DRAIN MANHOLE INVERT TABLE

D.M.H.#1
RIM=229.16
A) INV. IN 12"RCP=224.21
B) INV. OUT 12"RCP=224.06

D.M.H.#2
RIM=229.08
A) INV. IN 12"RCP=223.28
B) INV. IN 12"RCP=221.68
C) INV. IN 12"PVC=223.68
CENTERLINE 12"RCP=220.63

D.M.H.#3
RIM=229.57
CENTERLINE 12"RCP=220.62

D.M.H.#4
RIM=228.67
A) INV. IN 12"RCP=223.67
CENTERLINE 12"RCP=220.22

D.M.H.#5
RIM=229.12
A) INV. IN 12"RCP=221.62
CENTERLINE 12"RCP=220.17

D.M.H.#6
RIM=229.70
CENTERLINE 12"RCP=219.90

D.M.H.#7
RIM=232.37
A) INV. IN 6"PVC=223.57
CENTERLINE 12"RCP=219.82

D.M.H.#8
RIM=229.12
CENTERLINE 12"RCP=219.52

D.M.H.#9
RIM=230.57
CENTERLINE 12"RCP=219.82

D.M.H.#10
RIM=231.74
CENTERLINE 12"RCP=219.89

D.M.H.#11
RIM=224.49
CENTERLINE 32"RCP=214.49

D.M.H.#12
RIM=223.80
A) INV. IN 12"HDPE=218.05
B) INV. IN 12"RCP=219.35
C) INV. IN 12"RCP=218.30
D) INV. OUT 12"RCP=215.20
SUMP=214.80

DMH 23
RIM = 228.81'
A) INV IN 12" RCP = 223.09'
B) INV IN 12" RCP = 223.15'
C) INV OUT 12" RCP = 221.00
SUMP = 219.6'

DMH 24
RIM = 227.54'
A) INV IN 12" PVC = 222.84'
B) INV IN 10" PVC = 222.48'
C) INV OUT 12" VC = 222.22'
SUMP = 222.1'

DMH 45
RIM = 225.51'
A) INV IN 12" RCP = 218.27'
B) INV IN 6" VC = 219.23'
C) INV IN 12" VC = 217.63'
D) INV OUT 12" VC = 217.59'
SHELF = 218.4'

DMH 46
RIM = 224.72'
A) INV IN 8" PVC = 218.32'
B) INV IN 12" RCP = 218.26'
C) INV IN 12" RCP = 220.40'
D) INV OUT 12" RCP = 218.18'
SUMP = 217.9'

DMH 51
RIM = 229.07
A) INV IN 10" RCP = 223.77
B) INV IN 6" PVC = 221.42
CENTERLINE 12" RCP = 221.07

DMH 52
RIM = 229.78
CENTERLINE 12" RCP = 221.13

DMH 53
RIM = 229.18
A) INV IN 15" RCP = 223.53
CENTERLINE 12" RCP = 220.48

DMH 54
RIM = 229.46
A) INV IN 12" RCP = 224.16
CENTERLINE 12" RCP = 220.66

DMH 55
RIM = 230.43
CENTERLINE 12" RCP = 220.33

CATCH BASIN INVERT TABLE

C.B.#1
RIM=226.18
A) INV. IN 4"PVC=224.18
B) INV. OUT 12"PVC=223.23
SUMP=220.9

C.B.#2
RIM=226.92
A) INV. IN 12"PVC=222.37
B) INV. IN 4"PVC=224.22
C) INV. IN 4"PVC=223.92
D) INV. OUT 12"PVC=222.44

C.B.#3
RIM=226.87
A) INV. IN 12"PVC=222.47
B) INV. IN 4"PVC=223.97
C) INV. IN 4"PVC=224.07
D) INV. OUT 12"PVC=222.45
SUMP=222.4

C.B.#4
RIM=227.63
A) INV. IN 15"RCP=221.98
B) INV. IN 12"PVC=222.33
C) INV. IN 4"PVC=223.43
D) INV. OUT 12"RCP=221.98
SUMP=219.6

C.B.#5
RIM=229.23
(3) INV. IN 4"PVC=226.73
INV. OUT 12"PVC=225.68
SUMP=223.5

C.B.#6
RIM=228.83
A) INV. IN 12"PVC=223.53
B) INV. IN 4"PVC=225.23
C) INV. IN 4"PVC=225.23
D) INV. IN 4"PVC=225.23
E) INV. OUT 12"RCP=223.53

C.B.#7
RIM=228.59
A) INV. IN 3"PVC=225.59
B) INV. IN 3"PVC=225.89
C) INV. OUT 12"PVC=224.84
SUMP=224.8

C.B.#8
RIM=228.87
A) INV. IN 12"RCP=225.32
B) INV. IN 4"PVC=226.87
C) INV. OUT 12"RCP=223.77
SUMP=223.6

C.B.#9
RIM=227.21
A) INV. IN 4"VC=224.81
B) INV. IN 4"VC=224.91
C) INV. IN 4"RCP=224.91
D) INV. OUT 12"RCP=223.71
SUMP=220.7

C.B.#10
RIM=226.34
A) INV. IN 12"RCP=223.54
B) INV. IN 4"VC=224.54
C) INV. IN 4"VC=224.54
D) INV. IN 4"VC=224.54
E) INV. OUT 12"RCP=222.74
SUMP=219.7

C.B.#11
RIM=225.98
A) INV. IN 12"RCP=222.18
B) INV. IN 4"VC=223.58
C) INV. IN 12"RCP=222.18
D) INV. IN 4"VC=223.58
E) INV. IN 4"VC=223.58
F) INV. OUT 12"RCP=221.98

C.B.#12
RIM=224.37
A) INV. IN 32"RCP=214.17
B) INV. IN 4"VC=221.67
C) INV. IN 6"PVC=217.07
D) INV. IN 4"VC=221.72
E) INV. IN 4"VC=221.67
F) INV. IN 12"RCP=216.52
G) INV. OUT 32"RCP=214.17

C.B.#13
RIM=224.11
A) INV. IN 12"VC=221.21
B) INV. OUT 4"PVC=221.11
SUMP=220.61

C.B.#14
RIM=224.29
A) INV. IN 12"RCP=221.84
B) INV. IN 3"VC=222.19
C) INV. IN 4"VC=221.99
D) INV. OUT 12"RCP=218.19
SUMP=217.99

C.B.#15
RIM=224.09
A) INV. OUT 6"VC=221.44
SUMP=221.09

C.B.#16
RIM=225.73
A) INV. IN 12"RCP=222.28
B) INV. OUT 12"RCP=222.28
SUMP=222.23

C.B.#17
RIM=227.61
A) INV. IN 4"VC=224.81
B) INV. IN 12"RCP=223.31
C) INV. IN 4"VC=224.81
D) INV. IN 12"RCP=223.71
E) INV. IN 4"VC=224.71
F) INV. OUT 12"RCP=223.21
SUMP=220.4

C.B.#18
RIM=227.80
A) INV. IN 12"RCP=224.30
B) INV. OUT 12"RCP=224.30
SUMP=222.00

C.B.#19
RIM=227.50
A) INV. OUT 12"RCP=224.40
SUMP=221.70

C.B.#20
RIM=224.16
A) INV. OUT 4"PVC=222.91
SILT=222.4

C.B.#21
RIM=224.32
A) INV. OUT HOODED 12"RCP=218.33
SUMP=215.92

C.B.#22
RIM=224.28
A) INV. OUT HOODED 12"RCP=218.58
SUMP=216.18

C.B.#23
RIM=224.37
A)INV. IN 4" PVC=220.14
B)INV. OUT 6" PVC=220.04
SUMP=219.47

CB 48
RIM = 228.71'
A) INV IN 4" VC = 224.99'
B) INV IN 12" PVC = 224.77'
C) INV IN 4" VC = 224.95'
D) INV IN 12" RCP = 224.07'
E) 12" PIPE (PLUGGED)
F) INV OUT 12" RCP = 223.89'
SUMP = 222.2'

CB 49
RIM = 226.73'
A) INV IN 4" VC = 224.21'
B) INV IN 12" RCP = 223.77'
C) INV IN 12" RCP = 223.97'
D) INV OUT 12" RCP = 223.61'
SUMP = 223.2'

CB 50
RIM = 226.33'
A) INV OUT 12" RCP = 223.47'
SUMP = 221.5'

CB 51
RIM = 225.40'
A) INV IN 4" VC = 222.95'
B) INV IN 4" VC = 222.85'
C) INV IN 4" VC = 222.88'
D) INV OUT 12" RCP = 222.34'
SUMP = 219.2'

CB 52
RIM = 226.06'
A) INV IN 12" RCP = 221.48'
B) INV IN 12" RCP = 222.20'
C) INV OUT 12" RCP = 220.90'
SUMP = 219.8'

CB 53
RIM = 227.37'
A) INV IN 4" PVC = 224.35'
B) INV IN 4" PVC = 224.33'
C) INV OUT 12" PVC = 223.41'
SUMP = 223.2'

CB 54
RIM = 226.36'
A) INV IN 12" PVC = 222.41'
B) 12" PIPE (PLUGGED)
C) INV IN 12" VC = 222.04'
D) INV IN 4" VC = 223.31'
E) INV IN 4" VC = 223.41'
F) INV OUT 12" RCP = 222.08'
SUMP = 221.2'

CB 97
RIM = 228.14
A) INV IN 4" VC = 225.14
B) INV. IN 4" VC = 225.05
C) INV OUT 12" RCP = 223.74
SUMP = 222.0

CB 98
RIM = 228.38
A) INV IN 12" RCP = 224.48
B) INV. OUT 12" RCP = 224.28
SUMP = 223.2

CB 99
RIM = 228.0±
A) INV IN 4" VC = 225.2
B) INV. IN 4" VC = 225.2
C) INV. IN 4" VC = 225.2
D) INV OUT 10" RCP = 224.4
SUMP = 222.0

CB 100
RIM = 228.14
A) INV IN 3" PVC = 226.70
B) INV IN 3" PVC = 226.70
C) INV IN 3" PVC = 226.70
D) INV. OUT 12" RCP = 224.94
SUMP = 223.2

CB 55
RIM = 230.98'
A) INV IN 6" PVC = 224.40'
B) INV IN 6" PVC = 224.00'
C) INV OUT 6" PVC = 223.94'
SUMP = 222.0'

CB 56
RIM = 229.28'
A) INV IN 12" RCP = 224.66'
B) INV OUT 6" PVC = 224.82'
SUMP = 224.6'

CB 57
RIM = 227.84'
A) INV OUT 12" RCP = 224.76'
SUMP = 224.2'

CB 58
RIM = 227.79'
A) INV IN 4" PVC = 225.37'
B) INV IN 4" PVC = 225.4'
C) INV IN 4" PVC = 225.34'
D) INV OUT 8" PVC = 224.19'
SUMP = 222.1'

CB 59
RIM = 227.96'
A) INV IN 4" PVC = 225.34'
B) INV IN 4" PVC = 225.4'
C) INV IN 6" PVC = 223.88'
D) INV IN 4" PVC = 225.31'
E) INV IN 8" PVC = 224.18'
F) INV OUT 12" PVC = 223.72'
SUMP = 222.8'

CB 60
RIM = 225.67'
A) INV IN 4" PVC = 224.29'
B) INV IN 6" RCP = 223.29'
C) INV IN 10" PVC = 222.81'
D) INV OUT 10" PVC = 222.65'
SUMP = 220.1'

CB 61
RIM = 224.58'
A) INV OUT 8" PVC = 223.26'
SUMP = 220.1'

SEWER MANHOLE INVERT TABLE

S.M.H.#1
RIM=224.34
CENTERLINE 6"VC=219.94
SHELF=220.24

S.M.H.#2
RIM=224.71
A) INV. IN 4"CI=218.03
B) INV. IN 3"CI=218.03
C) INV. IN 3"CI=218.03
A) CENTERLINE 10"VC=218.01

S.M.H.#3
RIM=224.11
CENTERLINE 10"VC=213.11

S.M.H.#4
RIM=229.65
A)INV. IN 8"PVC=218.35
B)INV. IN 4"C.I.=214.5±
C)INV. 6"PVC CHIMNEY=218.51
CENTERLINE 10"VC=217.70

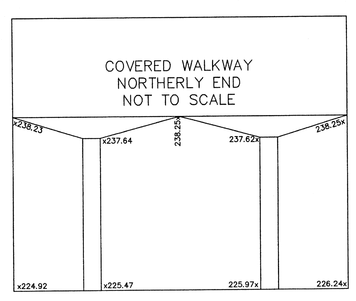
SMH 20
RIM = 227.47'
A) INV IN 8" VC = 217.49'
B) INV OUT 8"VC = 217.54'
SHELF = 217.7'

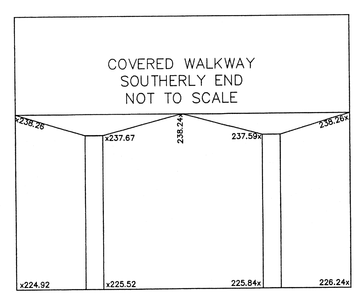
SMH 21
RIM = 227.74'
A) INV IN 8" VC = 217.82'
B) INV OUT 8" VC = 217.79'
SHELF = 218.1'

SMH 44 (DRY)
RIM = 229.69
CENTERLINE 8"VC TROUGH = 220.34

SMH 45
RIM = 230.12
A) INV IN 12" PVC = 220.77
B) INV IN 12" PVC = 222.27
CENTERLINE 8"VC TROUGH = 220.22

DETAIL OF COVERED WALKWAY CLEARANCES
NOT TO SCALE





LEGEND

DRAIN MANHOLE
CATCH BASIN
FLOOR DRAIN
ROOF DRAIN
STORM DRAIN
SEWER MANHOLE
SANITARY SEWER
ABANDONED SANITARY SEWER
STEAM MANHOLE
STEAM LINE
STEAM LINE
ELECTRIC MANHOLE
UNDERGROUND ELECTRIC
UNDERGROUND ELECTRIC
ABANDONDED UNDERGROUND ELECTRIC
ELECTRIC HAND HOLE
LIGHT POLE
TELEPHONE MANHOLE
UNDERGROUND TELEPHONE
HYDRANT
POST INDICATOR VALVE
WATER LINE
ABANDONDED WATER LINE
WATER VALVE
SIGN
VENT
CHAIN LINK FENCE
DECIDUOUS TREE
EVERGREEN TREE
SHRUB
1' CONTOUR INTERVAL 224
5' CONTOUR INTERVAL 225
SPOT ELEVATION × 224.50
GRAVEL AREA

NOTE:

SURVEY PERFORMED ON SEPTEMBER 29, 2011.

NOTE:

UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON SURFACE FEATURES AS LOCATED BY SURVEY AND DATA PROVIDED BY THE UNIVERSITY OF MASSACHUSETTS, AND ARE APPROXIMATE. ACTUAL LOCATIONS SHOULD BE VERIFIED WITH THE APPROPRIATE UTILITY COMPANY AND/OR MUNICIPAL DEPARTMENT PRIOR TO FINAL DESIGN AND/OR CONSTRUCTION.

MERIDIAN OF THE UMASS-AMHERST COORDINATE SYSTEM

TOPOGRAPHICAL PLAN OF LAND IN
AMHERST, MASSACHUSETTS
SURVEYED FOR
DIVERSIFIED TECHNOLOGY CONSULTANTS

SCALE: 1" = 20' 0' 10' 20' 30' 40' 60'

DATE: SEPTEMBER 29, 2011

HERITAGE SURVEYS, INC.
PROFESSIONAL SURVEYORS AND ENGINEERS
241 COLLEGE HIGHWAY & CLARK STREET
POST OFFICE BOX 1
SOUTHAMPTON, MASSACHUSETTS 01073-0001
(413) 527-3600

COMMONWEALTH OF MASSACHUSETTS BRUCE A. COOMBS No. 27814 REGISTERED PROFESSIONAL ENGINEER
11/18/11

JOB #	DWG #	MAP #
6783-110706	6783DTC-TOPO	6783-110929

UNIVERSITY OF MASSACHUSETTS AMHERST 1863

dtc
DIVERSIFIED TECHNOLOGY CONSULTANTS
2321 WHITNEY AVENUE HAMDEN CT 06518
203 239 4200 203 234 7378 FAX
305 N. MAIN STREET SUITE 202 ANDOVER MA 01810
978 475 2935 978 475 2936 FAX

NO.	BY	APP'D	DATE

UNIVERSITY OF MASSACHUSETTS
FACILITIES PLANNING DIVISION

UTILITIES, NORTHWEST
CHILLED WATER LOOP PHASE 1
EXISTING CONDITIONS
STRUCTURE SCHEDULE, LEGEND AND NOTES

	DRN.	DATE	PROJECT NO. UMA 11-0000607-01	CONTRACT NO. UMA 12-20
DRN.			SCALE AS NOTED	SHEET 3 OF 20
APP'D				
CKD.			DRAWING NUMBER	V.02
APP'D				

BID DOCUMENTS 11/18/11

brendan.maurer -- Dec 05, 2011 at 12:07pm -- P:\2008\08340-UMASS\NW Chilled Water\100\plotsheets\08340131-V.02-StrcSchedule.dwg