

- LEGEND**
- ROCK TOE
 - RE-SHAPE SLOPE
 - TREE (1) / SHRUB (3) CLUSTER
 - TREE SNAG
 - ROCK RIFFLE
 - TREE REMOVAL (SEE ALSO FIELD FLAGGING OF TREES)
 - EXIST. TREE
 - PROP. WETLAND AREA
 - PROP. TEMP. STOCKPILE
 - CONSTRUCTION ACCESS
 - PROP. SILT FENCE
 - STREAM CENTERLINE
 - 3+50 STREAM STATION
 - PROP. 1-FT CONTOUR
 - EX. 2-FOOT GIS TOPOGRAPHY
 - PARCEL BOUNDARIES
 - WORK LIMITS
 - EX. SANITARY MANHOLE
 - EX. STORM INLET
 - EX. STORM FES
 - EXISTING UTILITY EASEMENT LINE
 - EXISTING EDGE OF WATER

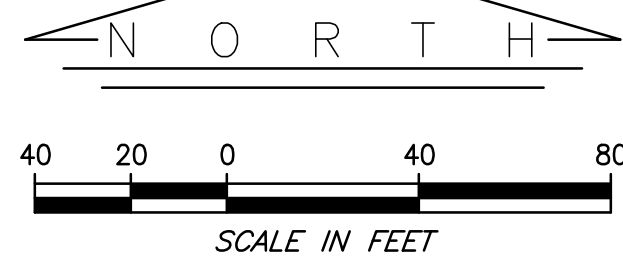
TABLE 1: PROPOSED CHANNEL ELEVATIONS:

Stream Station	Proposed Stream Channel Bottom Elevation (ft)	Proposed Riffle Crest Elevation (ft)	Height of Riffle Crest Above Stream Bottom (ft)
2062	724.7	n/a	n/a
1890	724.2	724.4	0.20
1710	723.8	724.0	0.20
1610	723.5	n/a	n/a
1497	722.5	723.4	0.90
1355	721.5	722.9	1.40
1210	720.5	722.1	1.60
1120	720.0	721.4	1.40
1020	718.9	720.7	1.80
935	718.6	720.1	1.50

INSTALL 5-FT LENGTH OF 18-IN. DIAM. RCP ON NORTH SIDE OF EXIST. MANHOLE ST MH 14 AT INV. ELEV. 724.71 FT AND AT 0.1% SLOPE. INSTALL 18-IN. DIAM. RCP FES STRUCTURE AT 0.1% SLOPE W/ INV. ELEV. 724.68 FT ON NORTH SIDE OF PROP. 18-IN. DIAM. RCP PIPE FLOWING NORTH. FES SHALL DISCHARGE FREELY W/ UNRESTRICTED FLOW TO NORTH THROUGH PROP. GRADED SWALE CHANNEL INTO DOUGLASS CREEK. INSTALL GRATE STRUCTURE ON PROP. FES. INSTALL COBBLE ROCK APPROX. (USING MIN. 12-IN. DIAM. RIFFLE ROCK DIAM.) AT FES OUTLET MIN. 5-FT WIDE X 7 FT LONG X 1.5-FT THICK (EST. 3.0 TON).

EXIST. ST MH 14 WALL INTEGRITY, THICKNESS, AND WIDTH BETWEEN EXIST. NW 10-IN. DIAM. STORM PIPE AND PROP. 18-IN. DIAM. RCP SHALL BE REVIEWED W/ ENGINEER AND STREAM CONSULTANT PRIOR TO INSTALLATION OF PROP. 18-IN. DIAM. RCP. IF NECESSARY FOR STRUCTURAL INTEGRITY OR OTHER REASONS AS DET. BY ENGINEER, EXIST. 10-IN. DIAM. STORM PIPE SHALL BE ABANDONED AND REPAIRED AS DESCRIBED BELOW.

MANHOLE REPAIR: REPAIR HOLE IN MANHOLE CREATED BY ABANDONING EXIST. 10-IN. DIAM. NW PIPE BY INSTALLING CONCRETE BRICKS WITH NON-SHRINK GROUT.



STREAM CONSULTANT

Living Waters
CONSULTANTS

LIVING WATERS CONSULTANTS, INC.
16 W. 455 S. FRONTAGE ROAD, SUITE 119
BURR RIDGE, IL 60527
TEL: 630-321-1133 FAX: 630-321-1144

- NOTES:
- 1) IN ALL PROJECT AREAS FROM UPSTREAM (STN. 2046) TO DOWNSTREAM (STN. 828) THROUGHOUT WORK AREA EXCAVATE AND RE-GRADE CHANNEL, RE-SHAPE SIDE SLOPES PER DETAIL #2, CROSS SECTIONS, PLANS, AND SPECIFICATIONS. SEE TABLE 1 ON PLAN SHEET FOR RE-GRADING DEPTHS. INSTALL NATIVE PLANT SEED, EROSION BLANKET, ETC. PER DETAILS.
 - 2) LOCATION OF PATH AND BRIDGE IS APPROXIMATE ONLY AND NOT SURVEYED.
 - 3) AERIAL PHOTOGRAPHY FROM CHAMPAIGN COUNTY ORTHO PHOTOGRAPHY DATED APRIL 2011. TOPOGRAPHIC CONTOUR DATA FROM CHAMPAIGN COUNTY DNR TOPOGRAPHY DATED 2008.
 - 4) DRAINAGE TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE CUT BACK AND A TILE OUTLET PIPE SHALL BE INSTALLED PER DETAIL ON SHEET 3.
 - 5) TO THE EXTENT PRACTICABLE, PROTECT EXIST. TREES INDICATED ALONG CHANNEL. PER PLAN NOTES, REVIEW ALTERNATIVE TREE PROTECTION MEASURES FOR SELECTED TREES AS INDICATED.
 - 6) INSTALL SILT FENCE AROUND ANY TEMPORARY SEDIMENT STOCKPILE AREAS. SEE SOIL EROSION AND SEDIMENT CONTROL SPECIFICATIONS.
 - 7) EXISTING TOPOGRAPHIC CONTOURS ARE FROM CHAMPAIGN COUNTY GIS SYSTEM. AERIAL IMAGE AND/OR GIS TOPOGRAPHIC CONTOURS ARE PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL PERFORM ALL REQUIRED SURVEY PER PLANS, DETAILS AND SPECIFICATIONS. TOPOGRAPHIC SURVEY CONTOURS DEPICTED ARE NOT RECTIFIED TO AERIAL IMAGE.
 - 7) CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE PRIOR TO COMMENCEMENT OF WORK, PROTECT AND PREVENT DAMAGE TO MARKED OR UNMARKED UTILITIES AND FACILITIES OVER THE DURATION OF THE PROJECT THROUGHOUT THE PROJECT SITE PER PLANS AND SPECIFICATIONS. ANY DAMAGED STRUCTURES OR UTILITIES SHALL BE REPAIRED AND/OR REPLACED IMMEDIATELY BY CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ENGINEER AT NO ADDITIONAL COST TO OWNER OR ENGINEER.
 - 8) MOST TREES ARE NOT MARKED ON PLANS. CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE TREES AS MARKED IN THE FIELD, OR PROTECT TREES WHERE INDICATED.
 - 9) THERE SHALL BE NO PLACEMENT OF FILL ALLOWED WITHIN FEMA FLOODPLAIN AREAS BEFORE, DURING OR AFTER CONSTRUCTION.

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS

Call 48 hours before you dig
(Excluding Sat. Sun. & Holidays)

1-800-892-0123

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CONSULTANTS

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SHEET 1: STREAM ENHANCEMENT PLAN
DOUGLASS CREEK ENHANCEMENT PROJECT
URBANA PARK DISTRICT
SHEET 1 OF 8