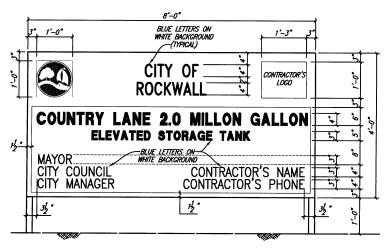
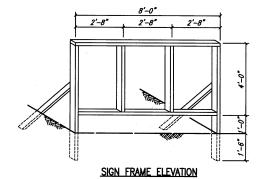
SUMMARY OF ABBREVIATIONS AND DEFINITIONS

GENERAL TOPOGRAPHY & HORIZONTAL/ VERTICAL CONTROL				TREES & BUSHES	
ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION
B.C.	BACK OF CURB	P.I.	POINT OF INTERSECTION	B.D.	BOIS D'ARC TREE
В. - В.	BACK TO BACK	ľ	PROPERTY LINE	B.T.	BLACK THORN TREE
<u> </u>	CENTERLINE	P.P. OR U.P.	POWER POLE OR UTILITY POLE	C.B.	CHINABERRY TREE
C.M.A.P.	CORRUGATED METAL ARCH PIPE	P.R.C. P.T.	POINT OF REVERSE CURVATURE	C.B. CDR. C.E.	CEDAR TREE
C.M.P.	CORRUGATED METAL PIPE	P.T.	POINT OF TANGENCY	C.E.	CEDAR ELM TREE
C.I.	CAST IRON	P.V.C.	PLASTIC PIPE	I C.M.	CRAPE MYRTLE TREE
C.O.	CLEANOUT	P.V.I.	POINT OF VERTICAL INTERSECTION	C.P. C.W.	CHINESE PISTACHIO TREE
CONN.	CONNECTION	R.	RADIUS	C.W.	COTTONWOOD TREE
CULV.	CULVERT	R.C.	REINFORCED CONCRETE	CYP.	CYPRESS TREE
D.I.P.	DUCTILE IRON PIPE	R.C.P.	REINFORCED CONCRETE PIPE	H.B.	HACKBERRY TREE
EL.	ELEVATION	R.C. R.C.P. R.C.C.P.	REINF. CONCRETE CYLINDER PIPE	HICK.	HICKORY TREE
ELEC.	BURIED ELECTRICAL POWER LINE	R.O.W. SAN. SEW. OR S.S.	RIGHT OF WAY	H.T.	HAWTHORNE TREE
ENC.	ENCASEMENT	SAN. SEW. OR S.S.	Sanitary Sewer	JAP.	JAPONICA TREE
E.P.	EDGE OF PAVEMENT	S,H.	LAWN SPRINKLER HEAD	LIG.	LIGUSTRUM BUSH
ESMT.	ENCASEMENT EDGE OF PAVEMENT EASEMENT FACE TO FACE	S.H. § S.S. S.S.M.H.	SURVEY LINE	L.O.	LIVE OAK TREE
F.−F.	FACE TO FACE	S.S.	SANITARY SEWER	LOC.	LOCUST TREE
F.H.	FIRE HYDRANI	S.S.M.H.	SANITARY SEWER MANHOLE	MAG.	MAGNOLIA TREE
F.M.	SANITARY SEWER FORCE MAIN	ST. SEW.	STORM SEWER	MAP.	MAPLE TREE
F.L.	FLOW LINE	S.V.B.	LAWN SPRINKLER VALVE BOX	MSQ.	MESQUITE TREE
G.L.M.	GAS LINE MARKER	T.B.	TELEPHONE CABLE BOX	MIM.	MIMOSA TREE
G.M.	GAS METER	T.C.	TOP OF CURB	MUL.	MULBERRY TREE
G.V.	GAS VALVE	TEL.	BURIED TELEPHONE CABLE	NAN.	NANDENA BUSH
GUT.	FLOW LINE GAS LINE MARKER GAS METER GAS VALVE GUTTER	T.M.H.	TELEPHONE CABLE MANHOLE	PEC.	PECAN TREE
HDWL.	HEADWALL	TO F.	TO FACE (OF CURB)	PER.	PERSIMMON TREE
I.P.F. OR I.R.F.	IRON PIN (ROD) FOUND	TRANS.	ELECTRICAL TRANSFÓRMER	PHOT.	red tipped photinia bush
LL	LANDSCAPING LIGHT	T.V.	BURIED TELEVISION CABLE	PIST.	CHINESE PISTACHIO TREE
L.P.	LIGHT POLE	T.V.B.	CABLE TELEVISION BOX	R.B.	REDBUD TREE
L.S.	SANITARY SEWAGE LIFT STATION	U.G.C.M.	UNDERGROUND CABLE MARKER	R.O.	RED OAK TREE
L.S.T.	LANDSCAPING TIMBERS	U.P.M.	UNDERGROUND PIPELINE MARKER	S.G.	SWEET GUM TREE
M.B.	MAILBOX	V.C.	VERTICAL CURVE	SYC.	SYCAMORE TREE
M.B.G.F.	METAL BEAM GUARD FENCE	W. OR W.L.	WATER LINE	WIL.	WILLOW TREE
M.H.	MANHOLE	W.M.	WATER METER		
P.C.	POINT OF CURVATURE	W.V.	WATER VALVE		





PROJECT SIGN NO SCALE

SIGN PANEL 3/4" EXTERIOR PLYWOOD PAINT AS SHOWN ON DETAIL ABOVE

FRAME 2"x4" STOCK FRAME TO BE PAINTED WHITE

ALL PAINT TO BE "EXTERIOR GRADE"

3'-0" NORMAL 2'-0" MIN. BOLT (TYP.) -METAL PLATE (TYP.) FLEXIBLE COUPLING

WELDED THRUST HARNESS ASSEMBLY

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TYPICAL WALL SLEEVE TOPIOL WALL SLEEVE FOR PIPES 6" I.D. OR LESS, CENTURY-LINE -SLEEVES OR APPROVED EQUAL. FOR PIPES LARGER THAN 6" I.D., THUNDERLINE MODEL WS Steel Wall Sleeves or approved equal

PIPE SLEEVES ARE REQUIRED AT ALL WALL & FLOOR PIPE PENETRATION LOCATIONS

PIPE SLEEVE

GENERAL PROJECT NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE MEASURES FOR PREVENTING STORM WATER RUNOFF FROM ENTERING THE TRENCH DURING CONSTRUCTION.
- AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL ERECT A TEMPORARY SECURITY FENCE AT ALL EXCAVATIONS.
- 3) TOPSOIL SHALL BE STOCKPILED AND REPLACED TO A MINIMUM DEPTH OF 6 INCHES AND DISC HARROWED TO A MINIMUM DEPTH OF 4 INCHES. CONTRACTOR IS ALLOWED TO IMPORT TOPSOIL TO ACHIEVE 6" DEPTH.
- 4) FINISHED GROUND SHALL HAVE NO MORE ROCKS OVER 1 INCH THAN SURROUNDING UNDISTURBED GROUND. ALL ROCKS LARGER THAN 1 INCH SHALL BE COLLECTED AND DISPOSED OF BY THE CONTRACTOR.
- 5) CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF THE CONSTRUCTION SO THAT IF IT IS NECESSARY TO CHANGE OR MOVE UTILITY, THE PROGRESS OF THE WORK WILL NOT BE DELAYED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SERVICE LINES CROSSED OR EXPOSED BY HIS CONSTRUCTION OPERATIONS. WHERE EXISTING SERVICE LINES ARE CUT, BROKEN OR OBMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPLACE THE SERVICE LINES WITH THE SAME TYPE OF ORIGINAL CONSTRUCTION,
- 7) CONCRETE THRUST BLOCKING SHALL BE SUBSIDARY TO PIPE COST AND SHALL BE SIZED TO RESTRAIN TEST PRESSURES. CONTRACTOR SHALL DIRECT (AND PAY) PIPE COMPANY TO SIZE THRUST BLOCKS. THRUST BLOCKS SHALL BE LOCATED AT ALL HORIZONTAL AND VERTICAL BENDS, REGREDLESS IF PIPE JOINTS ARE WELDED.
- 8) CONTRACTOR SHALL PROVIDE A STORM WATER POLLUTION PREVENTION PLAN AND ALL APPURTENANCES TO COMPLY WITH THE LATEST EPA STORM WATER POLLUTION
- 9) CONTRACTOR SHALL ANTICIPATE ENCOUNTERING GROUND WATER THROUGHOUT THIS PROJECT AND SHALL PROVIDE ADEQUATE MEASURES FOR DEWATERING THE TRENCH ALL COSTS FOR PUINES AND/OR OTHER RELATED APPURTEMANCES SHALL BE INCLUDED IN THE APPROPRIATE ITEM OF THE BID SCHEDULE.
- 10) CONTRACTOR SHALL SUPPORT ALL UTILITY POLES AND LIGHT STANDARDS/POLES
- 11) PAVEMENT REMOVAL AND REPLACEMENT SHOWN ON PLANS REFLECT TRENCH WIDTH. IT DOES NOT INCLUDE WIDTH FOR TRENCH BOXES OR PAVEMENT REPLACEMENT. PAVEMENT REPLACEMENT SHALL BE PAID ON A LINEAR FOOT BASIS AS PROVIDED FOR IN THE PROPOSAL AND BID SCHEDULE.
- 12) PAVEMENT REMOVAL AND REPLACEMENT AUTHORIZED BY THE CITY IS OUTSIDE THE PAVEMENT REMOVAL AND REPLACEMENT REQUIRED FOR WATER LINE CONSTRUCTION.
- 13) CONTRACTOR SHALL PROTECT EXISTING CONCRETE PAVEMENT FROM TRACKED EQUIPMENT BY USE OF TIMBERS.
- 14) CONTRACTOR SHALL RESET ALL IRON RODS AND OTHER PROPERTY MARKERS DISTURBED

SOURING SEARCH INTRODUCEDIS. FIRE FILIPONIS SHALL HAVE A 5-1/4" MINIMUM MUZE OPENING AND WITH A BARREL APPROXIMATELY 7" INSIDE DAMETER. ALL HYDRAMTS SHALL BE COURPED WITH A BREAKMAY FLANGE, ALL HYDRAMTS SHALL BE APPROVED BY THE CLIARD POSTS SHALL BE 6 L.F. OF 6" DM. HOT DIPPED GALV. STEEL PIPE (3" ABOVE & BELOW GROUND LEVEL). POST SHALL BE ENCASED IN 16" DM. CONC. PIER TO A DEPTH OF 12" BELOW POST BOTTOM. REINFORCE CONC. PIER WITH 2 NO. 6 BARS (12" LONG) THRU POST INTO PIER (SEE STATIONARY BOLLARD DETAIL ON SHEET 26). 2'-0" PRECAST CONC. SLAB OR POURED IN PLACE 6" DIA. CONC. FILLED GUARD POST (4 REQ'D., ~SEE NOTE 2). 1'-6" 1'-6" FIRE LANE-0 LONG SWIVEL WATER MAIN M.J. HYDRANT R.S. CATE VALVE (FLG.XFLG.) M.J.xM.J.xFLG. TEE TYPICAL FIRE HYDRANT INSTALLATION NO SCALE

- 2-2 1/2" NOZZLE

4 1/2" NOZZLES

. 2" MIN. 6" MAX.

1/4"/FT. RAISE

FIRE HYDRANT NOTES:

-- GROUND LINE

1. IN GENERAL ALL FIRE HYDRANTS SHALL CONFORM TO

ANNIA STANDARDS SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE FOR WATER AND SANITARY SEWER IMPROVEMENTS. FIRE HYDRANTS

PAINT FIRE HYDRANT IN A COLOR TO BE SELECTED -

> 24" SQUARE CONC. PAD (SEE TYPICAL VALVE SETTING & BOX DETAIL) -

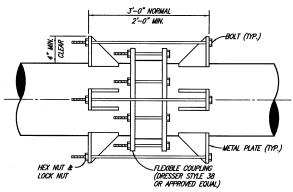
MIN. 7 CUBIC FEET OF -WASHED GRAVEL FILL

CLASS "B" CONC. THRUST

BLOCK (POURED IN PLACE). — MUST NOT BLOCK WEEP HOLE. (NCTCOG ITEM 7.4.5)

This record drawing is a compilation of the sealed engineering drawing for this project; modified by addenda, change orders and information furnished by the contractor. The information shown on the record drawings that was provided by the contractor or others not associated with the design engineer cannot be verified for accuracy or completeness. This original sealed drawings are on file at the offices of Birkhoff, Hendricks & Conway, LLP.

BY PAC DATE 12/23/08



TRENCH WIDTH CONNECT TO EXIST. - SOLID SLEEVE 6" MIN. THRUST BLOCK REQUIRED NIPPI F SPOOL -PROPOSED WATER PIPE SHALL BE PROPOSED WATER PIPE SHALL BE DUCTLE IRON UNLESS OTHERWISE SPECIFIED IN PLANS. ALL FITTINGS SHALL BE DUCTLE RON (I.M.—P.E.).
 PROPOSED PIPING & FITTINGS ARE SYMMETRIC ABOUT CENTER OF PROP. SAN. SEW. OR ST. SEW. PIPE AND SHALL RETAIN TEST PRESSURES.
 ALL THRUST BLOCKING SHALL BE CHEROLOGY TO JUNE BRICE. 4" MIN. THICKNESS OF 2000 LB. CONCRETE (N.C.T.C.O.G. CLASS B) AROUND PIPE & BELLS

WATER MAIN LOWERING

SUBSIDIARY TO UNIT PRICE. CROSSING OF SANITARY SEWER SHALL BE IN ACCORDANCE WITH T.N.R.C.C. REQUIREMENTS.

BIRKHOFF, HENDRICKS & CONWAY, L.L.P.

CONSULTING ENGINEERS 7502 Greenville Ave., Suite 220 Dallas, Texas (214) 361-7900



CITY OF ROCKWALL, TEXAS **COUNTRY LANE ELEVATED STORAGE TANK MISCELLANEOUS DETAILS**

PROJECT NO. SHEET NO.

December, 2008

REVISED: 12/22/08 - GDAVIS

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PLOT SCALE: 1:2

PLOT STYLE: 11x17D.ctb

PLOTTED BY: GDAVIS ON 12/22/2008