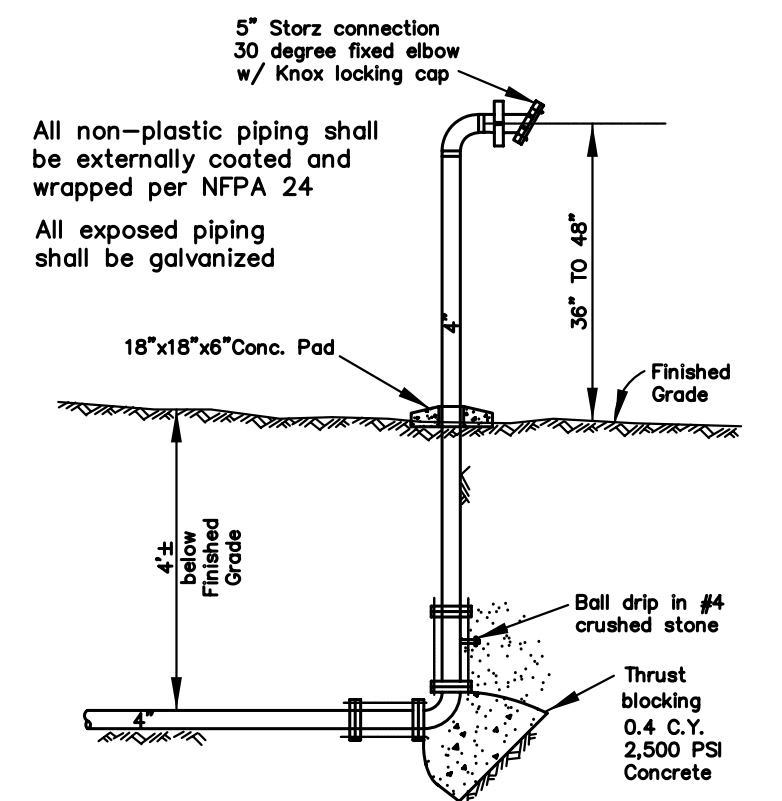
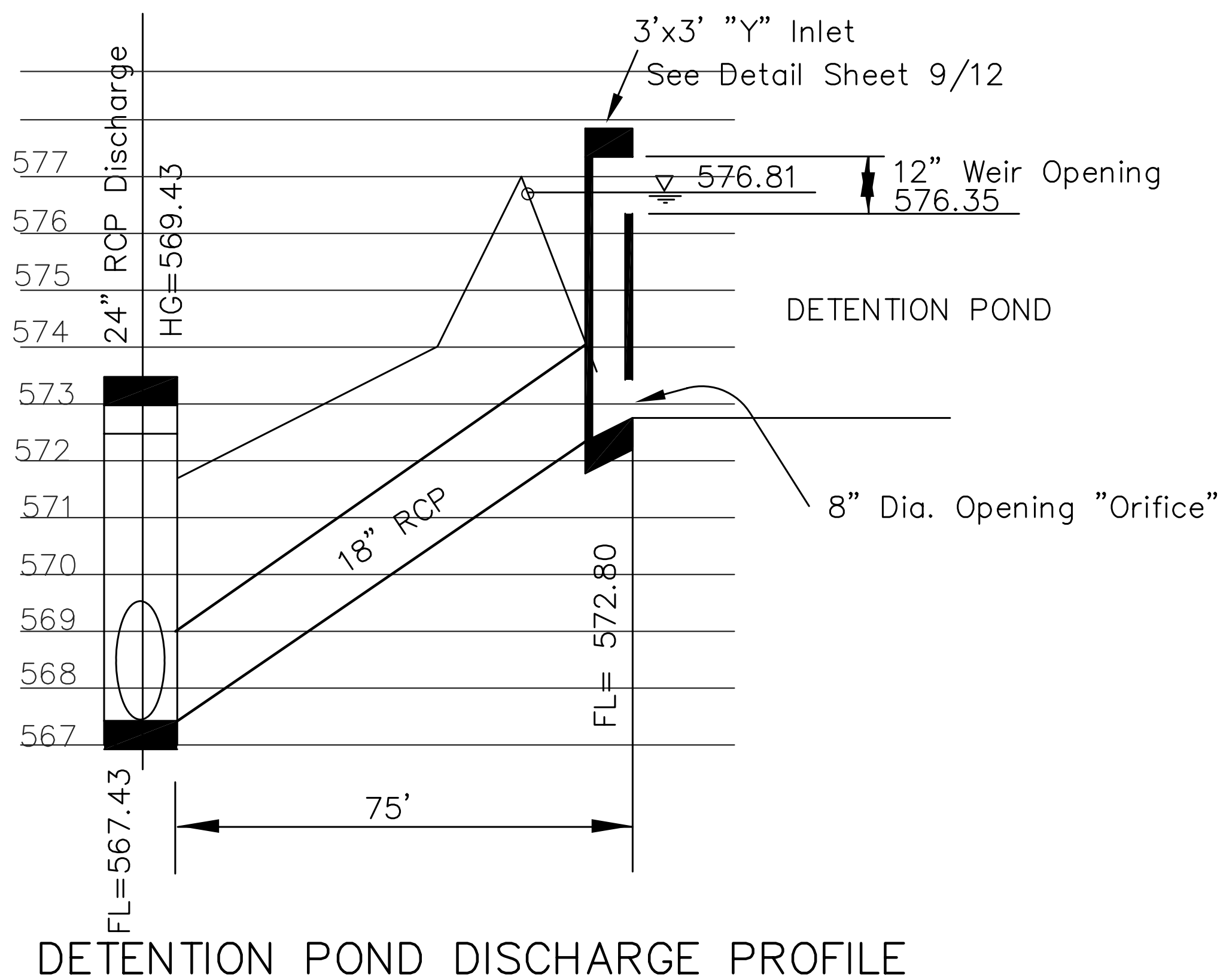


TYPE "C" HEADWALL DETAILS
NOT TO SCALE



STORZ Fire Department Connection Detail
Not to Scale

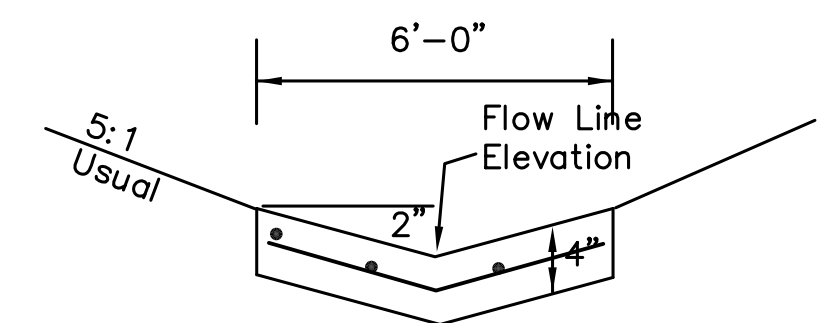


DETENTION POND DISCHARGE PROFILE

CONSTRUCTION NOTES
WATER, SANITARY, and STORM SEWER

- Prior to any construction, the Contractor shall familiarize himself with the Contract Documents and Specifications, the Plans including all notes, the City of Rockwall Specifications, and any other applicable standards or specifications relevant to the proper completion of the work specified. Failure on the part of the Contractor to familiarize himself with all Standards or Specifications pertaining to this work shall in no way relieve the Contractor of responsibility for performing the work in accordance with all such applicable Standards and Specifications.
- Contractor shall have in his possession, prior to construction, all necessary permits, licenses, etc. Contractor shall have at least one set of approved Engineering Plans and Specifications on site at all times.
- ALL work shall conform to the City of Rockwall Specifications, Standards, and Details including pipe embedment.
- In the event an item is not covered in the City of Rockwall Construction Standards, Specifications, and Details, the North Central Texas Council of Governments (NCTCOG) 3rd Edition Standard Specifications for Public Works Construction shall apply with concurring notification of the City Engineer and Project Engineer. The City Engineer shall have final decision on all construction materials, methods and procedures.
- Construction inspection will be performed by representatives of the Owner, Engineer, City, Geotechnical Engineer, and reviewing authorities and agencies. Unrestricted access shall be provided to them at all times. Contractor is responsible for understanding and scheduling required inspections. Testing samples shall be collected and processed by certified technicians.
- Contractor is responsible for locating all existing utilities and if he damages these utilities, he will be responsible for repair or replacement.
- All Contractors must confine their activities to the work area. No encroachments onto developed or undeveloped areas will be allowed. Any damage resulting therefrom shall be the Contractor's responsibility to repair.
- Trench Safety Design will be the responsibility of the Utility Contractor. Contractor shall submit a trench safety design approved by a Professional Engineer to the City of Rockwall Engineering Department for review prior to the start of any utility construction.
- All sanitary sewer pipe shall be PVC SDR 35. Other pipe shall be subject to approval by the City Engineer.
- Sewer flow must be maintained at all times during construction of this project. Prior to construction, Contractor shall secure approval from Engineer as to the method he proposes to use to maintain sewer flow.
- Each meter box will be located adjacent to the curb and installed after street pavement has been completed and curbs backfilled.
- All 6 inch, 8 inch and 12 inch water mains shall be AWWA C900 PVC pipe (DR14). All water line fittings shall be ductile iron. All valves shall be AWWA approved resilient wedge gate valves with "O" ring seals. Minimum cover shall be 3.5 feet for 6 inch lines, 4.0 feet for 8 inch lines, and 4.5 feet for 12 inch lines.
- Fire hydrants shall be City of Rockwall Standard.
- A Blue Stimsonite, Fire-Lite reflector (or approved equal) shall be placed in the center of the street opposite each fire hydrant. The fire hydrant shall be painted according to Rockwall standards. Blue EMS disks shall be installed at every change in direction, valve, and service.
- Install 2'x2'x4" thick concrete block around all water valves outside of concrete pavement.

- Valve extensions shall be provided on all valves with operating nuts greater than 5' below finished ground on paving grade.
- Bolts and nuts for mechanical joints will be of high-strength low-alloy corrosion resistant steel conforming to A.S.T.M. A325 (type 3).
- Contractor shall provide adequate concrete thrust blocking at all tees, bends, and fire hydrants.
- Contractor shall pressure test and chlorinate all water lines as required by City of Rockwall. Contractor to pay for this testing. Copies of all reports shall be submitted to the City and Engineer.
- Mega-lugs are required on water lines at all fittings and change in direction.
- All trench backfill shall be compacted from top of pipe embedment or top of pipe in 12 inch loose depth layers at +/- 2% of optimum moisture so that compaction meets a minimum of 95% of Standard Proctor Density.
- Proper warning signs and safety signs shall be placed in the work area of streets at all times with lighted, flashing lights used on each sign making them visible at night.
- Notification shall be given City and Engineer prior to any work delays or proposed changes. As construction problems become known, the City and Engineer must be notified before any alternate action is taken. pavement, Contractor shall be responsible for barricading and plating street and drive trenches at the end of each days work.
- When construction involves cutting street pavement, Contractor shall be responsible for barricading and plating street and drive trenches at the end of each days work.
- Contractor shall furnish insurance and bonds as required by the bid documents.
- All manholes shall be watertight and shall be vacuum tested for leaks. A vacuum of 10 inches of mercury shall be developed and held for a period of 2 minutes. Corrective measures must be taken when the vacuum drops more than one inch in the 2 minute test period. Contractor shall pay for this testing.
- Owner will pay for soil density and concrete quality testing.
- All plumbing outside of building, i.e., from water meter to building/ sewer manhole to building, shall be installed by a plumber and be inspected by code enforcement.
- Damaged trees shall be neatly trimmed and cut ends painted with special tree trimming paint. Ruts left in grass shall be filled in with top soil material to restore to a smooth mowable surface.
- Contractor shall furnish construction staking for this project.
- Contractor shall provide flagmen when working in street right of way.
- Unless otherwise specified on the plans, all concrete shall have a minimum compressive strength of 3,000 psi at 28 day age and shall contain a minimum of 5.5 sacks of cement per cubic yard.

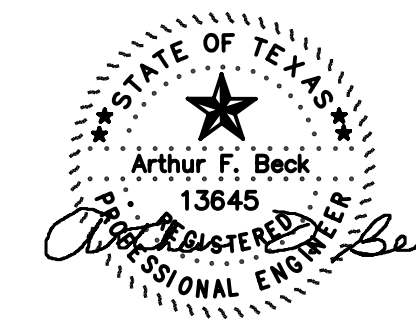
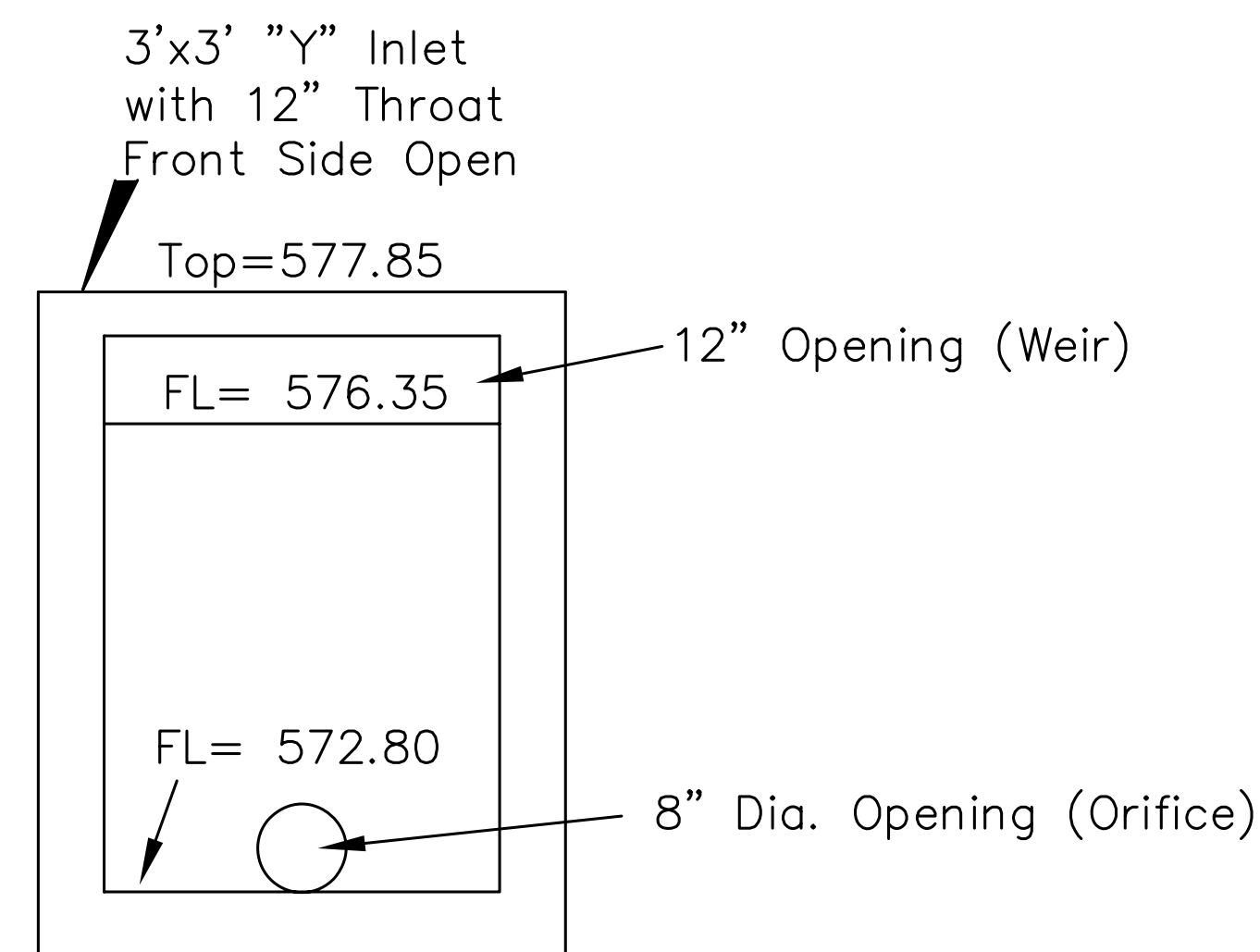


6 FOOT CONCRETE FLUME

#4 reinforcing bars spaced as shown at mid-depth of concrete. Spaced transversely along flume centerline at 24 inches center to center. Concrete to be 3000 psi, 5.5 sacks of cement per cubic yard.

AS BUILT
November 30, 2015

FRONT ELEVATION
DETENTION POND
DISCHARGE STRUCTURE



PHASE 3

WATER & SEWER NOTES						
FIRST UNITED METHODIST CHURCH						
ROCKWALL						
CITY OF ROCKWALL, TEXAS						
BSM ENGINEERS, Inc.						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO
BSM	BSM	07-14		BSM		1404