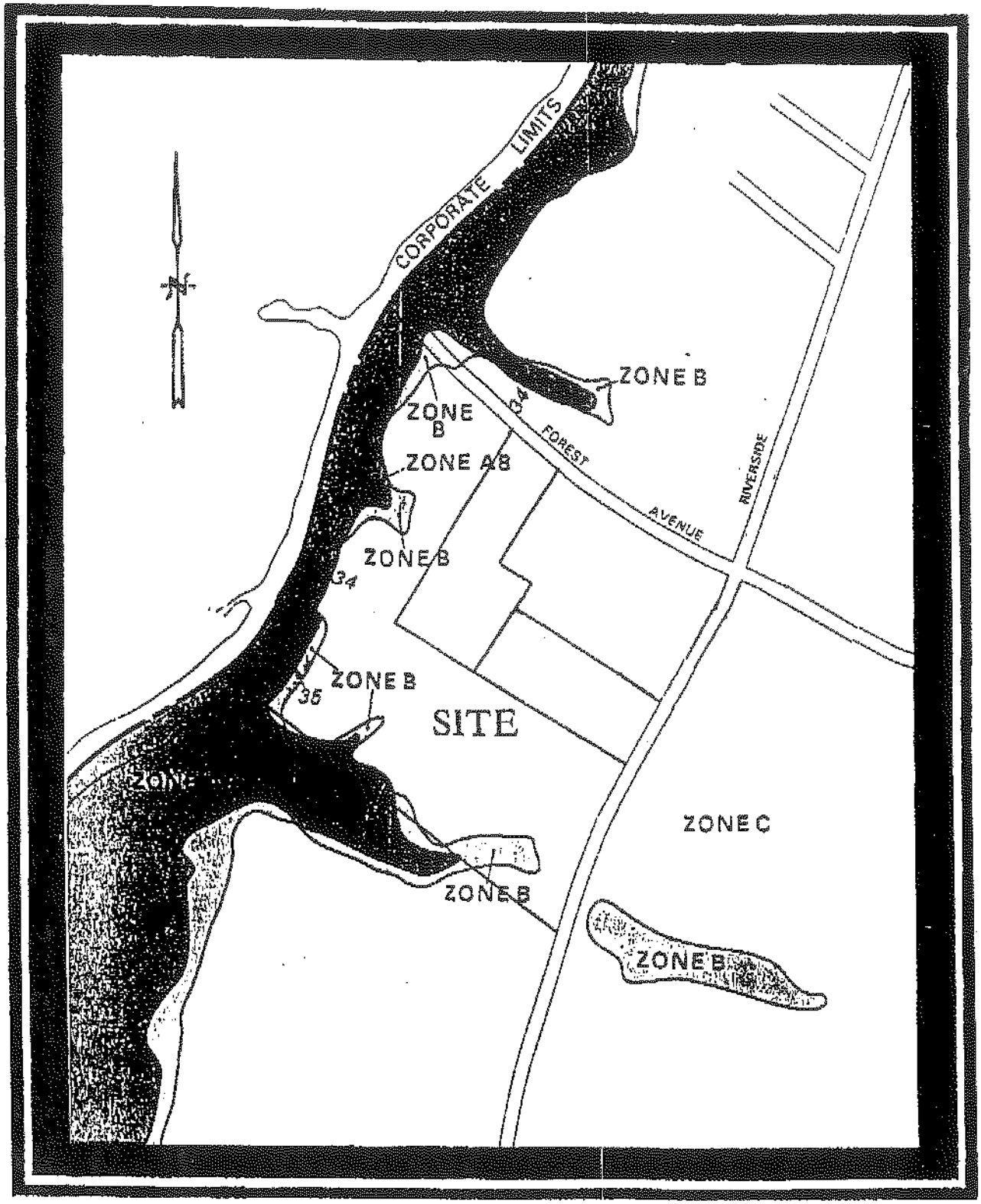
- Construction plans and specifications for the liner and leachate collection system in the first phase of a double lined ash/sludge landfill in New Hampshire. Provided construction administration duties including shop drawing review, change orders, resident engineering, construction meetings.

- Resident Engineer during construction of the first phase of a double synthetic lined landfill, construction of the first closure phase of the existing landfill on site, and on site construction of a temporary transfer station for town residents. Oversaw all inventory, coordination between site work contractor and liner contractor.

- Solid Waste Transfer Station and Sanitary Landfill Design: Collection and analysis of solid waste data from community officials. Equipment determination, complete site design and State approvals.

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers



FLOOD INSURANCE RATE MAP

PANEL # 230051 0001 B & 230051 0006 B

SCALE 1" = 400'

Sebago Technics

Engineering & Planning for the Future

ATTACHMENT 8

DISCLOSURE STATEMENT

This section includes the information requested in Paragraph H, Section 4 of Chapter 400.

- The applicant is:

  Waste Management of Maine, Inc.
  2000 Forest Avenue
  Portland, Maine 04103

- WMME was incorporated in the State of Maine on September 5, 1962.

- The officers of the company are:

  President
  James Rooney
  4 Liberty Lane West
  Hampton, NH 03842

  Vice President, Assistant Secretary, Treasurer
  Robert C. Biggs
  420 Lincoln Highway
  Fairless Hills, PA 19030

  Vice President, Secretary
  Thomas J. Jennings
  420 Lincoln Highway
  Fairless Hills, PA 19030

  Vice President
  Robert C. Biggs
  420 Lincoln Highway
  Fairless Hills, PA 19030

- There are no ongoing court proceedings or enforcement actions pending against WMME for violations to State environmental laws.

- During the past 10 years, WMME has not entered into any consent agreements with the State for violations of environmental laws. During that same timeframe, WMME received two Notices of Violation: one pertaining to the Rigby Road Facility while leased by WMME, and one pertaining to operation of the Kennebunk Transfer Station. All issues were corrected and no further action was undertaken by the Department.

EER Environmental Engineering & Remediation, Inc.

222 St. John Street, Suite 314, Portland, Maine 04102
Tel 207/828-1272

June 17, 1998

Mr. Richard Knowland, Planner
Planning Department
389 Congress Street
Portland, Maine 04101

Subject: **Waste Management of Maine, Inc.**
2000 Forest Avenue

Dear Rick:

As discussed in our phone conversation last week, Waste Management of Maine(WMME) is proposing to operate a containerized construction and demolition material consolidation area at the Forest Avenue site. WMME is proposing to consolidate smaller roll-off containers into larger trailers prior to transport to the disposal facility in order to reduce the number of trips to the disposal facility. The proposed consolidation area is located within the existing container storage gravel surface area and does not disturb any additional property. No additional improvements or modifications to the approved site plan are proposed. The attached plan indicates the 50' x 100' consolidation area. I have also enclosed applicable documents from WMME's application to DEP for the above discribed improvements.

I discussed the landscaping with Paul Burns of WMME. He indicated that they have not finished the landscaping due to the City's plans to extend a sewer line through their property and possibly disturb the proposed landscaped areas. They still plan to finish the landscaping once the City's work is complete. Paul was not sure what the City's time frame was.

I trust this information is sufficient for making a determination whether any City approvals are necessary. If approvals are not necessary, we will require a letter for WMME's submission to DEP.

Very truly,

Environmental Engineering
& Remediation, Inc.

Stephen J. Bradstreet

Stephen J. Bradstreet, P.E.

Document2

EER Environmental Engineering & Remediation, Inc.

222 St. John Street, Suite 314, Portland, Maine 04102
Tel 207/828-1272

June 24, 1998

Mr. Richard Knowland, Planner
Planning Department
389 Congress Street
Portland, ME 04101

Subject: **Waste Management of Maine, Inc.**
2000 Forest Avenue

Dear Rick:

As requested, we are providing information regarding:

- Physical dimensions of containers
- How spilled debris is handled

The smaller containers that can be seen in the existing gravel storage area 8' wide x 6' high x 20' long and have a capacity of ± 35 CY when full. The larger containers that material will be transferred into are 8' wide x 9.5' high x 40' long and have a capacity of ± 112 CY when full.

The attached Operations Manual, which has been prepared as part of the DEP submission, details in Sections 6 (page 4) the general site maintenance requirements.

I trust this information is sufficient for planning staff approval of the proposed improvements. If you have any questions, please give me a call.

Very truly,

Environmental Engineering
& Remediation, Inc.

Stephen J. Bradstreet, P.E.

Attachment

M:\EER\6-24KNOW.DOC

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ENGINEERS + SURVEYORS + PLANNERS

LESTER S. BERRY
JAMES R. McDONALD
THOMAS MILLIGAN, JR.
WILLIAM A. THOMPSON
MARK GRAY
TIMOTHY O. BROWN

October 13, 1993

John Mitchell
Mitchell & Associates
70 Center Street
Portland, ME 04101

Subject: Waste Management Parking Additions
Stormwater Modifications

Dear John:

Since publishing the stormwater management report for this project on October 6, 1993, the area found to be tributary to the wet pond/detention basin has almost tripled due to additional, existing portions of the site being made tributary to the basin.

Attached are revised calculations and a revised drainage plan showing the following:

1. The wet pond elevation changes to elevation 40.0
2. The outlet pipe from the outlet control structure changes to 24".
3. The orifice in the outlet control structure changes to 12" diameter.
4. The grating on the energy dissipation structure changes to a rack (see detail on Mitchell & Associates' drawings).

Please contact me with any questions or needs for additional information.

Sincerely,

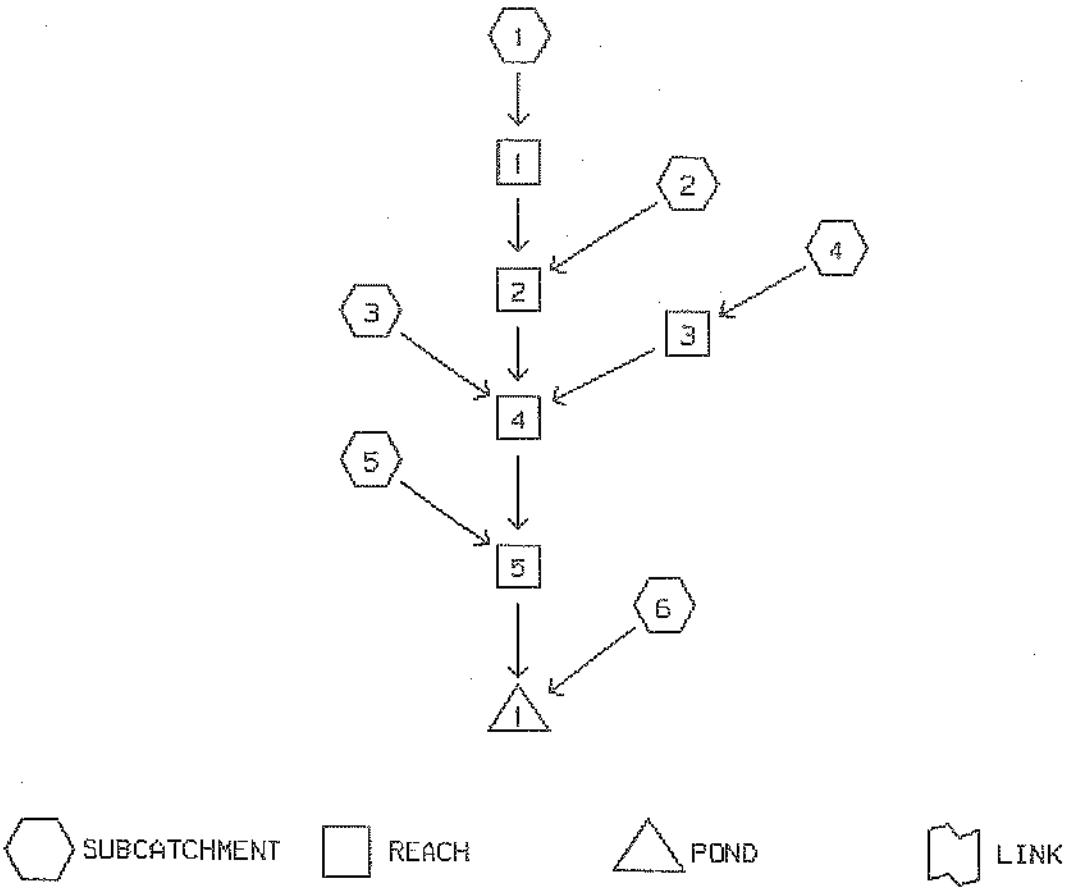
BERRY HUFF MCDONALD MILLIGAN, INC.

Mark Gray, P.E.

MG/mg
attachments

28 State Street • Gorham, Maine 04038 • 207-839-2771 • FAX 207-839-8250

WATERSHED ROUTING



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.5 IN, SCS U.H.

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	.44	6.0	100%74 - - -	74	-	1.3	12.04	.09
2	.75	6.0	61%74 39%98 - -	83	-	2.8	12.03	.20
3	.33	6.0	100%98 - - -	98	-	1.6	12.03	.12
4	.29	6.0	100%98 - - -	98	-	1.4	12.03	.10
5	.61	6.0	100%98 - - -	98	-	2.9	12.03	.21
6	4.85	6.0	11%61 44%85 45%98 -	88	-	20.4	12.03	1.48

REACH ROUTING BY STOR-IND METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)		n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	12.0	-	-	-	-	.013	55	.0098	4.2	.2	1.3
2	12.0	-	-	-	-	.013	121	.0171	6.6	.3	4.0
3	12.0	-	-	-	-	.013	74	.0050	3.3	.4	1.4
4	12.0	-	-	-	-	.013	91	.0344	9.6	.2	6.9
5	12.0	-	-	-	-	.013	40	.1250	17.7	0.0	9.8

POND ROUTING BY STOR-IND METHOD

POND NO.	OUTLET DEVICES	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	---PEAK FLOW--- Qin (CFS)	Qout (CFS)	ATTEN. (%)	LAG (MIN)
1	3	40.0	45.0	43.9	1.13	30.2	19.5	36	10.1

SUBCATCHMENT 1

ACRES	CN	
.44	74	C GRASS DEERFIELD

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.3 CFS @ 12.04 HRS
VOLUME= .09 AF

Method	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

SUBCATCHMENT 2

ACRES	CN	
.46	74	C GRASS DEERFIELD
.29	98	IMPERVIOUS
.75	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 2.8 CFS @ 12.03 HRS
VOLUME= .20 AF

Method	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

SUBCATCHMENT 3

ACRES	CN	
.33	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.6 CFS @ 12.03 HRS
VOLUME= .12 AF

Method	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

SUBCATCHMENT 4

ACRES	CN	
.29	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.4 CFS @ 12.03 HRS
VOLUME= .10 AF

Method	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

SUBCATCHMENT 5

ACRES	CN	
.61	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 2.9 CFS @ 12.03 HRS
VOLUME= .21 AF

Method	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

SUBCATCHMENT 6

ACRES	CN	
.55	61	B GRASS
2.12	85	B GRAVEL
2.18	98	IMPERVIOUS
4.85	88	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 20.4 CFS @ 12.03 HRS
VOLUME= 1.48 AF

Method	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

REACH 1

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.3
.3	.2	.7
.7	.6	3.0
.8	.7	3.4
.9	.7	3.8
.9	.8	3.8
1.0	.8	3.8
1.0	.8	3.5

12" PIPE

n= .013
LENGTH= 55 FT
SLOPE= .0098 FT/FT

STOR-IND METHOD
MAX. DEPTH= .39 FT
PEAK VELOCITY= 4.2 FPS
TRAVEL TIME = .2 MIN
Qin = 1.3 CFS @ 12.04 HRS
Qout= 1.3 CFS @ 12.05 HRS
ATTEN= 1 % LAG= .4 MIN
IN/OUT= .09 / .09 AF

REACH 2

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.4
.3	.2	.9
.7	.6	3.9
.8	.7	4.6
.9	.7	5.0
.9	.8	5.0
1.0	.8	5.0
1.0	.8	4.7

12" PIPE

n= .013
LENGTH= 121 FT
SLOPE= .0171 FT/FT

STOR-IND METHOD
MAX. DEPTH= .68 FT
PEAK VELOCITY= 6.6 FPS
TRAVEL TIME = .3 MIN
Qin = 4.1 CFS @ 12.04 HRS
Qout= 4.0 CFS @ 12.05 HRS
ATTEN= 2 % LAG= .7 MIN
IN/OUT= .30 / .30 AF

REACH 3

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.2
.3	.2	.5
.7	.6	2.1
.8	.7	2.5
.9	.7	2.7
.9	.8	2.7
1.0	.8	2.7
1.0	.8	2.5

12" PIPE

n= .013
LENGTH= 74 FT
SLOPE= .005 FT/FT

STOR-IND METHOD
MAX. DEPTH= .50 FT
PEAK VELOCITY= 3.3 FPS
TRAVEL TIME = .4 MIN
Qin = 1.4 CFS @ 12.03 HRS
Qout= 1.4 CFS @ 12.04 HRS
ATTEN= 2 % LAG= .7 MIN
IN/OUT= .10 / .10 AF

REACH 4

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.6
.3	.2	1.3
.7	.6	5.5
.8	.7	6.5
.9	.7	7.0
.9	.8	7.1
1.0	.8	7.0
1.0	.8	6.6

12" PIPE

n= .013
LENGTH= 91 FT
SLOPE= .0344 FT/FT

STOR-IND METHOD
MAX. DEPTH= .81 FT
PEAK VELOCITY= 9.6 FPS
TRAVEL TIME = .2 MIN
Qin = 7.0 CFS @ 12.04 HRS
Qout= 6.9 CFS @ 12.05 HRS
ATTEN= 1 % LAG= .4 MIN
IN/OUT= .52 / .52 AF

REACH 5

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.3
.2	.1	1.1
.3	.2	2.5
.7	.6	10.5
.8	.7	12.3
.9	.7	13.4
.9	.8	13.5
1.0	.8	13.4
1.0	.8	12.6

12" PIPE

n= .013
LENGTH= 40 FT
SLOPE= .125 FT/FT

STOR-IND METHOD
MAX. DEPTH= .64 FT
PEAK VELOCITY= 17.7 FPS
TRAVEL TIME = 0.0 MIN
Qin = 9.8 CFS @ 12.04 HRS
Qout= 9.8 CFS @ 12.04 HRS
ATTEN= 0 % LAG= .1 MIN
IN/OUT= .73 / .73 AF

POND 1

STARTING ELEV= 40.0 FT
FLOOD ELEV= 45.0 FT

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
35.0	1250	0	0
40.0	5500	16875	16875
45.0	11375	42188	59063

STOR-IND METHOD
PEAK ELEVATION= 43.9 FT
PEAK STORAGE = 49374 CF
Qin = 30.2 CFS @ 12.04 HRS
Qout= 19.5 CFS @ 12.20 HRS
ATTEN= 36 % LAG= 10.1 MIN
IN/OUT= 2.21 / 2.01 AF

INVERT (FT)	OUTLET DEVICES
43.0	5' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/2 L=Length-2(.1 H)
44.0	12' BROAD-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.2, 3.2, 3.2, 3.2, 3.2, 3.2, 3.2, 3.2
41.0	12" HORIZONTAL ORIFICE Q=.6 Area SQR(2gH)

TOTAL DISCHARGE vs ELEVATION

FEET	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.0	0.0	1.2	1.7	2.1	2.4	2.7	2.9	3.2	3.4	3.6
42.0	3.8	4.0	4.1	4.3	4.5	4.6	4.8	4.9	5.1	5.2
43.0	5.3	6.0	7.1	8.4	10.0	11.8	13.8	15.9	18.2	20.6
44.0	23.2	27.1	32.2	38.0	44.4	51.5	59.0	67.0	75.5	84.4
45.0	93.7									

BH2M BERRY • HUFF • McDONALD • MILLIGAN • INC.

ENGINEERS • SURVEYORS • PLANNERS

28 State Street · Gorham, Maine 04038

(207) 839-2771 FAX (207) 839-8250

JOB

SHEET NO. OF

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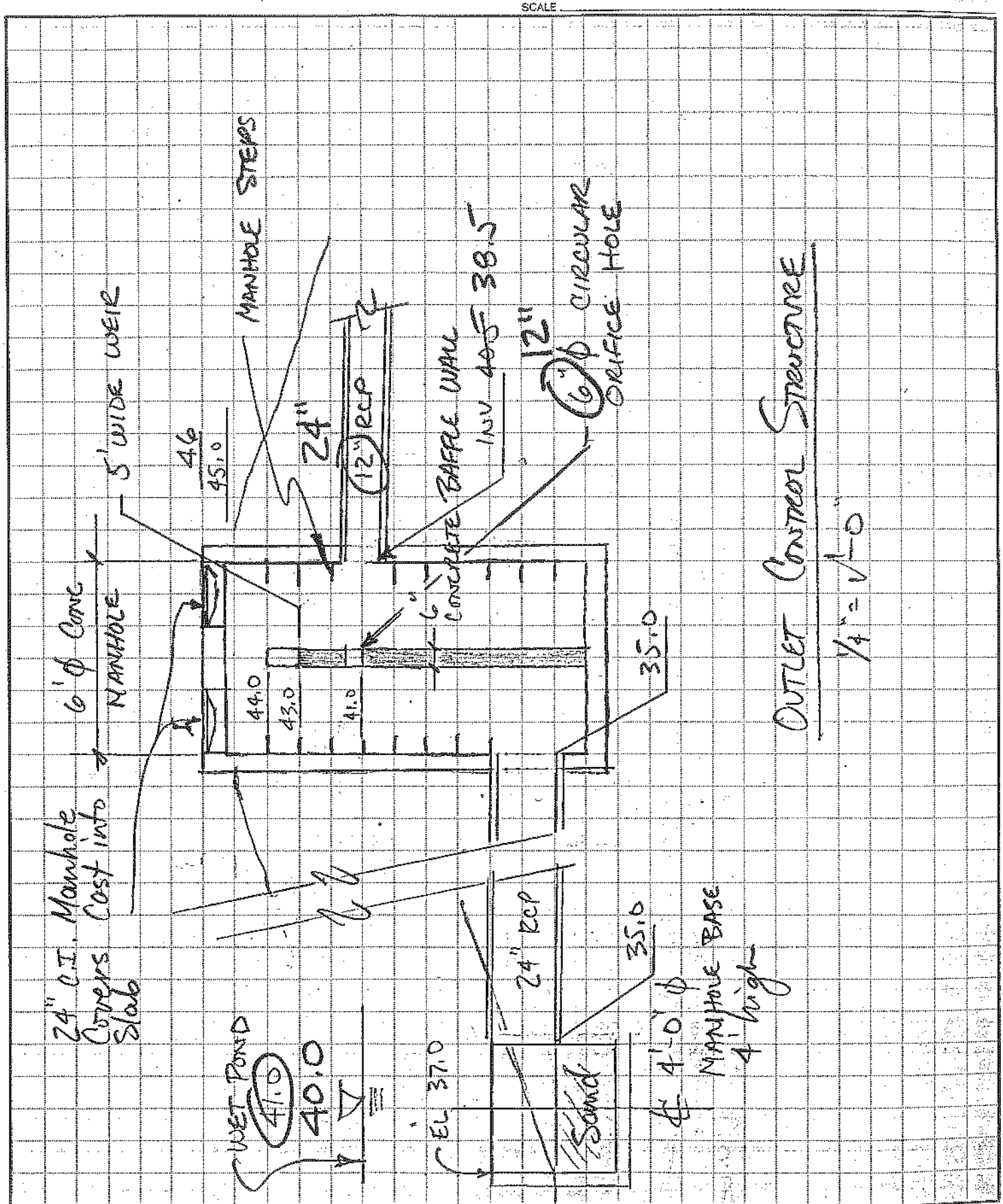

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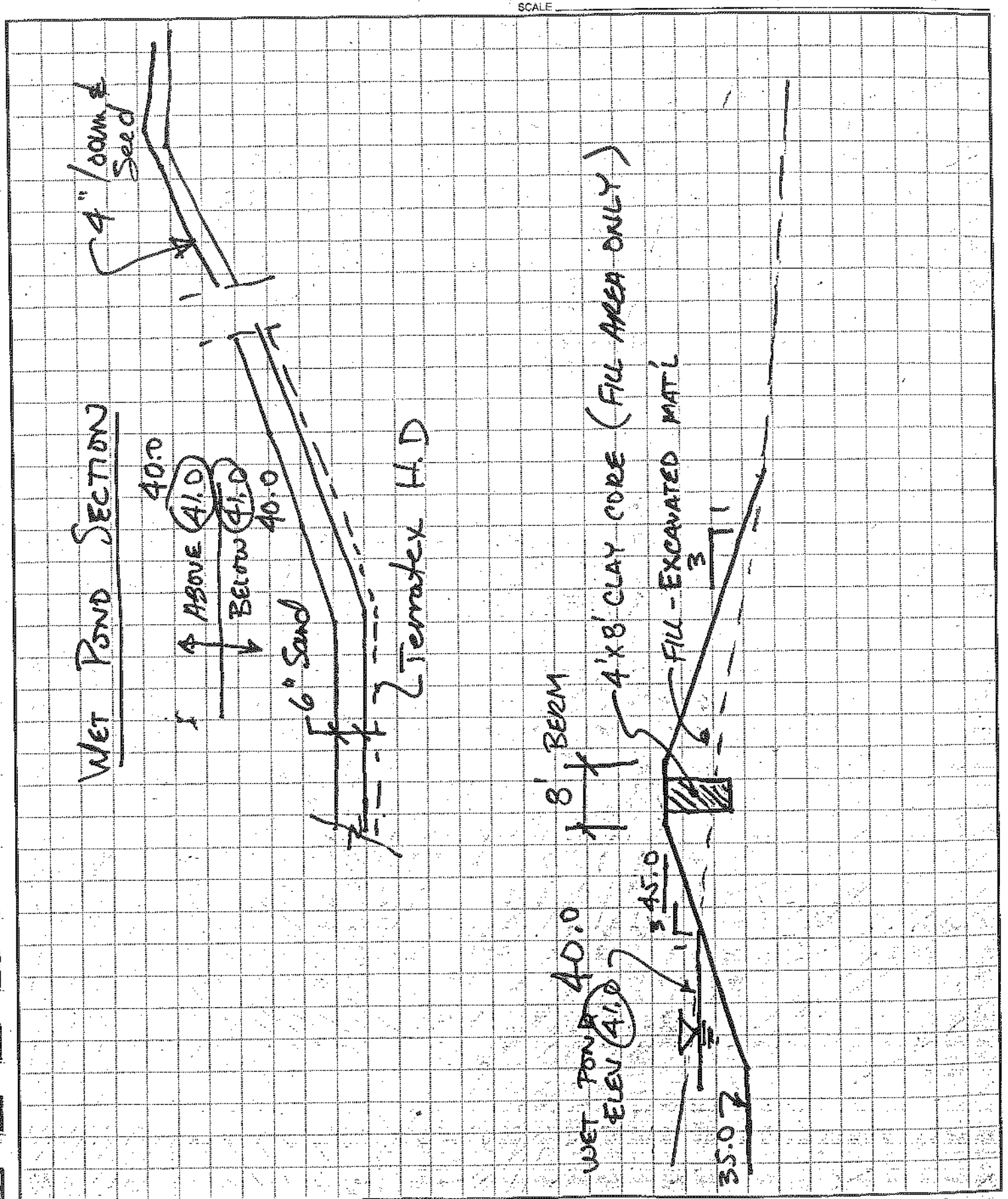
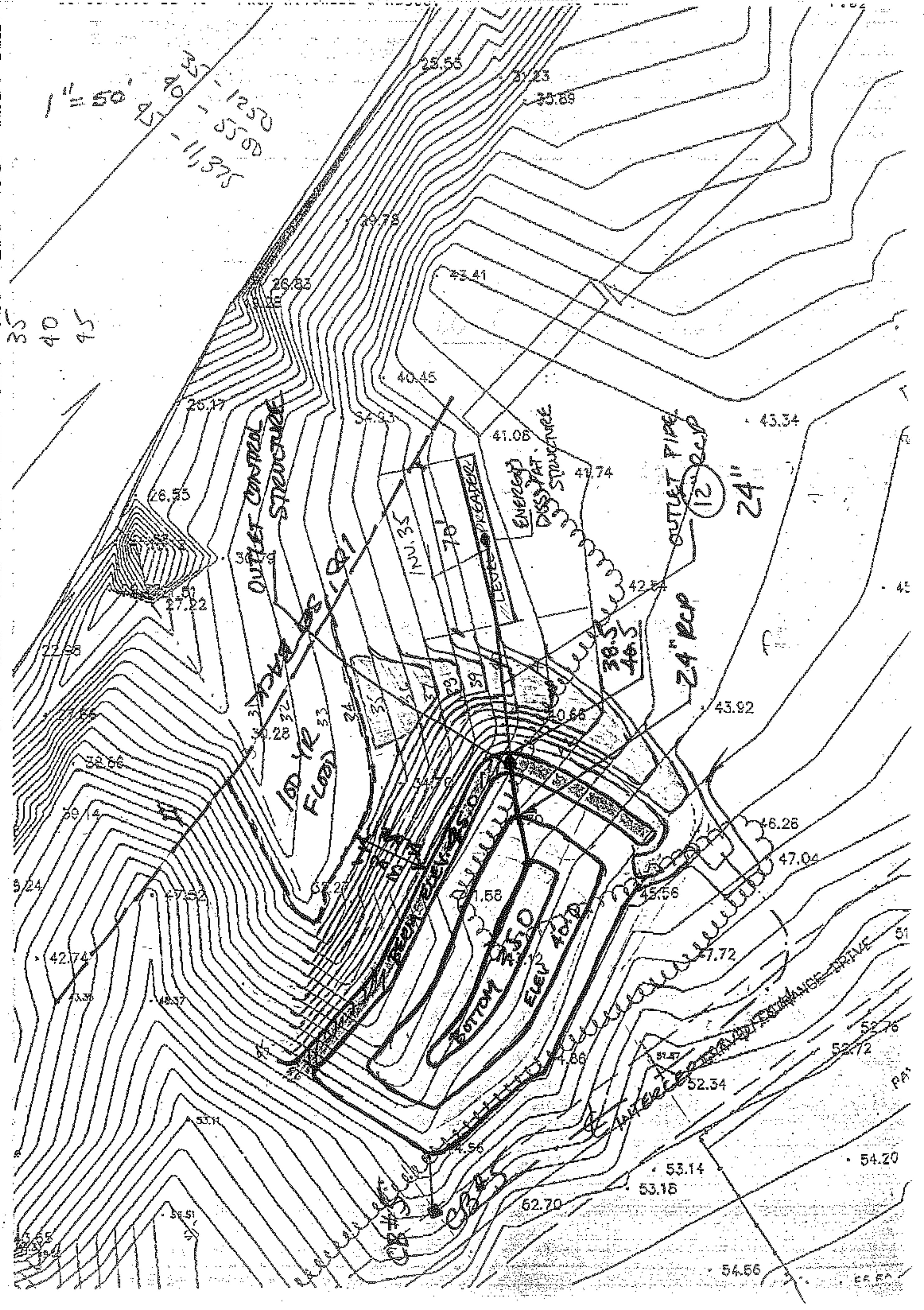




1" = 50'
35
40
45
OUTLET CONTROL STRUCTURE
ENERGY DISSIPAT. STRUCTURE
LEVEL SPREADER
OUTLET PIPE
24"
24" RCP
100 YR FLOOD
BOTTOM 35.0
ELEV 40.0
INTERCHANGE DRIVE
43.41
40.45
41.08
41.74
42.54
43.34
43.92
46.26
47.04
45.56
47.72
26.83
26.17
26.55
27.22
30.28
47.52
42.74
53.14
53.16
52.70
54.20
52.34
54.56

BH2M BERRY • HUFF • McDONALD • MILLIGAN • INC.
ENGINEERS • SURVEYORS • PLANNERS
28 State Street · Gorham, Maine 04038
(207) 839-2771 FAX (207) 839-8250

JOB
SHEET NO. OF
CALCULATED BY DATE
CHECKED BY DATE
SCALE

Wet Pond

Minimum Volume of Wet Pond Portion of Basin

$$2.42\ Ac \times 0.5\ in \times \frac{1\ FT}{12\ in} \times \frac{43{,}560\ SF}{Ac} = 4392.3\ CF \quad \rightarrow \quad 13{,}195$$

Volume of Wet Pond Below Elevation ~~410~~ 40

~~25,313 CF > 4,400 OK!!~~

16,875 CF > 13,195 OK

CULVERTS

DIAMETER (IN)	? 24
LENGTH (FT)	? 140
FRICTION COEFF (FT^1/6)	? .013
ENT+EXIT COEFF	? 1.3
INLET CONTROL COEFF	? .6
INV ELEV OUT (FT)	? 34.74
INV ELEV IN (FT)	? 38.5
TAILWATER ELEV (FT)	? 40
ELEV INCREMENT (FT)	? .5

RESULTS

HEADWATER (FT)		FLOWRATE (CFS)
40.50	OC	10.23
41.00	OC	14.46
41.50	OC	17.71
42.00	OC	20.45
42.50	OC	22.87
43.00	OC	25.05
43.50	OC	27.06
44.00	OC	28.93
44.50	OC	30.68
45.00	OC	32.34
45.50	OC	33.92
46.00	OC	35.43
46.50	OC	36.87
47.00	OC	38.26
47.50	OC	39.61
48.00	OC	40.91

<Shift> <Prt Sc> print <Return> repeat <Space Bar> back to menu

PIPE BETWEEN OUTLET CONTROL STRUCTURE AND LEVEL SPREADER

WEIRS

Enter up to 10 weirs.
Enter <Return> only for flowrate and length to end.

FLOWRATE (CFS)	LENGTH (FT)	COEFF (-)	HEAD (FT)
19.50	70.0	3.200	0.20

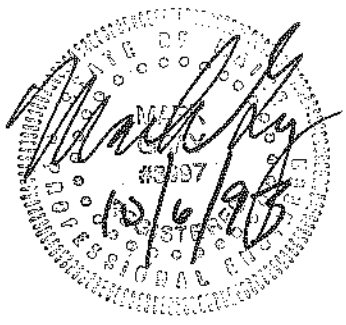
Velocity
1.39 FT/SEC

ALLOWABLE 2.5 CFS
Hartland Soils
Downslope gradient
= 8.75%

STORMWATER MANAGEMENT REPORT
FOR
WASTE MANAGEMENT, FOREST AVENUE
PORTLAND, MAINE

PREPARED FOR
MITCHELL & ASSOCIATES
PORTLAND, MAINE

DATE: OCTOBER 6, 1993



Prepared by: BH2M
Berry Huff McDonald Milligan, Inc.
Engineers Surveyors Planners
28 State Street
Gorham, Maine 04038
Telephone: (207) 838-2771
Fax: (207) 839-8250

STORMWATER MANAGEMENT REPORT FOR WASTE MANAGEMENT, FOREST AVENUE PORTLAND, MAINE

SUMMARY AND CONCLUSIONS

The additional parking and vegetated container storage area to be added to the existing facility at the corner of Forest Avenue and Riverside Street with the addition of a closed drainage system will generate some additional runoff from the site. Since the site abuts the Presumpscot River, detention/storage is not necessary to protect the receiving body of water but two issues remain. The first issue is the requirement that the discharged runoff water not create any instability in the already quite well vegetated and stabilized land between the developed portion of the site and the River. The second issue involves making provisions to provide for some level of treatment for the stormwater discharged from the site. Both issues have been addressed with the proposed plan. The runoff from the parking areas and vegetated storage areas tributary to the storm drain system is collected in catch basins, transported in drain pipes and discharged to a wet pond, which in turn discharges the stormwater runoff to a level spreader. The water proceeds down the vegetated slope in an unchannelized fashion, receiving some level of treatment from the sedimentation in the catch basins, the wet pond, the level spreaders, and the contact with the vegetation on the slope, prior to entering the river.

GENERAL

A stormwater management report has been prepared to assure that stormwater is properly collected and discharged in a manner consistent with the standards of the City of Portland, and good engineering practice.

EXISTING SITE CONDITIONS

The existing site consists of several buildings, paved parking and access drives from both Riverside Street and Forest Avenue. Drainage currently sheets off the northerly edge of the paved area, and proceeds over the embankment toward the Presumpscot River. The existing soils in the upland area are mapped as Hartland, Elmwood and Deerfield. Refer to the attached SCS Medium Intensity Map.

The site is located on the northwest corner of the intersection of Riverside Street with Forest Avenue. Refer to the attached USGS Quad map location map showing the project location.

PROPOSED DEVELOPMENT

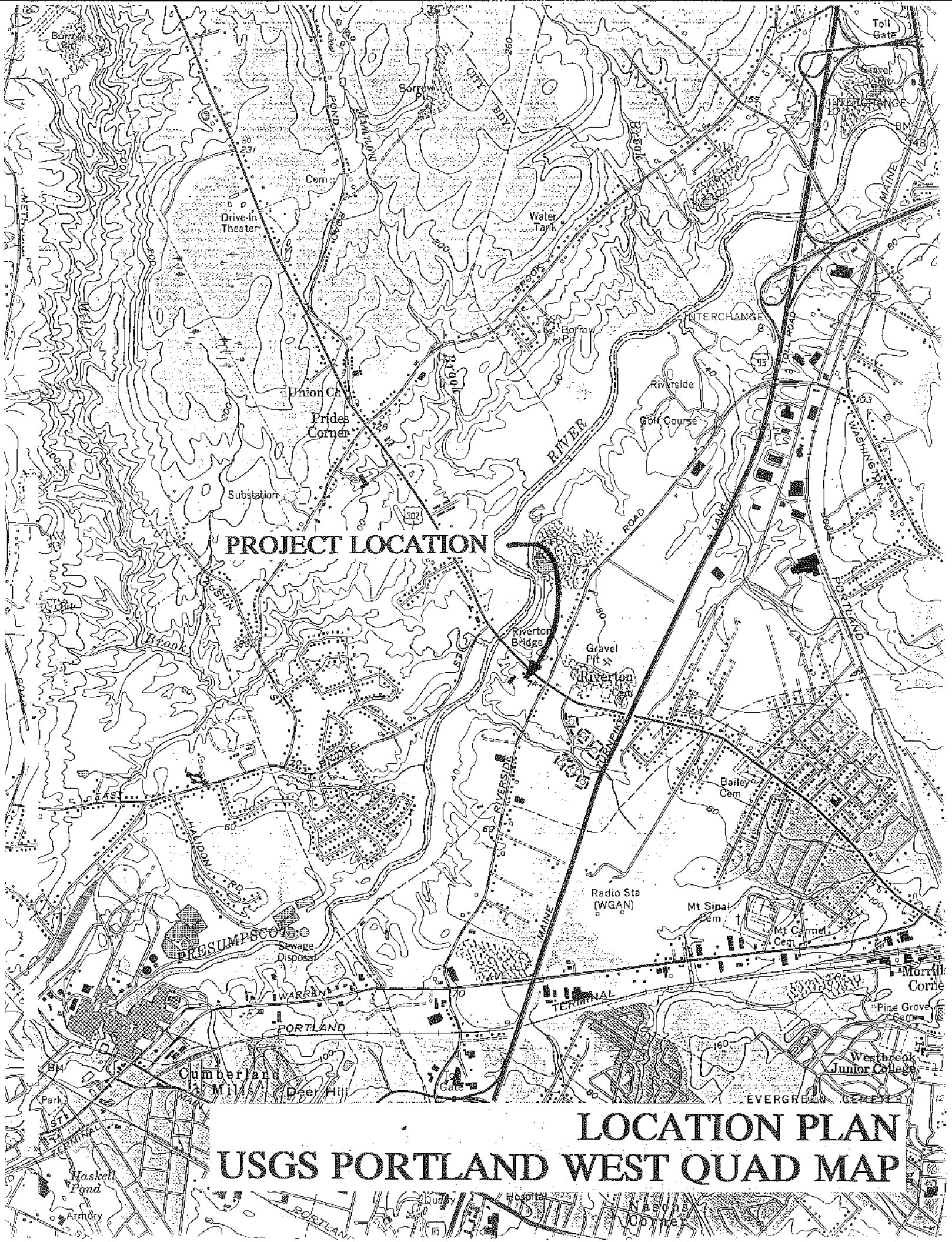
The proposed improvements include the addition of paved parking and vegetated container storage areas, subsurface stormwater collection and transport system, and a wet pond with flow attenuation to reduce discharge velocities to the level spreader. Discharged stormwater will pass through a wet pond to a 70 foot long level spreader prior to discharge onto the heavily vegetated embankment. Refer to the Post Development Drainage Plan.

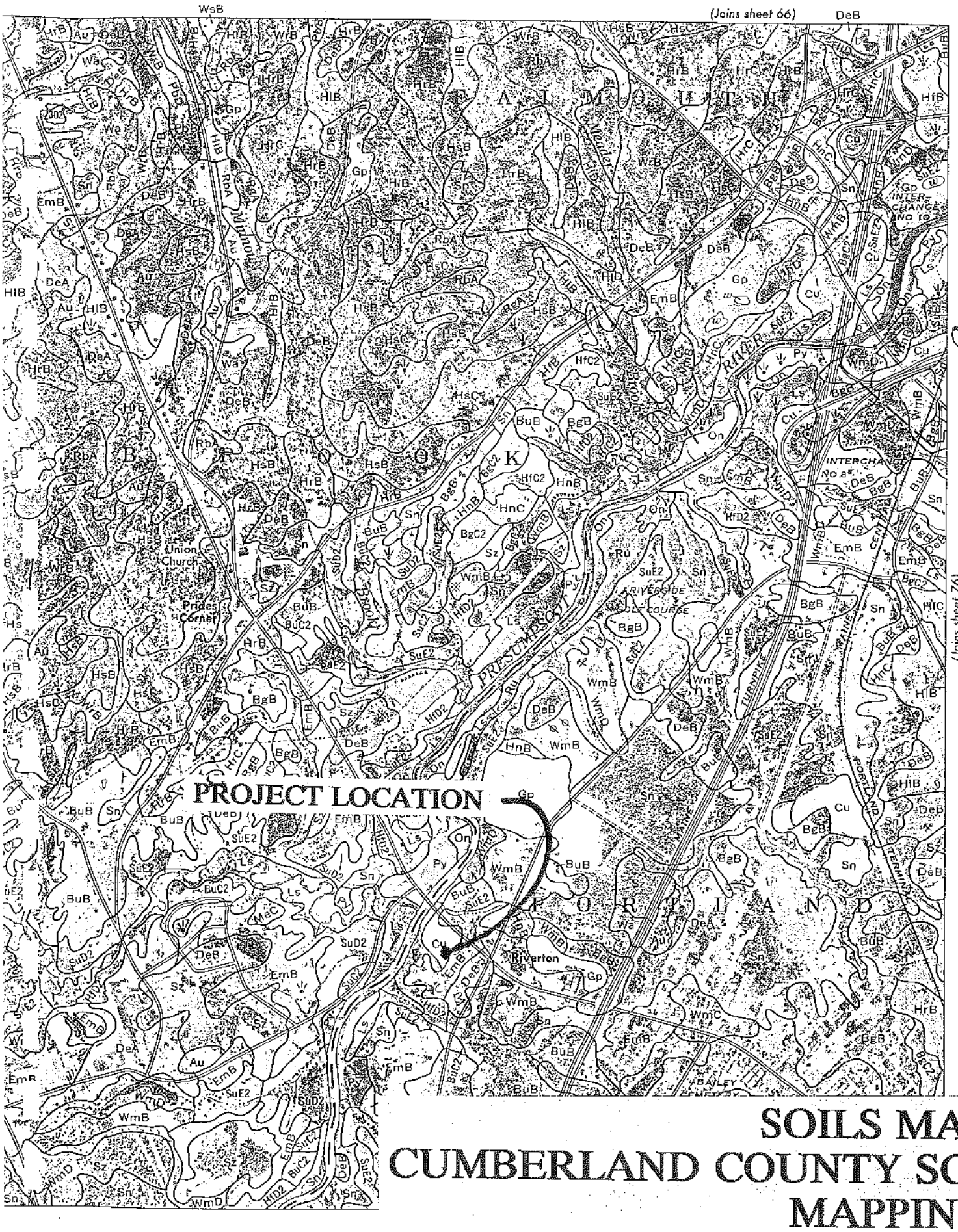
BASIC ASSUMPTIONS/CRITERIA

Stormwater runoff calculations for this project were made using the HydroCad computer program which is based on the Soil Conservation Service's TR-20 methodology. Runoff was predicted based on the standard type III design storm. One storm was modelled; the twenty-five year frequency storm, raining 5.5 inches in 24 hours. Pipes were sized using the 25 year design flows.

STORMWATER RUNOFF CALCULATIONS

The 25 year storm was modelled in the post development condition to size the storm drain system piping and to predict the peak rate of discharge from each outfall pipe. The


PROJECT LOCATION
Toll Gate
Gravel Pit
INTERCHANGE 10
INTERCHANGE 8
Borrow Pit
CITY BDY
Cem
Drive-in Theater
Water Tank
Brook
Union Ch
Prides Corner
Substation
Riverside Golf Course
RIVER
ROAD
MAINE
TURNPIKE
WASHINGTON
PORTLAND
Riverton Bridge
Riverton Cem
Gravel Pit
Bailey Cem
RIVERSIDE
HASKON RD
PRESUMPSCOT
Sewage Disposal
Radio Sta (WGAN)
Mt Sinai Cem
Mt Carmel Cem
Morrill Corner
Pine Grove Cem
Westbrook Junior College
EVERGREEN CEMETERY
WARREN AVE
TERMINAL
Cumberland Mills
Deer Hill
Park
Haskell Pond
Armory
Hospital
Nasons Corner
LOCATION PLAN
USGS PORTLAND WEST QUAD MAP



SOILS MAP
CUMBERLAND COUNTY SCS MAPPING

calculations are contained in the appendix. The velocity of the discharge from the five level spreaders is less than 1 foot per second. The allowable velocity for the Hartland soil type and HSG B soils which Hartland is, is 2.5 feet per second. Treatment of the discharged stormwater will occur in the wet pond and over the buffer area as a result of contact with vegetation and infiltration of stormwater into the relatively pervious soils.

STORM DRAINS

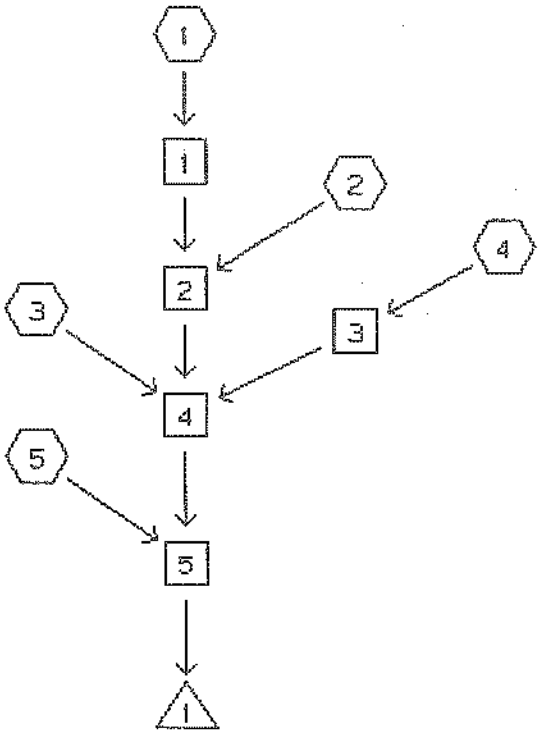
The storm drain system proposed is shown on the post development drainage plan. A Mannings roughness value of 0.013 was used in the calculations sizing the drain lines. The flows generated for the 25 year storm were used as a basis for design. Refer to the hydrocad computer output for the 25 year storm for calculations.

WET POND

The wet pond is sized to capture the first 0.5 inch of runoff from the site. The wet pond elevation is designed to be elevation 41.0. During the 25 year storm event, the maximum pond elevation will be 42.8 feet. The emergency spillway elevation is at elevation 44.0; the berm is at elevation 45.0. The spillway is vegetated.

HYDROCAD OUTPUT HYDROLOGY AND HYDRAULICS

WATERSHED ROUTING



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.5 IN, SCS U.H.

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	.44	6.0	100%74 - - -	74	-	1.3	12.04	.09
2	.75	6.0	61%74 39%98 - -	83	-	2.8	12.03	.20
3	.33	6.0	100%98 - - -	98	-	1.6	12.03	.12
4	.29	6.0	100%98 - - -	98	-	1.4	12.03	.10
5	.61	6.0	100%98 - - -	98	-	2.9	12.03	.21

REACH ROUTING BY STOR-IND METHOD

REACH NO.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)		n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	12.0	-	-	-	-	.013	55	.0098	4.2	.2	1.3
2	12.0	-	-	-	-	.013	121	.0171	6.6	.3	4.0
3	12.0	-	-	-	-	.013	74	.0050	3.3	.4	1.4
4	12.0	-	-	-	-	.013	91	.0344	9.6	.2	6.9
5	12.0	-	-	-	-	.013	40	.1250	17.7	0.0	9.8

POND ROUTING BY STOR-IND METHOD

P ND .O.	OUTLET DEVICES	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	---PEAK FLOW--- Qin (CFS)	Qout (CFS)	ATTEN. (%)	LAG (MIN)
1	3	40.0	45.0	42.2	.82	9.8	1.1	89	52.0

SUBCATCHMENT 1

ACRES	CN	
.44	74	C GRASS DEERFIELD

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.3 CFS @ 12.04 HRS
VOLUME= .09 AF

M thod	Comment	Tc (min)
D.RECT ENTRY	Segment ID:	6.0

S BCATCHMENT 2

ACRES	CN	
.46	74	C GRASS DEERFIELD
.29	98	IMPERVIOUS
.75	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 2.8 CFS @ 12.03 HRS
VOLUME= .20 AF

M thod	Comment	Tc (min)
D RECT ENTRY	Segment ID:	6.0

S BCATCHMENT 3

ACRES	CN	
.33	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.6 CFS @ 12.03 HRS
VOLUME= .12 AF

Method	Comment	Tc (min)
D RECT ENTRY	Segment ID:	6.0

S BCATCHMENT 4

ACRES	CN	
.29	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.4 CFS @ 12.03 HRS
VOLUME= .10 AF

Method	Comment	Tc (min)
D RECT ENTRY	Segment ID:	6.0

SUBCATCHMENT 5

ACRES	CN	
.61	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 2.9 CFS @ 12.03 HRS
VOLUME= .21 AF

M thod	Comment	Tc (min)
DiRECT ENTRY	Segment ID:	6.0

REACH 1

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.3
.3	.2	.7
.7	.6	3.0
.8	.7	3.4
.9	.7	3.8
.9	.8	3.8
1.0	.8	3.8
1.0	.8	3.5

12" PIPE

n= .013
LENGTH= 55 FT
SLOPE= .0098 FT/FT

STOR-IND METHOD
MAX. DEPTH= .39 FT
PEAK VELOCITY= 4.2 FPS
TRAVEL TIME = .2 MIN
Qin = 1.3 CFS @ 12.04 HRS
Qout= 1.3 CFS @ 12.05 HRS
ATTEN= 1 % LAG= .4 MIN
IN/OUT= .09 / .09 AF

REACH 2

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.4
.3	.2	.9
.7	.6	3.9
.8	.7	4.6
.9	.7	5.0
.9	.8	5.0
1.0	.8	5.0
1.0	.8	4.7

12" PIPE

n= .013
LENGTH= 121 FT
SLOPE= .0171 FT/FT

STOR-IND METHOD
MAX. DEPTH= .68 FT
PEAK VELOCITY= 6.6 FPS
TRAVEL TIME = .3 MIN
Qin = 4.1 CFS @ 12.04 HRS
Qout= 4.0 CFS @ 12.05 HRS
ATTEN= 2 % LAG= .7 MIN
IN/OUT= .30 / .30 AF

REACH 3

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.2
.3	.2	.5
.7	.6	2.1
.8	.7	2.5
.9	.7	2.7
.9	.8	2.7
1.0	.8	2.7
1.0	.8	2.5

12" PIPE

n= .013
LENGTH= 74 FT
SLOPE= .005 FT/FT

STOR-IND METHOD
MAX. DEPTH= .50 FT
PEAK VELOCITY= 3.3 FPS
TRAVEL TIME = .4 MIN
Qin = 1.4 CFS @ 12.03 HRS
Qout= 1.4 CFS @ 12.04 HRS
ATTEN= 2 % LAG= .7 MIN
IN/OUT= .10 / .10 AF

REACH 4

E PTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.6
.3	.2	1.3
.7	.6	5.5
.8	.7	6.5
.9	.7	7.0
.9	.8	7.1
1.0	.8	7.0
1.0	.8	6.6

12" PIPE

n= .013
LENGTH= 91 FT
SLOPE= .0344 FT/FT

STOR-IND METHOD
MAX. DEPTH= .81 FT
PEAK VELOCITY= 9.6 FPS
TRAVEL TIME = .2 MIN
Qin = 7.0 CFS @ 12.04 HRS
Qout= 6.9 CFS @ 12.05 HRS
ATTEN= 1 % LAG= .4 MIN
IN/OUT= .52 / .52 AF

F ACH 5

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.3
.2	.1	1.1
.3	.2	2.5
.7	.6	10.5
.8	.7	12.3
.9	.7	13.4
.9	.8	13.5
1.0	.8	13.4
1.0	.8	12.6

12" PIPE

n= .013
LENGTH= 40 FT
SLOPE= .125 FT/FT

STOR-IND METHOD
MAX. DEPTH= .64 FT
PEAK VELOCITY= 17.7 FPS
TRAVEL TIME = 0.0 MIN
Qin = 9.8 CFS @ 12.04 HRS
Qout= 9.8 CFS @ 12.04 HRS
ATTEN= 0 % LAG= .1 MIN
IN/OUT= .73 / .73 AF

POND 1

S ARTING ELEV= 41.0 FT
FLOOD ELEV= 45.0 FT

LEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
35.0	1250	0	0
40.0	5500	16875	16875
45.0	11375	42188	59063

STOR-IND METHOD
PEAK ELEVATION= 42.8 FT
PEAK STORAGE = 40808 CF
Qin = 9.8 CFS @ 12.04 HRS
Qout= 1.3 CFS @ 12.71 HRS
ATTEN= 87 % LAG= 40.2 MIN
IN/OUT= .73 / .69 AF

NVERT (FT)	OUTLET DEVICES
43.0	5' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/2 L=Length-2(.1 H)
44.0	12' BROAD-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.2, 3.2, 3.2, 3.2, 3.2, 3.2, 3.2, 3.2
41.0	6" HORIZONTAL ORIFICE Q=.6 Area SQR(2gH)

TOTAL DISCHARGE vs ELEVATION

FEET	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.0	0.0	.3	.4	.5	.6	.7	.7	.8	.8	.9
42.0	.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3
43.0	1.3	1.9	2.9	4.1	5.6	7.3	9.2	11.3	13.5	15.8
44.0	18.3	22.1	27.1	32.8	39.2	46.2	53.6	61.6	70.0	78.8
45.0	88.0									

WET POND CALCULATIONS AND DETAILS

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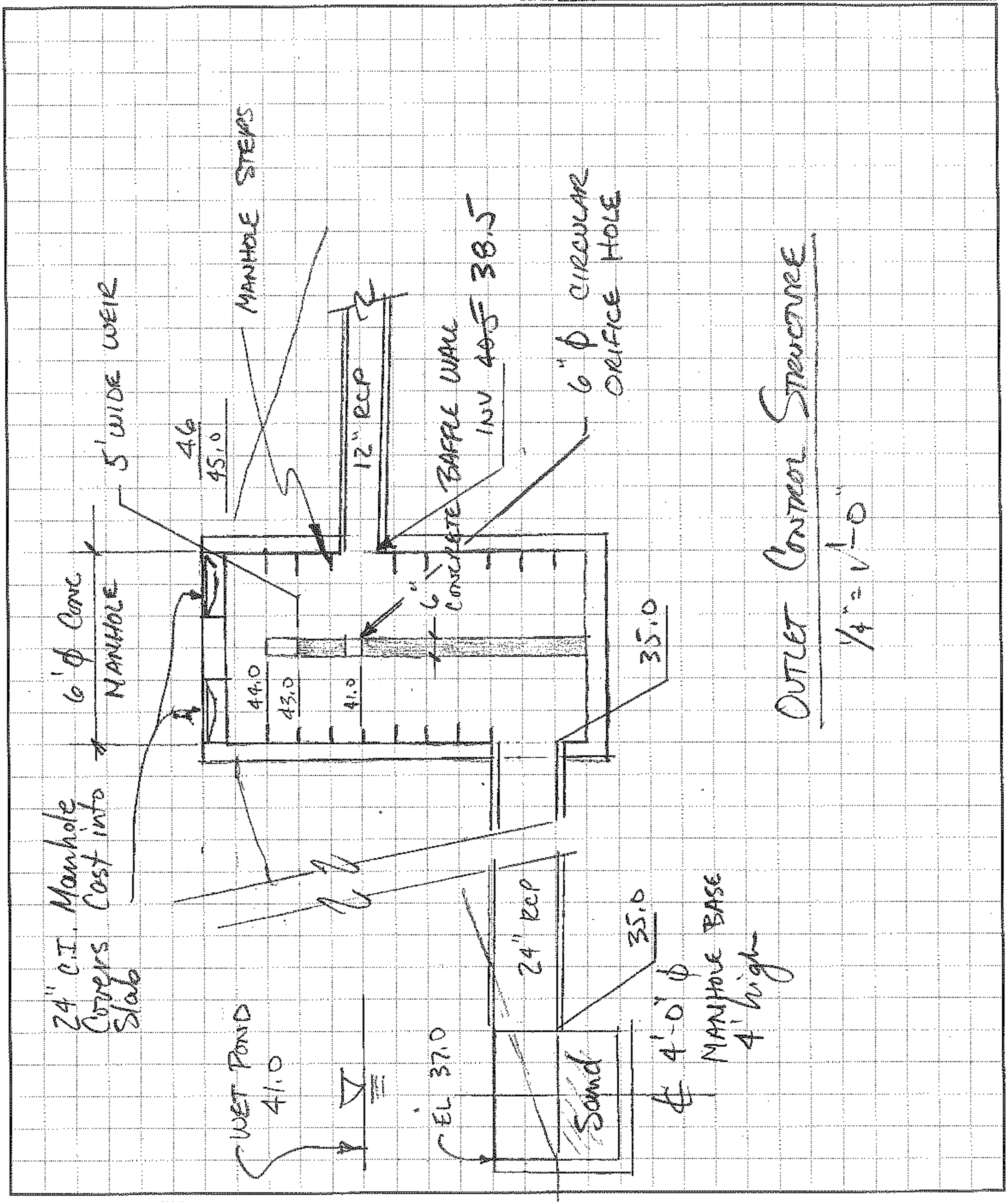

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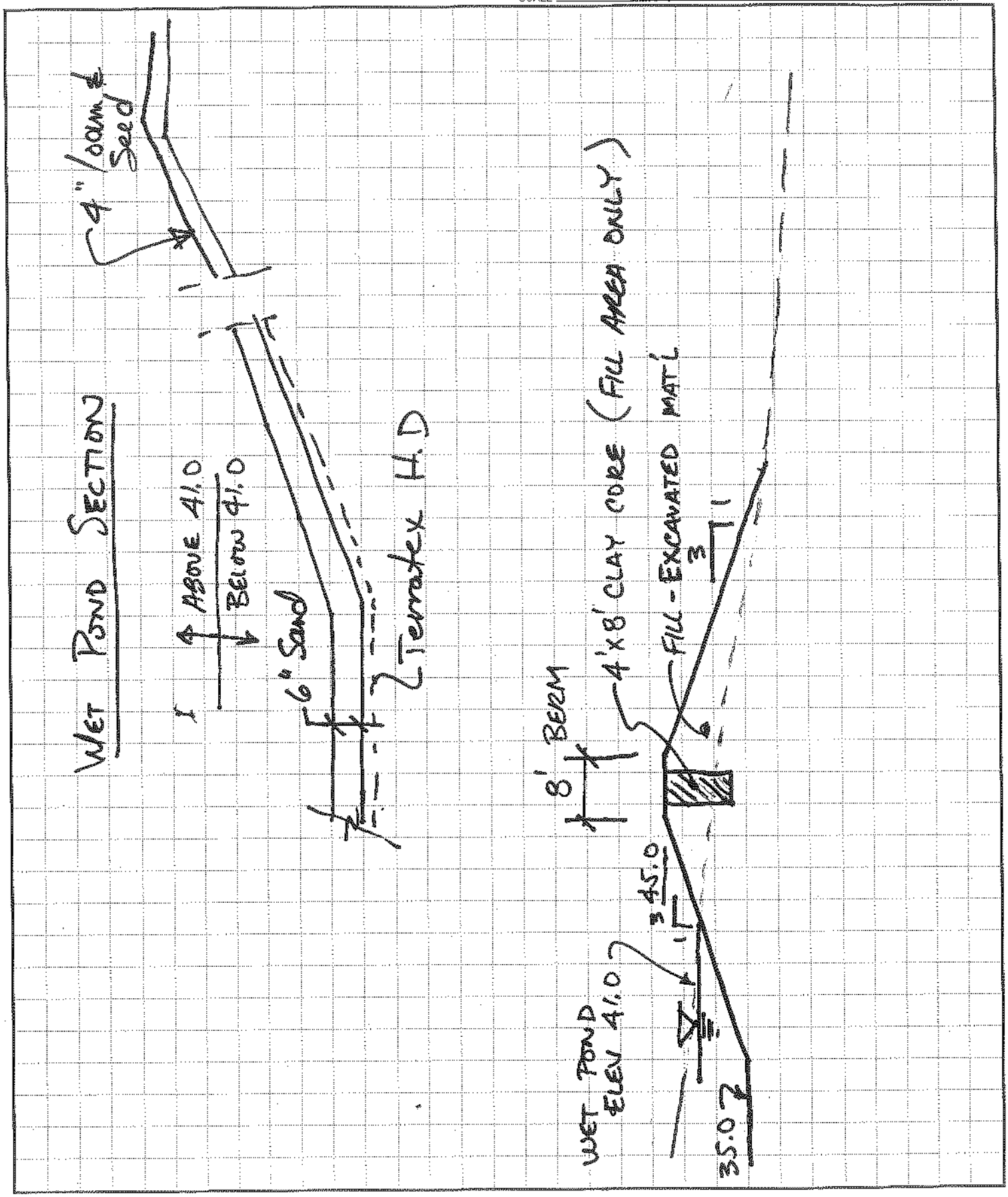

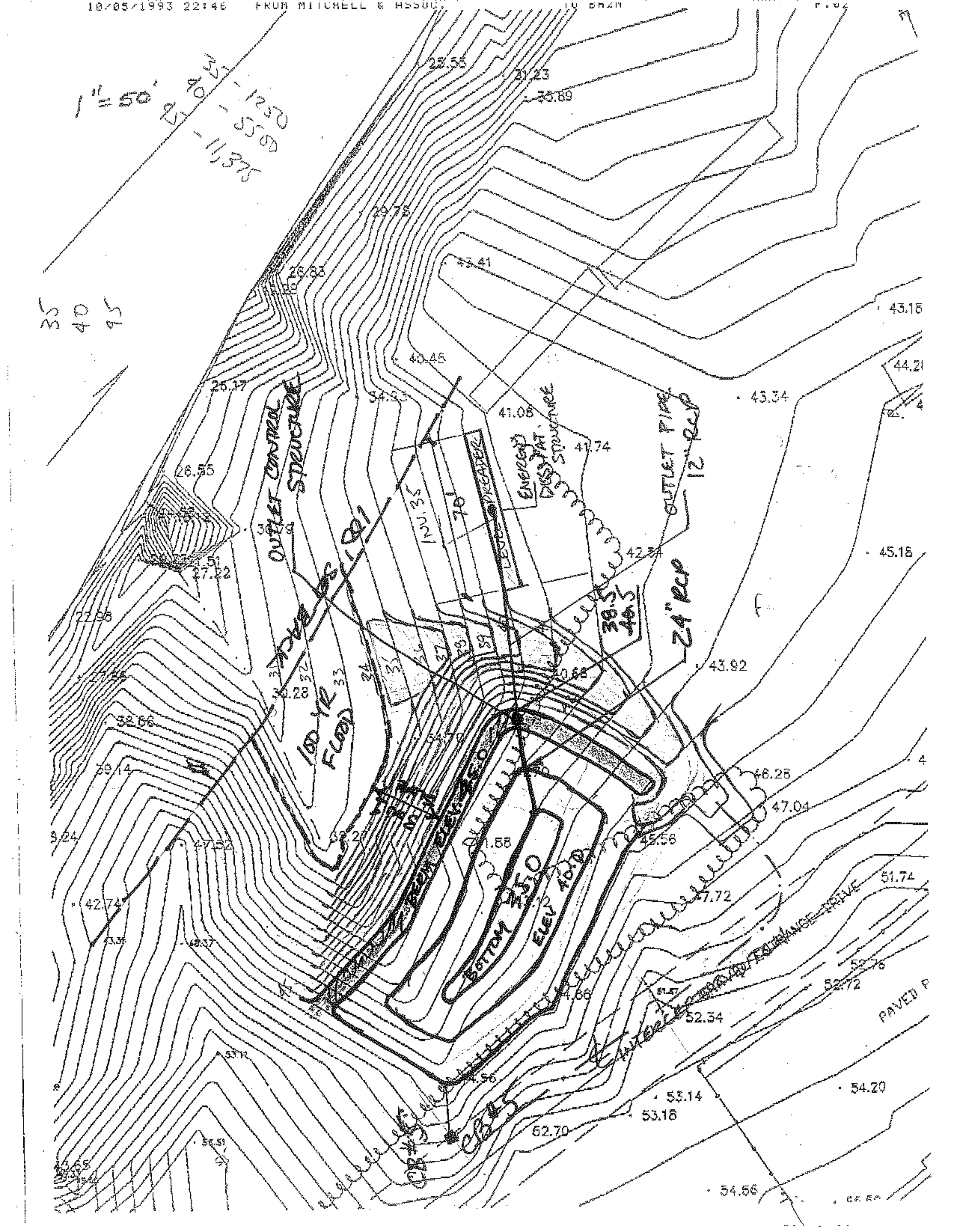
1" = 50'
OUTLET CONTROL STRUCTURE
ENERGY DISSIPAT. STRUCTURE
LEVEL SPREADER
OUTLET PIPE 12" RCP
24" RCP
INV. 35
70'
100 YR FLOOD
BOTTOM 35.0
ELEV 40.0
CB #5
PAVED
43.18
43.34
45.18
43.92
46.28
47.04
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51.74
47.72
52.76
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27.22
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38.66
39.14
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4.56
4.86
1.58

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Wet Pond

Minimum Volume of Wet Pond Portion of Basin

$$2.42\ Ac \times 0.5\ in \times \frac{1\ FT}{12\ in} \times \frac{43{,}560\ SF}{Ac} = 4392.3\ CF$$

Volume of Wet Pond Below Elevation 41.0

25,313 CF > 4,400 Ok!!

LEVEL SPREADER CALCULATIONS

WEIRS

E ter up to 10 weirs.
Enter <Return> only for flowrate and length to end.

F OWRATE (CFS)	LENGTH (FT)	COEFF (-)	HEAD (FT)
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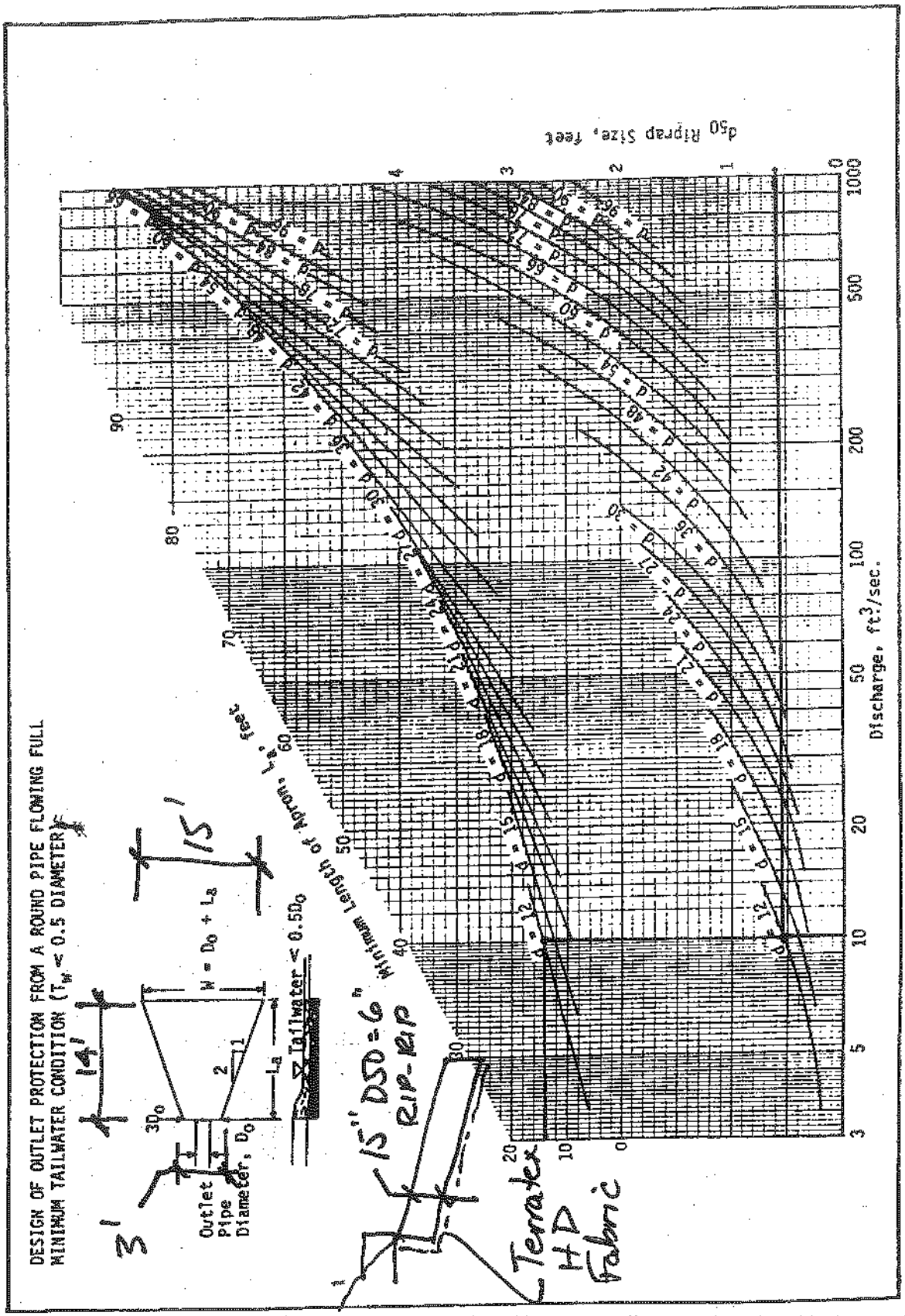
VEL.
0.62 FT/SEC

Figure 32.1 MINIMUM TAILWATER CONDITION (USDA Soil Conservation Service)



Outlet Protection for Discharge from 12" RCP from CB #5

STORMWATER MANAGEMENT REPORT
FOR
WASTE MANAGEMENT, FOREST AVENUE
PORTLAND, MAINE

PREPARED FOR
MITCHELL & ASSOCIATES
PORTLAND, MAINE

DATE: OCTOBER 6, 1993

Prepared by: BH2M
Berry Huff McDonald Milligan, Inc.
Engineers Surveyors Planners
28 State Street
Gorham, Maine 04038
Telephone: (207) 838-2771
Fax: (207) 839-8250

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PROPOSED DEVELOPMENT

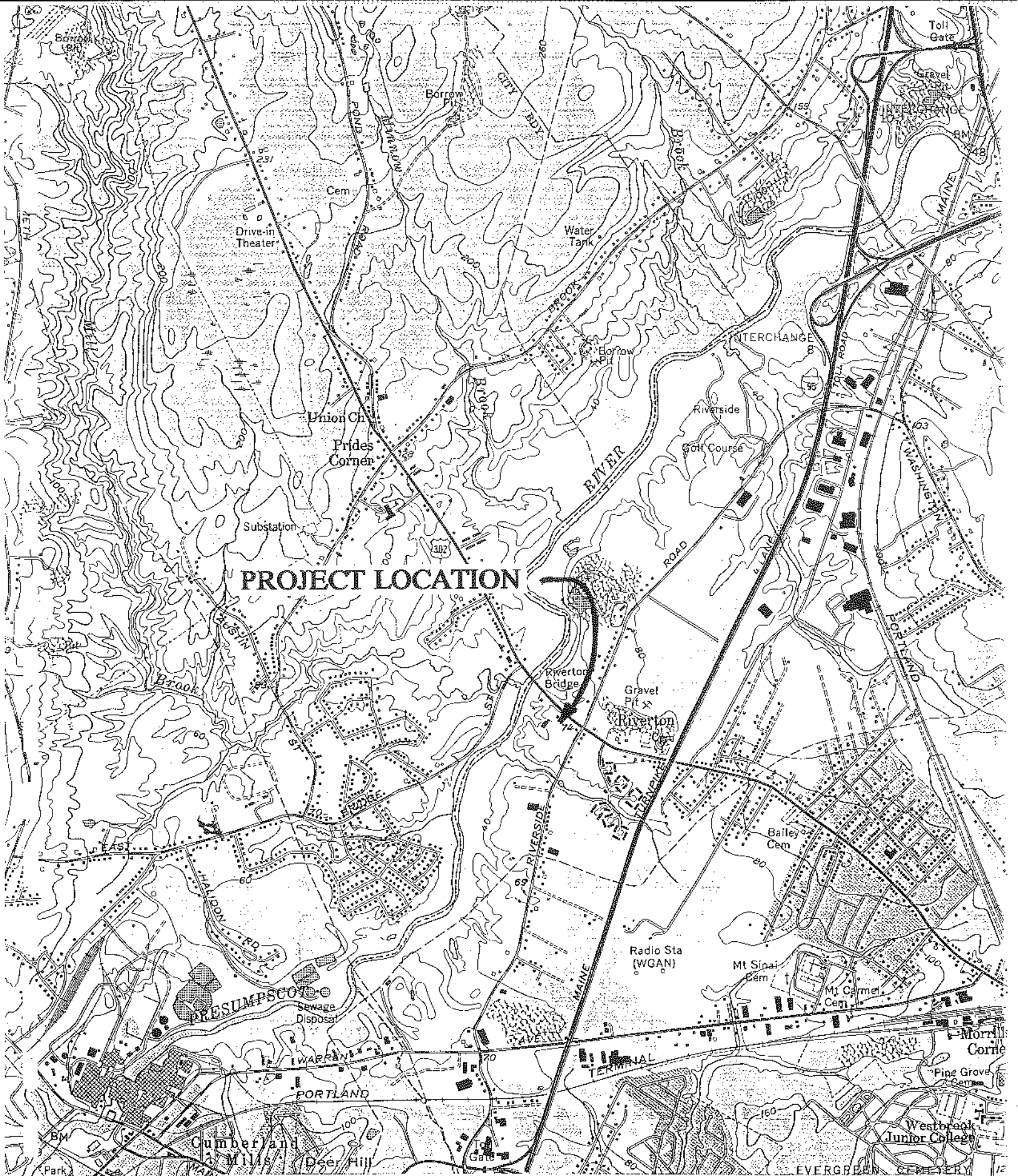
The proposed improvements include the addition of paved parking and vegetated container storage areas, subsurface stormwater collection and transport system, and a wet pond with flow attenuation to reduce discharge velocities to the level spreader. Discharged stormwater will pass through a wet pond to a 70 foot long level spreader prior to discharge onto the heavily vegetated embankment. Refer to the Post Development Drainage Plan.

BASIC ASSUMPTIONS/CRITERIA

Stormwater runoff calculations for this project were made using the HydroCad computer program which is based on the Soil Conservation Service's TR-20 methodology. Runoff was predicted based on the standard type III design storm. One storm was modelled; the twenty-five year frequency storm, raining 5.5 inches in 24 hours. Pipes were sized using the 25 year design flows.

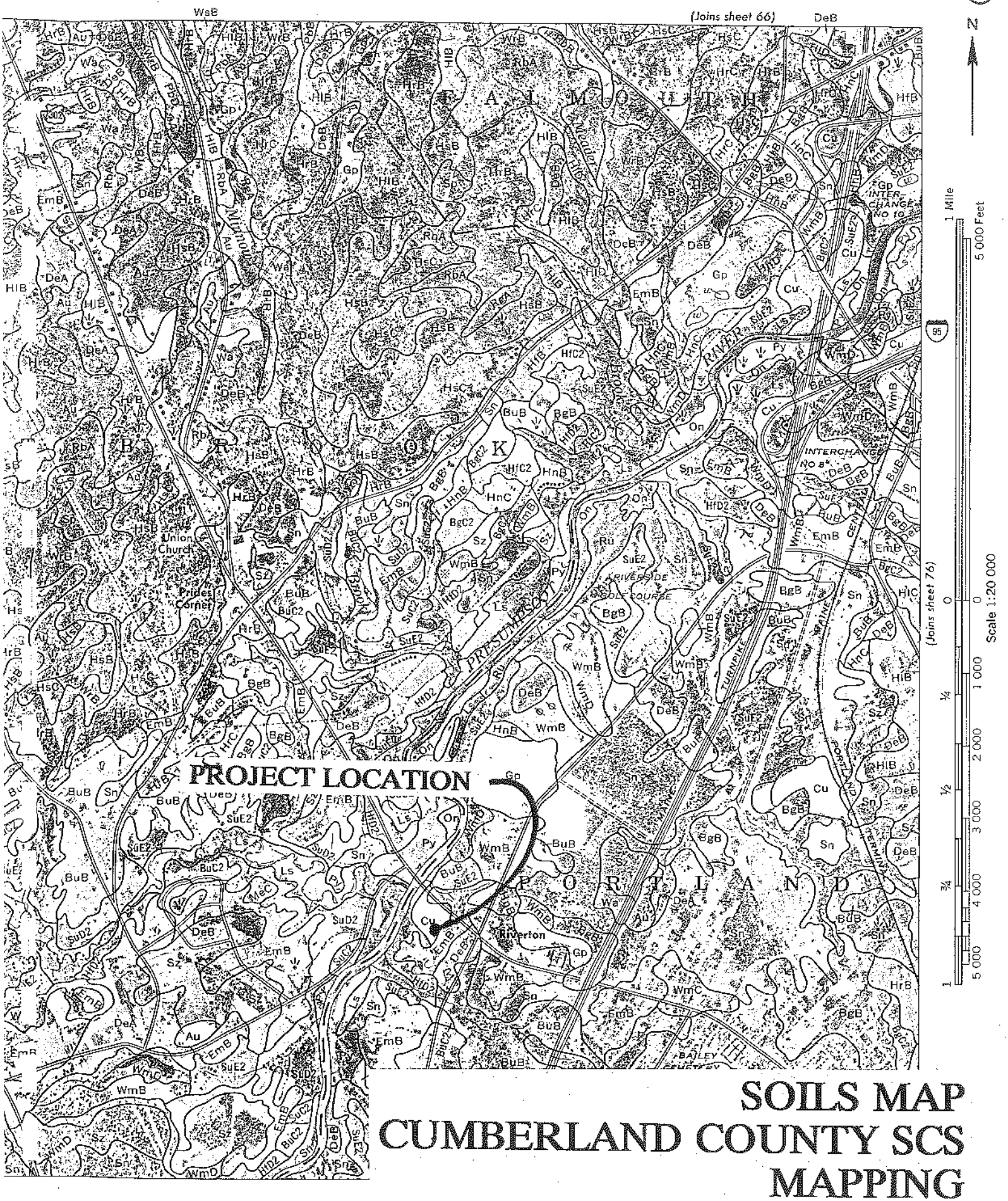
STORMWATER RUNOFF CALCULATIONS

The 25 year storm was modelled in the post development condition to size the storm drain system piping and to predict the peak rate of discharge from each outfall pipe. The



LOCATION PLAN

USGS PORTLAND WEST QUAD MAP



SOILS MAP
CUMBERLAND COUNTY SCS MAPPING

calculations are contained in the appendix. The velocity of the discharge from the five level spreaders is less than 1 foot per second. The allowable velocity for the Hartland soil type and HSG B soils which Hartland is, is 2.5 feet per second. Treatment of the discharged stormwater will occur in the wet pond and over the buffer area as a result of contact with vegetation and infiltration of stormwater into the relatively pervious soils.

STORM DRAINS

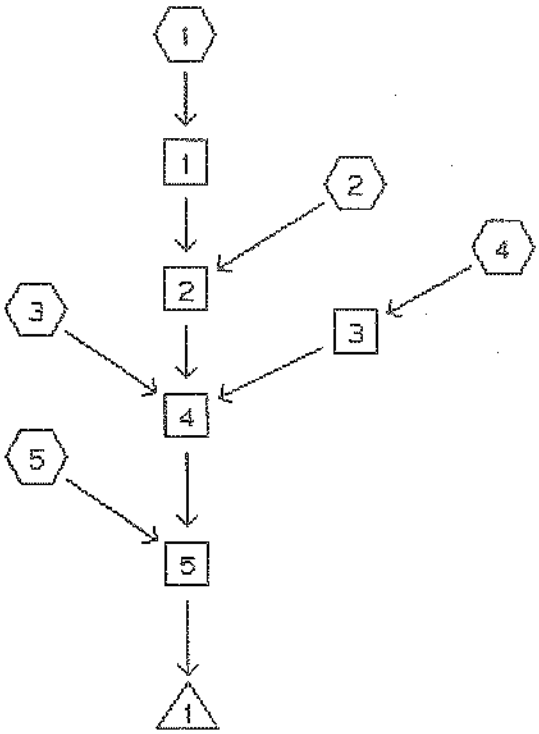
The storm drain system proposed is shown on the post development drainage plan. A Mannings roughness value of 0.013 was used in the calculations sizing the drain lines. The flows generated for the 25 year storm were used as a basis for design. Refer to the hydrocad computer output for the 25 year storm for calculations.

WET POND

The wet pond is sized to capture the first 0.5 inch of runoff from the site. The wet pond elevation is designed to be elevation 41.0. During the 25 year storm event, the maximum pond elevation will be 42.8 feet. The emergency spillway elevation is at elevation 44.0; the berm is at elevation 45.0. The spillway is vegetated.

HYDROCAD OUTPUT
HYDROLOGY AND HYDRAULICS

WATERSHED ROUTING



RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.5 IN, SCS U.H.

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--				WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	.44	6.0	100%74	-	-	-	74	-	1.3	12.04	.09
2	.75	6.0	61%74	39%98	-	-	83	-	2.8	12.03	.20
3	.33	6.0	100%98	-	-	-	98	-	1.6	12.03	.12
4	.29	6.0	100%98	-	-	-	98	-	1.4	12.03	.10
5	.61	6.0	100%98	-	-	-	98	-	2.9	12.03	.21

REACH ROUTING BY STOR-IND METHOD

REACH No.	DIAM (IN)	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPES (FT/FT)		n	LENGTH (FT)	SLOPE (FT/FT)	PEAK VEL. (FPS)	TRAVEL TIME (MIN)	PEAK Qout (CFS)
1	12.0	-	-	-	-	.013	55	.0098	4.2	.2	1.3
2	12.0	-	-	-	-	.013	121	.0171	6.6	.3	4.0
3	12.0	-	-	-	-	.013	74	.0050	3.3	.4	1.4
4	12.0	-	-	-	-	.013	91	.0344	9.6	.2	6.9
5	12.0	-	-	-	-	.013	40	.1250	17.7	0.0	9.8

POND ROUTING BY STOR-IND METHOD

P ND .O.	OUTLET DEVICES	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	---PEAK FLOW--- Qin (CFS)	Qout (CFS)	ATTEN. (%)	LAG (MIN)
1	3	40.0	45.0	42.2	.82	9.8	1.1	89	52.0

SUBCATCHMENT 1

ACRES	CN	
.44	74	C GRASS DEERFIELD

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.3 CFS @ 12.04 HRS
VOLUME= .09 AF

M thod	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

S BCATCHMENT 2

ACRES	CN	
.46	74	C GRASS DEERFIELD
.29	98	IMPERVIOUS
.75	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 2.8 CFS @ 12.03 HRS
VOLUME= .20 AF

M thod	Comment	Tc (min)
I RECT ENTRY	Segment ID:	6.0

S BCATCHMENT 3

ACRES	CN	
.33	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.6 CFS @ 12.03 HRS
VOLUME= .12 AF

Method	Comment	Tc (min)
I RECT ENTRY	Segment ID:	6.0

S BCATCHMENT 4

ACRES	CN	
.29	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 1.4 CFS @ 12.03 HRS
VOLUME= .10 AF

Method	Comment	Tc (min)
I RECT ENTRY	Segment ID:	6.0

SUBCATCHMENT 5

ACRES	CN	
.61	98	IMPERVIOUS

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.5 IN
PEAK= 2.9 CFS @ 12.03 HRS
VOLUME= .21 AF

Method	Comment	Tc (min)
DIRECT ENTRY	Segment ID:	6.0

REACH 1

I PTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.3
.3	.2	.7
.7	.6	3.0
.8	.7	3.4
.9	.7	3.8
.9	.8	3.8
1.0	.8	3.8
1.0	.8	3.5

12" PIPE

n= .013
LENGTH= 55 FT
SLOPE= .0098 FT/FT

STOR-IND METHOD
MAX. DEPTH= .39 FT
PEAK VELOCITY= 4.2 FPS
TRAVEL TIME = .2 MIN
Qin = 1.3 CFS @ 12.04 HRS
Qout= 1.3 CFS @ 12.05 HRS
ATTEN= 1 % LAG= .4 MIN
IN/OUT= .09 / .09 AF

F ACH 2

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.4
.3	.2	.9
.7	.6	3.9
.8	.7	4.6
.9	.7	5.0
.9	.8	5.0
1.0	.8	5.0
1.0	.8	4.7

12" PIPE

n= .013
LENGTH= 121 FT
SLOPE= .0171 FT/FT

STOR-IND METHOD
MAX. DEPTH= .68 FT
PEAK VELOCITY= 6.6 FPS
TRAVEL TIME = .3 MIN
Qin = 4.1 CFS @ 12.04 HRS
Qout= 4.0 CFS @ 12.05 HRS
ATTEN= 2 % LAG= .7 MIN
IN/OUT= .30 / .30 AF

F"ACH 3

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.2
.3	.2	.5
.7	.6	2.1
.8	.7	2.5
.9	.7	2.7
.9	.8	2.7
1.0	.8	2.7
1.0	.8	2.5

12" PIPE

n= .013
LENGTH= 74 FT
SLOPE= .005 FT/FT

STOR-IND METHOD
MAX. DEPTH= .50 FT
PEAK VELOCITY= 3.3 FPS
TRAVEL TIME = .4 MIN
Qin = 1.4 CFS @ 12.03 HRS
Qout= 1.4 CFS @ 12.04 HRS
ATTEN= 2 % LAG= .7 MIN
IN/OUT= .10 / .10 AF

REACH 4

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.1
.2	.1	.6
.3	.2	1.3
.7	.6	5.5
.8	.7	6.5
.9	.7	7.0
.9	.8	7.1
1.0	.8	7.0
1.0	.8	6.6

12" PIPE

n= .013
LENGTH= 91 FT
SLOPE= .0344 FT/FT

STOR-IND METHOD
MAX. DEPTH= .81 FT
PEAK VELOCITY= 9.6 FPS
TRAVEL TIME = .2 MIN
Qin = 7.0 CFS @ 12.04 HRS
Qout= 6.9 CFS @ 12.05 HRS
ATTEN= 1 % LAG= .4 MIN
IN/OUT= .52 / .52 AF

F ACH 5

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.0
.1	0.0	.3
.2	.1	1.1
.3	.2	2.5
.7	.6	10.5
.8	.7	12.3
.9	.7	13.4
.9	.8	13.5
1.0	.8	13.4
1.0	.8	12.6

12" PIPE

n= .013
LENGTH= 40 FT
SLOPE= .125 FT/FT

STOR-IND METHOD
MAX. DEPTH= .64 FT
PEAK VELOCITY= 17.7 FPS
TRAVEL TIME = 0.0 MIN
Qin = 9.8 CFS @ 12.04 HRS
Qout= 9.8 CFS @ 12.04 HRS
ATTEN= 0 % LAG= .1 MIN
IN/OUT= .73 / .73 AF

POND 1

S ARTING ELEV= 41.0 FT
FLOOD ELEV= 45.0 FT

LEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
35.0	1250	0	0
40.0	5500	16875	16875
45.0	11375	42188	59063

STOR-IND METHOD
PEAK ELEVATION= 42.8 FT
PEAK STORAGE = 40808 CF
Qin = 9.8 CFS @ 12.04 HRS
Qout= 1.3 CFS @ 12.71 HRS
ATTEN= 87 % LAG= 40.2 MIN
IN/OUT= .73 / .69 AF

NVERT (FT)	OUTLET DEVICES
43.0	5' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/2 L=Length-2(.1 H)
44.0	12' BROAD-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.2, 3.2, 3.2, 3.2, 3.2, 3.2, 3.2, 3.2
41.0	6" HORIZONTAL ORIFICE Q=.6 Area SQR(2gH)

TOTAL DISCHARGE vs ELEVATION

FEET	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.0	0.0	.3	.4	.5	.6	.7	.7	.8	.8	.9
42.0	.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3
43.0	1.3	1.9	2.9	4.1	5.6	7.3	9.2	11.3	13.5	15.8
44.0	18.3	22.1	27.1	32.8	39.2	46.2	53.6	61.6	70.0	78.8
45.0	88.0									

WET POND CALCULATIONS AND DETAILS

BH2M BERRY • HUFF • McDONALD • MILLIGAN • INC.

ENGINEERS • SURVEYORS • PLANNERS

28 State Street - Gorham, Maine 04038

(207) 839-2771 FAX (207) 839-8250

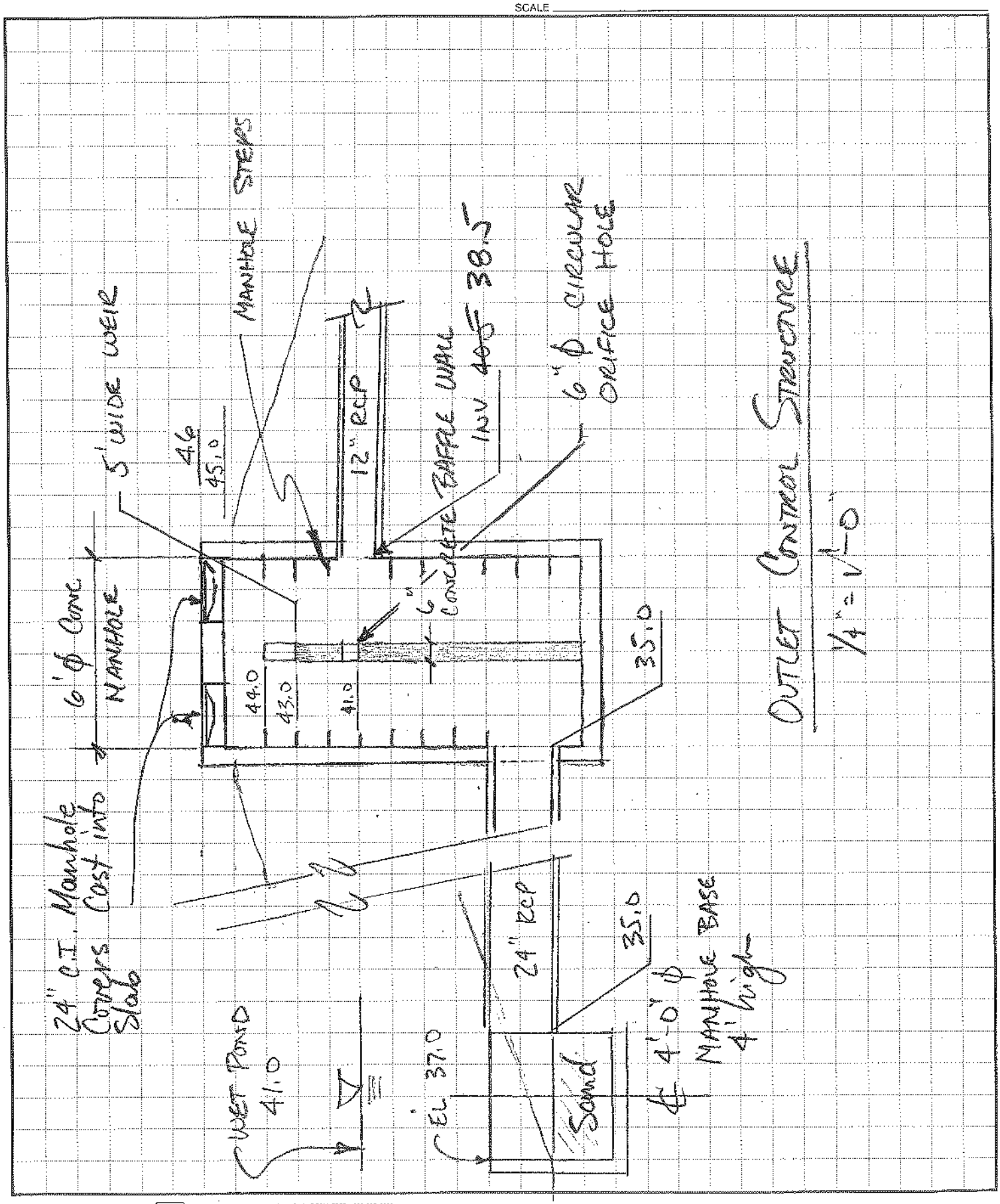
JOB _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____



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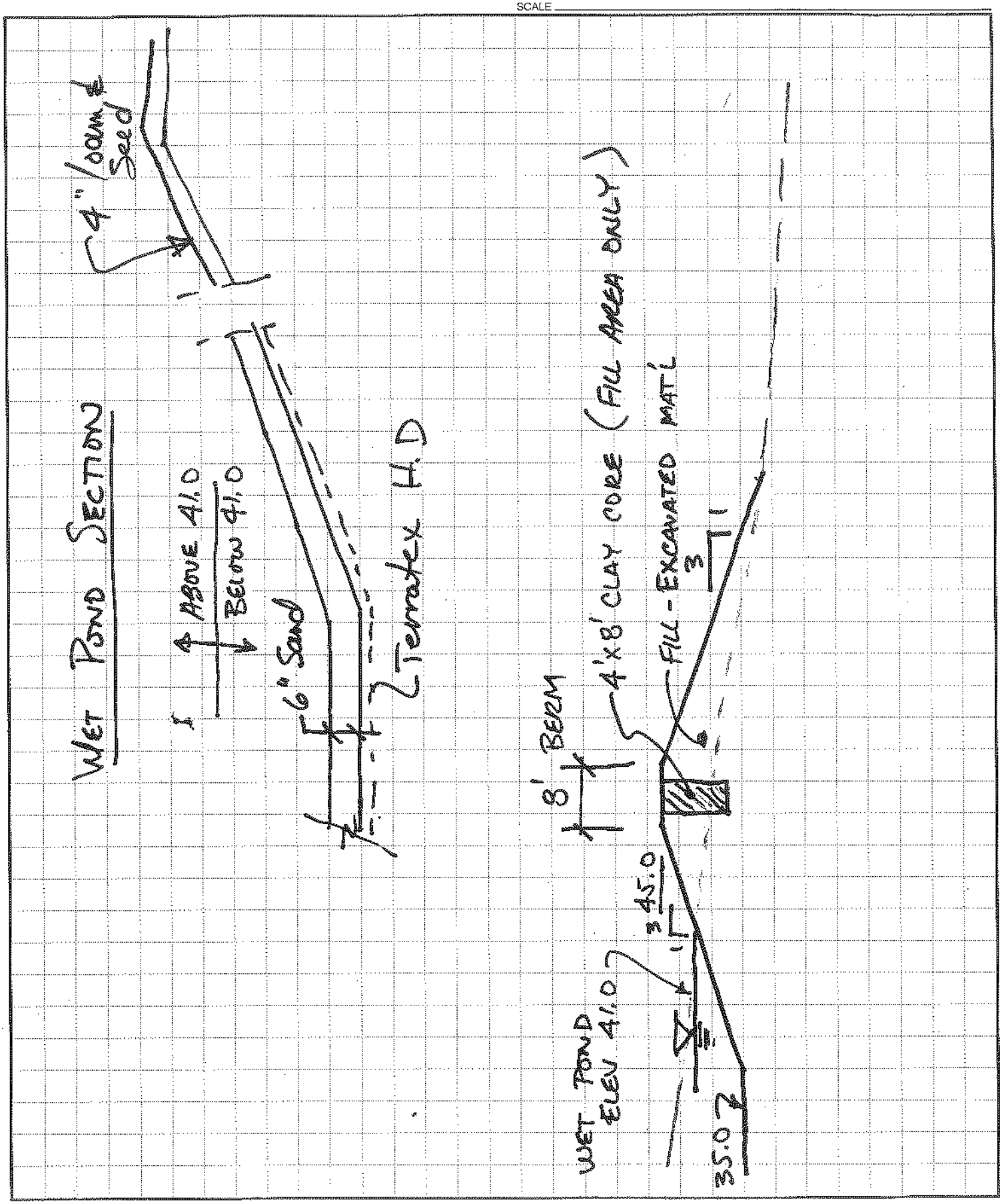
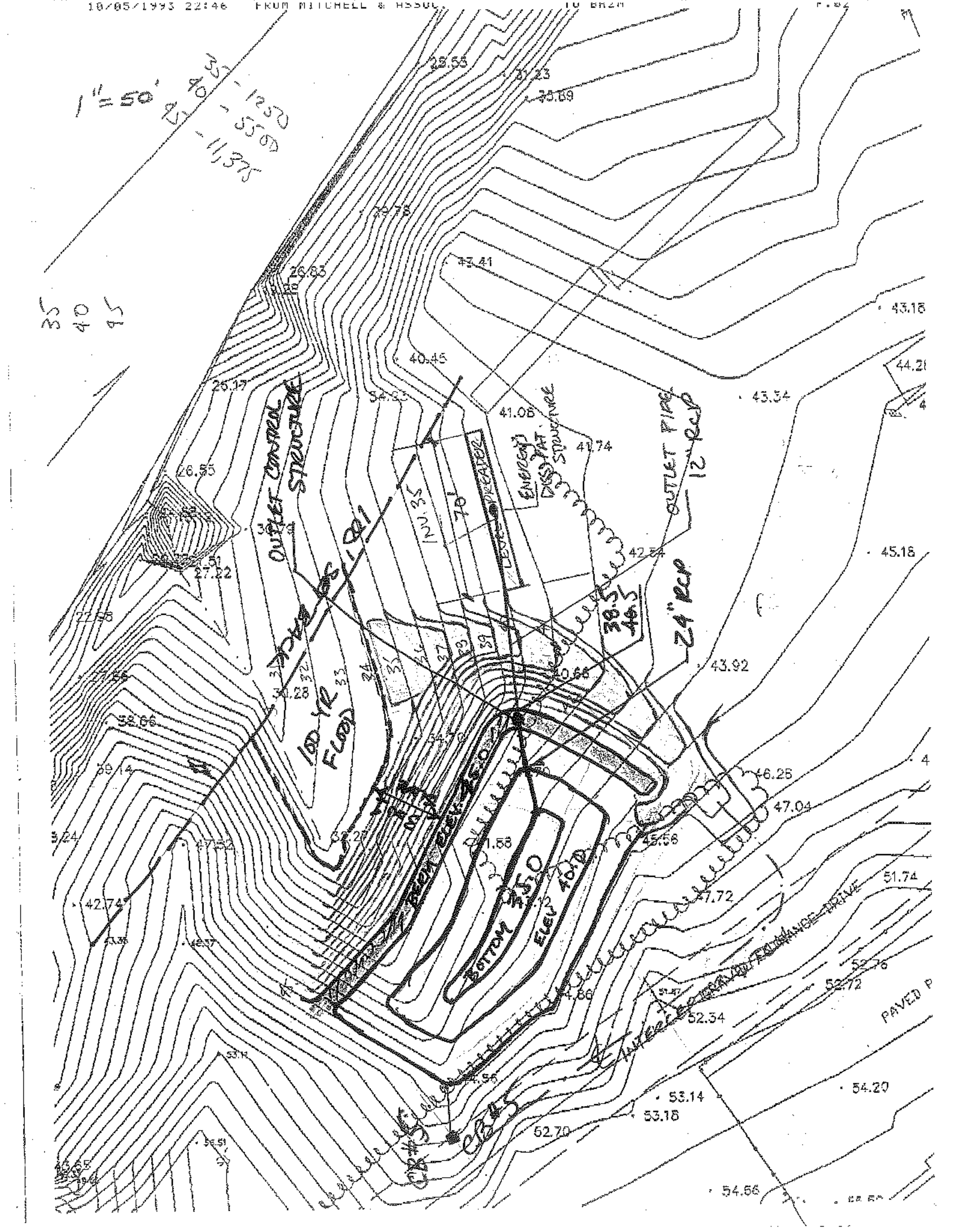




1" = 50'
OUTLET CONTROL STRUCTURE
100 YR FLOOD
INV 35
70'
LEVEL SPREADER
ENERGY DISSIPAT. STRUCTURE
OUTLET PIPE 12" RCP
24" RCP
38.5
40.5
BERM ELEV 45.0
BOTTOM 35.0
ELEV 40.0
ENTRANCE DRIVE
PAVED P
25.55
31.23
35.89
43.41
26.83
43.18
40.45
26.17
34.83
41.06
44.28
43.34
41.74
26.55
30.79
27.51
27.22
42.54
45.18
22.58
43.92
30.28
40.66
38.66
34.70
46.25
47.04
47.52
45.58
42.74
47.72
51.74
52.76
52.72
52.34
54.20
53.14
53.18
52.70
54.56

BH2M BERRY • HUFF • McDONALD • MILLIGAN • INC.
ENGINEERS • SURVEYORS • PLANNERS
28 State Street - Gorham, Maine 04038
(207) 839-2771 FAX (207) 839-8250

JOB
SHEET NO. OF
CALCULATED BY DATE
CHECKED BY DATE
SCALE

Wet Pond

Minimum Volume of Wet Pond Portion of Basin

$$2.42\ Ac \times 0.5\ in \times \frac{1\ FT}{12\ in} \times \frac{43{,}560\ SF}{Ac} = 4392.3\ CF$$

Volume of Wet Pond Below Elevation 41.0

25,313 CF > 4,400 Ok!!

LEVEL SPREADER CALCULATIONS

WEIRS

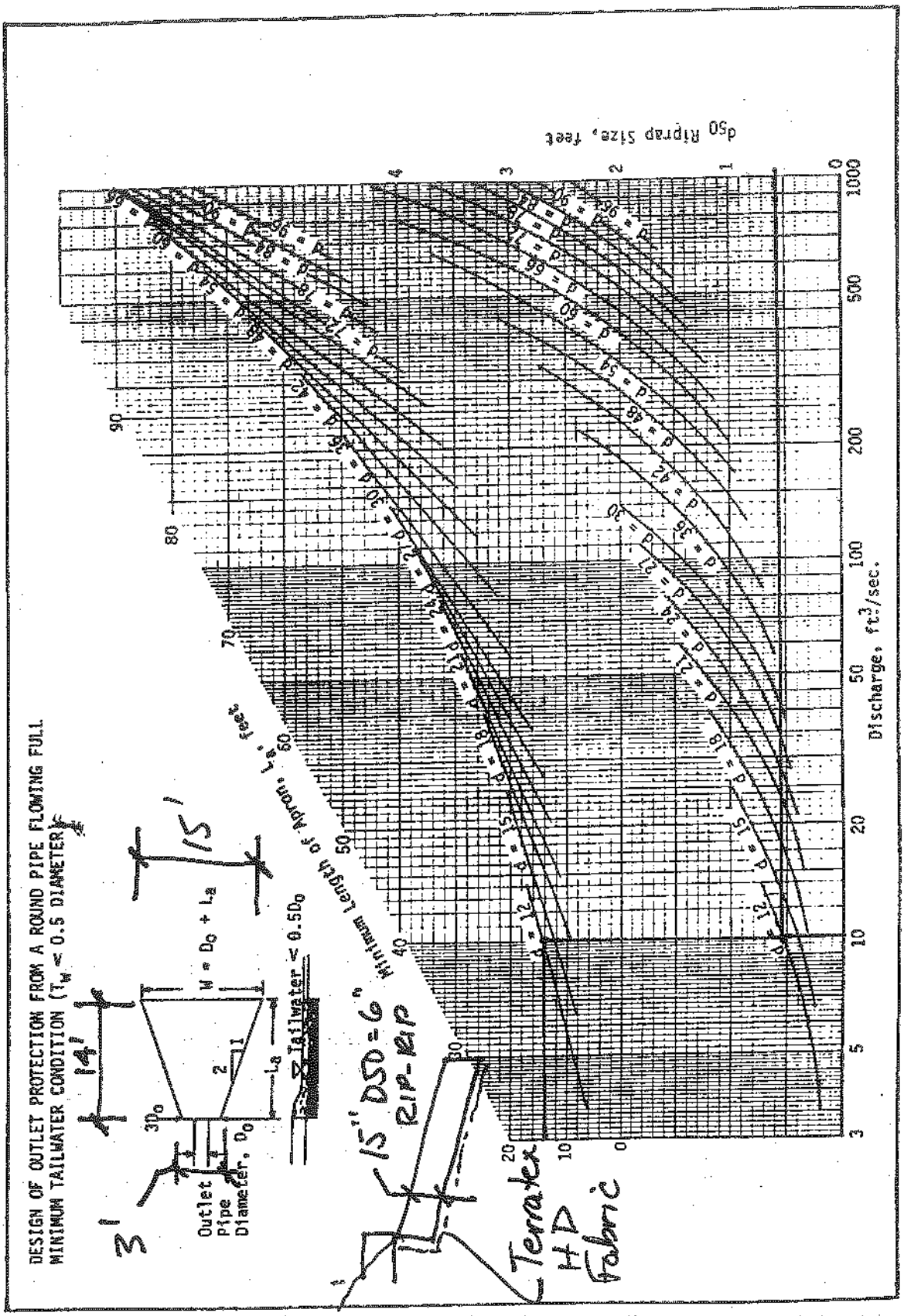
E ter up to 10 weirs.
Enter <Return> only for flowrate and length to end.

E_OWRATE (CFS)	LENGTH (FT)	COEFF (-)	HEAD (FT)
1.30	70.0	3.200	0.03

VEL.

0.62 FT/SEC

Figure 32.1 MINIMUM TAILWATER CONDITION (USDA Soil Conservation Service)



OUTLET PROTECTION FOR DISCHARGE FROM 12" RCP FROM CB #5

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

October 12, 1993

Mr. Rick Knowland, Senior Planner
City of Portland
389 Congress Street
Portland, Maine 04101

RE: WASTE MANAGEMENT OF MAINE

Dear Rick:

On behalf of Waste Management of Maine, Inc. (WMOM), we are pleased to submit this application for Site Plan Approval for various site improvements to the Waste Management of Maine facility at 2000 Forest Avenue in Portland. This facility is the administrative, maintenance and storage facilities for the truck fleet of WMOM. The purpose for the proposed site improvements is to reorganize the truck parking and area for waste containers which already exist on site.

The proposed site improvements include the following items:

1. A paved parking area to accommodate 36 trucks and provisions for electrical hookups

2. Additional storage area for containers

3. Site lighting

4. Stormwater management system including catchbasins, storm drain pipes, wet pond and a level spreader

The following information is in response to your initial review of the Site Plan and our previous discussions.

1. SANITARY SEWER. WMOM has not as yet connected to the public sewer at Riverside Street due to the following reasons:

   - the City of Portland has indicated that this portion of the sewer has already reached capacity;

   - a pump station would be required to connect to the public sewer;

THE STAPLES SCHOOL 70 CENTER STREET PORTLAND, MAINE 04101 TEL. (207) 774-4427 FAX (207) 874-2460

- according to the City of Portland, future plans for extending the sewer in a northwesterly direction along Forest Avenue are immanent.

WMOM currently has approval from the State Department of Human Services to install a 2,000 gallon holding tank. It is also the intention of WMOM to connect to the public sewer as soon as the line is extended along Forest Avenue.

2. TRAFFIC. This proposal, consisting of a paved parking area for 35 trucks and a storage area for containers, is simply a plan which organizes site elements that already exist. The applicant is not proposing any expansion of floor area or additional vehicles at this time.

3. SUMMARY OF OPERATIONS. Please refer to the enclosed Memorandum from Waste Management of Maine.

4. IMPERVIOUS SURFACE. The following calculations illustrate the areas of existing and proposed impervious surfaces:

- Existing structures:	13,100 sq. ft.
- Existing pavement:	42,680 sq. ft.
- Proposed pavement:	71,440 sq. ft.
Total:	127,220 sq. ft. = 2.92 acres

5. CURB AND SIDEWALKS. Granite curb currently exists along the southern edge of Forest Avenue from the Riverside Street/Forest Avenue intersection to the main WMOM entrance off Forest Avenue. A review of the M.D.O.T. plans for the future widening of Forest Avenue calls for granite curbing continuing along the frontage of Forest Avenue to the bridge crossing the Presumpscot River. With regard to sidewalks, WMOM will coordinate with M.D.O.T. for the installation of a bituminous sidewalk along their Forest Avenue frontage during the road widening project.

6. PORTLAND TRAILS. As mentioned in the attached Memorandum, WMOM has notified Portland Trails Association of their intent to grant a public pedestrian easement along the Presumpscot River. Refer to note #6 on the Site Plan.

This application for Site Plan approval includes the following information:

1. Cover letter dated October 12, 1993

2. Memorandum (summary of operations)

3. Stormwater Management Report prepared by BH2M, Inc.

4. Site Plan

5. Site Details

6. Erosion Control Plan

Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,
Mitchell & Associates

John D. Mitchell

Enclosure

cc: Nelson Libby

Waste Management of Maine, Inc.
2000 Forest Ave.
Portland, Maine 04103
207/797-8290 • 1-800/244-8290
FAX: 207/797-8129

A Waste Management Company

MEMORANDUM

Date: October 11, 1993

From: Nelson Libby

To: John Mitchell

Subject: Forest Avenue Property

In response to our phone conversation of last week, I am writing this memo to elaborate on the operations that are based at our 2000 Forest Avenue facility.

The facility is the base of operations for our collections operations in the State. The majority of our collection equipment, tractors, trailers and unused container storage is housed at this operating center.

Our administrative, billing, sales, maintenance, and operations departments are all based out of this facility.

All major equipment maintenance is performed in our garage, to include washing of our equipment. All drains from the maintenance facility have been plugged with concrete, and we utilize absorbent pads to collect any liquids that come from out operations. We utilize a recycling system that collects all of the water from our truck washing bay. Any petroleum based materials that is washed from our vehicles is retrieved through this system, then recycled, with the remaining water shipped to the Portland Water District facility on Marginal Way for processing.

We also refurbish containers on a rotating schedule in our maintenance facility. We utilize a water based paint to minimize potentially dangerous airborne particles, and we collect and dispose of the resulting dust using vacuums.

The only other operation at this facility is the final sorting and distribution of high grade paper for recycling. We collect segregated paper from a large segment of the Portland market, then bring the material back to our shop where it is sorted once again to insure that is contamination free, and prepared for the highest monetary return.

As to the need for a traffic study, I feel that this is premature given the fact that the MDOT is scheduled to reconstruct the bridge near our Forest Avenue entrance, and included in the

project is a widening of the bridge and access lanes. This will impact the traffic flow, and the MDOT will undoubtably do a study after their project is completed. They must have a study on file to justify the project. At this time, our project is to simply to better organize our storage capacity, and better design our on site parking of equipment. We will be making no changes to our entrances until the MDOT project is completed and we have submitted a plan to the City of Portland.

When this plan is submitted to the City, we intent to construct a pedestrian park along Forest Avenue, with reduced access to Forest Avenue. Along the riverbank, as you are aware, we have notified the Portland Trails Association, at the time of closing on the Profenno property, that we intend to make whatever area is necessary to the Portland Trails to continue their plan for a riverside walkway. At the time we had our brief discussion, I was told that it would be "some time" before their project was going to be progressed our property, but they would certainly include our riverbank in their overall plan.

If there are any other questions, please feel free to call me at 797-8290.

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

July 6, 1994

Waste Management of Maine
2000 Forest Avenue
Portland, ME 04103

Attn: General Manager

Re: 2000 Forest Avenue

Dear Sir:

I am writing in an attempt to find out the status of your master plan. Last fall, when the Planning Authority granted approval for the additional paved truck parking area, it was understood that WMOM was to return in the spring with a detailed plan addressing landscaping and other issues. This has not occurred.

One significant issue involved in that master plan was the revision to on-site vehicular circulation with reconstruction of the Riverside entrance to accommodate two (2) way traffic. As John Mitchell may have informed you, the City is in the process of setting the yearly paving schedule. That area is set for improvements this year, and a date will be finalized within 2 weeks. After the street is paved, there is a moratorium on modifications, including driveway openings, for a 5-year period. If you intend to make modifications to your entrance, it is imperative that you contact me immediately. My number is 874-8300, ext. 8722.

I would also like to remind you that significant, additional improvements will be required before January 1, 1995 should you not return with a master plan. These are detailed in your approval letter and on the approved site plans.

Sincerely,

Craig Carrigan, PE
Development Review Coordinator

cc: Paul Niehoff
John Mitchell

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

October 12, 1993

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Portland, Maine 04101

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- Proposed pavement:	71,440 sq. ft.
Total:	127,220 sq. ft. = 2.92 acres

5. CURB AND SIDEWALKS. Granite curb currently exists along the southern edge of Forest Avenue from the Riverside Street/Forest Avenue intersection to the main WMOM entrance off Forest Avenue. A review of the M.D.O.T. plans for the future widening of Forest Avenue calls for granite curbing continuing along the frontage of Forest Avenue to the bridge crossing the Presumpscot River. With regard to sidewalks, WMOM will coordinate with M.D.O.T. for the installation of a bituminous sidewalk along their Forest Avenue frontage during the road widening project.

6. PORTLAND TRAILS. As mentioned in the attached Memorandum, WMOM has notified Portland Trails Association of their intent to grant a public pedestrian easement along the Presumpscot River. Refer to note #6 on the Site Plan.

This application for Site Plan approval includes the following information:

1. Cover letter dated October 12, 1993

2. Memorandum (summary of operations)

3. Stormwater Management Report prepared by BH2M, Inc.

4. Site Plan

5. Site Details

6. Erosion Control Plan

Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,
Mitchell & Associates

John D. Mitchell

Enclosure

cc: Nelson Libby

Waste Management of Maine, Inc.
2000 Forest Ave.
Portland, Maine 04103
207/797-8290 - 1-800/244-8290
FAX: 207/797-8129

A Waste Management Company

MEMORANDUM

Date: October 11, 1993

From: Nelson Libby

To: John Mitchell

Subject: Forest Avenue Property

In response to our phone conversation of last week, I am writing this memo to elaborate on the operations that are based at our 2000 Forest Avenue facility.

The facility is the base of operations for our collections operations in the State. The majority of our collection equipment, tractors, trailers and unused container storage is housed at this operating center.

Our administrative, billing, sales, maintenance, and operations departments are all based out of this facility.

All major equipment maintenance is performed in our garage, to include washing of our equipment. All drains from the maintenance facility have been plugged with concrete, and we utilize absorbent pads to collect any liquids that come from out operations. We utilize a recycling system that collects all of the water from our truck washing bay. Any petroleum based materials that is washed from our vehicles is retrieved through this system, then recycled, with the remaining water shipped to the Portland Water District facility on Marginal Way for processing.

We also refurbish containers on a rotating schedule in our maintenance facility. We utilize a water based paint to minimize potentially dangerous airborne particles, and we collect and dispose of the resulting dust using vacuums.

The only other operation at this facility is the final sorting and distribution of high grade paper for recycling. We collect segregated paper from a large segment of the Portland market, then bring the material back to our shop where it is sorted once again to insure that is contamination free, and prepared for the highest monetary return.

As to the need for a traffic study, I feel that this is premature given the fact that the MDOT is scheduled to reconstruct the bridge near our Forest Avenue entrance, and included in the

project is a widening of the bridge and access lanes. This will impact the traffic flow, and the MDOT will undoubtably do a study after their project is completed. They must have a study on file to justify the project. At this time, our project is to simply to better organize our storage capacity, and better design our on site parking of equipment. We will be making no changes to our entrances until the MDOT project is completed and we have submitted a plan to the City of Portland.

When this plan is submitted to the City, we intent to construct a pedestrian park along Forest Avenue, with reduced access to Forest Avenue. Along the riverbank, as you are aware, we have notified the Portland Trails Association, at the time of closing on the Profenno property, that we intend to make whatever area is necessary to the Portland Trails to continue their plan for a riverside walkway. At the time we had our brief discussion, I was told that it would be "some time" before their project was going to be progressed our property, but they would certainly include our riverbank in their overall plan.

If there are any other questions, please feel free to call me at 797-8290.

reviewed at OCT 7

WASTEWATER MANAGEMENT

BILL B
CARLON
BILL G.

Sanitary sewer
Stormwater
traffic analysis

narrative on the operation

DGP issue

treat for 1st flush

diver — baffles
1st pollutant
1/2 inch

1st 1/2 in sewer

remaining in level spreader

* sidewalk issue

SHADOWAY ACCESS

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

October 7, 1993

Mr. Alex Jaegerman, Chief Planner
City of Portland
389 Congress Street
Portland, Maine 04101

RE: WASTE MANAGEMENT OF MAINE

Dear Alex:

On behalf of Waste Management of Maine, Inc. we are pleased to submit this application for Site Plan Approval for various site improvements to the Waste Management of Maine facility at 2000 Forest Avenue in Portland.

The proposed site improvements include the following items:

1. A paved parking area to accommodate 35 trucks and provisions for electrical hookups.

2. Additional storage area for containers.

3. Site lighting.

4. Stormwater management system including catchbasins, storm drain pipes, detention basin and level spreader.

The drainage and topography of the site is fully described on the attached drawings and in the accompanying Stormwater Management Report.

Waste Management of Maine anticipates beginning immediately upon approval and the estimated time of completion is December, 1993.

This application for Site Plan approval includes the following information:

1. Cover letter dated October 7, 1993

2. Erosion Control Plan

3. Site Plan

4. Site Details

5. Stormwater Management Report prepared by BH2M, Inc. (forthcoming)

THE STAPLES SCHOOL 70 CENTER STREET PORTLAND, MAINE 04101 TEL. (207) 774-4427 FAX (207) 874-2460

Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,
Mitchell & Associates

John D. Mitchell

Enclosure

cc: Nelson Libby

EROSION AND SEDIMENT CONTROL PLAN

This Plan has been developed as a strategy to control soil erosion and sedimentation during and after construction of the Waste Management of Maine site improvements.

A. PROPOSED DEVELOPMENT

Waste Management of Maine is proposing to construct a paved parking area for their trucks and an additional storage area for containers.

The parking lot, storage area, detention basin, and their associated grading define the limits of proposed earth movement for the Waste Management of Maine site improvements. The horizontal and vertical placement of the parking lot and storage area has been designed to maximize the topographic opportunities available and to minimize the impact of slopes associated with the required fill necessary to the function of the site. Final grading has been designed to minimize potential for erosion and sedimentation.

B. EROSION CONTROL PRACTICES / TEMPORARY MEASURES

The following temporary measures to control erosion and sedimentation shall be utilized:

1. Each ground area, opened or exposed, whether directly or indirectly due to the development, shall be minimized and shall be stabilized within 15 days of initial disturbance of soil and shall be permanently stabilized within seven days of final grading.

2. Temporary soil stabilization shall be either by temporary mulching, temporary seeding, permanent base gravel, or asphalt binder course as follows:

   TEMPORARY SEEDING. Seed shall be Aroostook rye applied at 2.60#/1000SF. Lime shall be agricultural ground limestone applied at 138#/1000SF. Fertilizer shall be 10-10-10 classification applied at 13.8#/1000SF. Mulch shall consist of hay or straw mulch and spread evenly at a rate of 70-90#/1000SF. Temporary seedings shall only be made between April 15 and October 1, and shall not be placed over snow.

TEMPORARY MULCHING. Mulch shall consist of chopped hay or straw mulch and spread by mechanical blower evenly at a rate of 150-200#/1000SF. Temporary mulch shall be removed prior to permanent soil stabilization. Mulch shall not be placed over snow. Snow shall be removed prior to mulching.

PERMANENT BASE GRAVEL. Base gravel under pavement shall be suitable as temporary soil stabilization under the following conditions:

1. Slopes shall be less than five percent.
2. Gravel shall meet the specifications for base or subbase gravel for the proposed completed pavement.

ASPHALT BINDER COURSE. Asphalt binder shall meet the specifications for the asphalt binder course for the proposed completed pavement.

3. Prior to topsoil removal, silt fencing shall be staked as shown on the Plans.

4. Stripped topsoil shall be stockpiled for reuse during final grading. The pile shall be heavily mulched with hay while stockpiled.

5. Low point sedimentation control barriers shall surround all proposed and existing catchbasin rims, where required.

C. EROSION CONTROL PRACTICES / PERMANENT MEASURES

The following permanent measures to control erosion and sedimentation shall be utilized:

1. Permanent seeding shall be performed during construction operations as each disturbed area has been brought to finish grade. Permanent seedings shall be made as dormant seeding after the first killing frost. Dormant seeding and mulch shall be used at two times the permanent seeding rate shown below for lawns. Seed, loam, lime, fertilizer, and mulch are to be as follows:

SEED. The seed mixture shall consist of seeds proportioned by weight. All seed shall be fresh, clean, "new crop" seed. Harmless inert matter and weed seeds shall be permitted up to 1 percent of the gross weight of each variety of seed. All seed supplied shall be packed in approved containers bearing the manufacturer's name and analysis of contents. The following materials and application rates shall be required for permanent seeding:

Lawn - Creeping red fescue:	0.69#/1000 SF
Kentucky bluegrass:	0.57#/1000 SF
Perennial ryegrass:	0.46#/1000 SF
Redtop:	0.12#/1000 SF
Total:	1.84#/1000 SF

LOAM. Loam shall be free of grasses and large stone. Place loam at six inches minimum depth over all disturbed areas.

LIME. Lime shall be agricultural ground limestone and applied as per recommendation of a State Commercial Soil Testing Laboratory.

FERTILIZER. Fertilizer shall be 10-20-20 classification and applied as per recommendation of a State Commercial Soil Testing Laboratory.

MULCH. Mulch shall consist of hay or straw mulch. Mulch shall be spread evenly at a rate of two and one half tons per acre over all seeding. After application, the mulch shall be thoroughly wetted.

The contractor shall maintain the seeded and mulched areas until final acceptance of the work. Maintenance shall consist of providing protection against traffic and repairing any areas damaged due to wind, water, erosion, fire or other causes. Such damaged areas shall be repaired to re-establish the condition and grade of the soil prior to seeding and shall then be refertilized, reseeded and remulched.

D. CONSTRUCTION SEQUENCE

The general sequence of work shall be as follows:

1. Grade site, stockpile and protect topsoil with mulching and silt fencing.

2. Temporarily stabilize disturbed areas by mulching all exposed soil within 15 days of initial disturbance.

3. Install stormwater system.
   a. Catchbasins and piping
   b. Low point sediment control barriers
   c. Detention basin
   d. Level spreader

4. Complete site construction work.
   a. Parking and storage area
   b. Site lighting

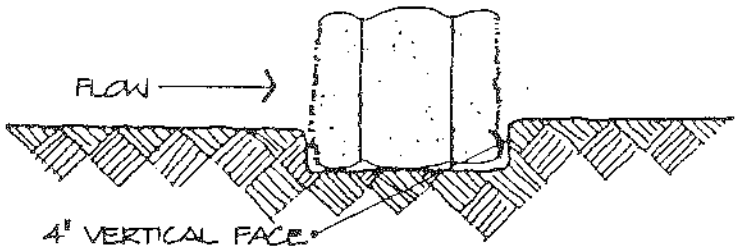
5. Install permanent vegetation on all exposed areas within 15 days of final grading.

6. Perform continuing maintenance on all erosion and sedimentation control devices and measures.

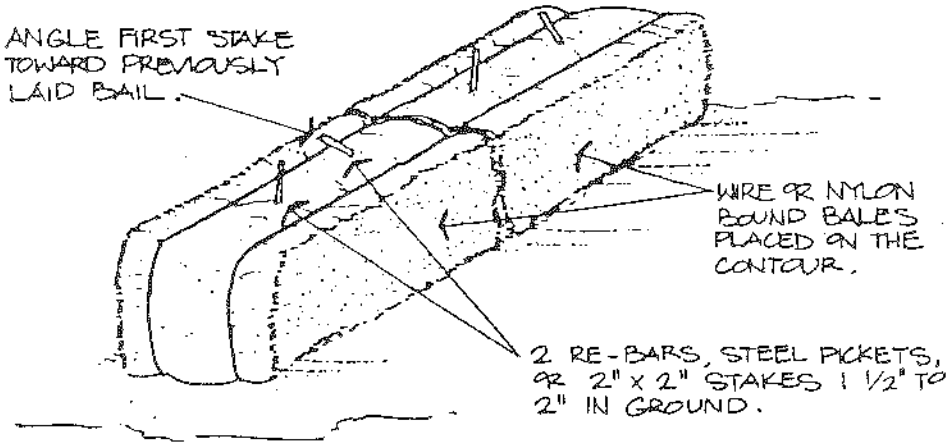
E. SITE INSPECTION & MAINTENANCE

Weekly inspections, as well as routine inspections following rain falls, shall be conducted by the General Contractor of all temporary and permanent erosion control devices until final acceptance of the project. Necessary repairs shall be made to correct undermining or deterioration. Final acceptance shall include a site inspection to verify the stability of all disturbed areas and slopes. Until final inspection, all erosion and sedimentation control measures shall immediately be cleaned, and repaired by the General Contractor as required. Disposal of all temporary erosion control devices shall be the responsibility of the General Contractor.

Continued temporary maintenance and long term provisions for permanent maintenance of all erosion and sedimentation control facilities after acceptance of the project shall be the responsibility of Waste management of Maine, Inc.



EMBEDDING DETAIL

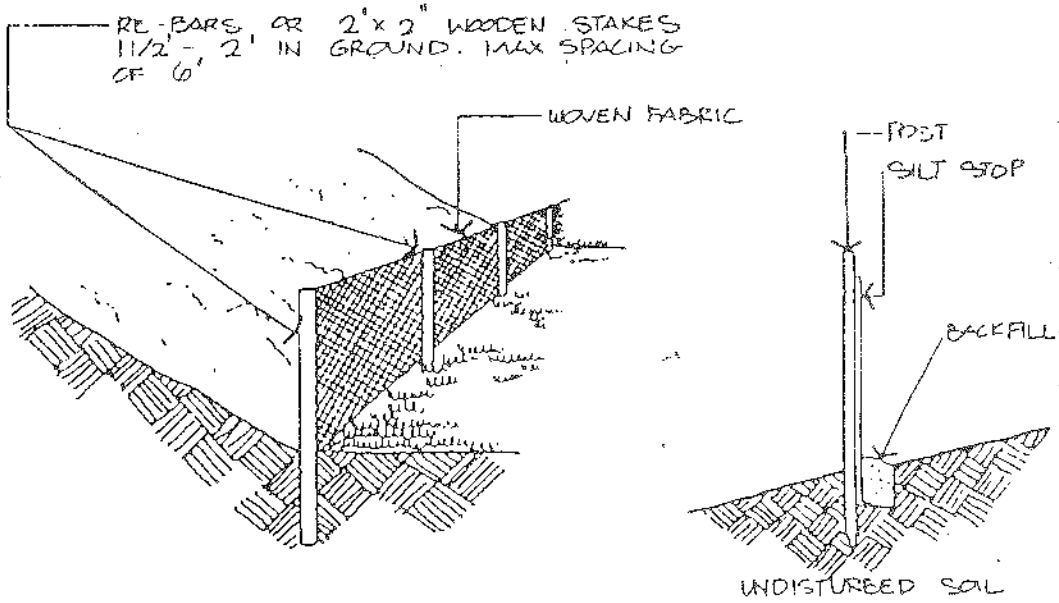


ANCHORING DETAIL

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4'.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE CHECK DAM

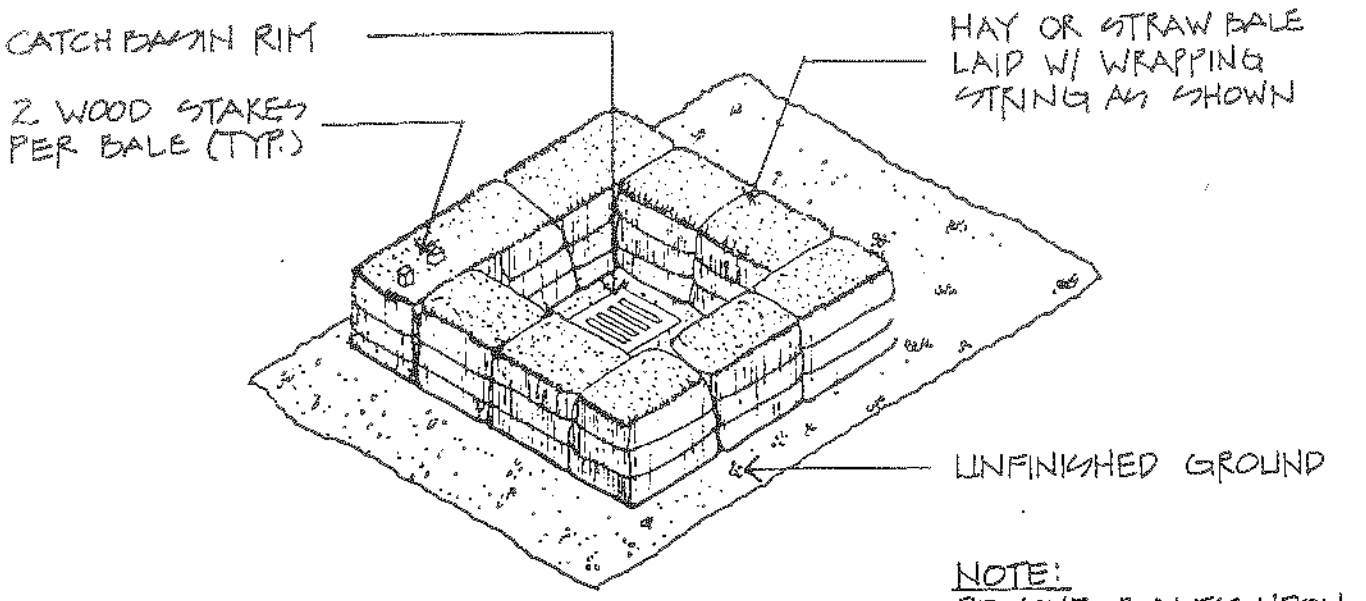
N.T.S.



1. SILT FENCE TO BE INSTALLED PARALLEL TO EXISTING CONTOURS DOWNSLOPE FROM AREAS OF SOIL DISTURBANCE.
2. SILT FENCE TO BE SECURELY ATTACHED TO THE UPSLOPE OF SUPPORTING STAKES.
3. BOTTOM 4 TO 6 INCHES OF SILT FENCE TO BE BURIED IN SLOTE AND BACKFILLED WITH COMPACTED SOIL.
4. INSPECTION SHALL BE MADE AFTER EVERY RAINFALL WITH REMOVAL OF EXCESSIVE SEDIMENT AND REPAIR OF THE FENCE ACCOMPLISHED PROMPTLY.
5. SILT FENCE AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

SILT FENCE

N.T.S.



LOW POINT SEDIMENT CONTROL BARRIER

NOT TO SCALE

Waste Management Disposal Services of Maine--Crossroads
P.O. Box 629
Route 2
Norridgewock, Maine 04957
207/634-2714

A Waste Management Company

March 2, 1998

Ms. Barbara Schwendtner
Maine Department of Environmental Protection
Bureau of Remediation and Waste Management
17 State House Station
Augusta, ME 04333-0017

RE: Waste Management of Maine
Construction and Demolition Material Consolidation Area
Solid Waste Transfer Station Application

Dear Barbara:

Attached is our application for a construction and demolition material consolidation area at the Waste Management of Maine facility on Forest Avenue in Portland, Maine. This application includes information discussed at the pre-application meeting held at the WMME office on November 6, 1997. Public Notice was sent by certified mail to all abutters. The City of Portland was notified as an abutter. Public Notice appeared in the Portland newspaper on February 28, 1998. A copy of that notice is attached, as is the application fee of $952.00.

Please contact me with any questions you may have regarding this application.

Sincerely
WASTE MANAGEMENT OF MAINE, INC.

Paul F. Burns, P.E.
Environmental Engineer II

PFB/pfb

Attachment

cc: City of Portland
Jeff Taylor - WMME

file: C&D Consolidation Area

LEGAL ADVERTISEMENT

PUBLIC NOTICE OF INTENT TO FILE

Please take notice that Waste Management of Maine, Inc. 2000 Forest Avenue, Portland, Maine 04101, 207-797-2406, is intending to file an application with the Maine Department of Environmental Protection (DEP) on or about February 27, 1998 pursuant to the provisions of 38 M.R.S.A., Section 1301 et seq. and 06-096 CMR Chapter 400 et seq.

The application is for a containerized construction and demolition material consolidation area at the Waste Management of Maine, Inc. facility at 2000 Forest Avenue in Portland, Maine which is owned and operated by Waste Management of Maine, Inc.

According to Department regulations, interested parties must be publicly notified, written comments invited, and if justified, an opportunity for public hearing given. A request for a public hearing, or that the Board of Environmental Protection assume jurisdiction of the application, must be received by the Department, in writing, no later than 20 days after the application is accepted by the Department as complete for processing.

The application and supporting documentation are available for review at the Bureau of Remediation and Waste Management (BRWM) at the DEP regional office in Portland, Maine during normal working hours. A copy of the application and supporting documentation may also be seen at Portland City Hall in Portland Maine.

Send all correspondence to: Maine Department of Environmental Protection, Bureau of Remediation and Waste Management, 17 State House Station, Augusta, Maine 04333-0017 (207-287-2651 or 1-800-452-1942.)

653723

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Solid Waste Program
17 State House Station
Augusta, Maine 04333-0017
Telephone: (207) 287-2651

FOR DEP USE
ATS ID _____
DEP #S- _____
Date Received _____
Fees Paid _____ Ck # _____

APPLICATION FOR A SOLID WASTE TRANSFER STATION OR STORAGE FACILITY

This form shall be used to request approval, pursuant to 38 MRSA, Section 1301 et seq., and Maine's Solid Waste Management Regulations, for the establishment of a new solid waste transfer station or storage facility which (a) would serve a population of 5,000 or more people and/or (b) requires a variance from the regulations.

FEE FOR A TRANSFER STATION OR STORAGE FACILITY: $925.00

PLEASE TYPE OR PRINT

Name of Applicant: Waste Management of Maine, Inc.

Address: 2000 Forest Avenue, Portland, Maine 04101 Tel. No: 207-797-2406

Contact or Agent: Paul F. Burns, P.E.

Address: P.O. Box 629, Norridgewock, Maine 04957 Tel. No: 207-634-2714 ext 123

LOCATION OF ACTIVITY

Name of Project: Construction and Demolition Material Consolidation Area

Street Address: 2000 Forest Avenue

Municipality or Township: Portland, Maine County: Cumberland

By signing this application, the applicant certifies that he or she has: (1) published the public notice form once in a newspaper circulated in the area where the project is located, (2) sent a copy of the public notice form to the owners of property abutting the land upon which the project is located, (3) sent a copy of the public notice form to the chief municipal officer and chair of the municipal planning board of the municipality in which the project is located, (4) filed a complete copy of this application in the municipal office of the municipality in which the project is located, (5) reviewed the instructions contained in this application form, and (6) reviewed the appropriate state laws that relate to the proposed project.

I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

DATE: _____ NAME: _____
(Applicant)
TITLE: Jeff Taylor, General Manager
(If other than applicant, attach letter of agent authorization.)

INSTRUCTIONS

1. You should not hesitate to contact the DEP's staff if questions arise at any point during the application or review process.

2. Pre-Application meeting. Applicants proposing to establish a new transfer station or storage facility are encouraged to meet with DEP staff to discuss the proposed project. The meetings can help avoid unnecessary expense and processing delays.

3. Fill out the application completely. INCOMPLETE APPLICATIONS WILL BE RETURNED, CAUSING UNNECESSARY DELAYS IN THE REVIEW PROCESS.

4. Publish the PUBLIC NOTICE OF INTENT TO FILE FORM once in a newspaper circulated in the area where the project is located. (A form for this is attached to this application.) The notice should appear in the newspaper within 30 days prior to filing the application with the DEP.

5. Send by certified mail, a copy of the PUBLIC NOTICE OF INTENT TO FILE FORM to all the owners of property abutting the project. Their names and addresses can be obtained from town tax maps or local public officials. Abutters must receive notice within 30 days prior to filing the application with the DEP. If your project abuts a road or other public or private right of way, the person on the opposite side of the right of way must be notified.

6. Send by certified mail, a copy of the PUBLIC NOTICE OF INTENT TO FILE FORM to the chief municipal officer and chairperson of the planning board in the municipality where the project is to be located. Send one complete copy of the application and any amendments which are subsequently submitted to the Municipal Office of the town within which the project is located. If the project is located in an unorganized area, send the PUBLIC NOTICE and application to the appropriate Office of the County Commissioners and the Maine Land Use Regulation Commission, 22 State House Station, Augusta, Maine 04333-0022. The notice must be filed in the municipal office within 30 days prior to filing with the DEP. The application must be filed in the municipal office at the time of filing with the DEP.

7. Consult with DEP staff to determine how many copies of the completed application form and supporting reports must be submitted to the Department. In general, three copies of site plans, drawings, soil maps, or other data on sheets larger than 8½" x 14" copies must be submitted unless the staff determines that fewer copies are needed. ALL PLANS SHOULD BE FOLDED TO SIZE 8½" x 11" unless otherwise indicated by the DEP's staff. Any part of the application which has been prepared by a P.E., C.G. or C.S.S. must be stamped and signed by that person. If the applicant is a corporation, a certificate of good-standing from the Secretary of State must be included.

8. For transfer stations proposed for islands, prospective applicants should refer to the setback requirements of 38 MRSA, Section 1310-N(2-D)(A). For transfer stations proposed for the mainland, if any of the following setback requirements are not met, a variance must be sought as part of this application. Consult with the DEP staff to determine that a variance is possible to specific criteria. Chapter 400, Section 11 of the Maine Solid Waste Management Regulations describes the information that must be included in this application if a variance is requested. For variances affecting site location, facility design, and construction, the applicant must present clear and convincing evidence that the facility's location, design, or construction is distinctive in some way that allows for compliance with the intent of the regulations.

   a) The processing facility is not to be located within 100 feet of the solid waste boundary of an active or closed solid waste disposal facility.

   b) The proposed handling site boundary does not lie closer than 500 feet to the nearest residence at the time of application.

   c) There is to be a minimum 250 foot buffer strip between the handling site and all public roads and other property boundaries except that pursuant to 38 MRSA, Section 1310-N(2-D)(B); transfer stations on the mainland, the buffer strip may be a minimum of 100 feet wide provided that:

      b. the municipality obtains the written permission of all property owners within 250 feet of the proposed handling site, OR

      c. the Department finds the abutting property to be a conforming use and the handling site is not within 250 feet of any permanent structure on that abutting property.

   d) The transfer station is not to be located on a 100-year floodplain.

   e) The proposed facility shall not be located in, on, or over a protected natural resource, or on land adjacent to any protected natural resource so that material or soil may be washed into it.

   f) The proposed facility shall not overlie an unstable area.

9. Send the application along with all attachments and a check for the fee made payable to "Treasurer, State of Maine" to: Maine Department of Environmental Protection, Bureau of Remediation and Waste Management, 17 State House Station, Augusta, Maine 04333-0017.

10. Keep a copy of the completed application for your files. This copy will be helpful in speeding up communications with the DEP staff if any questions arise during the review of the project.

11. Upon the approval by the Department of Environmental Protection, a permit will be issued and sent to the applicant. The applicant should read the permit carefully in order to become familiar with any conditions. Failure to comply with conditions of approval may lead to enforcement action or the revocation of a permit.

THIS FORM IS FOR USE IN NOTIFYING ABUTTING PROPERTY OWNERS, THE MUNICIPALITY, AND PUBLISHING THE NOTICE IN THE NEWSPAPER.

PUBLIC NOTICE OF INTENT TO FILE

Please take notice that Waste Management of Maine, Inc.

2000 Forest Avenue, Portland, Maine 04101

207-797-2406

(name, address and telephone number of applicant)

is intending to file an application with the Maine Department of Environmental Protection (DEP) on or about February 27, 1998 pursuant to the provisions of 38 M.R.S.A., Section 1301 et seq. and 06-096 CMR Chapter 400 et seq.

The application is for a containerized construction and demolition material consolidation area.

(summary of project)

at the Waste Management of Maine, Inc. facility at 2000 Forest Avenue in Portland, Maine

(project location)

which is owned and operated by Waste Management of Maine, Inc.

(site operator if different)

According to Department regulations, interested parties must be publicly notified, written comments invited, and if justified, an opportunity for public hearing given. A request for a public hearing, or that the Board of Environmental Protection assume jurisdiction of the application, must be received by the Department, in writing, no later than 20 days after the application is accepted by the Department as complete for processing.

The application and supporting documentation are available for review at the Bureau of Remediation and Waste Management (BRWM) at the DEP regional office in Portland, Maine during normal working hours. A copy of the application and supporting documentation may also be seen at Portland City Hall in Portland (town) Maine.

Send all correspondence to: Maine Department of Environmental Protection, Bureau of Remediation and Waste Management, 17 State House Station, Augusta, Maine 04333-0017 (207-287-2651 or 1-800-452-1942).

REQUIRED INFORMATION

1. **Description.** Provide a brief description of the nature and purpose of the project.

Waste Management of Maine, Inc. (WMME) is proposing to operate a containerized construction and demolition material (C&D materials) consolidation area at its existing facility at 2000 Forest Avenue in Portland, Maine. WMME currently transports roll-off containers of C&D materials, ranging in size from 30-50 cubic yard, from customer's locations to various DEP approved C&D disposal sites. WMME is proposing to consolidate these smaller roll-off containers into larger, 100 cy trailers prior to transport to the disposal facility in order to reduce the number of trips to the disposal facility.

2. **Schedule.**

a. Proposed date of start of construction: No new construction is required for this project.

b. Proposed date of start of operation: April 1, 1998

c. Anticipated lifetime of facility use: 20+ years

3. **Site information.**

a. Attach copies of deeds, leases, contracts or agreements which establish the applicant's title, right or interest for the proposed site. **SEE ATTACHMENT 1**

b. Attach a copy of the municipal tax map with the proposed site and names of abutting property owners clearly marked. **SEE ATTACHMENT 2**

c. State the number of acres included in the facility site:

Total Acreage 18.95 Acres owned 18.95

Acres Leased NA Acres optioned NA

Other (explain) NA

4. **Existing use.** Describe the existing use of the site. The site is currently used by WMME as a base for its waste hauling operation in the Portland area. The operation includes offices, a maintenance facility, fueling station, and container storage.

5.* **Abutters.** List the names and addresses of all the owners of property abutting the proposed facility site:

NAME	ADDRESS
SEE ATTACHMENT 2	

(provide additional names and addresses on a separate sheet, if necessary)

6. **Site design characteristics.** Submit an engineering design that includes at a minimum:

   a. Plan Views of the Site. A detailed plan at a scale of 1 inch = 100 feet or larger engineering scale. this plan should clearly indicate the waste handling boundary, the facility boundary, and the property boundary; all existing and proposed buildings, structures, roads, parking lots, wells, etcetera; and all surface water bodies and the 100- year floodplain where applicable. All these items shall be noted to a distance of at least 500 feet outside the handling site boundary. The distance and direction to the nearest residence(s) should also be noted. **SEE APPENDIX B OF ATTACHMENT 3**

   b. Plan Views of the New Structures and Utilities. Construction drawings at a scale of 1 inch = 10 feet or a larger engineering scale. These should clearly indicate any building(s) (including foundation), compacting unit, transfer trailer, water lines, sewer lines, etc. Also include specifications for all compacting equipment and the transfer trailer. Any other type of solid waste management functions to be incorporated at the facility should also be clearly indicated. **N.A., NO NEW CONSTRUCTION**

   c. Profile Views of the Site. Detailed profile views of the facility site must be provided for access roads, water drainage (swales, ditches, etc.), fences, gates, existing and final grades (above sea level), facility superstructure, utilities, transfer trailer, and any other structures. **N.A., NO NEW CONSTRUCTION**

7. **Operations manual.** Submit an operations manual, suitable for use by facility personnel in its submitted form, which includes at a minimum all information that would enable supervisory and operating personnel and persons evaluating the operation of the facility to determine what sequence of operation, plans, diagrams, policies, procedures, and legal requirements are to be followed for orderly and successful operation on a daily and yearly basis. The operations manual must address all the applicable requirements specified in DEP Regulations Chapter 402, Section 4. Variances from operational requirements may be requested pursuant to Chapter 400, Section 11 of the Solid Waste Management Regulations. **SEE ATTACHMENT 3**

8. **Financial statement.** This statement must demonstrate the financial capacity of the applicant to develop the project in a manner consistent with the State environmental standards and laws. Include the estimated total cost of the project, and itemize major categories including costs of activities to be devoted to minimizing or preventing adverse effects on the surrounding environment during construction and/or operation of the facility. Private concerns should attach a statement that details how the project will be financed. Municipal or quasi-municipal projects should indicate where the money to undertake the project will be obtained, (e.g. general funds, revenue sharing, etc.), and should give evidence that the municipality has authorized the expenditure of funds for this project. **SEE ATTACHMENT 4**

9. **Management.** If the proposed project will be managed by other than the applicant, state the persons or businesses that will be responsible for management and operation of the facility.

   The proposed operation will be managed by current facility management.

10. **Technical ability.** Submit information about the applicant's or operator's prior experience and/or appropriate training related to the nature of the proposed facility. **SEE ATTACHMENT 5**

11. **Other authorizations.** Identify all environmental or land use licenses, permits, or authorizations which are or may be required by any governmental agency. Indicate those now held with an asterisk(*); indicate when the remaining licenses and permits will be obtained.

Building permit:	NA	Waste discharge license:	NA
Plumbing permit:	NA	Highway entrance license:	NA
Air emissions license:	NA	Other (describe):	NA

12. **Adverse environmental effect.** Indicate whether the proposed project will adversely effect the following factors in the project vicinity. Explain any planned mitigating measures, include and reference any supporting documentation. Provide a detailed report to address each of the following items. State the reasons why any item may not be applicable.

a) Air quality: No air emissions are anticipated from this operation.

b) Identify any sources of odors from the proposed project, the area affected by the odor(s) and how odors will be controlled, reduced, or eliminated. NA. No odors are anticipated from the C&D materials.

c) Surface water quality: NA. All C&D materials are to be containerized which will have no adverse effect on surface water quality.

d) Natural drainage ways: NA. No change is proposed to current drainage patterns.

e) Runoff/infiltration relationships: NA. No changes are proposed which would affect the runoff/infiltration relationship.

f) Erosion and sedimentation control: None necessary, as no new construction proposed.

g) Ground water quality: NA. All waste will be containerized and no leachate generation is anticipated. No change to groundwater is expected.

h) Noise levels: No increase in noise above current operation is anticipated.

i) Scenic character: Not applicable as the current operation and the proposed project are not visible from adjacent roadways.

j) Wildlife and fisheries: There will be no effect to wildlife and fisheries as a result of this project.

13. **Sufficient and healthful water supplies.** Identify the source of water to be used on site. Include any documentation necessary to verify sufficiency and healthfulness.

There will be no change in water usage from that of current operations other than small amounts of water used as necessary to control dust. Water is supplied to the WMME facility by the Portland Water District.

14. **Disposal of wastewater, washdown water and leachate.** Identify what toilet facilities will be provided and how contaminated liquids will be managed.

Wastewater, washdown water and leachate will not be generated from the proposed operation as no additional employees or equipment are proposed. Employees currently utilize toilet facilities within the WMME facility. As the proposed project is a containerized operation, no washdown water or leachate will be generated.

15. **Traffic Movement.** Little additional traffic is anticipated as a result of this proposal. Existing entrances and roadways are adequate for all traffic associated with current operation.

a. Present condition of the public access routes to the proposed facility:

i. Road name or route number: Route 302 and Riverside Street (access from either)

ii. Type and condition: Both roadways are paved and in good condition.

iii. Width of travel surface (excluding shoulders): 48' for Route 302; 40' for Riverside.

iv. Width of road shoulder: unknown.

v. Number of lanes: Both roadways are four lane.

vi. Vehicular weight limits: 100,000 lb on both roadways.

vii. Responsibility for maintenance: The State maintains Route 302; The City of Portland maintains Riverside Street.

viii. Unusual conditions that affect traffic flow: N.A. for both roadways.

b. Numbers of cars, pick-up trucks, and large commercial trucks anticipated to be traveling to and from the site each day:

existing cars 15-25 pick-up trucks 15-25 commercial trucks 40-50

The proposed facility will add approximately 5-10 commercial trucks.

c. Characteristics of interior roads and parking system for the facility site. Describe standards to be used and include a typical cross-section of roads proposed.

N.A. No new interior roads are proposed.

d. For each road, describe the type of surface, number of travel lanes, width of travel surface, width of road shoulders, width of right-of-way, length of road, and the construction schedule. For parking lots, note lot size and number of spaces.

N.A. See 15.c above.

e. Who is responsible for maintaining interior roads and parking lots? Waste Management is responsible for maintaining interior roads and parking areas.

16. **Topographic Map.** The most recent full size U.S.G.S. topographic map (7.5 minute series if available) within 500 feet of the facility site boundary. **SEE ATTACHMENT 6**

17. **Floodplain Map.** The most recent U.S.G.S., Army Corps of Engineers or Federal Insurance Administration 100-year frequency floodplain map of the area. **SEE ATTACHMENT 7**

18. **Maine Highway Map.** Maine Highway Map with the haul route from the transfer station to the disposal facility clearly marked. Appendix D of Attachment 3 lists disposal or recycling facilities to be utilized. Other than travel to the local site, Riverside, haul vehicles will use either the Forest Avenue or Riverside entrance, travel to Exit 8 of the Maine Turnpike and proceed North or South on the turnpike to the destination facility.

19. **Contracts for Solid Waste Disposal.** A signed contract with an approved solid waste disposal facility shall be submitted with the application. **SEE APPENDIX D OF ATTACHMENT 3**

20. **Disclosure statement.** This should include information on the criminal or civil record of the owner, operator, or anyone having a legal interest in the applicant or the facility, as described in Chapter 400, Section 4(H) of the Maine Solid Waste Management Regulations. **SEE ATTACHMENT 8**

21. **If a variance or variances are being requested as part of this application, specify the nature of the variance and the justification for why it should be granted.**

Waste Management of Maine, Inc. is requesting a variance from the setback requirement in 06-096 CMR 402.3 (B)(2)(a) relative to 5 residential structures on the East side of Riverside Street, and one residential structure on the West side of Riverside Street. These structures and/or associated distances from the proposed project are shown on the Site Plan (Appendix B of Attachment 3). The distances range from 349' to 492' which are less than the 500' requirement. The consolidation of C&D materials at the proposed facility will have no impact on these residences due to the distance, screening (trees, etc.) and existing commercial/industrial nature of the area.

CONSTRUCTION AND DEMOLITION MATERIAL CONSOLIDATION AREA

OPERATIONS MANUAL

Waste Management of Maine, Inc.
2000 Forest Avenue
Portland, Maine 04101

CONSTRUCTION AND DEMOLITION MATERIAL CONSOLIDATION AREA OPERATIONS MANUAL

TABLE OF CONTENTS

CONSTRUCTION AND DEMOLITION MATERIAL CONSOLIDATION AREA OPERATIONS MANUAL

1.0 INTRODUCTION

The purpose of this manual is to provide guidance for personnel operating the Construction and Demolition Material Consolidation Area (C&D Area) in regards to maintaining safe and sanitary conditions as well as complying with the Maine Department of Environmental Protection (MDEP) license.

This facility will consolidate C&D and oversized bulky waste from Maine towns and businesses. An approximate 50' x 100' gravel area is utilized to consolidate smaller C&D loads into larger trailers for transport to disposal facilities.

The WMME Operations Supervisor oversees the operation of the C&D Area and conveys pertinent incidents to the Facility General Manager. Facility operators shall read this manual and become familiar with all operating procedures. This manual will reflect current operating procedures and will be reviewed and updated at least annually.

If any employee has questions concerning the contents of this Operations Manual they should contact their supervisor. A copy will be located in the WMME Main Office.

2.0 OPERATING INFORMATION

2.1 Operating Hours

The C&D Area will manage C&D materials 5 days per week. The operating hours are Monday through Friday 7:30 a.m. to 4:00 p.m. The C&D Area operator shall be available during all operating hours. The WMME dispatchers are responsible for scheduling transportation of containers and loaded trailers to and from the C&D Area.

2.2 Access to Facility

All WMME vehicles use existing entrances off Forest Avenue or Riverside to access the C&D Area.

Access to the C&D Area is controlled with security fencing and gates located at both entrances. The purpose of the fencing is to prevent the public and other unauthorized persons from entering the C&D Area due to potential safety hazards. "NO TRESPASSING" signs will be posted at both entrances on the fencing and maintained by WMME. Gates are closed when the WMME facility is unattended. WMME employees close the gates at approximately 8:00 PM and re-open them at approximately 6:00 AM.

3.0 COMMUNICATIONS

A two-way radio is used for communication between the C&D Area and the Main Office. The Main Office is equipped with phones which can be utilized to contact the police, fire department, emergency medical services, Maine DEP, and/or the City should an emergency occur. Refer to Appendix D of this Operations Manual for a directory of emergency phone numbers.

4.0 DESCRIPTION OF WASTES ACCEPTED

4.1 Acceptable Waste

Only construction and demolition materials are to be accepted at this facility. Municipal solid waste, special waste or hazardous waste is not to be accepted for consolidation. Asbestos containing materials, sludges and ash are the most common special wastes encountered. All employees working at the C&D area will be trained to identify special and hazardous waste per the Waste Management special waste program. The WMME drivers are responsible for inspecting the contents within the roll off containers to ensure that municipal solid waste, special waste or hazardous waste, putrescibles or free liquid are not transported to the C&D Area. If in doubt the driver will communicate with the generator to identify the materials in the container(s).

4.2 Hazardous and Special Waste Exclusion Plan

If municipal solid waste, special or hazardous waste, putrescibles, free liquids or other materials prohibited by Federal, State and City regulations are identified in roll off containers at sites where C&D materials are generated and accumulated, they will not be transported to the C&D Area. If a roll off container with unacceptable material in the load is inadvertently transported to the C&D Area, or if special or hazardous waste is encountered during consolidation of containers at the C&D Area, the container(s) special or hazardous waste will be temporarily segregated from the other containers, tarped and labeled to prevent disturbance. The WMME dispatcher shall be contacted by the truck driver or equipment operator. The dispatcher shall make immediate arrangements with the generator and the appropriate, licensed waste contractor to handle, transport and dispose of the material. WMME is licensed to transport special waste. A company such as Clean Harbors will be utilized for hazardous waste management.

5.0 SITE OPERATION

The Site Plan of the C&D Area is included in Appendix B. Signs will be maintained at the C&D Area which indicate where waste containers are to be unloaded.

5.1 Standard Operating Procedure

- **Direction**

The driver of the waste hauling vehicle will unload the C&D container from his truck directed by the facility operator. Once a sufficient number of containers are in the area, the facility operator will consolidate the smaller load with other smaller loads into a larger trailer for transport to the disposal facility. **No C&D materials will be dumped on the ground.**

- **Recyclable Material**

Depending upon the market conditions it may be feasible to separate material from the waste stream for recycling. Workers perform this task either manually or mechanically. These recyclable materials are placed within roll-off containers nearby. Once containers are full, they will be hauled to the appropriate recycling facility. Refer to Appendix C for a listing of facilities to be utilized.

- **Non-Recyclable Material**

A pulp loader, front end loader or similar equipment is utilized to consolidate smaller C&D loads into transfer trailers while compacting as needed to achieve maximum hauling capacity. The material is transported to a disposal facility. Refer to Appendix C for a listing of disposal facilities to be utilized.

5.2 Equipment

The equipment utilized at the C&D Area is a front end loader, pulp loader or other similar equipment. Backup equipment can be rented within close proximity of the facility should any be needed. Daily routine mechanical inspections and scheduled preventative maintenance are performed on all equipment to ensure proper operation of the equipment and the facility.

5.3 Leachate

No leachate is expected from this operation as all C&D waste is to remain containerized, and will be shipped off-site within a short time frame (typically less than two weeks.

5.4 Operational Records

WMME maintains records of all C&D containerized movement from the source of generation to disposal. These records enable WMME to identify a generation source for each container, whether the container was consolidated and the C&D Area and the disposition (i.e., landfill, processing facility, incinerator, etc.) of each container. The records are maintained in a computer database which is available for DEP review

at the WMME office during normal working hours.

6.0 GENERAL SITE MAINTENANCE

The WMME Operations Supervisor will check the C&D area at least daily to ensure operations are in accordance with this manual.

6.1 Control of Litter

All containers of C&D materials will be tarped if they are to be stored on-site for more than five days. WMME shall provide daily litter control as well as maintain cleanliness of the gravel surface.

6.2 Dust and Odor Control

WMME shall undertake suitable measures to control dust and odors as necessary. Water is available at the facility which can be used to moisten dry or dusty loads to control nuisance dust conditions.

6.3 Fire Protection

The City of Portland Fire Department will be available for emergency needs. WMME vehicles are equipped with detachable fire extinguishers for minor fires.

6.4 Erosion Control

As the area is a level, gravel pad with vegetated areas adjacent and down-gradient, as well as a stormwater management structure down-gradient, no additional permanent erosion controls are necessary.

6.5 Vector Control

As this is a C&D material area, vectors should not be a problem. However, if a problem does develop, a program will be initiated to control vectors.

6.6 Restrooms

Workers utilize the toilet facility located within the WMME offices/maintenance facilities.

7.0 SAFETY

WMME dispatchers are responsible for safety. Monthly safety meetings are held for all operating personnel. The agenda for the safety meetings satisfies Federal, State, and Waste Management training requirements. The dispatcher is responsible for the day to day safety concerns at the C&D Area including the dissemination of safety related information to the

truck drivers and other personnel associated with the C&D Area. The dispatcher is also responsible for contacting the police, fire department, emergency medical service and the Maine Department of Environmental Protection should the need arise at the C&D Area.

WMME equipment operators are responsible for the safe and efficient consolidation of C&D material. The equipment operator shall assist the truck drivers in maintaining adequate container lay down and safe truck turn around areas and ensuring that wind blown litter and dust is minimized at the site when consolidating C&D material.

All personnel working at the C&D Area are required to wear hard hats, steel toed boots, and proper protective clothing. Hard hats can be obtained from the Main Office.

In the event of an accident, Facility Management and/or necessary emergency personnel shall be contacted immediately and be provided a description of the accident and the extent of injuries (if any).

All WMME trucks are equipped with first aid kits for minor injuries. First aid kits are also available in the WMME office.

APPENDIX A

DEP License
(to be attached upon issuance)

APPENDIX B

Site Plan

APPENDIX C

CONSTRUCTION AND DEMOLITION MATERIAL CONSOLIDATION AREA

Disposal Facility Listing

FACILITY	WASTE TYPE
Crossroads Landfill Norridgewock, ME	C&D
TLR-III Landfill Rochester, NH	C&D
Riverside Portland, ME	C&D
Industrial Metal Arundel, ME	Metal
Mid Maine Metals Auburn, ME	Metal
Commercial Paving Scarborough, ME	Brick & Block
FTI Lewiston, ME	Wood

APPENDIX D

Emergency Phone Numbers

	Phone	Beeper
Charlie Bean	767-1301 824-3165	870-8569
Geoff Hart	892-4386	870-9236
Jim Brown	892-1448	758-7025
Jeff Taylor	885-0429	
Fire	911	
Police	911	
Ambulance	911	

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

September 28, 1995

Mr. John Mitchell
Mitchell and Associates
70 Center Street
Portland, ME 04101

Re: Waste Management of Maine, 2000 Forest Avenue

Dear Mr. Mitchell:

On September 27, 1995 the Portland Planning Authority granted minor site plan and shoreland approval for a landscaped park and 19 space parking lot on the Waste Management of Maine site in the vicinity of 2000 Forest Avenue.

The approval is subject to the following conditions:

1. No tree clearance shall take place beyond the area of improvements shown on the plan.

2. Prior to the clearing of any vegetation for the trail, the applicant shall contact the City Arborist who shall review and approve any tree clearance.

The approval is based on the submitted site plan. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

Please note the following provisions and requirements for all site plan approvals:

1. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. A one year extension may be granted by this department if requested by the applicant in writing prior to the expiration date of the site plan.

2. A performance guarantee in a form acceptable to the City of Portland and an inspection fee equal to 1.7% of the performance guarantee will have to be posted before beginning any site construction or issuance of a building permit.

3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.

5. If work will occurr within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Poliskey at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

If there are any questions, please contact the Planning Staff.

Sincerely,

Joseph E. Gray, Jr.
Director of Planning and Urban Development

cc: Alexander Jaegerman, Chief Planner
Richard Knowland, Senior Planner
P. Samuel Hoffses, Chief of Building Inspections
Marge Schmuckal, Zoning Administrator
George Flaherty, Director of Environmental/Intergovernmental Services
Kathi Staples PE, City Engineer
James Seymour, Acting Development Review Coordinator
William Bray, Deputy Director/City Traffic Engineer
Jeff Tarling, City Arborist
Paul Niehoff, Materials Engineer
Natalie Burns, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Mary Gresik, Building Permit Secretary
Kathleen Brown, Assistant Director of Economic Development
Approval Letter File

WMOM

off hours and weekends public can use the park

stone wall will complement the Rochester Trolley park

stone wall

light brown area used for container storage

* grant having the sidewalk is OK
* Jeff T. will put in the curbing

Kathy says a sidewalk is not necessary
wants a 10 foot strip of lawn

Donna wants plan of Riverside St

administrative site plan review for park

300

23
25
115
46
575
300
875

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

September 12, 1995

Mr. Richard Knowland, Senior Planner
Portland Planning Department
389 Congress Street
Portland, Maine 04101

RE: WASTE MANAGEMENT OF MAINE

Dear Rick:

On behalf of Waste Management of Maine (WMOM), we are pleased to submit this Site Plan Application for the development of a small park located in the front portion of their property at 2000 Forest Avenue. The park will be a significant green space within the community, serving to complement Riverton Trolly Park as a major entry point to the City of Portland.

THE SITE

The parcel is an 18.95 acre site that serves as Waste Management's operations facility in the State. It is "L" shaped with approximately 620 feet of frontage on Riverside Street and approximately 662 feet of frontage along Forest Avenue. It is bordered on the southwest by vacant land owned by Bluerock Industries, on the northwest by the Prescumpscot River for approximately 1,064 feet of frontage, and on the southeast by two single family residences and Don's Power Equipment. The property is zoned B-2.

The buildings consist primarily of an 8,500 square foot vehicular maintenance space and a 4,000 square foot office space. Approximately 28 percent of the site is used for the facilities operation. The remainder of the site includes a vacant area, consisting of approximately 60,000 square feet, that was utilized as a staging area for the reconstruction of the new bridge over the Presumpscot River. This is the area proposed for the new park. The balance of the site is wooded.

PARK DESIGN

The general concept of the park is to reclaim the northwest portion of their property along Forest Avenue that will serve as an amenity for Waste Management employees and the general public, as well as provide an aesthetically pleasing corporate image for their facility.

There are design elements within the park, that together, help tie the site into the surrounding area. The curvilinear form of the parking lot allows the formation of earth berms to flow more easily throughout the park. The berms in turn, buffer the pavement and automobiles, thus reducing the

visual impact. The walkway leading into the park follows the shape of the parking area and tends to flow with the landscape.

The long circular stonewall follows the path towards the wooded area before terminating at the edge of the existing vegetation. The wall forms a separation between the busy traffic on Forest Avenue and the quiet open space within the park. The material of the stonewall reflects the use of stone at Riverton Trolly Park on the opposite side of Forest Avenue.

As the path continues, the Presumpscot River comes into view through the trees. The existing bank of trees will be preserved separating the park from the proposed trail along the river. Sitting and picnic areas have been tucked into and located next to earth berms, providing the park with an intimate quality.

PEDESTRIAN WALKWAYS

As part of the Presumpscot River bridge reconstruction project, a paved pedestrian walkway was constructed under the bridge on the southeast side of the river. This walkway connects the WMOM property with the Riverton Trolly Park. Integral with the proposed park development, WMOM is proposing to continue the paved walkway along the river for approximately 180 feet. At this point, the riverside walk will connect with the walkway leading from the park.

Waste Management of Maine and Portland Trails are in the process of finalizing a public pedestrian easement for the remaining frontage along the Presumpscot River.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

In order to remain under D.E.P.'s three acre threshold of non-revegetated surfaces, this project requires removing 8,930 square feet of existing pavement in the vicinity of the front parking lot next to Forest Avenue. This pavement will be replaced with loam and seeded to grass. The impervious surface of the Waste Management site was calculated by using the following area calculations:

	Square Feet	Acreage
Existing pavement	115,745	2.66
Existing structures	14,764	.34
Total existing impervious surface	130,509	3.00
Proposed parking lot	7,605	.17
Total impervious surface	138,114	3.17
Pavement removal	8,930	.20
Total proposed impervious surface	129,184	2.97

STORM DRAINAGE

Stormwater from the proposed parking area will be collected through a catchbasin and storm drain pipe, discharging into the existing detention/wet pond. Runoff from the balance of the park will be directed into grass drainage swales that flow into the Presumpscot River. Refer to the attached letter from BH2M, Inc.

PROJECT SCHEDULE AND COST

Construction will begin immediately upon approval and the estimated time of completion is the Fall of 1995. The estimated cost of the project is $70,000.

This application for Final Site Plan Approval includes the following information:

1. Cover letter dated September 12, 1995
2. Erosion and Sediment Control Plan
3. Letter from BH2M, Inc. regarding stormwater analysis
4. Grading, Drainage and Utility Plan
5. Layout and Planting Plan
6. Site Details

Should you have any questions, please do not hesitate to contact us.

Sincerely,
Mitchell & Associates

John D. Mitchell

Enclosure

EROSION AND SEDIMENT CONTROL PLAN

This Plan has been developed as a strategy to control soil erosion and sedimentation during and after construction of the Waste Management of Maine site improvements.

A. EROSION CONTROL PRACTICES / TEMPORARY MEASURES

The following temporary measures to control erosion and sedimentation shall be utilized:

1. Each ground area, opened or exposed, whether directly or indirectly due to the development, shall be minimized and shall be stabilized within 15 days of initial disturbance of soil and shall be permanently stabilized within seven days of final grading.

2. Temporary soil stabilization shall be either by temporary mulching, temporary seeding, permanent base gravel, or asphalt binder course as follows:

   TEMPORARY SEEDING. Seed shall be Aroostook rye applied at 2.60#/1000SF. Lime shall be agricultural ground limestone applied at 138#/1000SF. Fertilizer shall be 10-10-10 classification applied at 13.8#/1000SF. Mulch shall consist of hay or straw mulch and spread evenly at a rate of 70-90#/1000SF. Temporary seedings shall only be made between April 15 and October 1, and shall not be placed over snow.

   TEMPORARY MULCHING. Mulch shall consist of chopped hay or straw mulch and spread by mechanical blower evenly at a rate of 150-200#/1000SF. Temporary mulch shall be removed prior to permanent soil stabilization. Mulch shall not be placed over snow. Snow shall be removed prior to mulching.

   PERMANENT BASE GRAVEL. Base gravel under pavement shall be suitable as temporary soil stabilization under the following conditions:
   a. Slopes shall be less than five percent.
   b. Gravel shall meet the specifications for base or subbase gravel for the proposed completed pavement.

   ASPHALT BINDER COURSE. Asphalt binder shall meet the specifications for the asphalt binder course for the proposed completed pavement.

3. Prior to topsoil removal, silt fencing shall be staked as shown on the Plans.

4. Stripped topsoil shall be stockpiled for reuse during final grading. The pile shall be heavily mulched with hay while stockpiled.

5. Low point sedimentation control barriers shall surround all proposed and existing catchbasin rims, where required.

B. EROSION CONTROL PRACTICES / PERMANENT MEASURES

The following permanent measures to control erosion and sedimentation shall be utilized:

1. Permanent seeding shall be performed during construction operations as each disturbed area has been brought to finish grade. Permanent seedings shall be made as dormant seeding after the first killing frost. Dormant seeding and mulch shall be used at two times the permanent seeding rate shown below for lawns. Seed, loam, lime, fertilizer, and mulch are to be as follows:

   SEED. The seed mixture shall consist of seeds proportioned by weight. All seed shall be fresh, clean, "new crop" seed. Harmless inert matter and weed seeds shall be permitted up to 1 percent of the gross weight of each variety of seed. All seed supplied shall be packed in approved containers bearing the manufacturer's name and analysis of contents. The following materials and application rates shall be required for permanent seeding:

Lawn - Creeping red fescue:	0.69#/1000 SF
Kentucky bluegrass:	0.57#/1000 SF
Perennial ryegrass:	0.46#/1000 SF
Redtop:	0.12#/1000 SF
Total:	1.84#/1000 SF

   LOAM. Loam shall be free of grasses and large stone. Place loam at six inches minimum depth over all disturbed areas.

   LIME. Lime shall be agricultural ground limestone and applied as per recommendation of a State Commercial Soil Testing Laboratory.

   FERTILIZER. Fertilizer shall be 10-20-20 classification and applied as per recommendation of a State Commercial Soil Testing Laboratory.

MULCH. Mulch shall consist of hay or straw mulch. Mulch shall be spread evenly at a rate of two and one half tons per acre over all seeding. After application, the mulch shall be thoroughly wetted.

The contractor shall maintain the seeded and mulched areas until final acceptance of the work. Maintenance shall consist of providing protection against traffic and repairing any areas damaged due to wind, water, erosion, fire or other causes. Such damaged areas shall be repaired to re-establish the condition and grade of the soil prior to seeding and shall then be refertilized, reseeded and remulched.

C. CONSTRUCTION SEQUENCE

The general sequence of work shall be as follows:

1. Grade site, stockpile and protect topsoil with mulching and silt fencing.

2. Temporarily stabilize disturbed areas by mulching all exposed soil within 15 days of initial disturbance.

3. Install stormwater system.

4. Complete site construction work.

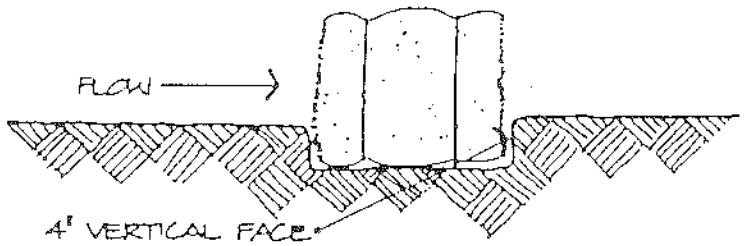
5. Install permanent vegetation on all exposed areas within 15 days of final grading. (Areas to be seeded after October 15th shall receive mulch at the rate specified for Temporary Mulching as outlined above.)

6. Perform continuing maintenance on all erosion and sedimentation control devices and measures.

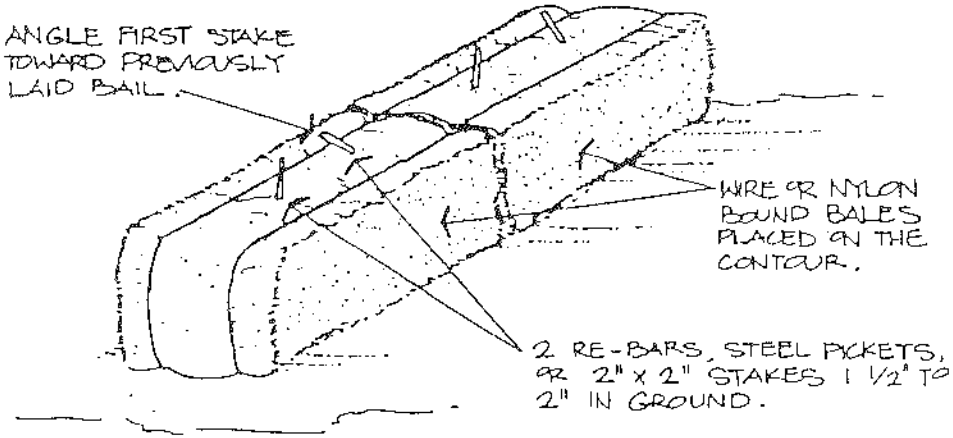
D. SITE INSPECTION & MAINTENANCE

Weekly inspections, as well as routine inspections following rain falls, shall be conducted by the General Contractor of all temporary and permanent erosion control devices until final acceptance of the project. Necessary repairs shall be made to correct undermining or deterioration. Final acceptance shall include a site inspection to verify the stability of all disturbed areas and slopes. Until final inspection, all erosion and sedimentation control measures shall immediately be cleaned, and repaired by the General Contractor as required. Disposal of all temporary erosion control devices shall be the responsibility of the General Contractor.

Continued temporary maintenance and long term provisions for permanent maintenance of all erosion and sedimentation control facilities after acceptance of the project shall be the responsibility of Waste Management of Maine, Inc.



EMBEDDING DETAIL

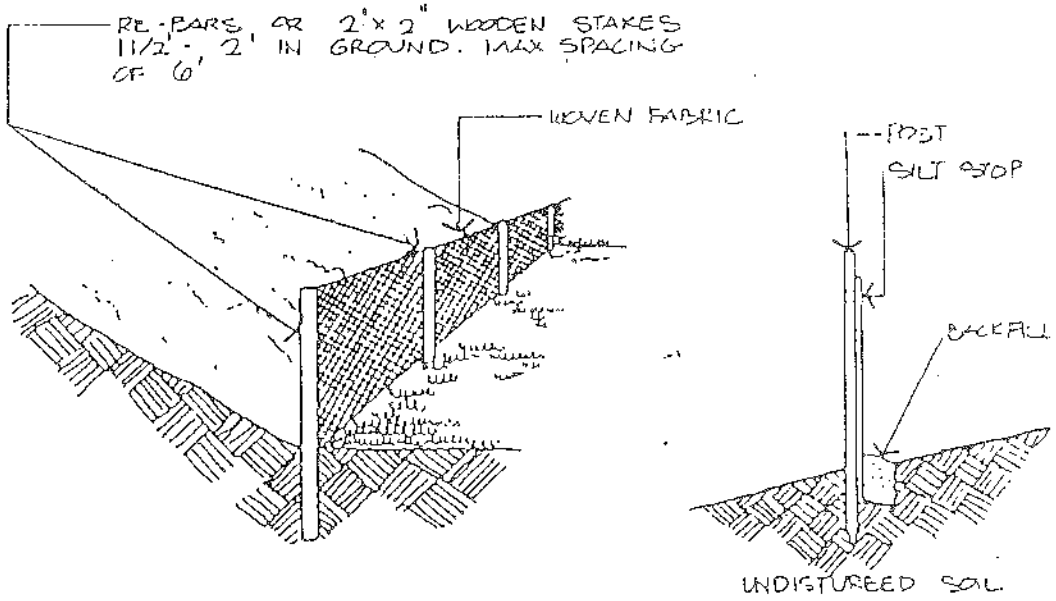


ANCHORING DETAIL

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4'.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE CHECK DAM

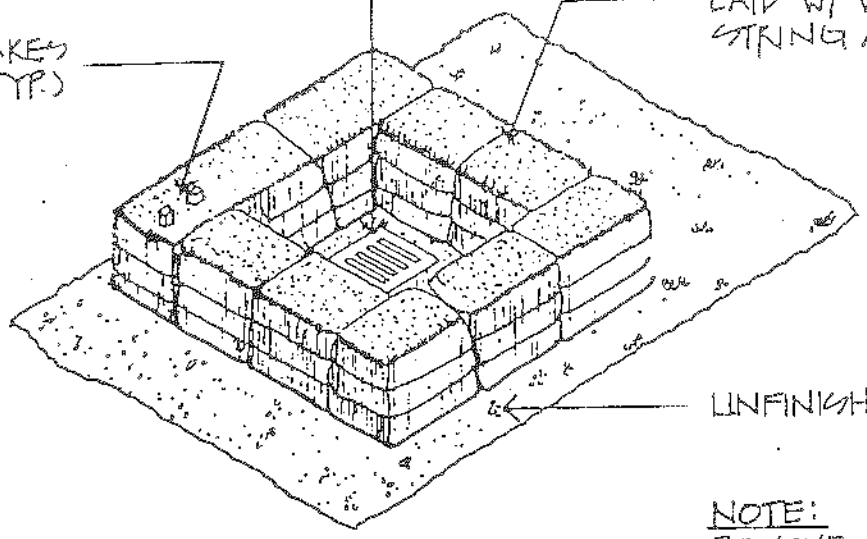
N.T.S.



1. SILT FENCE TO BE INSTALLED PARALLEL TO EXISTING CONTOURS DOWNSLOPE FROM AREAS OF SOIL DISTURBANCE.
2. SILT FENCE TO BE SECURELY ATTACHED TO THE UPSLOPE OF SUPPORTING STAKES.
3. BOTTOM 4 TO 6 INCHES OF SILT FENCE TO BE BURIED IN SLOTE AND BACKFILLED WITH COMPACTED SOIL.
4. INSPECTION SHALL BE MADE AFTER EVERY RAINFALL WITH REMOVAL OF EXCESSIVE SEDIMENT AND REPAIR OF THE FENCE ACCOMPLISHED PROMPTLY.
5. SILT FENCE AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

SILT FENCE

N.T.S.



NOTE:
REMOVE BALES UPON COMPLETION OF PAVING AND OR SEEDING

LOW POINT SEDIMENT CONTROL BARRIER

NOT TO SCALE

BH2M
Berry Huff McDonald Milligan, Inc.

Lester S. Berry
Thomas Milligan, Jr.
William A. Thompson
Mark Gray
Timothy O. Brown

August 1, 1995

John Mitchell
Mitchell & Associates
70 Center Street
Portland, ME 04101

Subject: Waste Management of Maine, Park Addition
Storm Water Analysis

Dear John:

With the addition of the park area to the site, it was necessary to revisit the storm water management plan for the site. The first storm water plan, dated October 6, 1995 was amended with a letter and attached calculations dated October 13, 1995. The plan called for a wet pond with detention to control peak discharge to a level spreader. With the addition of the park area, flow to the level spreader for the 25 year design storm increases to 29 cfs. This translates to between 3 and 4 inches of water over the lip of the level spreader for a brief period at the peak discharge time of the design storm. The velocity of water leaving the level spreader is only 1.5 ft/sec which compared favorably to the allowable flow velocity of 2.5 ft/sec for the Hartland Soils. There is also a small amount of water (2.6 cfs) which flows over the spillway for a brief period during the 25 year storm event. This water will obtain the same advantage as the level spreader discharge in terms of contact with vegetation prior to discharge to the Presumpscot River.

The 100 year design storm was also routed through the system to assure capacity for the overflow event. In the 100 year storm, the level lip of the level spreader experiences only 4-5 inches of water depth which translates to a velocity of 1.8 ft/sec. The spillway has about 3 inches of water for a brief period at a rate of only 8.6 cfs.

This park addition can be integrated into the existing storm water plan for the site.

Sincerely,
BERRY HUFF MCDONALD MILLIGAN, INC.

STATE OF MAINE
MARK GRAY
#3937
REGISTERED PROFESSIONAL ENGINEER

Mark Gray P.E.

MG/mg
enc. Post Development Storm Water Plan Sheet 1"=100'
HydroCad Calculations 25 and 100 year storms

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

September 28, 1995

Mr. John Mitchell
Mitchell and Associates
70 Center Street
Portland, ME 04101

Re: Waste Management of Maine, 2000 Forest Avenue

Dear Mr. Mitchell:

On September 27, 1995 the Portland Planning Authority granted minor site plan and shoreland approval for a landscaped park and 19 space parking lot on the Waste Management of Maine site in the vicinity of 2000 Forest Avenue.

The approval is subject to the following conditions:

1. No tree clearance shall take place beyond the area of improvements shown on the plan.

2. Prior to the clearing of any vegetation for the trail, the applicant shall contact the City Arborist who shall review and approve any tree clearance.

The approval is based on the submitted site plan. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

Please note the following provisions and requirements for all site plan approvals:

1. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. A one year extension may be granted by this department if requested by the applicant in writing prior to the expiration date of the site plan.

2. A performance guarantee in a form acceptable to the City of Portland and an inspection fee equal to 1.7% of the performance guarantee will have to be posted before beginning any site construction or issuance of a building permit.

3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.

5. If work will occurr within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Poliskey at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

If there are any questions, please contact the Planning Staff.

Sincerely,

Joseph E. Gray, Jr.
Director of Planning and Urban Development

cc: Alexander Jaegerman, Chief Planner
Richard Knowland, Senior Planner
P. Samuel Hoffses, Chief of Building Inspections
Marge Schmuckal, Zoning Administrator
George Flaherty, Director of Environmental/Intergovernmental Services
Kathi Staples PE, City Engineer
James Seymour, Acting Development Review Coordinator
William Bray, Deputy Director/City Traffic Engineer
Jeff Tarling, City Arborist
Paul Niehoff, Materials Engineer
Natalie Burns, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Mary Gresik, Building Permit Secretary
Kathleen Brown, Assistant Director of Economic Development
Approval Letter File

Sec. 25-83. Numbers to be affixed; renumbered.

Unless exempted by order of the city council, each owner, occupant or tenant of any building, or portion thereof, fronting on any such street or way, shall affix or inscribe on such building, or portion thereof, the number assigned thereto in accordance with the plan, and the city council may, whenever it deems it necessary, cause any such street or way to be renumbered. The city manager or his or her designated representative is authorized to enforce the requirements of this article. (Code 1968, § 709.3; Ord. No. 605-82, 5-19-82)

Secs. 25-84—25-95. Reserved.

ARTICLE VI. SIDEWALK AND CURBING CONSTRUCTION AND MAINTENANCE

Sec. 25-96. Required for nonresidential development; exceptions.

Where a nonresidential development requiring site plan approval abuts any accepted street and a sidewalk with granite curbing satisfactory to the public works authority has not already been provided, a sidewalk constructed of bituminous concrete, portland cement concrete, brick or other paving material and granite curbing shall be provided along the entire street frontage of the lot. If either a sidewalk or curbing, but not both, shall exist at such location which is satisfactory to the public works authority, only a sidewalk or curbing, as the case may be, shall be provided. In either case, such sidewalk and curbing shall be constructed in accordance with the specifications and to the satisfaction of the public works authority at no cost to the city. In conjunction with site plan review, the planning board may waive or modify the requirements contained herein upon a like finding and on the same terms and conditions as set forth in section 14-506(b) of this Code. (Code 1968, § 705.1; Ord. No. 42-84, § 1, 6-18-84)

Sec. 25-97. May be required generally; apportionment of cost.

(a) Notwithstanding the provisions of section 25-96, the city council may at any time direct the construction of a sidewalk of bituminous concrete, Portland cement concrete, brick or other paving material or granite curbing, or both, along any accepted street in the city. Such sidewalk or curbing shall be constructed by the city and the cost thereof shall be borne by the city.

(b) Such improvements may be ordered by the council upon petition of an abutting landowner, and one-half of the cost thereof shall be assessed to such abutting landowner and shall be collected by the city in the manner provided in sections 25-102 and 25-103. (Code 1968, § 705.2; Ord. No. 30-75, § 1, 1-6-75)

Sec. 25-98. Reconstruction; apportionment of cost.

(a) The city council may at any time direct the reconstruction of any sidewalk or curbing which has been constructed along any accepted street by other than the city and which has not

PLANNING REPORT #31-95

SIDEWALK WAIVER IN THE VICINITY OF 716 RIVERSIDE STREET

WASTE MANAGEMENT OF MAINE, APPLICANT

Submitted to:

Portland Planning Board
Portland, Maine

July 25, 1995

I. INTRODUCTION

Waste Management of Maine (WMOM) requests a waiver from the requirement of sidewalks (under Chapter 20 of the Municipal Code) along their Riverside Street property frontage. Chapter 20 requires that curbs and sidewalks be installed for commercial properties that undergo site plan review.

38 notices were sent to area property owners.

II. FINDINGS

The applicant's property frontage extends along Forest Avenue (660 linear feet) and Riverside Street (615 linear feet.) Sidewalk and curbing presently exists along the entire Forest Avenue and Riverside Street frontage of the applicant's property except for a 340 foot stretch along Riverside Street. The applicant requests that this area be waived from the sidewalk requirements of Chapter 20. They have agreed to install curbing along this area. The primary reason(s) for this request are the presence of a steep slope that complicates construction of a sidewalk and the absence of residential properties along the northerly side of Riverside Street. There are no sidewalks on Riverside Street in the vicinity of the site except as noted below.

Last year WMOM constructed a sidewalk along a portion of their Riverside Street frontage which meets a sidewalk along the Don's Power Equipment frontage. There is a 175 foot gap in the sidewalk (former Fassetts Bakery Outlet site) to the Forest Avenue intersection. Presently there are no other sidewalks along Riverside Street west of this site. Riverside Street is zoned primarily industrial with very few residential uses remaining. On the other side of Riverside Street, the sidewalk stops at the Terrace Pond residential development.

Over the last several years, WMOM has made a number of improvements to their site which have been subject to administrative site plan review. These changes addressed drainage, truck parking, an upgraded driveway entrance from Riverside Street and other improvements. At the June 27th workshop, the applicant presented a master plan to address aesthetic issues, parking and to accommodate an expansion of their offices. These site improvements, including a public park, will be subject to site plan review at a later date.

The review criteria for a sidewalk/curb waiver under Chapter 20 references section 14-506(b).

> (b) Where the Planning Board finds that extraordinary conditions exist or that undue hardship may result from strict compliance with the requirements set forth in sections 14-498 and 14-499 pertaining to the provision and construction of curbs and sidewalks, it may vary the regulations so that substantial justice may be done and the public interest secured; provided that such

variation will not have the effect of creating potentially hazardous vehicle and pedestrian conflict or nullifying the intent and purpose of the land development plan and the regulations of this article. For purposes of this subsection, the Planning Board may, but need not, consider such circumstances as where a street is a dead-end street, or where an alternative walking route is reasonably available, or where a street is scheduled for major reconstruction, or where the development of abutting land is substantially restricted.

Mary Conroy, Principal Traffic Engineer, indicates that the improvement plan for Riverside Street anticipates a sidewalk only along the southerly side of the street and not along the northerly side (WMOM). Public Works indicates that they have no objections to the waiver request provided that curbing is required.

Given the lack of residences along Riverside Street (except for Terrace Pond) and the type of commercial uses in this area (generally non-retail), it is unlikely that the absence of a sidewalk along the applicant's property will cause a burden to pedestrians. The applicant is working with Portland Trails to finalize a pedestrian easement along their 1,000+ feet of Presumpscot River frontage.

III. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #31-95 [and/or other findings as follows;]

1. The Planning Board finds that extraordinary conditions exist and/or that undue hardship may result from strict compliance with the sidewalk requirements of chapter 25 and therefore, approves a sidewalk waiver along the applicant's Riverside Street frontage.

4-0 passes

Attachments:

A. Site Plan
B. Amended Waiver Request
C. Background Information

PC
Dimm
Cyrus

ATTACHMENT B

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

July 19, 1995

Mr. Richard Knowland, Senior Planner
City of Portland
389 Congress Street
Portland, Maine 04101

RE: WASTE MANAGEMENT OF MAINE

Dear Rick:

Waste Management of Maine agrees to install vertical granite curb along the remaining frontage of their property on Riverside Street. The applicant, however, requests a waiver for the construction of a sidewalk along the same frontage on Riverside Street. The basis for this request is due primarily to constraining site conditions that exist in the location of sidewalk.

Should you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,
Mitchell & Associates

John D. Mitchell

cc: Jeffrey Taylor

THE STAPLES SCHOOL 70 CENTER STREET PORTLAND, MAINE 04101 TEL. (207) 774-4427 FAX (207) 874-2460

CITY OF PORTLAND, MAINE

PLANNING BOARD

July 31, 1995

Mr. John Mitchell
Mitchell and Associates
70 Center Street
Portland, ME 04101

RE: Waste Management of Maine, 2000 Forest Avenue

Dear Mr. Mitchell:

On July 24, 1995 the Portland Planning Board voted 4-0 (DeCourcey, Hagge, Williams absent) to approve a waiver of a sidewalk along the Riverside Street frontage of Waste Management of Maine pursuant to section 25-96 of the Conditional Use Code.

The approval is based on the submitted site plan and the findings in Planning Report #31-95, which is attached.

If there are any questions, please contact the Planning Staff.

Sincerely,

Kenneth M. Cole III, Chair
Portland Planning Board

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Richard Knowland, Senior Planner
P. Samuel Hoffses, Chief of Building Inspections
Marge Schmuckal, Zoning Administrator
George Flaherty, Director of Environmental/Intergovernmental Services
Kathi Staples, Project Engineer
Michael O'Sullivan, Development Review Coordinator
William Bray, Deputy Director of Public Works
Jeff Tarling, City Arborist
Paul Niehoff, Materials Engineer
Natalie Burns, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Mary Gresik, Building Permit Secretary
Kathleen Brown, Assistant Director of Economic Development
Approval Letter File
Jeffrey, Taylor, Waste Management of maine, 2000 Forest Ave, Portland, ME 04103

ATTACHMENT C-1

MITCHELL & ASSOCIATES

LANDSCAPE ARCHITECTS

June 13, 1995

Portland Planning Board
City of Portland
389 Congress Street
Portland, Maine 04101

RE: WASTE MANAGEMENT OF MAINE

Dear Planning Board Members:

On behalf of Waste Management of Maine (WMOM), we are pleased to submit this Master Plan for their facility at 2000 Forest Avenue.

As part of their Master Plan, WMOM has proposed the development of a park in the front portion of their property fronting Forest Avenue. The park will be a significant green space within the community, serving to complement Trolley Park as a major entry point to the City of Portland, as well as to conform to the overall development of the area. At this time, WMOM is also requesting a waiver from the requirement to add new curbing and sidewalk along the remaining frontage on Riverside Street.

EXISTING CONDITIONS

The present property is a 18.95 acre site that serves as Waste Management's operations facility. The primary building consists of an approximately 8,500 square feet of vehicular maintenance space and 4,000 square feet of office space. Additionally, a temporary structure is being used to satisfy a deficiency of needed office space. The site also serves as a container storage facility for dumpster containers, and parking for trash hauling vehicles. Approximately 28 percent of the site is used for the facilities operation. The remainder of the site includes a vacant area, consisting of approximately 60,000 square feet, that was utilized as a staging area for the reconstruction of the new bridge over the Presumpscot River. This is the area proposed for the new park. The balance of the site is wooded.

BUILDING PROGRAM

An approximate 3,500 square foot addition is proposed as part of the Master Plan to satisfy the owners current office space needs, eliminate the temporary structure, and improve the aesthetic appearance of the property. A new entrance off Forest Avenue and a parking area to accommodate employees and visitors have been designed. A total of 66 parking spaces is shown on the Master Plan.

THE STAPLES SCHOOL 70 CENTER STREET PORTLAND, MAINE 04101 TEL. (207) 774-4427 FAX (207) 874-2460

PARK DEVELOPMENT

The general concept of the park is to reclaim the northwest portion of their property along Forest Avenue that will serve as an amenity for Waste Management employees and the general public, as well as provide an aesthetically pleasing corporate image for their facility.

There are design elements within the park that together, help tie the site into the surrounding area. The curvilinear form of the parking lot allows the formation of earth berms to flow more easily around the lot. The berms in turn, buffer the pavement and automobiles, thus reducing the visual impact. The walkway leading into the park follows the shape of the parking area and tends to flow with the landscape.

The long circular stone wall follows the path towards the wooded area before terminating at the edge of the vegetation. The wall forms a separation between the busy traffic on Forest Avenue and the quiet open space within the park. The material of the stone wall reflects the use of stone at Trolly Park on the opposite side of Forest Avenue.

As the path continues, the Presumpscot River comes into view through the trees. The existing bank of trees will be preserved separating the park from the proposed trail along the river. Sitting and picnic areas have been tucked into and located next to earth berms, providing the park with an intimate quality.

WAIVER REQUEST

In accordance with the City of Portland Zoning Ordinance, ARTICLE VI, SIDEWALK AND CURBING CONSTRUCTION AND MAINTENANCE, Waste Management of Maine Inc. is requesting a waiver for the construction of a sidewalk and curbing along Riverside Street, as per the conditions described in ARTICLE IV, SUBDIVISIONS, Section 14-506, Modifications. The basis for requesting this waiver is due primarily to constraining site conditions that exist in the location for the required sidewalk. The following conditions along Riverside Street define the reasons behind the waiver request:

- There presently is a Master Plan for roadway improvements for Riverside Street from Forest Avenue to Warren Avenue. Due to the width of the R.O.W. and the projected lane configuration requirements, a sidewalk is proposed only to occur on the south side of Riverside Street. There is no projected time frame for implementation of this plan.

- There is an existing guard rail situated along the remaining frontage of Waste Management that aligns itself with the sidewalk installed by the applicant last fall. The guard rail would have to be relocated and constructed behind the sidewalk, pushing construction further out onto the steep side slopes above both a wetland and a tributary of the Presumpscot River (Refer to Photo #1 and #2).

- The construction of a sidewalk would require backfilling an area that has side slopes exceeding 3:1. This could result in the creation of an unstable slope condition and possibly require retaining of the slope by structural measures (Refer to Photo #3).

- The development southwest of Waste Management along Riverside Street is primarily commercial in nature. Residential development is limited to the housing development opposite the Waste Management truck entry.

- The nature of the commercial uses in the area cater to other businesses or are of a nature that the walking pedestrian would not likely frequent. As a result, the primary source of transportation to these areas are by motor vehicle as opposed to walking.

If you have any questions, please do not hesitate to call. We look forward to our meeting with the board on June 27, 1995.

Sincerely,
Mitchell & Associates

John D. Mitchell

Enclosure

cc: Jeffrey Taylor

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

June 13, 1995

Portland Planning Board
City of Portland
389 Congress Street
Portland, Maine 04101

RE: WASTE MANAGEMENT OF MAINE

Dear Planning Board Members:

On behalf of Waste Management of Maine (WMOM), we are pleased to submit this Master Plan for their facility at 2000 Forest Avenue.

As part of their Master Plan, WMOM has proposed the development of a park in the front portion of their property fronting Forest Avenue. The park will be a significant green space within the community, serving to complement Trolley Park as a major entry point to the City of Portland, as well as to conform to the overall development of the area. At this time, WMOM is also requesting a waiver from the requirement to add new curbing and sidewalk along the remaining frontage on Riverside Street.

EXISTING CONDITIONS

The present property is a 18.95 acre site that serves as Waste Management's operations facility. The primary building consists of an approximately 8,500 square feet of vehicular maintenance space and 4,000 square feet of office space. Additionally, a temporary structure is being used to satisfy a deficiency of needed office space. The site also serves as a container storage facility for dumpster containers, and parking for trash hauling vehicles. Approximately 28 percent of the site is used for the facilities operation. The remainder of the site includes a vacant area, consisting of approximately 60,000 square feet, that was utilized as a staging area for the reconstruction of the new bridge over the Presumpscot River. This is the area proposed for the new park. The balance of the site is wooded.

BUILDING PROGRAM

An approximate 3,500 square foot addition is proposed as part of the Master Plan to satisfy the owners current office space needs, eliminate the temporary structure, and improve the aesthetic appearance of the property. A new entrance off Forest Avenue and a parking area to accommodate employees and visitors have been designed. A total of 66 parking spaces is shown on the Master Plan.

PARK DEVELOPMENT

The general concept of the park is to reclaim the northwest portion of their property along Forest Avenue that will serve as an amenity for Waste Management employees and the general public, as well as provide an aesthetically pleasing corporate image for their facility.

There are design elements within the park that together, help tie the site into the surrounding area. The curvilinear form of the parking lot allows the formation of earth berms to flow more easily around the lot. The berms in turn, buffer the pavement and automobiles, thus reducing the visual impact. The walkway leading into the park follows the shape of the parking area and tends to flow with the landscape.

The long circular stone wall follows the path towards the wooded area before terminating at the edge of the vegetation. The wall forms a separation between the busy traffic on Forest Avenue and the quiet open space within the park. The material of the stone wall reflects the use of stone at Trolly Park on the opposite side of Forest Avenue.

As the path continues, the Presumpscot River comes into view through the trees. The existing bank of trees will be preserved separating the park from the proposed trail along the river. Sitting and picnic areas have been tucked into and located next to earth berms, providing the park with an intimate quality.

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- There presently is a Master Plan for roadway improvements for Riverside Street from Forest Avenue to Warren Avenue. Due to the width of the R.O.W. and the projected lane configuration requirements, a sidewalk is proposed only to occur on the south side of Riverside Street. There is no projected time frame for implementation of this plan.

- There is an existing guard rail situated along the remaining frontage of Waste Management that aligns itself with the sidewalk installed by the applicant last fall. The guard rail would have to be relocated and constructed behind the sidewalk, pushing construction further out onto the steep side slopes above both a wetland and a tributary of the Presumpscot River (Refer to Photo #1 and #2).

- The construction of a sidewalk would require backfilling an area that has side slopes exceeding 3:1. This could result in the creation of an unstable slope condition and possibly require retaining of the slope by structural measures (Refer to Photo #3).

- The development southwest of Waste Management along Riverside Street is primarily commercial in nature. Residential development is limited to the housing development opposite the Waste Management truck entry.

- The nature of the commercial uses in the area cater to other businesses or are of a nature that the walking pedestrian would not likely frequent. As a result, the primary source of transportation to these areas are by motor vehicle as opposed to walking.

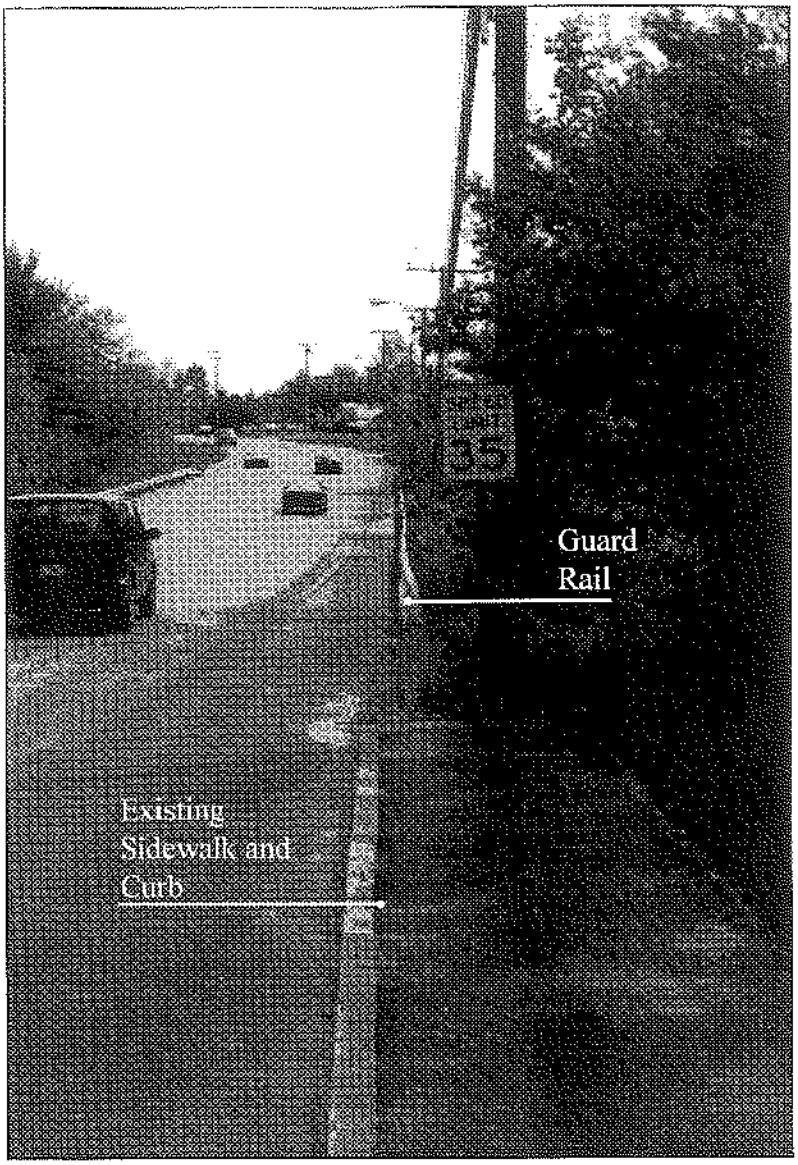
If you have any questions, please do not hesitate to call. We look forward to our meeting with the board on June 27, 1995.

Sincerely,
Mitchell & Associates

John D. Mitchell

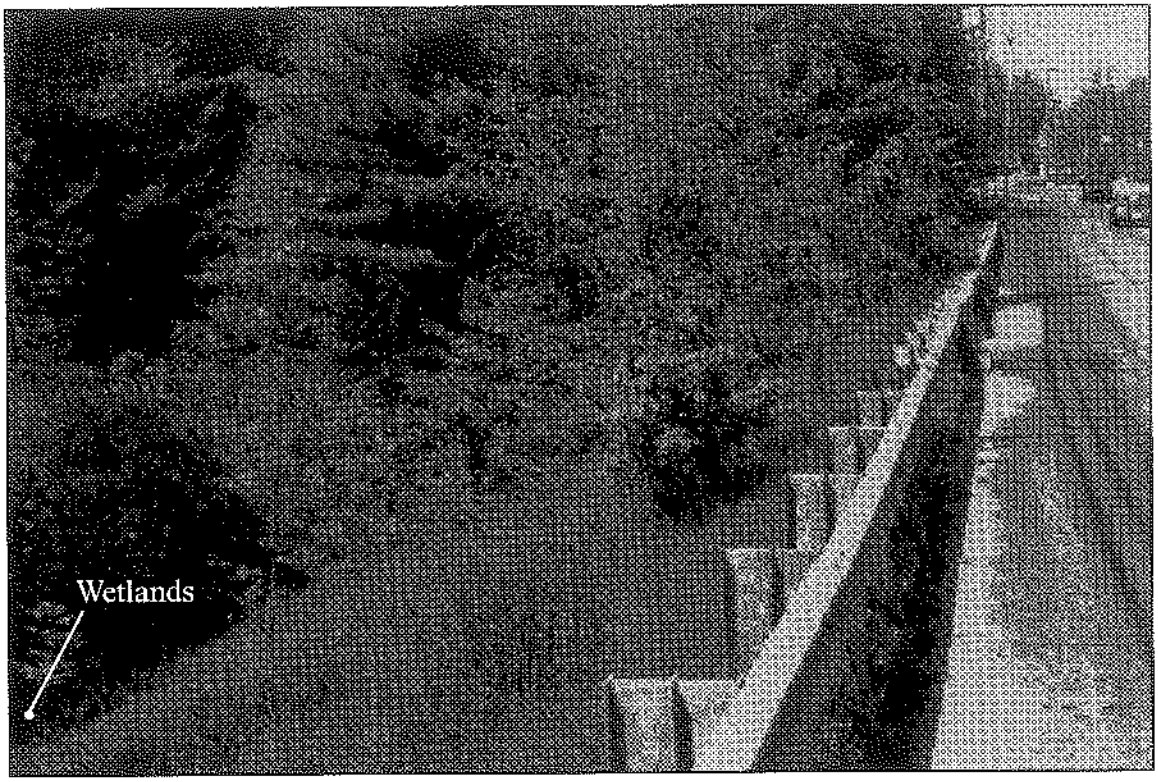
Enclosure

cc: Jeffrey Taylor



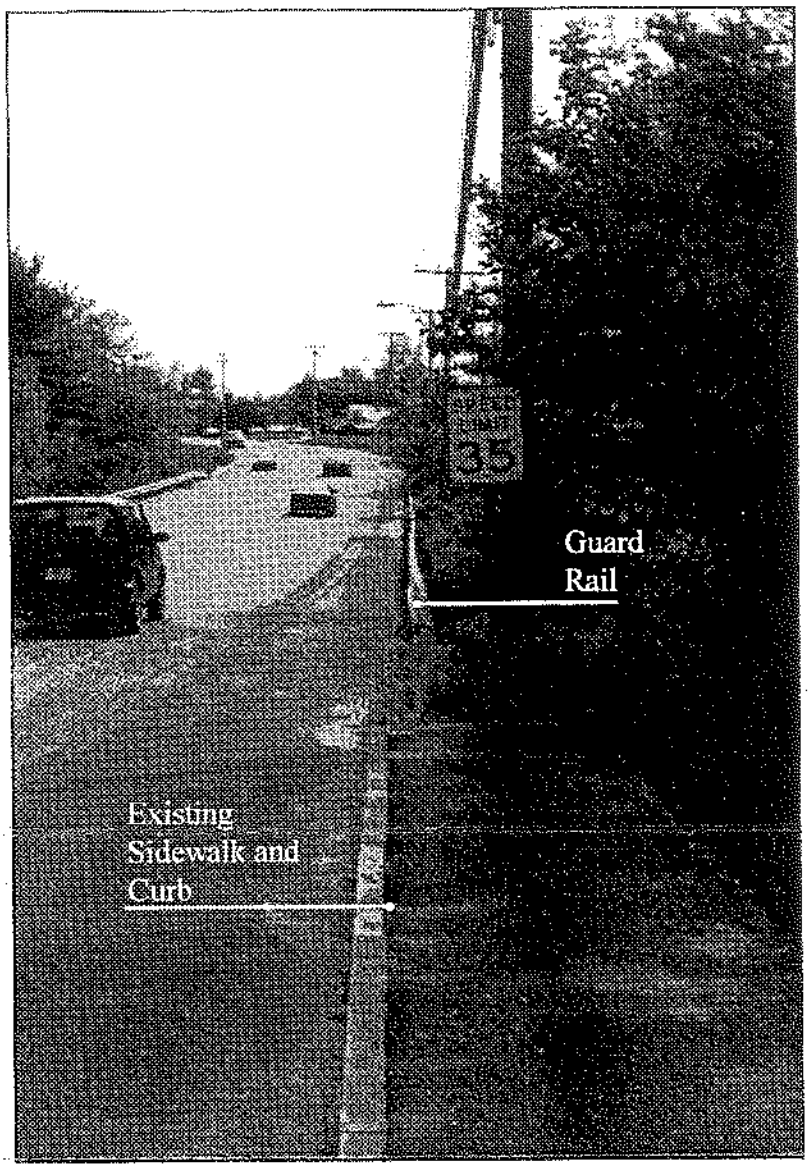
LOOKING SOUTHWEST ALONG
RIVERSIDE STREET

1



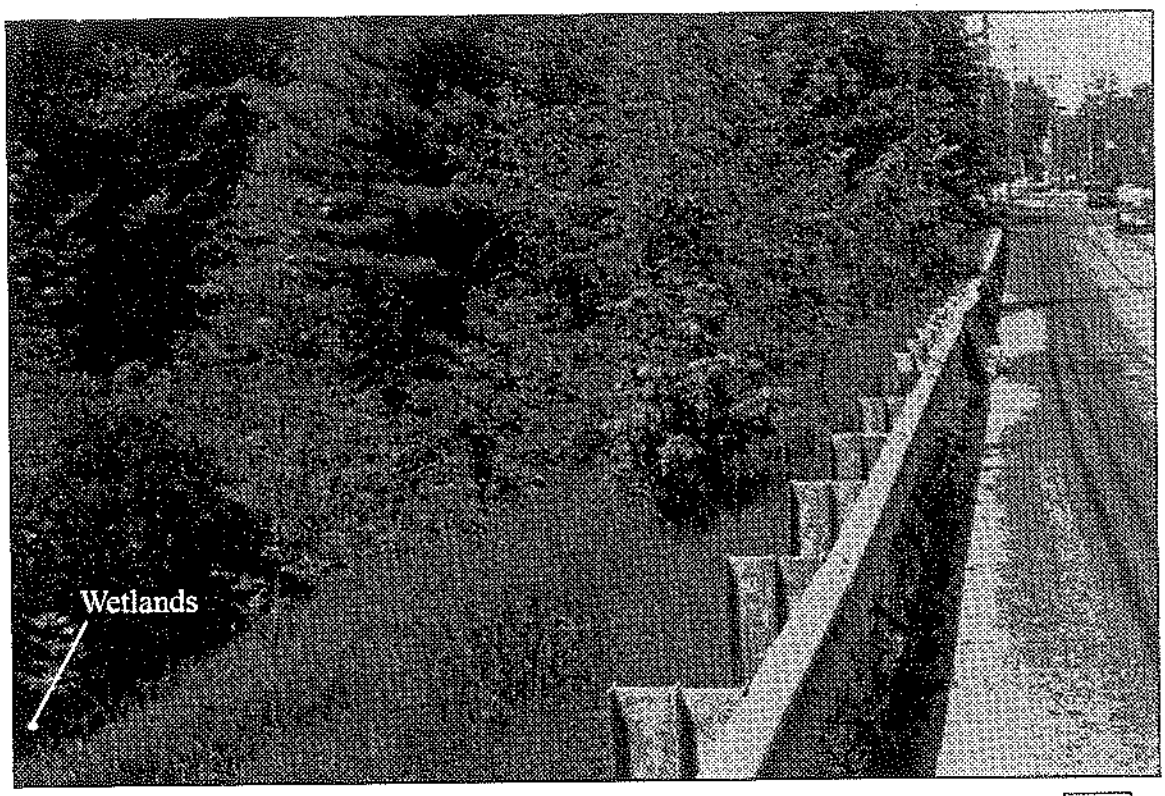
LOOKING NORTHEAST ALONG RIVERSIDE STREET 2

LOOKING UP TO RIVERSIDE FROM WETLAND
(SLOPE EXCEEDS 3:1) 3



LOOKING SOUTHWEST ALONG
RIVERSIDE STREET

1



LOOKING NORTHEAST ALONG RIVERSIDE STREET

2

LOOKING UP TO RIVERSIDE FROM WETLAND
(SLOPE EXCEEDS 3:1)

3

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Cole and Members of the Planning Board

FROM: Richard Knowland, Senior Planner

DATE: June 27, 1995

SUBJECT: Waste Management of Maine, Vicinity of 2000 Forest Avenue

Waste Management of Maine (WMOM) has developed a master plan for their site (2000 Forest Avenue) which they would like to share with the Board. The second issue they would like to discuss is a waiver request (under Chapter 20 of the Municipal Code) for the requirement of curbing and sidewalk along their Riverside Street property frontage.

Over the last several years WHOM has made a number of improvements to their site which have been subject to administrative site plan review. These changes addressed drainage, truck parking, an upgraded driveway entrance from Riverside Street and other improvements.

Master Plan

The master Plan represents an effort by WHOM to address aesthetic issues, parking and to accommodate an expansion of their offices.

The master plan elements include a park space (open to the public) on the northwesterly corner of the site along Forest Avenue which significantly improves Portland's "gateway entrance" from the west. With Riverton Trolley Park on the opposite side of the street, a new band of green space will be created for the gateway. A stone wall flanks a pedestrian walkway that runs from a new parking lot (open to the public) to the Presumpscot River. A stone wall is a distinguishing feature of the Riverton Trolly Park. Several berms adjacent to the parking lot break up the expanse of pavement and helps shape the intended park-like setting. Benches and landscaping are also shown on the plan. These improvements will significantly improve the property's appearance from Forest Avenue.

WHOM and Portland Trails are in the process of finalizing a public pedestrian easement for the park as well as WHOM's 1,000 feet of Presumpscot River shore frontage. When the Presumpscot River Bridge was rebuilt a pedestrian walkway was constructed under the bridge so that pedestrians need not cross busy Forest Avenue. This walkway connects the WHOM property to the Riverton Trolley Park.

A 3,000 sq. ft. addition is proposed to their existing 4,000 sq. ft. office building. Parking adjacent to the office building would be reorganized. Landscaping would be planted along the perimeter including a berm and new plantings along Forest Avenue.

WHOM would like to complete the site work associated with the park this summer followed by the remaining site improvements in 1996. Due to the amount of impervious surface on this site, implementation of the total master plan will likely require review under the Site Location of Development Law.

Sidewalk and Curbing Waiver Request

Sidewalk and curbing presently exists along the entire Forest Avenue and Riverside Street frontage of the applicant's property except for a 340 foot stretch along Riverside Street. The applicant requests that this area be waived from the curbing and sidewalk requirements of Chapter 20. The primary reason(s) for this request are the presence of a steep slope that complicates construction of a sidewalk and the absence of residential properties along the northerly side of Riverside Street. There are no sidewalks on Riverside Street in the vicinity of the site except as noted below.

Last year WHOM constructed a sidewalk along a portion of their Riverside Street frontage which meets a sidewalk along the Don's Power Equipment frontage. There is a 175 foot gap in the sidewalk (former Fassetts Bakery Outlet site) to the Forest Avenue intersection. On the other side of Riverside Street, the sidewalk stops at the Terrace Pond residential development.

Preliminary comments from Public Works indicate that curbing should be required but that a sidewalk may not be desirable at this location. The long term master plan for Riverside Street indicates that the roadway would likely be widened into the location of the WHOM sidewalk. The plan, however, does call for a sidewalk on the other side of the street.

Attachments

A. Site Plan
B. Background Info

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

September 12, 1995

Mr. Richard Knowland, Senior Planner
Portland Planning Department
389 Congress Street
Portland, Maine 04101

RE: WASTE MANAGEMENT OF MAINE

Dear Rick:

On behalf of Waste Management of Maine (WMOM), we are pleased to submit this Site Plan Application for the development of a small park located in the front portion of their property at 2000 Forest Avenue. The park will be a significant green space within the community, serving to complement Riverton Trolly Park as a major entry point to the City of Portland.

THE SITE

The parcel is an 18.95 acre site that serves as Waste Management's operations facility in the State. It is "L" shaped with approximately 620 feet of frontage on Riverside Street and approximately 662 feet of frontage along Forest Avenue. It is bordered on the southwest by vacant land owned by Bluerock Industries, on the northwest by the Prescumpscot River for approximately 1,064 feet of frontage, and on the southeast by two single family residences and Don's Power Equipment. The property is zoned B-2.

The buildings consist primarily of an 8,500 square foot vehicular maintenance space and a 4,000 square foot office space. Approximately 28 percent of the site is used for the facilities operation. The remainder of the site includes a vacant area, consisting of approximately 60,000 square feet, that was utilized as a staging area for the reconstruction of the new bridge over the Presumpscot River. This is the area proposed for the new park. The balance of the site is wooded.

PARK DESIGN

The general concept of the park is to reclaim the northwest portion of their property along Forest Avenue that will serve as an amenity for Waste Management employees and the general public, as well as provide an aesthetically pleasing corporate image for their facility.

There are design elements within the park, that together, help tie the site into the surrounding area. The curvilinear form of the parking lot allows the formation of earth berms to flow more easily throughout the park. The berms in turn, buffer the pavement and automobiles, thus reducing the

visual impact. The walkway leading into the park follows the shape of the parking area and tends to flow with the landscape.

The long circular stonewall follows the path towards the wooded area before terminating at the edge of the existing vegetation. The wall forms a separation between the busy traffic on Forest Avenue and the quiet open space within the park. The material of the stonewall reflects the use of stone at Riverton Trolly Park on the opposite side of Forest Avenue.

As the path continues, the Presumpscot River comes into view through the trees. The existing bank of trees will be preserved separating the park from the proposed trail along the river. Sitting and picnic areas have been tucked into and located next to earth berms, providing the park with an intimate quality.

PEDESTRIAN WALKWAYS

As part of the Presumpscot River bridge reconstruction project, a paved pedestrian walkway was constructed under the bridge on the southeast side of the river. This walkway connects the WMOM property with the Riverton Trolly Park. Integral with the proposed park development, WMOM is proposing to continue the paved walkway along the river for approximately 180 feet. At this point, the riverside walk will connect with the walkway leading from the park.

Waste Management of Maine and Portland Trails are in the process of finalizing a public pedestrian easement for the remaining frontage along the Presumpscot River.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

In order to remain under D.E.P.'s three acre threshold of non-revegetated surfaces, this project requires removing 8,930 square feet of existing pavement in the vicinity of the front parking lot next to Forest Avenue. This pavement will be replaced with loam and seeded to grass. The impervious surface of the Waste Management site was calculated by using the following area calculations:

	Square Feet	Acreage
Existing pavement	115,745	2.66
Existing structures	14,764	.34
Total existing impervious surface	130,509	3.00
Proposed parking lot	7,605	.17
Total impervious surface	138,114	3.17
Pavement removal	8,930	.20
Total proposed impervious surface	129,184	2.97

STORM DRAINAGE

Stormwater from the proposed parking area will be collected through a catchbasin and storm drain pipe, discharging into the existing detention/wet pond. Runoff from the balance of the park will be directed into grass drainage swales that flow into the Presumpscot River. Refer to the attached letter from BH2M, Inc.

PROJECT SCHEDULE AND COST

Construction will begin immediately upon approval and the estimated time of completion is the Fall of 1995. The estimated cost of the project is $70,000.

This application for Final Site Plan Approval includes the following information:

1. Cover letter dated September 12, 1995
2. Erosion and Sediment Control Plan
3. Letter from BH2M, Inc. regarding stormwater analysis
4. Grading, Drainage and Utility Plan
5. Layout and Planting Plan
6. Site Details

Should you have any questions, please do not hesitate to contact us.

Sincerely,
Mitchell & Associates

John D. Mitchell

Enclosure

EROSION AND SEDIMENT CONTROL PLAN

This Plan has been developed as a strategy to control soil erosion and sedimentation during and after construction of the Waste Management of Maine site improvements.

A. EROSION CONTROL PRACTICES / TEMPORARY MEASURES

The following temporary measures to control erosion and sedimentation shall be utilized:

1. Each ground area, opened or exposed, whether directly or indirectly due to the development, shall be minimized and shall be stabilized within 15 days of initial disturbance of soil and shall be permanently stabilized within seven days of final grading.

2. Temporary soil stabilization shall be either by temporary mulching, temporary seeding, permanent base gravel, or asphalt binder course as follows:

   TEMPORARY SEEDING. Seed shall be Aroostook rye applied at 2.60#/1000SF. Lime shall be agricultural ground limestone applied at 138#/1000SF. Fertilizer shall be 10-10-10 classification applied at 13.8#/1000SF. Mulch shall consist of hay or straw mulch and spread evenly at a rate of 70-90#/1000SF. Temporary seedings shall only be made between April 15 and October 1, and shall not be placed over snow.

   TEMPORARY MULCHING. Mulch shall consist of chopped hay or straw mulch and spread by mechanical blower evenly at a rate of 150-200#/1000SF. Temporary mulch shall be removed prior to permanent soil stabilization. Mulch shall not be placed over snow. Snow shall be removed prior to mulching.

   PERMANENT BASE GRAVEL. Base gravel under pavement shall be suitable as temporary soil stabilization under the following conditions:
   a. Slopes shall be less than five percent.
   b. Gravel shall meet the specifications for base or subbase gravel for the proposed completed pavement.

   ASPHALT BINDER COURSE. Asphalt binder shall meet the specifications for the asphalt binder course for the proposed completed pavement.

3. Prior to topsoil removal, silt fencing shall be staked as shown on the Plans.

4. Stripped topsoil shall be stockpiled for reuse during final grading. The pile shall be heavily mulched with hay while stockpiled.

5. Low point sedimentation control barriers shall surround all proposed and existing catchbasin rims, where required.

B. EROSION CONTROL PRACTICES / PERMANENT MEASURES

The following permanent measures to control erosion and sedimentation shall be utilized:

1. Permanent seeding shall be performed during construction operations as each disturbed area has been brought to finish grade. Permanent seedings shall be made as dormant seeding after the first killing frost. Dormant seeding and mulch shall be used at two times the permanent seeding rate shown below for lawns. Seed, loam, lime, fertilizer, and mulch are to be as follows:

   SEED. The seed mixture shall consist of seeds proportioned by weight. All seed shall be fresh, clean, "new crop" seed. Harmless inert matter and weed seeds shall be permitted up to 1 percent of the gross weight of each variety of seed. All seed supplied shall be packed in approved containers bearing the manufacturer's name and analysis of contents. The following materials and application rates shall be required for permanent seeding:

Lawn - Creeping red fescue:	0.69#/1000 SF
Kentucky bluegrass:	0.57#/1000 SF
Perennial ryegrass:	0.46#/1000 SF
Redtop:	0.12#/1000 SF
Total:	1.84#/1000 SF

   LOAM. Loam shall be free of grasses and large stone. Place loam at six inches minimum depth over all disturbed areas.

   LIME. Lime shall be agricultural ground limestone and applied as per recommendation of a State Commercial Soil Testing Laboratory.

   FERTILIZER. Fertilizer shall be 10-20-20 classification and applied as per recommendation of a State Commercial Soil Testing Laboratory.

MULCH. Mulch shall consist of hay or straw mulch. Mulch shall be spread evenly at a rate of two and one half tons per acre over all seeding. After application, the mulch shall be thoroughly wetted.

The contractor shall maintain the seeded and mulched areas until final acceptance of the work. Maintenance shall consist of providing protection against traffic and repairing any areas damaged due to wind, water, erosion, fire or other causes. Such damaged areas shall be repaired to re-establish the condition and grade of the soil prior to seeding and shall then be refertilized, reseeded and remulched.

C. CONSTRUCTION SEQUENCE

The general sequence of work shall be as follows:

1. Grade site, stockpile and protect topsoil with mulching and silt fencing.

2. Temporarily stabilize disturbed areas by mulching all exposed soil within 15 days of initial disturbance.

3. Install stormwater system.

4. Complete site construction work.

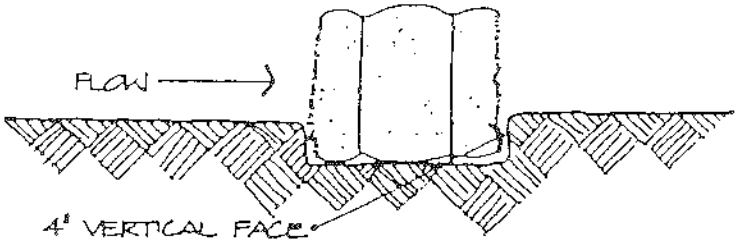
5. Install permanent vegetation on all exposed areas within 15 days of final grading. (Areas to be seeded after October 15th shall receive mulch at the rate specified for Temporary Mulching as outlined above.)

6. Perform continuing maintenance on all erosion and sedimentation control devices and measures.

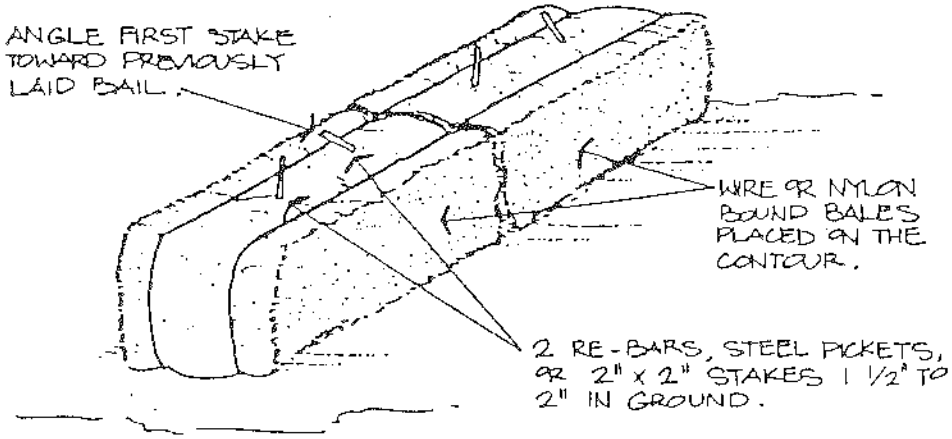
D. SITE INSPECTION & MAINTENANCE

Weekly inspections, as well as routine inspections following rain falls, shall be conducted by the General Contractor of all temporary and permanent erosion control devices until final acceptance of the project. Necessary repairs shall be made to correct undermining or deterioration. Final acceptance shall include a site inspection to verify the stability of all disturbed areas and slopes. Until final inspection, all erosion and sedimentation control measures shall immediately be cleaned, and repaired by the General Contractor as required. Disposal of all temporary erosion control devices shall be the responsibility of the General Contractor.

Continued temporary maintenance and long term provisions for permanent maintenance of all erosion and sedimentation control facilities after acceptance of the project shall be the responsibility of Waste Management of Maine, Inc.



EMBEDDING DETAIL

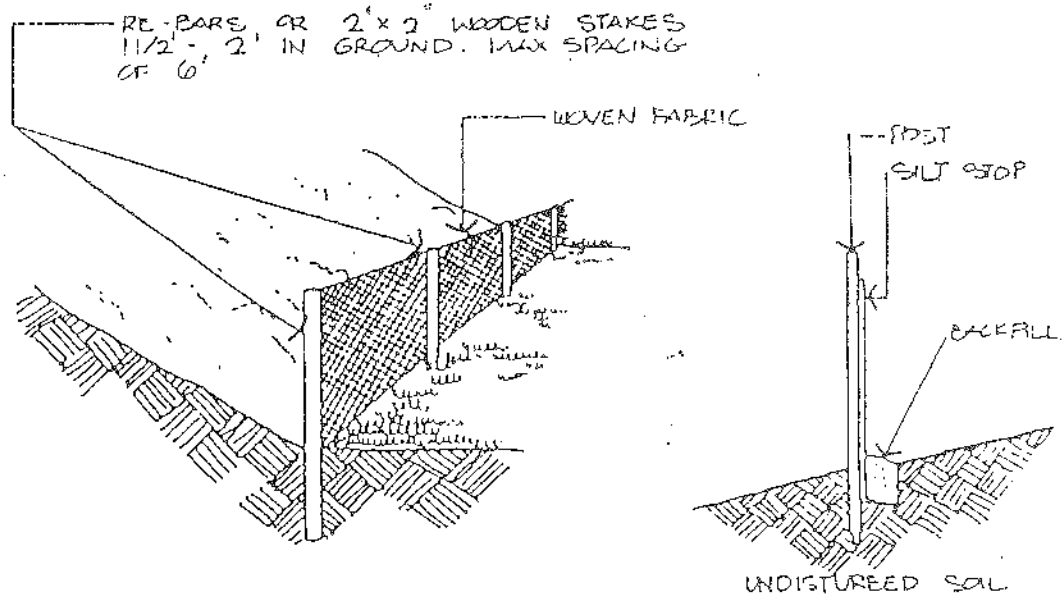


ANCHORING DETAIL

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4'.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE CHECK DAM

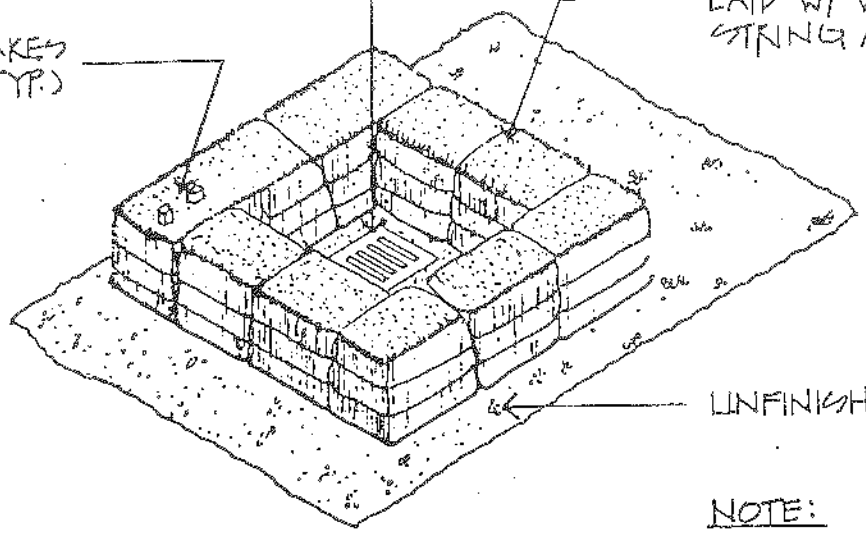
N.T.S.



1. SILT FENCE TO BE INSTALLED PARALLEL TO EXISTING CONTOURS DOWNSLOPE FROM AREAS OF SOIL DISTURBANCE.
2. SILT FENCE TO BE SECURELY ATTACHED TO THE UPSLOPE OF SUPPORTING STAKES.
3. BOTTOM 4 TO 6 INCHES OF SILT FENCE TO BE BURIED IN SLOTE AND BACKFILLED WITH COMPACTED SOIL.
4. INSPECTION SHALL BE MADE AFTER EVERY RAINFALL WITH REMOVAL OF EXCESSIVE SEDIMENT AND REPAIR OF THE FENCE ACCOMPLISHED PROMPTLY.
5. SILT FENCE AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS SOON AS PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

SILT FENCE

N.T.S.



NOTE:
REMOVE BALES UPON
COMPLETION OF PAVING
AND OR SEEDING

LOW POINT SEDIMENT CONTROL BARRIER

NOT TO SCALE

BH2M
Berry Huff McDonald Milligan, Inc.

Lester S. Berry
Thomas Milligan, Jr.
William A. Thompson
Mark Gray
Timothy O. Brown

August 1, 1995

John Mitchell
Mitchell & Associates
70 Center Street
Portland, ME 04101

Subject: Waste Management of Maine, Park Addition
Storm Water Analysis

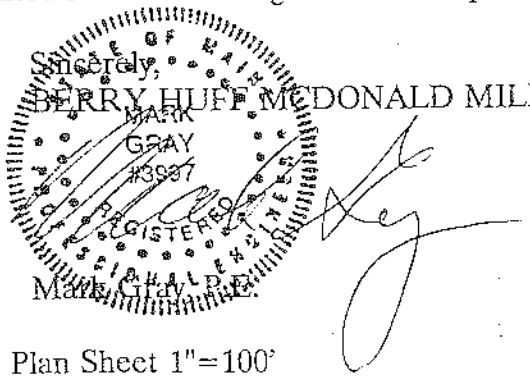
Dear John:

With the addition of the park area to the site, it was necessary to revisit the storm water management plan for the site. The first storm water plan, dated October 6, 1995 was amended with a letter and attached calculations dated October 13, 1995. The plan called for a wet pond with detention to control peak discharge to a level spreader. With the addition of the park area, flow to the level spreader for the 25 year design storm increases to 29 cfs. This translates to between 3 and 4 inches of water over the lip of the level spreader for a brief period at the peak discharge time of the design storm. The velocity of water leaving the level spreader is only 1.5 ft/sec which compared favorably to the allowable flow velocity of 2.5 ft/sec for the Hartland Soils. There is also a small amount of water (2.6 cfs) which flows over the spillway for a brief period during the 25 year storm event. This water will obtain the same advantage as the level spreader discharge in terms of contact with vegetation prior to discharge to the Presumpscot River.

The 100 year design storm was also routed through the system to assure capacity for the overflow event. In the 100 year storm, the level lip of the level spreader experiences only 4-5 inches of water depth which translates to a velocity of 1.8 ft/sec. The spillway has about 3 inches of water for a brief period at a rate of only 8.6 cfs.

This park addition can be integrated into the existing storm water plan for the site.

Sincerely,
BERRY HUFF MCDONALD MILLIGAN, INC.



Mark Gray P.E.

MG/mg
enc. Post Development Storm Water Plan Sheet 1"=100'
HydroCad Calculations 25 and 100 year storms

DON'S POWER EQUIPMENT, INC.

736 Riverside Street
Portland, Maine 04103

(207) 797-3920 Fax (207) 797-3971

June 27,1995

Joseph E. Gray, Jr.
Director of Planning and Urban Dev.
City Hall
4th Floor
389 Congress Street
Portland,Me. 04101

Dear Mr.Gray,

This is in response to the Waste Management waiver for the construction of sidewalk and curbing on Riverside street.

We applied for a permit to construct a new warehouse and do remolding on our existing building at 736 Riverside street.We had to build sidewalks and the same requirements should be mandatory for all future permits.If not I would expect a refund of the amount of money I spent on the side walks.

Sincerely,

Terrance W.Shoemaker,Sr.
Charlotte R. Shoemaker

LETTER OF TRANSMITTAL

MITCHELL & ASSOCIATES
THE STAPLES SCHOOL
70 CENTER STREET
PORTLAND, MAINE 04101

TEL (207) 774-4427
FAX (207) 874-2460

DATE:
June 22, 1995

TO:
Rick Knowland
Planning Department
City of Portland
389 Congress Street
Portland, Maine 04101

HAND DELIVERED

We are sending you the following items:

___ Prints
___ Plans
___ Copy of Letter
x Other

Re:
Waste Management of Maine, Inc.

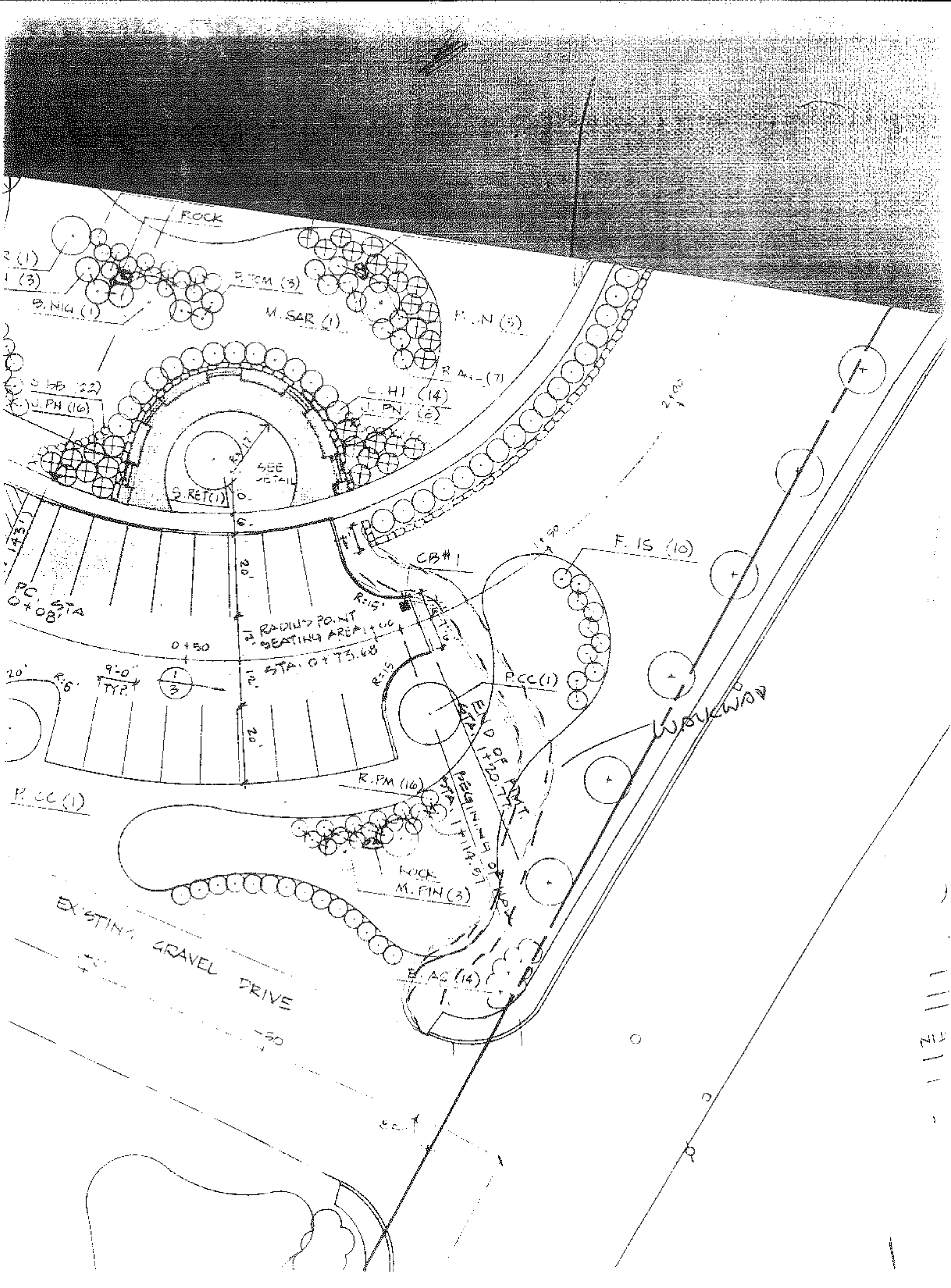
Copies	Date	Description
1		11 x 17 reduced copy of Master Plan

These are transmitted as checked below:

___ For approval
x For your use
___ For review and comment
___ As requested by: _____

Remarks:

Signature: Robert Metcalf



ROCK
B. NIG (1)
R. PM (3)
M. SAR (1)
R. AN (7)
S. BB (22)
J. PN (16)
C. HI (14)
J. PN (6)
SEE DETAIL
S. RET (1)
CB#1
F. IS (10)
PC. STA 0+08'
RADIUS POINT SEATING AREA
STA. 0+73.68
0+50
9'-0" TYP.
P. CC (1)
END OF PVMT. STA. 1+20.77
BEGIN 5 STA. 1+14.57
R. PM (16)
ROCK
M. PIN (3)
EXISTING GRAVEL DRIVE
E. AC (14)
WALKWAY