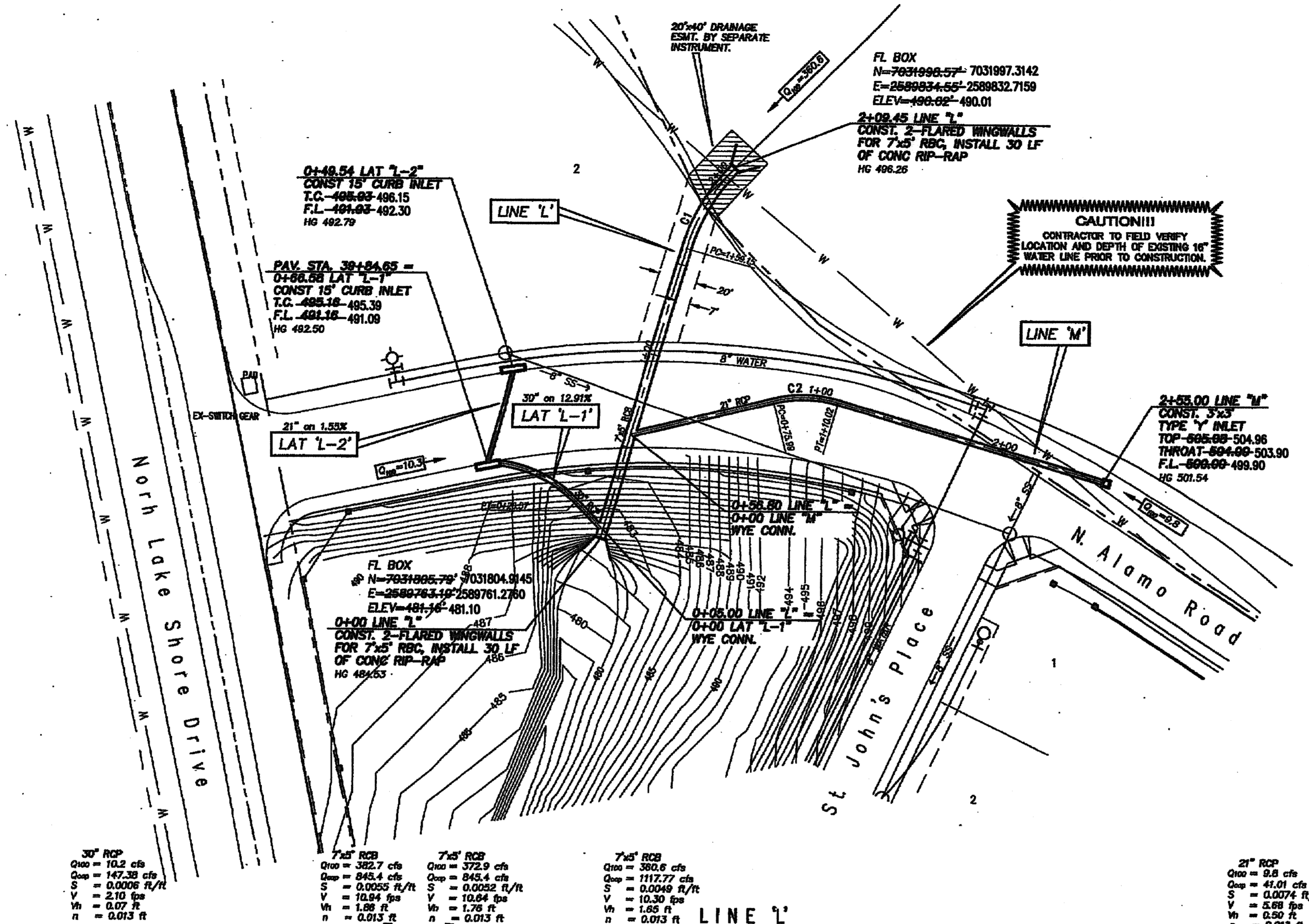


**DRAINAGE GENERAL NOTES**

1. Unless otherwise noted all materials and construction shall conform to the applicable specifications and standards of the City of Rockwall and the North Central Texas Council of Governments - "Standard Specifications for Public Works Construction, 3rd. edition.
2. All reinforcement shall be grade 60.
3. Jetting of embedment and backfill will not be allowed as a method of compaction.
4. Minimum compaction adjacent to and above storm sewers and drainage structures will be 95% with moisture 1% to 3% wet of optimum in all rights-of-way. Compaction in other areas will be 95%.
5. Lifts will not exceed 6" and results will be obtained by Ramex, hand-tamping or as approved in writing by the City.
6. Contractor will be responsible for field verifying the location of all existing utilities prior to his operations.
7. All bends and connections other than those at junction boxes shall be prefabricated by the factory.
8. All storm sewer pipes shall be ASTM C-76 RCP with tongue and groove connections (Class III or greater).



| CURVE DATA |         |           |        |               |
|------------|---------|-----------|--------|---------------|
| CURVE      | RADIUS  | DELTA     | LENGTH | CHORD BEARING |
| C1         | 100.00' | 48°42'00" | 50.30' | S30°27'00"W   |
| C2         | 65.00'  | 30°22'00" | 34.03' | N88°37'28"W   |



**RECORD DRAWINGS**

NOTE: THESE PLANS HAVE BEEN REVISED TO CONFORM WITH CONSTRUCTION RECORDS PROVIDED TO SPIARS ENGINEERING, INC. BY CONTRACTOR AND CITY STAFF AFTER AS-BUILTS WERE ORIGINALLY SUBMITTED TO THE CITY OF ROCKWALL BY OTHERS. MODIFICATIONS TO PAVING, PAD AND UTILITY ELEVATIONS, AS REFLECTED ON THESE PLANS, WERE VERIFIED BY FIELD SURVEY PERFORMED IN DECEMBER, 2008.

**BENCH MARK: #1**  
BRASS CAP IN CL. OF MEDIAN NORTH ON LAKESHORE DRIVE NORTH OF THE INTERSECTION OF NORTH ALAMO AND LAKESHORE DRIVE.

ELEV. 524.78

**BENCH MARK: #2**  
BRASS CAP IN CL. OF MEDIAN ON LAKESHORE DRIVE BETWEEN ST. STONEBROOK AND AMESBURY BEING NORTH OF HAVEN HILL.

ELEV. 518.83

30" RCP  
Q<sub>100</sub> = 102.2 cfs  
Q<sub>50</sub> = 147.39 cfs  
S = 0.0006 ft/ft  
V = 2.10 fps  
V<sub>h</sub> = 0.07 ft  
n = 0.013 ft

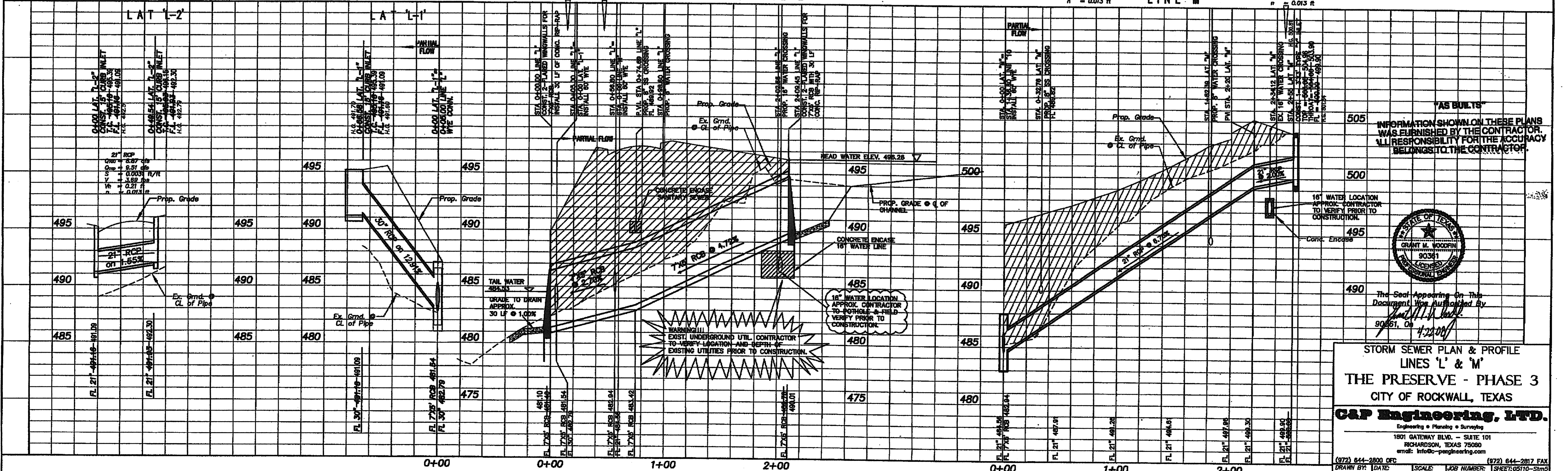
7.5" RCP  
Q<sub>100</sub> = 382.7 cfs  
Q<sub>50</sub> = 845.4 cfs  
S = 0.0058 ft/ft  
V = 10.84 fps  
V<sub>h</sub> = 1.88 ft  
n = 0.013 ft

7.5" RCP  
Q<sub>100</sub> = 372.9 cfs  
Q<sub>50</sub> = 845.4 cfs  
S = 0.0058 ft/ft  
V = 10.84 fps  
V<sub>h</sub> = 1.88 ft  
n = 0.013 ft

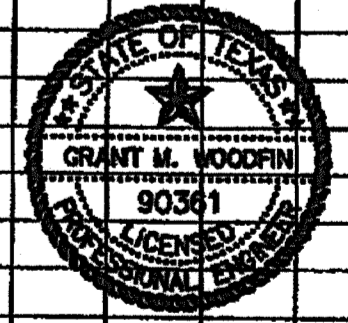
7.5" RCP  
Q<sub>100</sub> = 380.8 cfs  
Q<sub>50</sub> = 1112.77 cfs  
S = 0.0049 ft/ft  
V = 10.30 fps  
V<sub>h</sub> = 1.85 ft  
n = 0.013 ft

21" RCP  
Q<sub>100</sub> = 9.8 cfs  
Q<sub>50</sub> = 41.01 cfs  
S = 0.0074 ft/ft  
V = 5.88 fps  
V<sub>h</sub> = 0.58 ft  
n = 0.013 ft

21" RCP  
Q<sub>100</sub> = 9.8 cfs  
Q<sub>50</sub> = 22.41 cfs  
S = 0.0074 ft/ft  
V = 5.88 fps  
V<sub>h</sub> = 0.58 ft  
n = 0.013 ft



**AS BUILTS**  
INFORMATION SHOWN ON THESE PLANS WAS FURNISHED BY THE CONTRACTOR. ALL RESPONSIBILITY FOR THE ACCURACY BELONGS TO THE CONTRACTOR.



The Seal Appearing On This Document Was Authorized By  
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90361, TX  
1/12/09

**STORM SEWER PLAN & PROFILE**  
**LINES 'L' & 'M'**  
**THE PRESERVE - PHASE 3**  
**CITY OF ROCKWALL, TEXAS**

**C&P Engineering, LTD.**  
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C&P 12/05 1"=40'-H 1"=4'-V 05110 28 of