



LEGEND:

- TRAVERSE CONTROL STATION
- BENCH MARK
- GPS CONTROL STATION
- POINT NUMBER
- HORIZONTAL STATION IDENTIFIER
- BENCH MARK IDENTIFIER

MONUMENT TYPE KEY:

- 1) 3D MON - STAINLESS STEEL ROD DRIVEN TO REFUSAL IN PVC SLEEVE, BEDDED IN SAND INSIDE A 6" DIA. PVC PIPE W/ ALUM. ACCESS COVER.
- 2) BRASS CAP/BRONZE CAP - 3" DIAMETER, DOME TABLET W/ SHANK GROUTED IN A DRILL HOLE IN LEDGE OR CONCRETE, OR SET IN A BURRIED CONCRETE PILLAR.
- 3) ALUM. CAP - 2" DIAMETER FLAT TABLET W/ SHANK SET IN 4" PVC PIPE FILLED W/ CONCRETE.
- 4) HUB & TACK - 12" HARDWOOD SURVEYOR'S STAKE WITH CUP TACK AND BRASS FLASHER.
- 5) PK NAIL - MASONRY NAIL W/ BRASS FLASHER SET IN ASPHALT PAVEMENT.
- 6) X CUT/PUNCH MARK - CHISELED IN MANHOLE RIM.
- 7) REBAR - 5/8" OR 1/2" DIAMETER IRON REBAR, 2-4 FEET LONG DRIVEN FLUSH W/ GROUND SURFACE.
- 8) SQUARE - CHISELED SQUARE IN GRANITE STEP.

*NOTE: MAP COLUMN IN TABLE GIVES THE MAP COORDINATES OF CONTROL STATIONS

STATION	PT.#	MAP*	NORTH	EAST	ELEV.	MON. TYPE
H-1	1	H5	91430.1149	2800550.9528	15.751	3D MON
H-2	2	I5	91576.9296	2801003.3602	19.311	BRASS CAP
H-3	3	I5	91553.1717	2801207.5906	8.847	ALUM. CAP
H-4	4	J5	91410.4012	2801786.9378	7.965	HUB & TACK
H-5	5	K5	91307.9037	2802380.1254	7.874	3D MON
H-6	6	L5	91235.3778	2802871.6750	8.869	ALUM. CAP
H-7	7	M6	90918.9113	2803227.8513	9.521	ALUM. CAP
H-8	8	M6	90875.0582	2803207.6057	9.535	PK NAIL
H-9	9	M7	90292.1509	2803368.0142	11.378	ALUM. CAP
H-10	10	L9	89296.5664	2802573.6693	7.212	ALUM. CAP
H-11	11	K9	89245.4077	2802201.4163	32.723	3D MON
H-12	12	J9	89097.0139	2801768.3442	41.372	REBAR
H-13	13	J9	89363.8214	2801450.5624	36.098	3D MON
H-14	14	I10	88862.4355	2801019.4232	44.428	3D MON
H-15	15	G10	88998.3306	2800321.9613	13.540	3D MON
H-16	16	G10	88934.5453	2800171.2888	8.034	PUNCH MARK
H-17	17	G9	89335.9985	2799981.1160	8.085	BRONZE DISK
H-18	18	G8	89862.1419	2800999.0237	7.815	BRONZE DISK
H-19	19	G7	90316.3623	2800183.3065	6.508	BRONZE DISK
H-20	20	H6	90927.1689	2800508.2131	8.707	REBAR
H-21	21	H8	89590.6888	2800472.0503	22.133	BRONZE DISK
H-22	22	H8	89890.6306	2800692.2435	18.562	REBAR
H-23	23	H6	90618.3116	2800816.5189	11.814	REBAR
H-24	24	H6	90896.7340	2800797.4686	10.525	BRONZE DISK
H-25	25	I9	89674.5009	2801003.7613	21.493	REBAR
H-26	26	J8	89623.9234	2801860.8992	24.888	X CUT
H-27	27	K7	90406.3337	2801985.2290	18.679	REBAR
H-28	28	K6	90847.5421	2802068.1379	13.586	REBAR
H-29	29	K6	90816.4898	2802297.0689	11.489	REBAR
H-30	30	I7	90486.3806	2801403.3243	20.328	BRONZE DISK
H-31	31	G4	91962.8017	2800361.6211	26.482	3D MON
H-32	32	F4	91837.3951	2799915.2322	29.506	REBAR
H-33	33	F4	91720.0024	2799469.7799	17.644	BRONZE DISK
H-34	34	E4	91582.6406	2799188.3513	13.181	PUNCH MARK
H-35	35	D5	91440.7599	2798731.4061	9.094	REBAR
H-36	36	D5	91222.2058	2798474.7149	9.396	REBAR
H-37	37	C5	91174.5102	2798206.1053	9.621	BRONZE DISK
H-38	38	C6	91025.1241	2798034.4452	9.577	BRONZE DISK
H-39	39	C6	90779.8286	2798086.7539	9.574	BRONZE DISK
H-40	40	D6	90931.8872	2798551.6627	9.723	BRONZE DISK
H-41	41	F5	91211.5729	2799823.8329	15.312	PK NAIL
H-42	42	F5	91270.5230	2799578.2763	14.830	REBAR
H-43	43	G6	90833.4617	2799857.6750	12.160	REBAR
H-44	44	F7	90423.3809	2798864.2649	9.539	REBAR
H-45	45	D6	90886.4865	2798878.0963	9.724	BRONZE DISK
H-46	46	F5	91074.6076	2799480.8477	12.329	REBAR
H-47	47	H8	89828.2595	2800568.8907	20.948	PK NAIL
H-48	48	K8	89867.5692	2802238.9246	14.662	ALUM. CAP
BM-8	66	E6	91035.3811	2799156.3426	12.606	BRONZE DISK
BM-11	67	C6	90785.0740	2798186.6408	9.648	BRONZE DISK
BM-13A	68	C6	90897.5535	2797834.2391	9.493	BRONZE DISK
BM V-1	100	M7	90425.9541	2803373.2547	10.416	BRONZE DISK
BM V-2	101	L9	89379.3760	2802478.0127	10.153	BRONZE DISK
BM V-3	102	K7	90367.1864	2801988.3403	21.671	HYDRANT
BM-21	103	E6	90591.5948	2799224.5813	8.114	BRONZE DISK
BM-12		F6			18.931	SQUARE

HORIZONTAL & VERTICAL SURVEY CONTROL NETWORK NOTES:

- 1) COORDINATES ARE BASED ON THE MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83.
- 2) HORIZONTAL AND VERTICAL CONTROL NETWORKS ESTABLISHED FALL OF 2001 AND WINTER OF 2002 BY CIVIL CONSULTANTS OF SOUTH BERWICK, MAINE (207) 384-2550. THE HORIZONTAL NETWORK WAS MEASURED WITH A LEICA TPS100 ROBOTIC TOTAL STATION. LINES OF SIGHT BETWEEN STATIONS ARE AS INDICATED BY LINES CONNECTING STATIONS. THE NETWORK WAS ALSO OBSERVED IN PART WITH TRIMBLE 4000SE AND 4600LS SURVEY GRADE GPS RECEIVERS AT THOSE STATIONS INDICATED. THE VERTICAL CONTROL NETWORK WAS MEASURED USING A SOKIA B2C LEVEL AND A PRECISION LEVELING STAFF USING 3-WIRE OBSERVATION METHODS. THE LEVELING ROUTES AND POINT CONNECTIONS COINCIDE LARGELY WITH THE HORIZONTAL TRAVERSE ROUTES AND POINT CONNECTIONS. BOTH THE HORIZONTAL AND VERTICAL CONTROL NETWORKS WERE ADJUSTED USING WEIGHTED LEAST SQUARES METHODS. ELEVATIONS OF THE HORIZONTAL CONTROL STATIONS WERE DETERMINED BY THE SAME LEVELING METHODS THAT WERE EMPLOYED FOR THE BENCH MARKS. THE HORIZONTAL POSITIONS OF THE BENCH MARKS WERE MEASURED FROM THE HORIZONTAL CONTROL STATIONS USING THE SAME EQUIPMENT AND METHODS AS EMPLOYED FOR OBSERVATION OF THE HORIZONTAL CONTROL NETWORK.
- 3) ELEVATIONS AS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988
- 4) ALL MEASUREMENTS AND COORDINATES ARE IN U.S. SURVEY FEET. 1 METER EQUALS 3.280833333333 U.S. SURVEY FEET.
- 5) FOR MORE DETAILS REGARDING MEASUREMENT METHODOLOGY, REFER TO THE CONTROL REPORT PREPARED CONCURRENTLY WITH THIS DRAWING BY CIVIL CONSULTANTS.

REVISION	DATE	DESCRIPTION	BY
P.W. DRAWING NO. DEPT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND			
NAVAL SHIPYARD PORTSMOUTH, N.H.			
U.S. NAVAL ACTIVITIES SEAVEY ISLAND, KITTERY, ME			
SURVEY CONTROL			
DES.	ARCH.	DATE	SIZE
DRWN.	MECH.	DATE	CODE IDENT. NO.
CHK.	DIV. STR.	DATE	NAVFAC DRAWING NO.
	ELECT.	DATE	SHEET
BRANCH HEAD		CONSTR. CONTR. NO.	
APPROVED		SCALE AS SHOWN	
HEAD, ENGINEERING DIVISION		SHEET 1 OF 1	
SATISFACTORY TO			

UNCLASSIFIED