- 2. Contractor is responsible for maintaining surface drainage on site during construction.
- 3. Contractor to level washes, ruts, depressions, and mounds to give area smooth finish.
- 4. Unless otherwise noted, all fittings to have restrained mechanical joints.
- 5. Compaction of backfill material by flooding or jetting will not be permitted.
- 6. All water and sewer service connections shall conform to the details shown on the Standard Water and Sewer Details sheets.
- 7. All concrete blocking shall conform to the requirements shown in the Thrust Block Detail on Sheet 30.
- 8. Contractor shall field verify locations of existing utilities prior to commencement of construction.
- 9. All nonsalvageble materials to become property of the contractor, and to be disposed of offsite.
- 10. Contractor will take all due precautions to protect existing facilities from damage. Any damage to existing facilities incurred as a result of construction operations will be repaired by the Contractor at his own expense.
- 11. City of Rockwall is to be notified 48 hours in advance of all construction by telephone (972-771-7700) followed by a letter of confirmation.
- 12. Contractor shall give notice to all authorized inspectors, superintendents or persons in charge of private and public utilities affected by his operations prior to commencement of work. Contractor shall assure himself that all construction permits have been obtained prior to commencement of work.
- 13. All radius dimensions and spot elevations are to back of curb and top of curb respectively unless noted otherwise.
- 14. These Plans, prepared by Turner Collie & Braden Inc., do not extend to or include designs or systems pertaining to the safety of the Construction Contractor or its employees, agents or representatives in the performance of the work.
  The seal of Turner Collie & Braden Inc. 's Registered
  Professional Engineer(s) hereon does not extend to any such
  safety systems that may now or hereafter be incorporated in
  these Plans. The Construction Contractor shall prepare or obtain the appropriate safety systems, including the plans and specifications required by the House Bills 662 and 665 enacted by the Texas Legislature in the 70th Legislature -Regular Session.
- 15. Sanitary sewers shall be installed no closer to waterlines than nine feet in all directions. Sewers that parallel waterlines must be installed in separate trenches. Where the nine foot separation distance cannot be achieved, the following guidelines shall apply:
  - Where a sanitary sewer parallels a waterline, the sewer shall be constructed of cast iron, ductile iron or PVC meeting ASTM specification with a pressure rating for both the pipe and joints of 150 psi. The vertical separation shall be a minimum of two feet between outside diameters and the horizontal separation shall be a minimum of four feet between outside diameter. The sewer shall be located below the waterline.
- (b) Where a sanitary sewer crosses a waterline and the sewer is constructed of cast iron, ductile iron or PVC with a minimum pressure rating of 150 psi, an absolute minimum distance of 12 inches between outside diameters shall be maintained. In addition the sewer shall be located below the waterline where possible and one length of the sewer pipe must be centered on the waterline.
- Where a sewer crosses under a waterline and the sewer is constructed of ABS truss pipe, a similar semi-rigid plastic composite pipe, clay pipe or concrete pipe with gasketed joints, a minimum two foot separation distance shall be maintained. The initial backfill shall be cement stabilized sand (two or more bags of cement per cubic yard of sand) for all sections of sewer within nine feet of the waterline. This initial backfill shall be from one quarter diameter below the centerline of the pipe to one pipe diameter (but not less than 12 inches) above the top of the pipe.
- Where a sewer crosses over a waterline all portions of the sewer within nine feet of the waterline shall be constructed of cast iron, ductile iron, or PVC pipe with a pressure rating of at least 150 psi using appropriate adapters. In lieu of this procedure, the new conveyance may be encased in a joint of 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at 5 feet intervals with spacers or be filled to the springline with washed sand. The encasement pipe should be centered on the crossing and both ends sealed with cement grout or manufactured seal.

- 16. Unless sanitary sewer manholes and the connecting sewer can be made watertight and tested for no leakage, they must be installed so as to provide a minimum of nine feet of horizontal clearance from an existing or proposed waterline. Where the nine foot separation between the connecting sewer and a waterline cannot be achieved, a carrier pipe with a minimum pressure rating of 150 psi may be used where appropriate. The carrier pipe shall be at least 18 feet long and two nominal sizes larger than the sewer conveyance. The sewer must be supported within the carrier pipe by spacers at five foot intervals or filled to the springline with washed sand, and both ends of the carrier pipe must be sealed with cement grout or a manufactured seal.
- 17. Contractor shall provide and install, and maintain traffic control devices in conformance with Part VI of the "Texas Manual on Uniform Traffic Control Devices" (most recent edition, as revised) during construction (No separate pay).
- 18. No construction or placement of major structures will be allowed by the City of Rockwall on Saturday without the presence of a city representative. All other construction will be allowed only if a representative of a certified geotechnical firm is present. No Sunday construction is allowed. Work day will be defined as 7 a.m. to 7 p.m. M-F and 9:00 a.m. to 5:00 p.m. on Saturday.
- 19. When shown on Plans, Contractor to use all suitable excavated material to backfill all swales, ditches, and low points. Prior to backfilling, remove existing vegetation and muck-out all spongy material. Bottom and side slopes of existing swale shall be proof rolled. Soft and spongy areas that occur during proof rolling shall be removed. Owner's representative shall be notified by Contractor prior to backfilling. Backfill in maximum 8-inch lifts and compact to minimum 95% standard proctor denisty.
- 20. Proposed final grades and drainage facilities are shown on the plan and profile drawings for reference only and will be constructed by others.
- 21. 16-inch PVC-PCCP transitions shall be made with PCCP 45° bends with one mechanical joint bell and one plain end with butt strap for welding to existing PCCP pipe.
- 22. Eccentric reducers shall be installed so that pipe crowns align.
- 23. Installation of new water services includes connection of new service to existing customer service line and transfer of existing water meter to new meter box. Contractor shall coordinate transfer of each meter and service with utility customer and City of Rockwall. City will provide bushings to accommodate existing meters.
- 24. Contractor shall remove all fire hydrants on existing waterlines that are being abandoned and deliver them to the City of Rockwall.

## ABBREVIATIONS

ASB	=	ASPHALT STABILIZED BASE
BV	#000A	BUTTERFLY VALVE
CC	eccon	CENTER TO CENTER
CI	523	CAST IRON
CONC	-	CONCENTRIC, CONCRETE
DI	A003	DUCTILE IRON
ECC	67536	ECCENTRIC
EF	47794	EACH FACE
EMS	x0#	ELECTRONIC MARKER SYSTEM
EP		EDGE OF PAVEMENT
EW		EACH WAY
EXIST	4223	EXISTING
FT	4205	FOOT
GRD	-	GRADE
GRND	ess	GROUND
GV&B	****	GATE VALVE AND BOX
IN	NECOM	INCH
LP	-	LIGHT POLE
LT	-	LEFT
MAX	-	MAXIMUM
MH		MANHOLE
MIN	6000	MINIMUM
MJ	-	MECHANICAL JOINT
NAT		NATURAL
OC	653	ON CENTER
PCCP	estata	PRETENSIONED CONCRETE CYLINDER PIPE
PE	-	PLAIN END
PP	dens.	POWER POLE
PROP	ess	PROPOSED
PVC	4000	POLYVINYL CHLORIDE
PVMT	-	PAVEMENT
RED		REDUCER
ROW	-	RIGHT OF WAY
RT	-	RIGHT
SS	<b>629</b>	SANITARY SEWER
TB	***	THRUST BLOCK
TS&V	cito	TAPPING SLEEVE & VALVE
\$480		A.A.A. soporprise gray



WATER





## OF ROCKWALL

"THE NEW HORIZON"

UTILITY RELOCATIONS FOR FM 740 WIDENING

GENERAL NOTES

Turner Collie & Braden Inc.

Unit	A103	Scale:	Date JANUARY 1999
Designed	ТСВ	Checked V.S.	Job No. 15-97925-100
Drawn	ТСВ	Approved W	SHEET 2 OF 31