

**WATER QUALITY UNIT DESIGN AND FABRICATION SPREADSHEET**

Enter Project Name: Villas at Willowbrook	Enter Date: 12/4/05
Enter Project #: 482-U	Engineer: B. K. Wilson
Does system have a by-pass? YES	Select by-pass diameter (in): 30 IN.
Select system inlet diameter (in): 30 IN.	Enter beginning by-pass invert elev. (ft): 124.21
Enter desired flow treatment (CFS): 1.32	Select particle size based on sieve # 140 Sieve
Density of Particle (g/cm³): 981.5	Density of Medium (g/cm³): 1.5
Viscosity (dyne-cm/cm²): 0.01002	Setting Distance (ft): 0.991656667
Setting Velocity (ft/sec): 0.01805466	Settling Time (sec): 55
Outlet Orifice (in): 6.15	Outlet pipe (in): 8

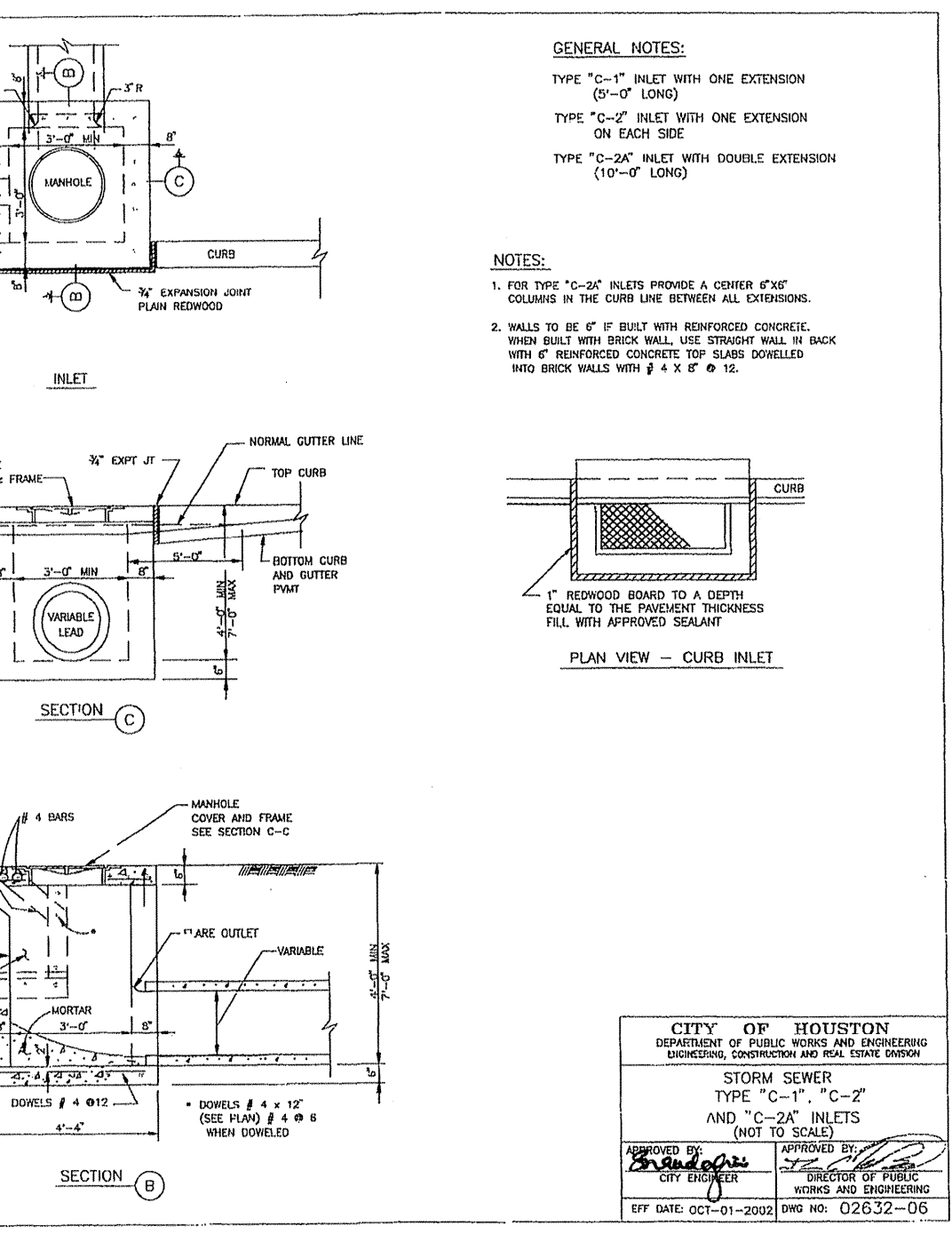
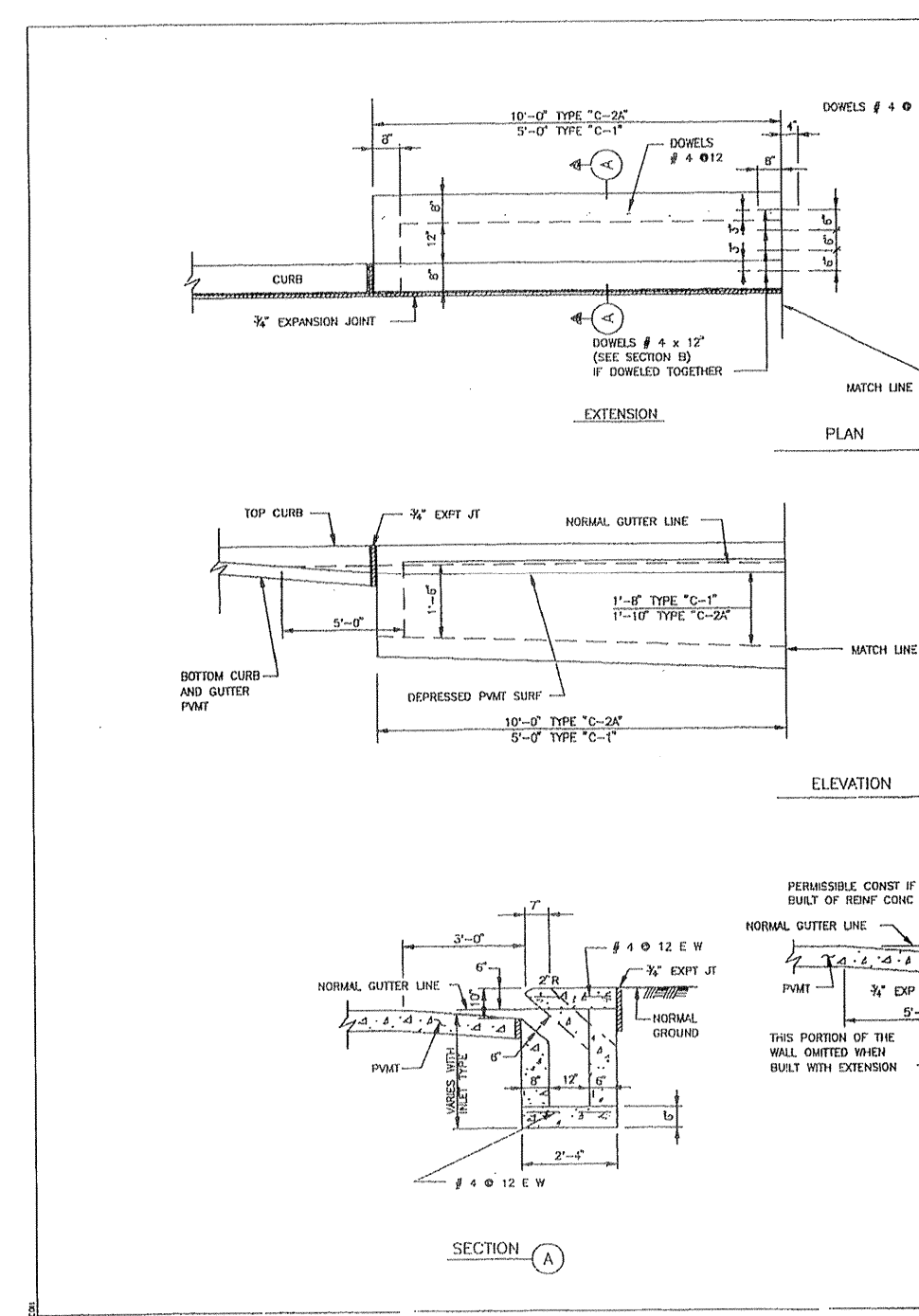
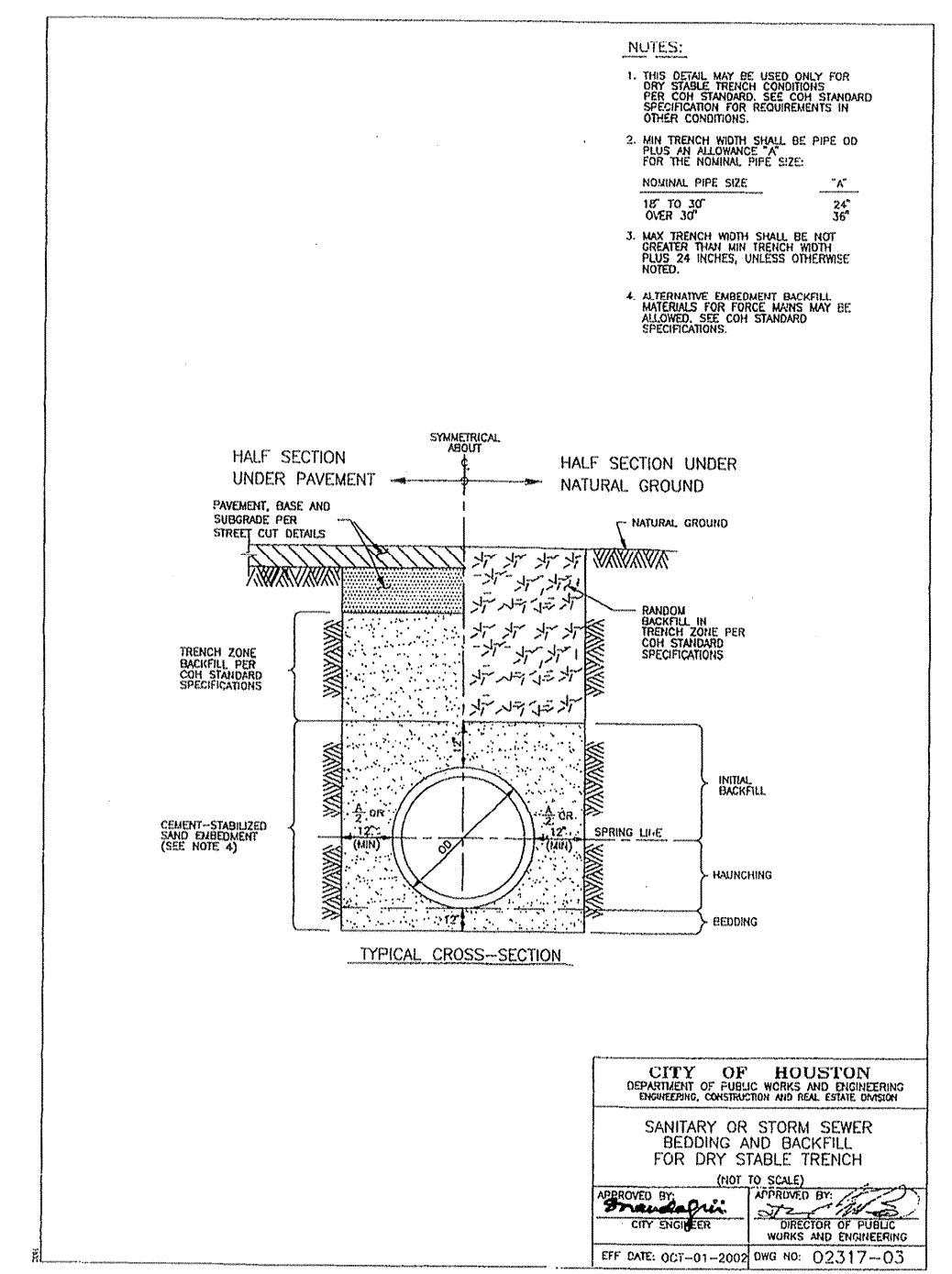
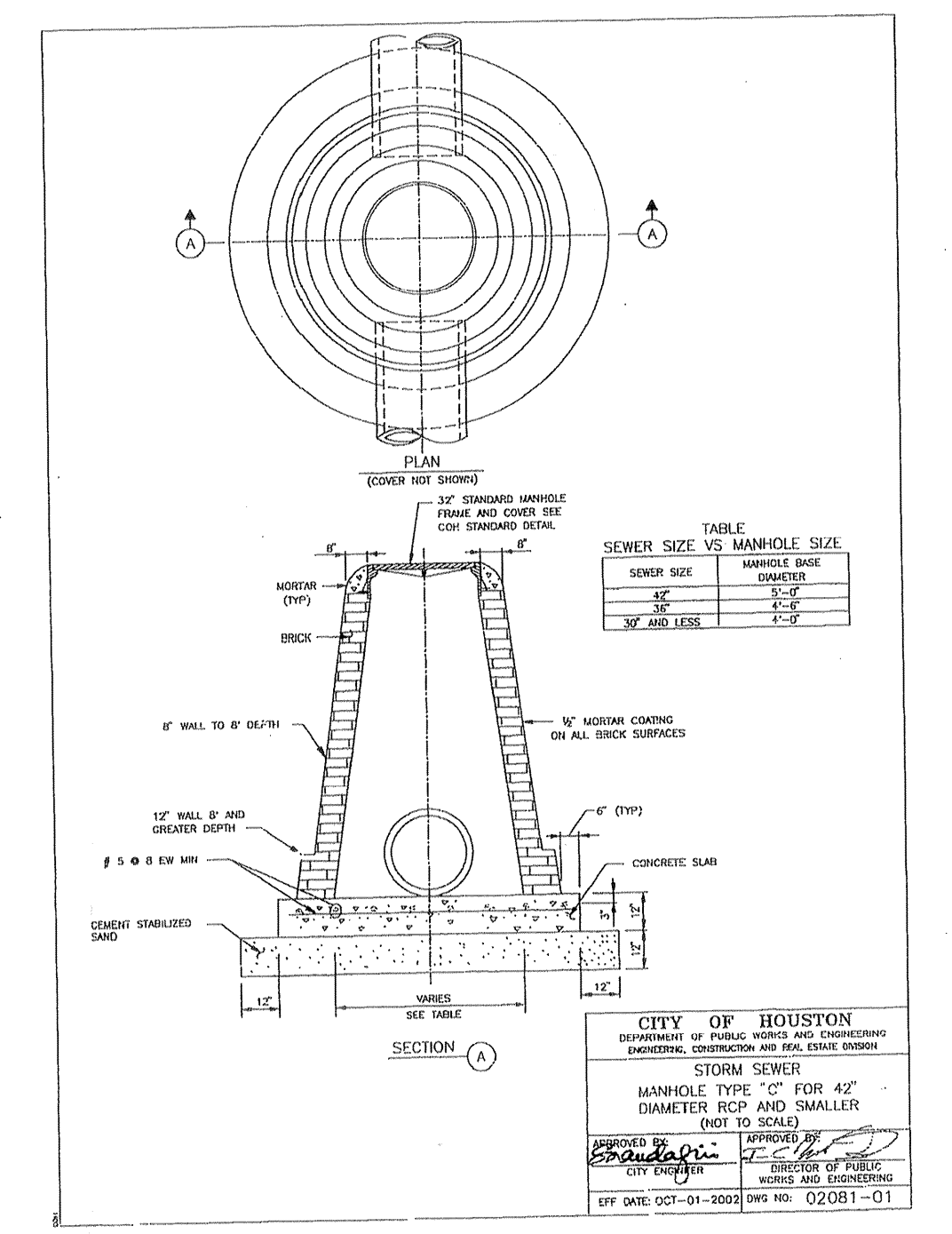
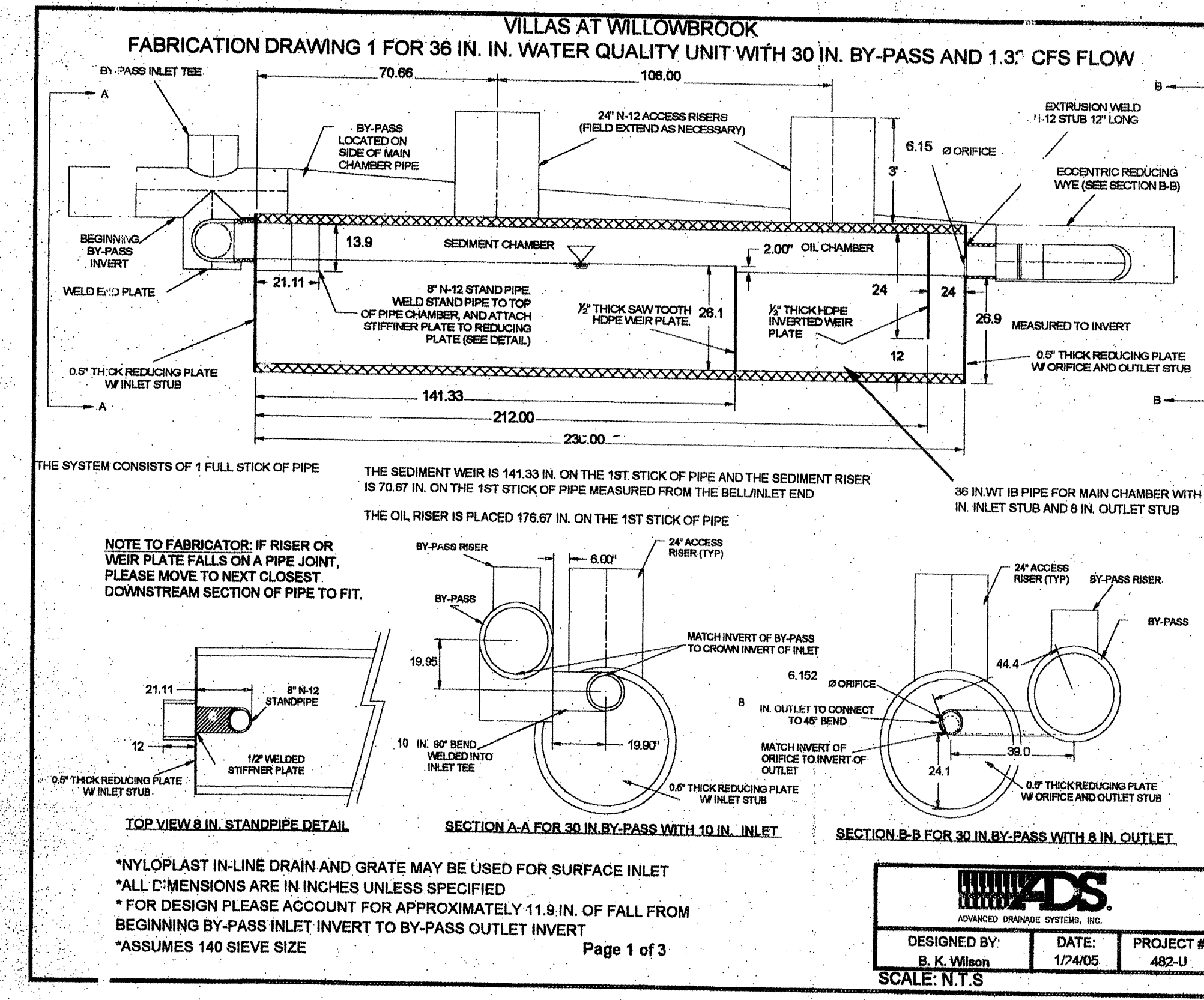
Velocity in Chamber (ft/sec):	60" Chamber: 0.0672	48" Chamber: 0.1050	42" Chamber: 0.1372	36" Chamber: 0.1867
Length of Sediment Chamber (in):	141.33	141.33	141.33	141.33
Length of Oil Chamber (in):	70.67	70.67	70.67	70.67
Length of Module (ft):	16.67	19.67	19.67	16.67

Select Desired Chamber Size: 36" Chamber	Actual Volume Stored (GAL): 705.0	Actual Volume (ft³): 94.3
Volume Stored for full barrel (GAL): 1039.3		Volume Stored for full barrel (ft³): 138.9

Sieve Number	Particle Size
200	0.0075 mm (0.0003 in)
140	0.00348 ft (0.106 cm)
100	0.00348 ft (0.106 cm)
50	0.0084 ft (0.256 cm)

**SELECT ONE:**  
Fabricated Fittings on By-pass (24 in or larger)

**ADS**  
ADVANCED DRAINAGE SYSTEMS, INC.



VILLAS AT WILLOWBROOK

STORM SEWER DETAILS  
and  
STORM WATER QUALITY UNIT DETAILS

WATER	WASTEWATER	TRAFFIC
ST. & BRIDGE	STORMSEWER	SWQ

FILE NO:  
DRAWING SCALE:  
SCALE NONE  
SHEET No: 18 OF 24

**CITY OF HOUSTON**  
STORM SEWER DIVISION  
STANDARD SPECIFICATIONS FOR DESIGN, CONSTRUCTION AND MAINTENANCE OF STORM SEWER SYSTEMS

**STORM SEWER**  
TYPE "C-1" INLET (NOT TO SCALE)

DESIGNED BY: *[Signature]*  
DATE: OCT-01-2002 DWG NO. 02632-05

**STAMP: BOBBY K. WILSON**  
PROFESSIONAL ENGINEER  
9-21-05

**STAMP: 40820**

PROVIDENT CONSULTING, INC.  
1405 ALLSTON ST.  
HOUSTON, TEXAS 77068  
(713)802-1019

**PROVIDENT CONSULTING, INC.**