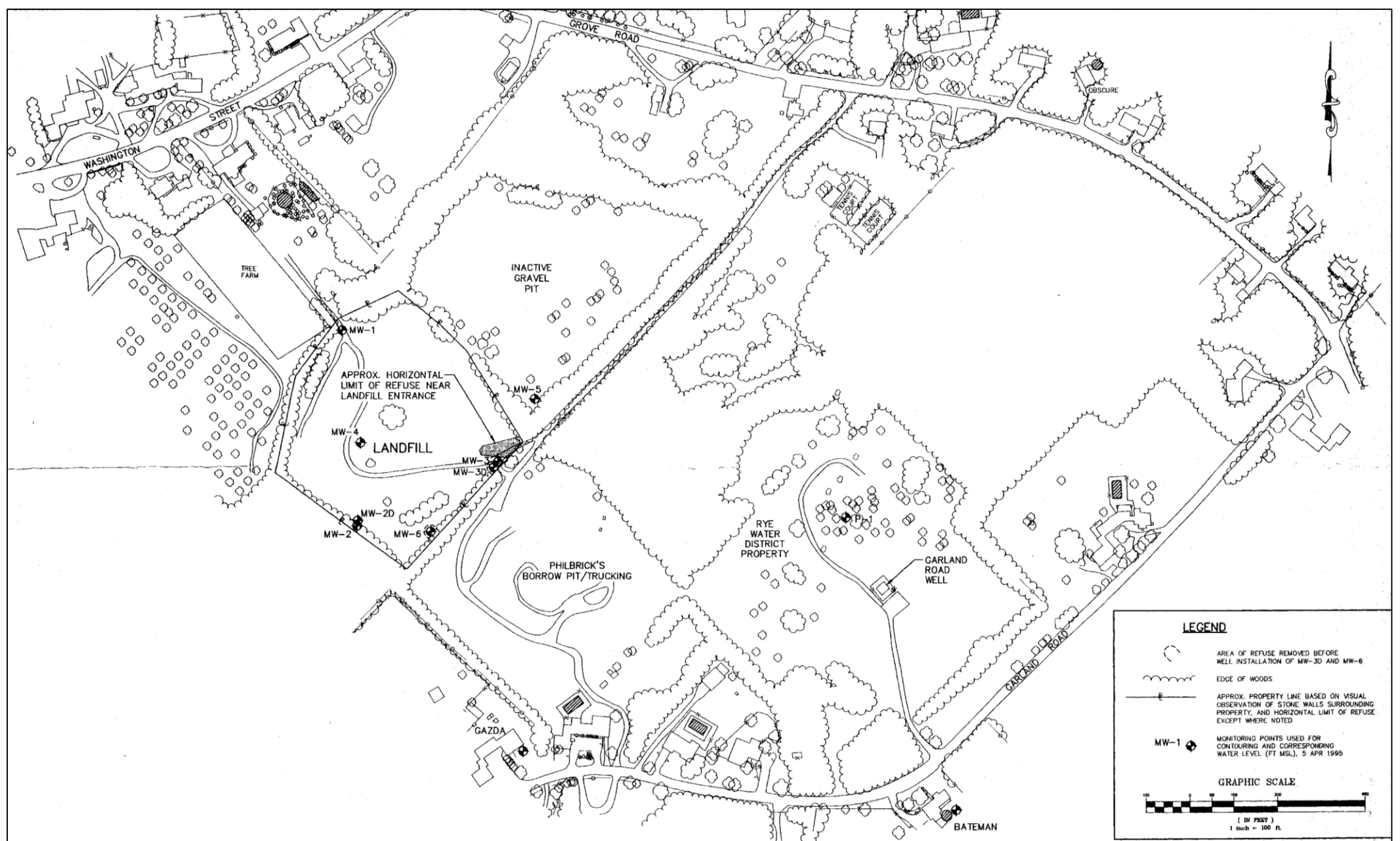


Grove Road Solid Waste Landfill Town of Rye, NH

- Craig N. Musselman, P.E., BCEE
- CMA Engineers, Inc.
- PORTSMOUTH, NH | MANCHESTER, NH | PORTLAND, ME

Landfill Site

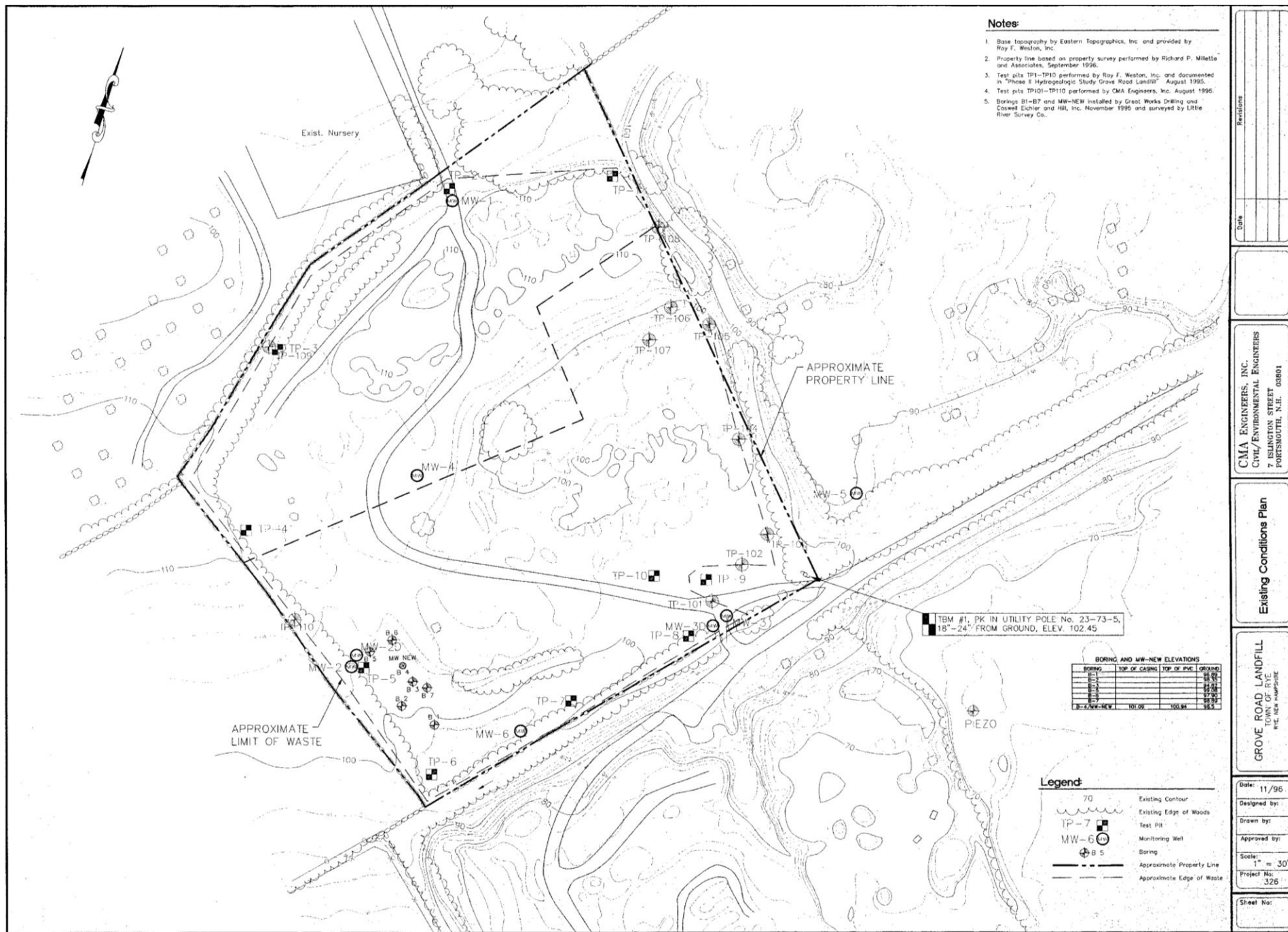
- 5.2 Acres off Grove Road.
- Owned by Farragut Stoneleigh Corp. through 1926.
- Town Landfill in 1927 when site owned by Herne and Drake.
- Acquired by the Town of Rye – date “1950’s”.
- Landfilling ceased 1975.
- Acquired by Rye Water District (RWD) from the Town of Rye, 1976.
- Owned currently by Rye Water District



				GROVE ROAD LANDFILL TOWN OF RYE RYE, NEW HAMPSHIRE				DESIGNED _____ DATE _____ CLIENT APPROVALS _____ DATE _____				AREA MAP			
				 ENGINEERS CONSULTANTS				DRAWN K.J.C. DATE AUG 1995 DWS NO. _____				FIGURE 2			
				CONCORD NEW HAMPSHIRE				SCALE 1" = 100' NO. 06773-001-002							
NO.	DATE	APPR.	REVISION	NO.	DATE	APPR.	REVISION	ISSUED FOR	DATE						

Landfill Operations

- 1927-1964 (37 years) – soil borrow pit/solid waste landfill – solid waste placed, periodically open-burned/periodically covered with soil.
- Soil excavated from site reportedly used to build dredge berms at Rye Harbor
- 1964-1965 (2 years) – Teepee incinerator/ash disposal. Incinerator ceased operation due to court order.
- 1966-1975 (10 years) – solid waste landfill with soil cover
- 1975 (ca.) Site's "Fire Pond" backfilled with solid waste
 - 30 feet wide by 120 feet long by 30 feet deep



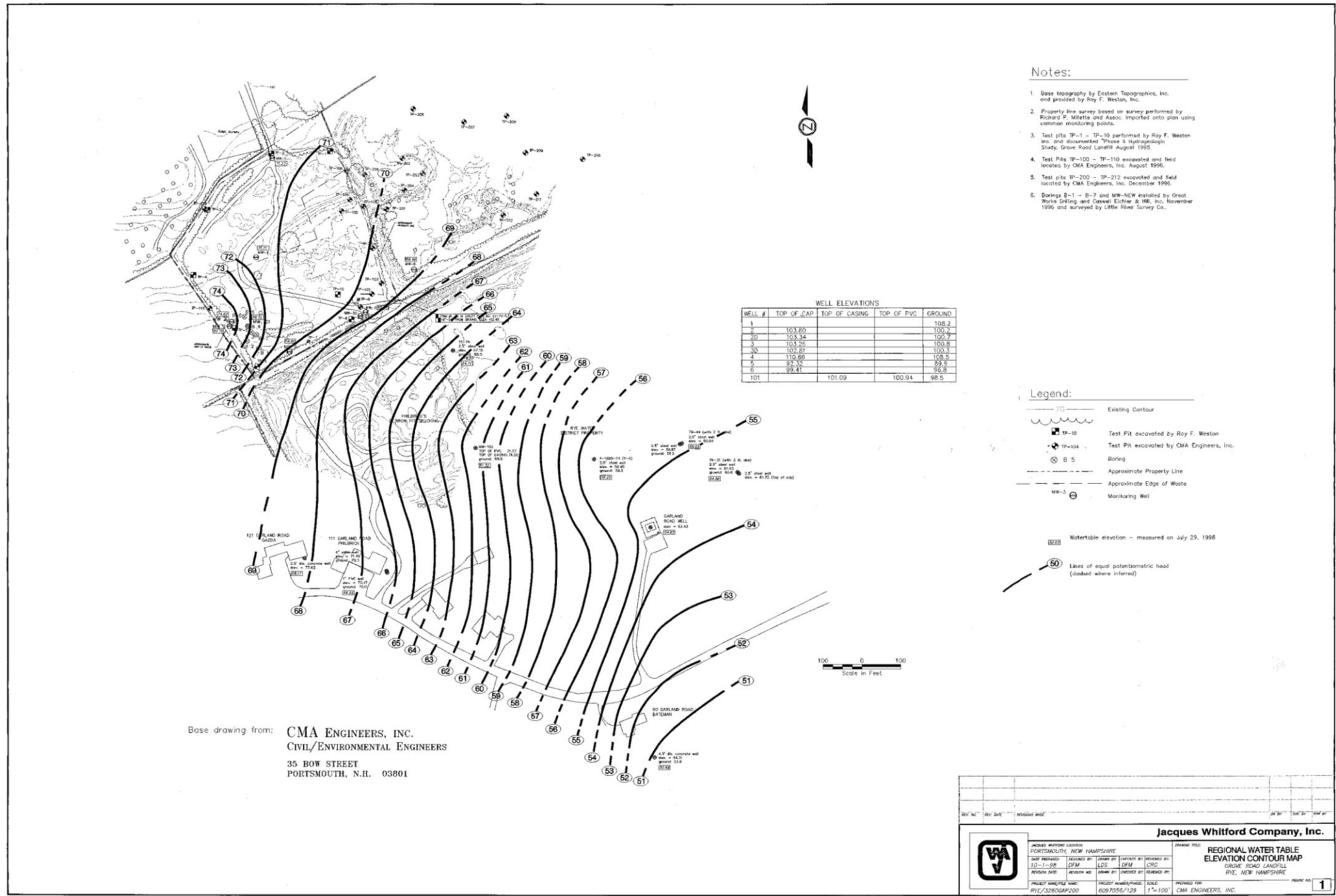
CMA ENGINEERS, INC.
CIVIL/ENVIRONMENTAL ENGINEERS
7 ISLINGTON STREET
PORTSMOUTH, N.H. 03801

Existing Conditions Plan

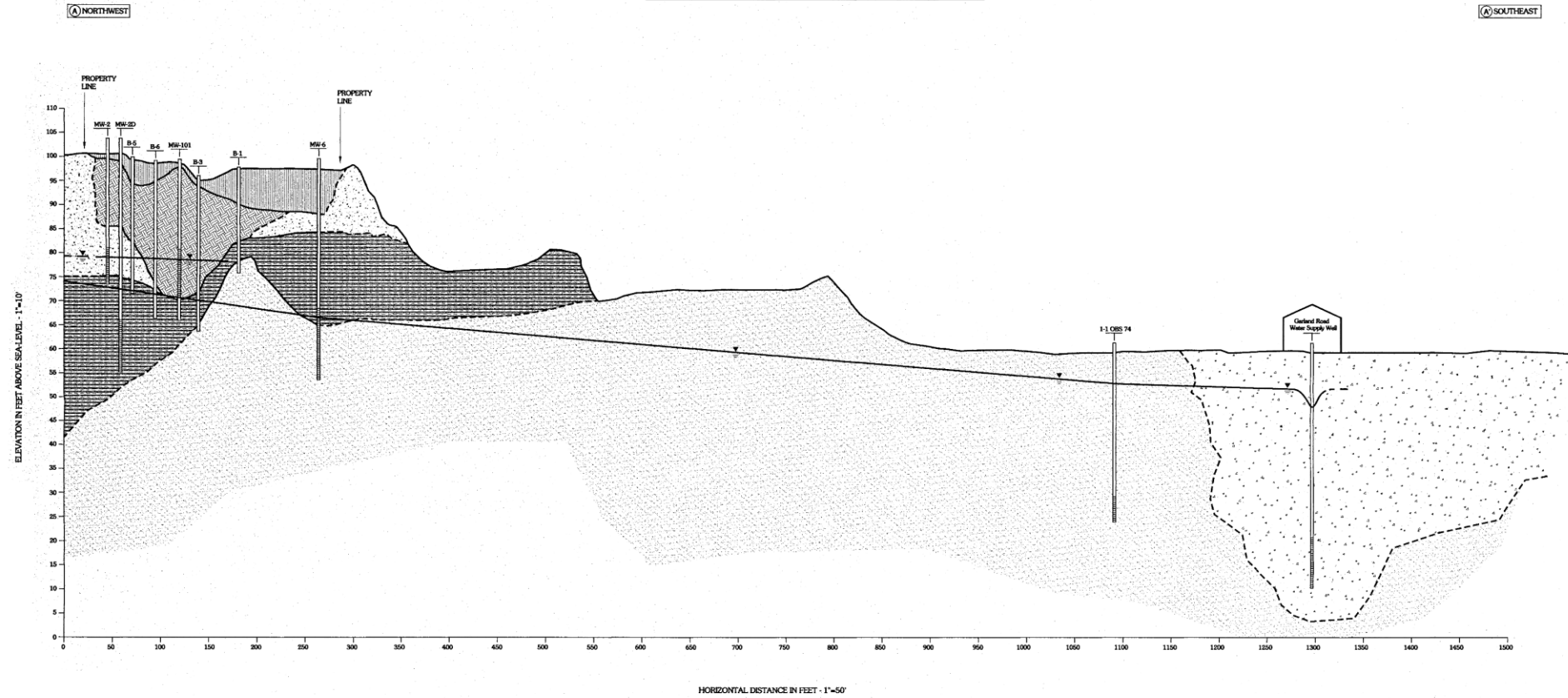
GROVE ROAD LANDFILL
TOWN OF RYE
RYE, NEW HAMPSHIRE

Date: 11/96
Designed by:
Drawn by:
Approved by:
Scale: 1" = 30'
Project No. 326

Sheet No:



HYDROGEOLOGIC CROSS-SECTION A-A'



Legend

--- Geologic Contact Line
 --- Water Table Elevation Recorded July 31, 1997

MW-6
 Monitoring Well Location
 Screened Interval

Cover
 Waste
 Brown Sand & Gravel (outwash deposit)
 Sandy Clay (ice-contact deposit)
 Sand (outwash deposit)
 Brown Gravel & Boulders

NOTES: 1. VERTICAL EXAGGERATION
 2. ALL LINES DASHED WHERE INFERRED

		Caswell, Eichler & Hill, Inc. a Jacques Whitford Company	
PROJECT NAME/FILE NAME: RYE GROVE/ASSETS		PROJECT NUMBER/PHASE: 608/1006/122	
DATE PREPARED: 12-2-97		DRAWN BY: JSH	
REVISION DATE: 12-2-97		CHECKED BY: JSH	
PREPARED FOR: TOWN OF RYE		DRAWING SCALE: AS SHOWN	
SHEET NO.: 2		FIGURE NO.: 2	

Site Activities Since 1976

- Soils deposited throughout site reportedly from a school construction site in Epping, NH; described as silty sand.
- Marsh soils disposed in one windrow from Rye Conservation Commission construction site, near Rye Harbor.
- Site characterization, test pits, monitoring wells by:
 - Roy F. Weston, Inc. for RWD 1990-1995
 - CMA Engineers, Inc./Jacques Whitford for Town of Rye 1996-1999
- Equipment fire with firefighting foam used, off-site, downgradient of MW-3, 2012.

1990's Town/Water District Closure Activities

- 1990 – NHDES instructed Town/Water District to “close the site”.
- 1990-95 - Discussions among Town/Water District on who was responsible for closure cost.
- 1990 -1995 RWD retained Roy F. Weston – Phase I and II Hydrogeological Investigations.
- 1996 Town retained CMA Engineers for closure design/further site investigations. Fire pond characterized, monitoring wells completed.
- 1996 – Rye Board of Selectmen voted to fund closure construction
- December 24, 1996 Rye Water District “grave concerns” letter - closure will entail Garland Well water quality risks.

1990's Town/Water District Closure Activities

- 1997 – CMA Engineers evaluated capping, “extended interim closure”, minimal grading alternatives, no closure activities.
- 1997 – 1998, NHDES allowed continued monitoring prior to decision on closure.
- 1998 NHDES registered the site as a “Pre-1981” Landfill, required “Access Use Restriction” (AUR, deed notification and site use restrictions)
- Water quality monitoring to continue

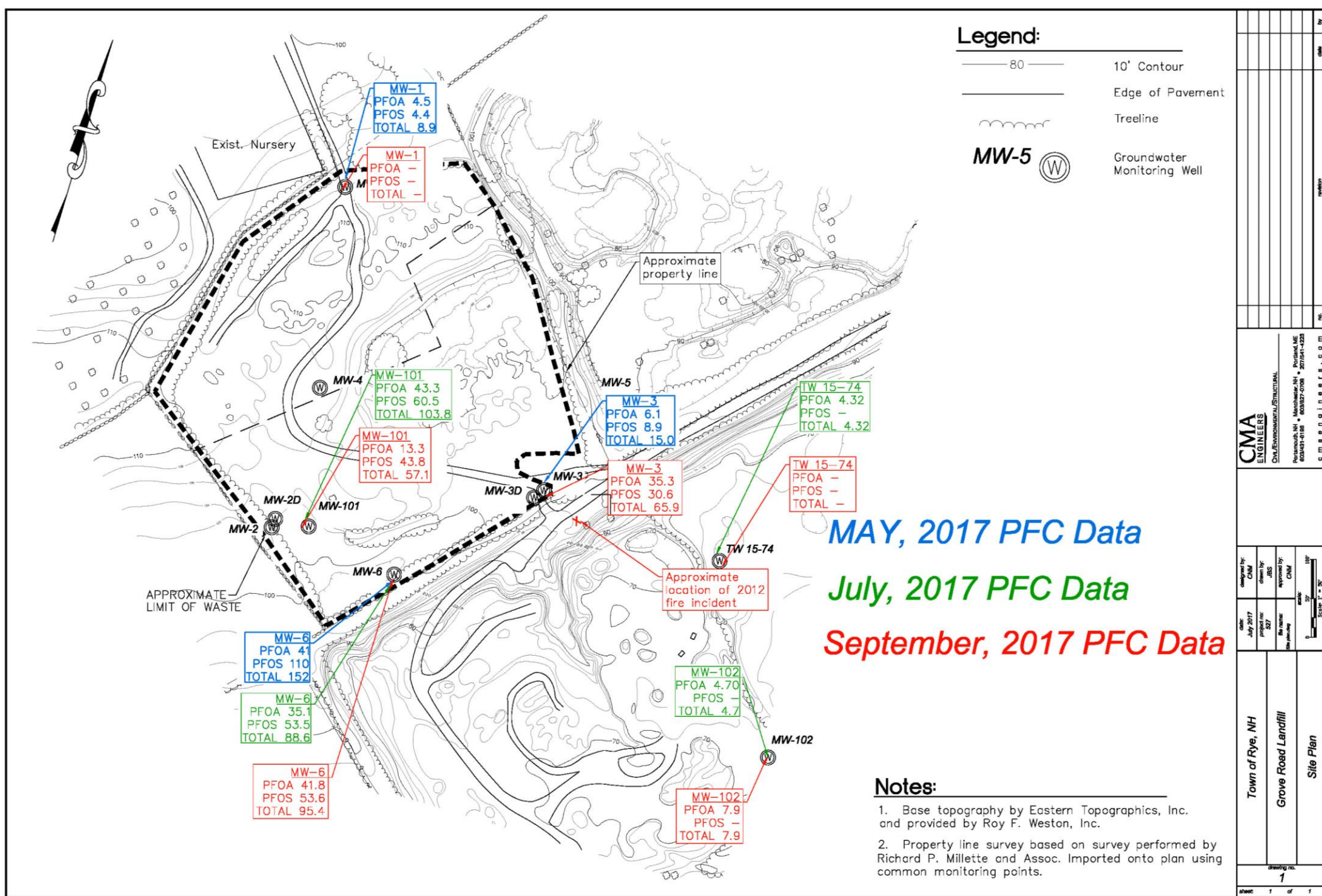
Hydraulic Evaluation of Landfill

- 1997 USEPA “HELP Model” Run

- Four Year Average Precipitation: 45.1 inches
- Predicted Runoff: 1.9 inches
- Predicted Evapotranspiration 23.2 inches
- Predicted Percolation to Groundwater 20.3 inches
- Balance is change in water storage (negative)
- 20.3 inches over full footprint is the equivalent of 2.6 million gallons per year, or about 5 gallons per minute (gpm), on an annual average basis.
- Pumping capacity of Garland Well is about 470 gpm.
- Simplistic comparison

Landfill Regulatory Status

- Registered with NHDES as a “Pre-1981 Landfill”.
- Access Use Restriction (AUR) in place (deed/site use restrictions).
- Groundwater Management Permit issued and updated every five years. One annual sampling round required.
- Groundwater Management Zone established – property boundaries.



CMA ENGINEERS		CMA ENVIRONMENTAL/STRUCTURAL		Portland, ME 04101-6188		2017-01-12-25		cmaengineers.com		revision		27	
Designed by: CMA		Checked by: JBS		Approved by: CMA		Scale: 1" = 50'		Date: July 2017		Project No: 527		Drawing No: 1	
Town of Rye, NH		Grove Road Landfill		Site Plan		Sheet: 1 of 1							

Questions?