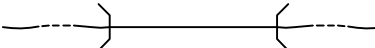


INDEX OF DRAWINGS	
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GENERAL	
G-00	COVER SHEET
G-01	GENERAL NOTES
CIVIL SITE WORK	
C-01	ELEVATED WATER STORAGE TANK SITE PLAN
C-02	ELEVATED WATER STORAGE TANK DETAILS
C-03	ELEVATED WATER STORAGE TANK DETAILS
WD-1	STANDARD DETAILS
EC-1	EROSION CONTROL DETAILS


GENERAL NOTES:

1. THE UTILITIES AND THEIR LOCATION SHOWN ON PLANS ARE APPROXIMATE. CONTRACTORS SHALL VERIFY ALL UTILITIES IN THE FIELD AND NOTIFY ALL UTILITY COMPANIES PRIOR TO INSTALLATION OF THE WATER MAIN.
2. ALL PIPING SHALL BE DUCTILE IRON PRESSURE CLASS 250 (UNLESS OTHERWISE NOTED).
3. ENTIRE TANK SITE (ALL HHRWD PROPERTY) SHALL BE GRADED TO DRAIN SUCH THAT STANDING WATER WILL NOT REMAIN ON SITE.
4. ENTIRE TANK SITE (ALL HHRWD PROPERTY) NOT UNDER GRAVEL SHALL BE SEEDED.
5. CONTRACTOR SHALL EMPLOY ALL SOIL EROSION PREVENTABLE MEASURES IN ORDER TO KEEP ALL SOIL ON SITE.
6. WATER MAIN SHALL BE INSTALLED WITH A MINIMUM OF 48" OF COVER, UNLESS OTHERWISE NOTED.
7. ALL FITTINGS NOTED AN "RJDl" SHALL BE RESTRAINED JOINT DUCTILE IRON BENDS WITH RESTRAINED PIPE LENGTHS IDENTIFIED THIS SHEET. THOSE FITTINGS NOT NOTED AS "RJDl" SHALL EITHER BE RESTRAINED AS IDENTIFIED ON THIS SHEET OR BLOCKED WITH CONCRETE PER DETAILS SHEET.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO AVOID EXISTING UTILITIES AND PERFORM ANY REQUIRED REPAIRS. IN ADDITION TO ALL UTILITY LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE AND REPAIRS TO BURIED FIBER OPTIC CABLE, FIELD DRAINAGE TILES, AND PRIVATE IRRIGATION SYSTEMS. THE CONTRACTOR SHALL NOTIFY THE OWNER/ENGINEER WHEN UTILITIES OR OTHER SUBSURFACE LINES ARE DAMAGED. INDIANA UNDERGROUND UTILITIES PROTECTION SERVICE SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO BEGINNING ANY WORK. INDIANA UNDERGROUND UTILITIES PROTECTION SERVICE TELEPHONE IS 811. THE CONTRACTOR SHALL REFER TO APPLICABLE SECTIONS OF THE CONTRACT SPECIFICATIONS RELATIVE TO THE ABOVE.
9. CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY COMPANIES AT LEAST FOUR DAYS PRIOR TO INSTALLATION OF WATER MAIN. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED SUPPORTING POLES.
10. THE OWNER HAS OBTAINED THE IDEM, FRANKLIN COUNTY & IDNR PERMITS. THE CONTRACTOR IS RESPONSIBLE FOR ALL OTHER PERMITS NECESSARY TO COMPLETE THE PROJECT, INCLUDING ALL TRAFFIC CONTROL PERMITS.

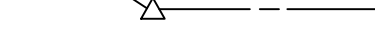
SYMBOLS




CULVERT PIPE




DELTA-SURVEY HUB (INDICATES TURN, START, STOP)



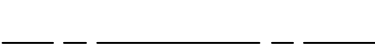
DELTA AND MANHOLE LOCATION




SBL SURVEY BASE LINE




APPROXIMATE SOLID ROCK ELEVATION, NO GUARANTEE OF ACCURACY OR ADEQUACY, SEE SPECIFICATIONS



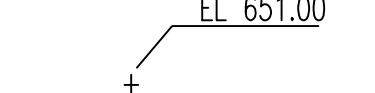
DEPTH OF SOUNDING, NO ROCK ENCOUNTERED



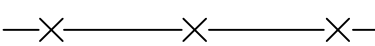
BENCHMARK AND NUMBER



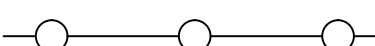
BORING LOCATION AND NUMBER



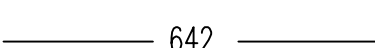
EL. 651.00
SPOT ELEVATION



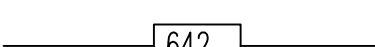
EXISTING FENCE



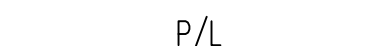
NEW FENCE




642
EXISTING CONTOUR & ELEVATION




642
NEW CONTOUR & ELEVATION




P/L
PROPERTY LINE




R/W
RIGHT OF WAY




S
EXISTING STORM SEWER




SS
EXISTING SANITARY SEWER



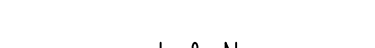
W
EXISTING WATER LINE




G
EXISTING GAS LINE




T
EXISTING TELEPHONE LINE




L & N
RAILROAD




DIRECTION OF FLOW




PP
POWER POLE



DEAD MAN

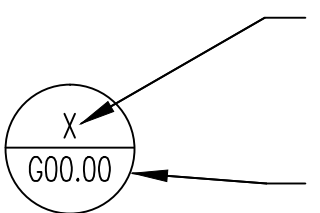


VEGETATION



TREE

BUBBLE & SECTIONING CONVENTIONS



SECTION OR DETAIL NUMBER

SHEET NUMBER WHERE THE DETAIL OR SECTION IS CUT FROM AND/OR DRAWN

RESTRAINED JOINT CALCULATIONS

LENGTH IN FT. TO BE REST. ON EACH SIDE OF FITTING FOR 6" PVC PIPE							
TYPE OF BEND	TEE W/ 4" BRANCH	TEE W/ 6" BRANCH	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	DEADENDS
HORIZ. BEND	28	46	27	11	10	10	12": 51'
VERT. BEND	—	—	—	31—UPPER 10—LOWER	15—UPPER 10—LOWER	10—UPPER 10—LOWER	

LENGTH IN FT. TO BE REST. ON EACH SIDE OF FITTING FOR 16" D.I. W/ POLY WRAP									
TYPE OF BEND	TEE W/ 6" BRANCH	TEE W/ 8" BRANCH	TEE W/ 12" BRANCH	TEE W/ 16" BRANCH	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	DEADENDS
HORIZ. BEND	54	87	148	209	68	28	14	10	20": 218'
VERT. BEND	—	—	—	—	—	91—UPPER 25—LOWER	44—UPPER 12—LOWER	22—UPPER 10—LOWER	

LENGTH IN FT. TO BE REST. ON EACH SIDE OF FITTING FOR 12" PVC PIPE							
TYPE OF BEND	TEE W/ 6" BRANCH	TEE W/ 8" BRANCH	TEE W/ 12" BRANCH	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
HORIZ. BEND	39	58	91	50	21	10	10
VERT. BEND	—	—	—	—	58—UPPER 19—LOWER	28—UPPER 10—LOWER	14—UPPER 10—LOWER

LENGTH IN FT. TO BE REST. ON EACH SIDE OF FITTING FOR 20" D.I. W/ POLY WRAP							
TYPE OF BEND	TEE W/ 12" BRANCH	TEE W/ 16" BRANCH	TEE W/ 20" BRANCH	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
HORIZ. BEND	136	196	256	82	34	17	10
VERT. BEND	—	—	—	—	110—UPPER 30—LOWER	53—UPPER 15—LOWER	27—UPPER 10—LOWER

RESTRAINED JOINT NOTES

1. CONTRACTOR SHALL INSTALL RJDl FITTINGS FOR ALL VERTICAL BENDS. FOR HORIZONTAL BENDS, CONTRACTOR MAY INSTALL EITHER CONCRETE THRUST BLOCKING OR THRUST RESTRAINT SYSTEMS. UNLESS NOTED OTHERWISE.
2. RESTRAINED LENGTHS WERE CALCULATED ASSUMING A 2.0 FACTOR OF SAFETY, TYPE 3 TRENCH CONDITIONS, "CL" SOIL CLASSIFICATION, AND 150 PSI HYDROSTATIC TEST PRESSURES.
3. ALL WATER MAIN APPURTENANCES WITHIN RJDl LIMITS MUST BE RESTRAINED AT EACH JOINT.
4. SIZE:


FOR REDUCERS THE FOLLOWING SHALL BE RESTRAINED ON THE LARGER

20"x12" REDUCER = 166'

12"x8" REDUCER = 52'



THIS RECORD DOCUMENT HAS BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONSTRUCTION CONTRACTOR. GRW ENGINEERS, INC. HAS ATTEMPTED TO VERIFY THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION BUT SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.



ENGINEERS - ARCHITECTS - PLANNERS

www.grwinc.com

ENGINEER/ARCHITECT: ALEX L. WHITE

CONSTRUCTION COMPANY: CALDWELL TANKS, INC.

DATE: JANUARY 2014

INDEX OF DRAWINGS & GENERAL NOTES


HOOSIER HILLS REGIONAL WATER DISTRICT
DIV. G-2 - ELEV. WATER STORAGE TANK

CLIENT CONTRACT NO. G-2

GRW PROJECT NO. 3235

DRAWING SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

ALL RIGHTS RESERVED: THIS DOCUMENT IS THE PROPERTY OF GRW, INC. AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART OR USED FOR CONSTRUCTION OF OTHER THAN THIS SPECIFIC PROJECT WITHOUT WRITTEN PERMISSION OF GRW, INC.



GRW Engineers, Inc.
Engineers, Architects, Planners
LEWISTON LOUISVILLE NASHVILLE INDIANAPOLIS
FORT MITCHELL KNOXVILLE ARLINGTON

1	AS-BUILTS	02/14	MAA
NO.	DESCRIPTION	DATE	BY
REVISIONS			

This document, originally issued, sealed, and signed by Alex L. White, Indiana Professional Engineer, No. 11100292, on March 26, 2012 shall not be used in lieu of a certified document.

DESIGNED: ALW

DRAWN: GCR

REVIEWED: DRC

APPROVED: ALW

DATE: MARCH 2012

SCALE: AS SHOWN

SHEET NO. G-01