

**\*LEGEND\***

- X  
XX.X  
XXX DRAINAGE AREA NUMBER
- XX.X  
XXX PROPOSED DRAINAGE AREA (ACRES)
- XXX PROPOSED RUNOFF, Q (CFS)
- PROPOSED DRAINAGE DIVIDE
- EXISTING CONTOURS
- ← PROPOSED FLOW DIRECTION
- A1-A PROPOSED INLET LABEL

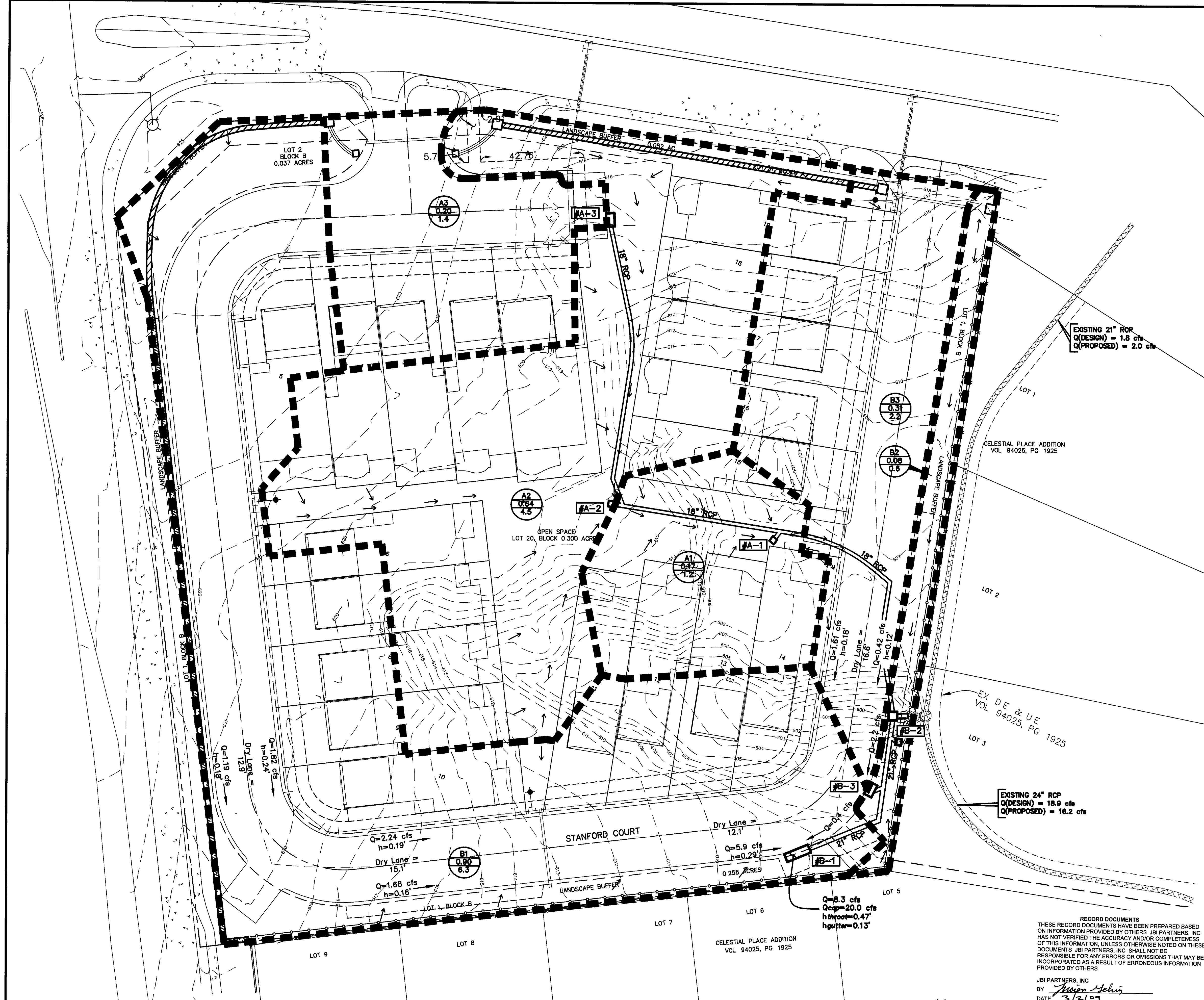
**Sample Calculation of Capacity of Parabolic Crown**  
 Calcs per Manning's Equation

Street width (F-F) =	26 ft
Crown =	4 in
slope =	2 %
n (manning) =	0.0175
Area (one side) =	1.4444 ft <sup>2</sup>
WP (one side) =	13.5043 ft
R (one side) =	0.107
<b>Capacity (one side) =</b>	<b>3.91 c.f.s.</b>
Area (both sides) =	7.2222 ft <sup>2</sup>
WP (both sides) =	27.0085 ft
R (both sides) =	0.267
<b>Capacity (both sides) =</b>	<b>36.00 c.f.s.</b>
<b>Velocity (Q/A) =</b>	<b>4.98 ft/s</b>
n (1-1/2 in. above TC)	0.02
Area (1-1/2 in. above TC)	11.35
WP (1-1/2 in. above TC)	40.01
R (1-1/2 in. above TC)	0.28
<b>Capacity (1-1/2 in. above TC) =</b>	<b>58.82 c.f.s.</b>
<b>Velocity (Q/A) =</b>	<b>5.78 ft/s</b>

**ON-SITE RUNOFF CALCULATIONS (DEVELOPED CONDITIONS)**

Drainage Area #	Area (Acres)	Runoff Coeff	Intensity (in/hr)	Time (conc) (minutes)	Discharge (c f s)	Comment
A1	0.17	0.8	8.74	10.0	1.2	Developed - Town Home
A2	0.64	0.8	8.74	10.0	4.5	Developed - Town Home
A3	0.20	0.8	8.74	10.0	1.4	Developed - Town Home
B1	0.90	0.8	8.74	10.0	6.3	Developed - Town Home
B2	0.08	0.8	8.74	10.0	0.6	Developed - Town Home
B3	0.31	0.8	8.74	10.0	2.2	Developed - Town Home
<b>ONSITE DRAINAGE TOTAL</b>					<b>16.1</b>	

**DRAINAGE DESIGN THEORY**  
 Rational Method  
 Q=CIA



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JBI PARTNERS, INC.  
 BY: *Lucien J. Gehrig*  
 DATE: 3/2/09

**BENCHMARKS.**  
 BM #1 - CITY OF DALLAS WATER DEPARTMENT BENCHMARK, NORTHEAST CORNER OF CELESTIAL ROAD AND MONTFORT DRIVE, SQUARE CUT ON CONCRETE BASE OF 6 FOOT BRICK WALL ELEVATION = 626.81'  
 BM #2 - SOUTHEAST CORNER OF CELESTIAL ROAD AND MONTFORT DRIVE, "X" CUT IN CONCRETE SIDEWALK, APPROXIMATELY 22 FEET NORTH OF THE CURB RETURN ON MONTFORT DRIVE ELEVATION = 624.51'

NO.	REVISIONS DURING CONSTRUCTION	BY	DATE	NO.	REVISIONS DURING PLAN REVIEW	BY	DATE
1.	ADDED INLETS B-2 & B-3	LJG	4/16/07	1.	REVISED PER CITY COMMENTS	LJG	7/28/08
							3/2/09

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**DRAINAGE AREA MAP**

**STANFORD COURT VILLAS**  
 Town of Addison, Dallas County, Texas

PROJECT NO.  
**CDC004**  
 SHEET NO.  
**6**