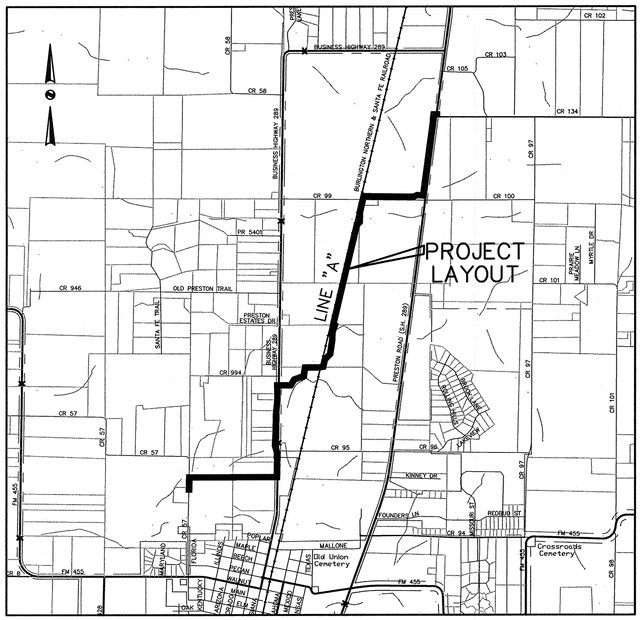
# CELINA NORTH OUTFALL SEWER MAIN

## CELINA HIGH SCHOOL OFFSITE SANITARY SEWER

### LINE "A"




LOCATION MAP
SCALE: NTS

## SHEET INDEX

| SHEET # | DESCRIPTION |
|---|---|
| 1 | Title Sheet |
| 2 | Project Layout, Bore Hole Locations & Control Sheet |
| 3 | Quantities Sheet |
| 4 | General Notes Sheet |
| 5 | Sanitary Sewer Map |
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| 28 | TxDOT Fence Details |

** THE STANDARD SHEETS, SPECIFICALLY INDENTIFIED IN THIS INDEX OF SHEETS, HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

NOTE:
STANDARD SPECIFICATIONS FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS SUPERSEDE TECHNICAL SPECIFICATIONS FOR THIS PROJECT IF THEY ARE MORE STRINGENT, WHICH DETERMINATION SHALL BE MADE BY THE CITY OF CELINA. CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF THE TEXAS DEPARTMENT OF TRANSPORTATION SHALL BE GOVERNED BY TxDOT SPECIFICATIONS.

NOTE:
CALL 1-800-DIG-TESS TO LOCATE ALL FRANCHISE UTILITIES PRIOR TO CONSTRUCTION.


City of Celina
302 W. Walnut Street
Celina, Texas 75009
(972) 382-2682


## CITY COUNCIL

| | |
|---|---|
| CORBETT HOWARD | MAYOR |
| JIM LEWIS | MAYOR PRO-TEM/COUNCIL MEMBER |
| JEANIE READY | COUNCIL MEMBER |
| DEWEY ISHAM | COUNCIL MEMBER |
| BRAD GLENDENING | COUNCIL MEMBER |
| WAYNE NABORS | COUNCIL MEMBER |

## CITY ADMINISTRATION / STAFF

| | |
|---|---|
| JASON GRAY | CITY MANAGER |
| VICKI FAULKNER | CITY SECRETARY |


Celina ISD
205 South Colorado
Celina, Texas 75009
(972) 382-2751


## CISD BOARD OF TRUSTEES

| | |
|---|---|
| BOBBY APPLE | PRESIDENT |
| LANCE HAYNES | VICE PRESIDENT |
| LINDA HONEY | SECRETARY |
| SHELBY BARLEY | |
| BROOKS BARR | |
| CHOC CHRISTOPHER | |
| LANCE VANZANT | |

## CISD ADMINISTRATION

| | |
|---|---|
| ROB O'CONNOR | SUPERINTENDENT |
| DON O'DELL | ASSISTANT SUPERINTENDENT |

| | | |
|---|---|---|
| 1 | 01/04/2008 | AMENDED SET FOR BIDDING PURPOSES |
| 2 | 02/11/2008 | CONSTRUCTION PLANS REVISED SET |

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

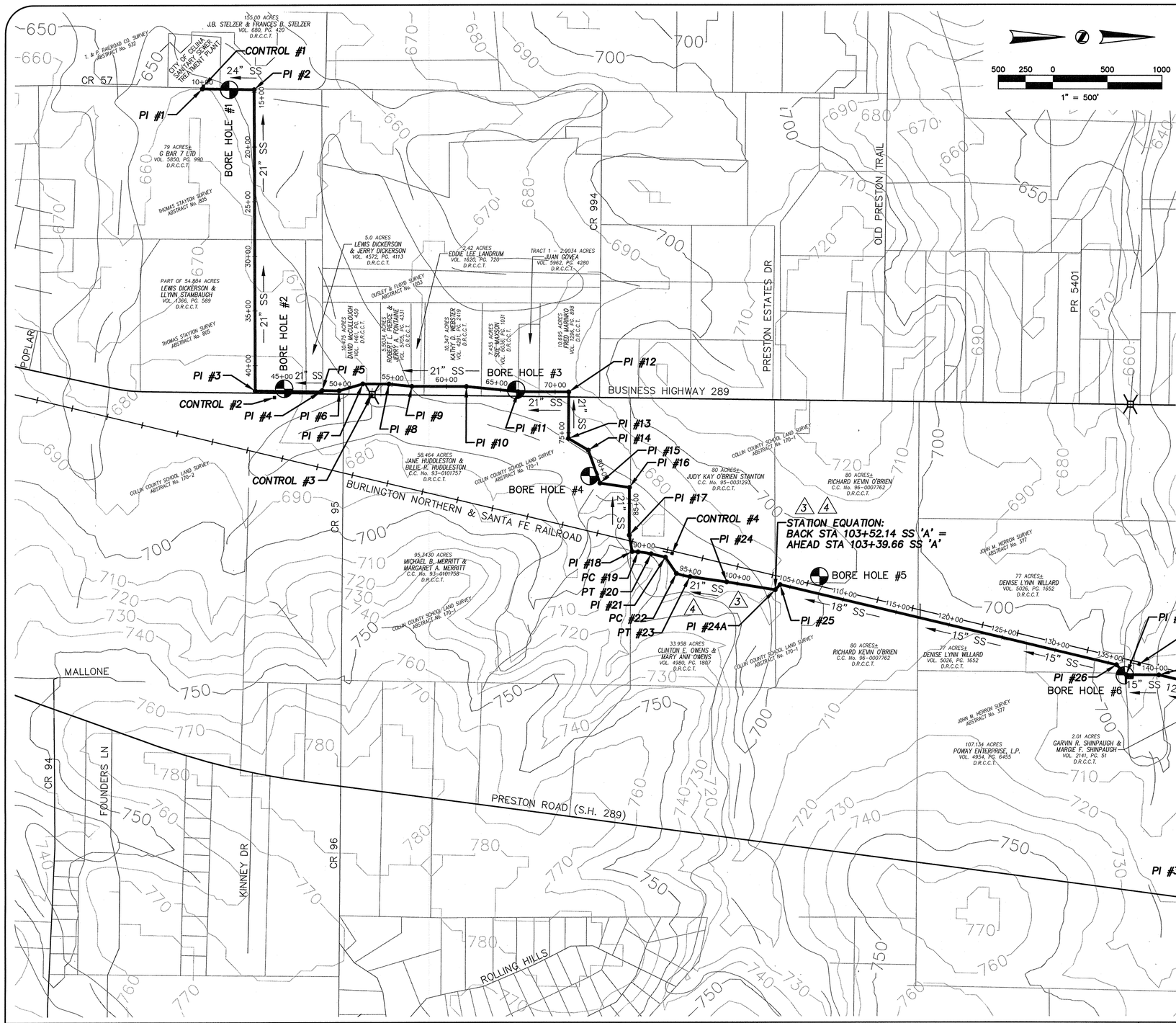

RLK ENGINEERING, INC
6136 Frisco Square Blvd., Suite 325
Frisco, Texas 75034
(214) 619-1733 Off
(214) 619-1833 Fax


STATE OF TEXAS
CHAD A. PENDLEY
80374
LICENSED
PROFESSIONAL ENGINEER
2/12/08

RLK PROJECT NO.: 06127F

06127F - Celina North Outfall Main Offsite Sanitary Sewer Line "A" - February 11, 2008

SS-200802-01




## LINE "A" – ALIGNMENT DATA

| PI No. | STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|---|
| 1 | 10+00.00 | 18278.13 | 13632.42 | N00°54'21"E | POB |
| 2 | 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 3 | 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 4 | 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 5 | 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 6 | 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 7 | 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
| 8 | 54+71.96 | 19990.75 | 16334.64 | N05°44'12"E | PI |
| 9 | 56+83.61 | 20201.33 | 16355.80 | N00°18'51"E | PI |
| 10 | 61+83.61 | 20701.32 | 16358.54 | N05°43'52"E | PI |
| 11 | 66+60.78 | 21176.12 | 16406.19 | N00°18'27"E | PI |
| 12 | 71+25.78 | 21641.11 | 16408.68 | S89°41'09"E | PI |
| 13 | 75+50.78 | 21638.78 | 16833.68 | N30°18'51"E | PI |
| 14 | 77+60.78 | 21820.06 | 16939.67 | N70°18'51"E | PI |
| 15 | 80+80.78 | 21927.86 | 17240.97 | N08°18'51"E | PI |
| 16 | 83+53.36 | 22197.58 | 17280.39 | S89°58'19"E | PI |
| 17 | 87+91.62 | 22197.36 | 17718.65 | N80°14'24"E | PI |
| 18 | 89+43.89 | 22223.17 | 17868.70 | N03°24'28"E | PC |
| 19 | 89+98.10 | 22277.29 | 17871.93 | CURVE No. 1 | PT |
| 20 | 91+20.08 | 22397.81 | 17889.72 | N13°23'30"E | PI |
| 21 | 92+53.85 | 22527.94 | 17920.70 | N55°30'11"E | PC |
| 22 | 94+33.45 | 22629.66 | 18068.73 | CURVE No. 2 | PT |
| 23 | 95+61.03 | 22753.59 | 18098.26 | N08°10'59"E | PI |
| 24 | 99+02.14 | 23091.23 | 18146.82 | N09°11'17"E | STATION EQUATION |
| 24A | BACK 103+52.14= AHEAD 103+39.66 | 23535.46 | 18218.67 | N46°36'33"W | PI |
| 25 | 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 26 | 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 27 | 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 28 | 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 29 | 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 30 | 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 31 | 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 32 | 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 33 | 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 34 | 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 35 | 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
| 36 | 191+83.86 | 30122.16 | 21524.71 | | POE |

## LINE "A" – CURVE DATA

| CURVE | RADIUS | DELTA | LENGTH | TANGENT |
|---|---|---|---|---|
| CURVE No. 1 | 700.00' | 09°59'02" | 121.98' | 61.14' |
| CURVE No. 2 | 700.00' | 10°26'32" | 127.58' | 63.96' |

## BOLE HOLE LOCATIONS

| BORE No. | STATION | OFFSET | NORTHING | EASTING |
|---|---|---|---|---|
| 1 | 12+47.43 | 4.77' RT. | 18525.45 | 13641.10 |
| 2 | 44+84.44 | 11.44' LT. | 19029.63 | 16376.01 |
| 3 | 66+23.64 | 14.09' LT. | 21157.91 | 16390.20 |
| 4 | 79+02.10 | 117.75' RT. | 21832.71 | 17176.92 |
| 5 | 105+90.16 | 155.77' LT. | 23940.71 | 18096.97 |
| 6 | 139+62.48 | 13.89' RT. | 26742.51 | 19003.04 |
| 7 | 180+09.07 | 20.32' LT. | 28901.93 | 21148.11 |

**CONTROL #1**
X-CUT in Concrete Retaining Wall on NE Corner of Waste Water Treatment Plant Catch Basin Along County Road No. 57.
Sanitary Sewer Line "A" – Sta. 10+09.57, 24.86' Lt.
Northing = 18288.0880 Easting = 13607.7110
Elev = 653.10

**CONTROL #2**
X-Cut in Concrete Driveway on East Side of Business Highway No. 289.
Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt.
Northing = 18940.9080 Easting = 16456.6620
Elev = 680.90

**CONTROL #3**
X-CUT in Concrete on NW Corner of Business Highway No. 289 Bridge.
Sanitary Sewer Line "A" – Sta. 52+97.24, 101.09' Rt.
Northing = 19832.9090 Easting = 16434.8700
Elev = 672.68

**CONTROL #4**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.
Northing = 22590.5320 Easting = 17886.1580
Elev = 692.82

**CONTROL #5**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 140+84.86, 97.03' Rt.
Northing = 26874.1290 Easting = 18900.1900
Elev = 702.06

**CONTROL #6**
X-CUT on Top and Center of Concrete Headwall Along the West Side of State Highway 289 (Preston Road).
Sanitary Sewer Line "A" – Sta. 171+40.63, 38.89' Rt.
Northing = 28033.3267 Easting = 21091.2456
Elev = 717.80

**CONTROL #7**
X-CUT on Top of South End of Concrete Headwall Along the East Side State Highway 289 (Preston Road).
Sanitary Sewer Line "A" – Sta. 184+51.31, 133.52' Rt.
Northing = 29319.7660 Easting = 21359.4220
Elev = 725.98

**RECORD DRAWING**

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**Drawing Date: August 10, 2009**

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | 1 | 01/04/2008 | ADDED BORE HOLE CHART |
| | 2 | 02/11/2008 | REVISED ALIGNMENT CHART, SEWER ALIGNMENT STATIONS & PI No.s |
| | 3 | 07/09/2008 | REVISED SS ALIGNMENT LOCATION AND PI STATIONS FROM STA. 90+75 TO STA 103+23.68. ADDED STATION EQUATION AT PI #23 = PI #24. ADDED CURVE DATA CHART & REVISED ALIGNMENT DATA CHART. |
| | 4 | 07/18/2008 | REVISED SS ALIGNMENT LOCATION AND PI STATIONS FROM STA. 89+24.60 TO STA 103+52.14. REVISED STATION EQUATION AT PI #24A. REVISED CURVE DATA CHART & REVISED ALIGNMENT DATA CHART. |

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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
7/20/08

# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

## PROJECT LAYOUT, BORE HOLE LOCATIONS & CONTROL PLAN

LINE "A"

| | | | |
|---|---|---|---|
| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FPROJECTLAYOUTRev2.dwg | DRAWING SCALE: 1" = 500' |
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: JULY 18, 2008 | PROJECT NUMBER: RLK: 06127F |

SHEET: 2 OF 28

SS-200802-01

# CELINA NORTH OUTFALL SEWER MAIN
## CONSTRUCTION QUANTITIES

| ITEM NO. | ITEM DESCRIPTION | UNIT | PROPERTY OWNER OR ENTITY | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | G BAR 7 | DICKERSON | McCULLOUGH | PIERCE & FONTAINE | LANDRUM | WEBSTER | FRISCO CONST. SER | GOVEA | MARINKO | HUDDLESTON | B - N RR | OWENS | O'BRIEN | B - N RR | WILLARD | POWAY | SHINPAUGH | HUBBARD ESTATE | PRESTON RD. HWY. 289 | CELINA HIGH SCHOOL | TOTAL QUANTITIES |
| S1 | 24" ∅ ASTM F679 PVC Sewer Pipe | L.F. | 476 | | | | | | | | | | | | | | | | | | | | 476 |
| S2 | 21" ∅ ASTM F679 PVC Sewer Pipe | L.F. | 1394 | 1987 2 | 541 2 | 280 | 118 | 525 | 341 | 191 | 350 | 1600 2 | 108 | 1430 2 | 0 2 | | | | | | | | 8865 |
| S3 | 18" ∅ ASTM F679 PVC Sewer Pipe | L.F. | | | | | | | | | | | | | 1375 2 | | 10 | | | | | | 1385 |
| S4 | 15" ∅ SDR-35 PVC Sewer Pipe | L.F. | | | | | | | | | | | | | | | 113 2 | 313 | | | | | 426 |
| S5 | 15" ∅ SDR-26 PVC Sewer Pipe | L.F. | | | | | | | | | | | | | | | 1852 2 | | | | | | 1852 |
| S6 | 12" ∅ SDR-35 PVC Sewer Pipe | L.F. | | | | | | | | | | | | | | | | 232 | 174 | 2003 2 | | | 2409 |
| S7 | 10" ∅ SDR-26 PVC Sewer Pipe | L.F. | | | | | | | | | | | | | | 103 | 20 | | | | | | 123 |
| S8 | 8" ∅ SDR-35 PVC Sewer Pipe | L.F. | | | | | | | | | | | | | | | | | | 2598 2 | 149 | 24 | 2771 |
| S9 | 5' ∅ Standard Concrete Manhole | Each | 0 2 | 5 2 | 1 | | 1 2 | 1 | 1 | | 1 | 2 2 | | 1 2 | 3 | | 5 | | | 0 2 | | | 21 |
| S10 | 5' ∅ Manhole-Vented, Bolted, Gasket | Each | 1 0 2 | | | | | | | | | 1 1 | | 1 2 | | | | | | | | | 2 |
| S11 | 5' ∅ Manhole-Bolted & Gasket | Each | 1 3 2 | 2 | 1 | 1 | 0 2 | | | | | 1 2 2 | | 5 2 | | | | | | | | | 14 |
| S12 | 5' ∅ Manhole-Flat Top Bolted & Gask | Each | | | | | | | | | | | | | | | 1 0 | 2 | | | | | 2 |
| S13 | 4' ∅ Standard Concrete Manhole | Each | | | | | | | | | | | | | | | | | | 14 2 | | | 14 |
| A14 | Bore and Encase Hwy 16" Casing | L.F. | | | | | | | | | | | | | | | | | | | 149 | | 149 |
| S15 | Bore and Encase RR 32" Casing | L.F. | | | | | | | | | | | 108 | | | | | | | | | | 108 |
| S16 | Bore and Encase RR 18" Casing | L.F. | | | | | | | | | | | | | | 103 | | | | | | | 103 |
| S17 | Bore and Encase Street 32" Casing | L.F. | | | | | | | | | 40 | | | | | | | | | | | | 40 |
| S18 | 24" Casing for Aerial Crossing | L.F. | | | | | | | | | | | | | | | | 120 | | | | | 120 |
| S19 | 18" Concrete Piers for Aerial Crossing | L.F. | | | | | | | | | | | | | | | | 130 | | | | | 130 |
| S20 | Pier Cap for Aerial Crossing | Each | | | | | | | | | | | | | | | | 4 | | | | | 4 |
| S21 | Concrete Encasement for 21" Pipe | L.F. | | | 70 | | | | | | | 60 2 | | | | | | | | | | | 130 |
| S22 | Concrete Encasement for 15" Pipe | L.F. | | | | | | | | | | | | | | | 190 2 | 190 | | | | | 373 |
| S23 | Concrete Encasement for 8" Pipe | L.F. | | | | | | | | | | | | | | | | | | 70 2 | | | 70 |
| S24 | Rock and Gravel Streets/Driveways | L.F. | 323 | | | 11 | 11 | | 19 | 30 | | | | | | | | | | | | | 394 |
| S25 1 | Asphalt Streets/Driveways | L.F. | | | | | | | | | | | | | | | | | 1 0 | 1 0 | | | 0 |
| S26 | Concrete Streets/Driveways | L.F. | | 142 | | | | | | | | | | | | | | | | | | | 142 |
| S27 | Connection to Exist. Manhole | Each | 1 | | | | | | | | | | | | | | | | | | | 1 | 2 |
| S28 | 21" x 4" Sewer Wye | Each | | | | | | 1 | 1 | 1 | | | | | | | | | | | | | 3 |
| S29 | 12" x 4" Sewer Wye | Each | | | | | | | | | | | | | | | | | 1 | | | | 1 |
| S30 | Temporary Fencing-TxDOT Type "C" | L.F. | | | | | | | | | | | | | | | | 660 | 170 | | | | 830 |
| S31 | Remove and Replace Existing Fence | L.F. | | 30 | 30 | | | | 150 | 40 | | 275 | | | 1400 | | 330 | 150 | 125 | 30 | | | 2560 |
| S32 | Type 3 TxDOT Gate | Each | | | | | | | | | | 1 | | | 1 | | 1 | | | 1 | | | 4 |
| S33 | Hydromulch Disturbed Areas | L.F. | 1394 | 1845 2 | 541 2 | 269 | 107 | 525 | 322 | 161 | 325 | 1600 2 | | 1430 2 | 1375 2 | | 1995 | 427 | 167 | 4593 | | 24 | 17100 |
| S34 | Trench Excavation Protection | L.F. | 1870 | 1987 2 | 541 2 | 280 | 118 | 525 | 341 | 191 | 310 | 1600 2 | | 1430 2 | 1375 2 | | 1995 | 436 | 174 | 4601 | | 24 | 17923 |
| S35 1 | Bore and Encase Road 20" Casing | L.F. | | | | | | | | | | | | | | | | | 1 20 | 1 20 | | | 40 |
| S36 1 | 5' ∅ Standard Flat Top Manhole | Each | | | | | | | | | | | | | | | 1 1 | | | | | | 1 |

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/02/2008 | Added Bore across Co. Rd. No. 99 (40 L.F. 20" Casing)<br>Eliminated Asphalt Road Repair Across Co. Rd. 99<br>Added 5' ø Vented, Bolted and Gasketed Manhole (Addendum No. 1)<br>Eliminated 5' ø Bolted and Gasketed Manhole (Addendum No. 1)<br>Added 5' ø Standard Flat Top Manhole<br>Eliminated 5' ø Bolted and Gasketed Flat Top Manhole |
| 2 | 02/11/2008 | Added & Removed Manholes & Revised Manhole Types & Sizes.<br>Revised Linear Feet of 21" ASTM F679 PVC, 18" ASTM F679 PVC, 15" SDR-35 PVC, 15" SDR-26 PVC, 12" SDR-35 PVC & 8" SDR-35 PVC.<br>Revised Linear Feet of Concrete Encasement, Hydromulch Disturbed Areas & Trench Excavation Protection. |


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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
2/12/08

CELINA
Celina ISD

# CELINA NORTH OUTFALL SEWER MAIN
Celina, Texas
## QUANTITIES SHEET

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127F Quantities.dwg | 1"=1000' | 3 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK: 06127F | |

SS-200802-01

# GENERAL NOTES

## CONSTRUCTION/GENERAL NOTES

1. Prior to any construction the Contractor shall familiarize himself with the Contract Documents and Specifications, the Plans including all notes, 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.

2. Contractor shall have in his possession, prior to construction, all necessary permits, and licenses, etc. Contractor shall have a least one set of approved Engineering Plans and Specifications on-site at all times.

3. In the event an item is not covered in the Plans and Specifications, Construction Standards, Specifications, and Details, the North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction shall apply with concurring notification to the Project Engineer. The Project Engineer shall have the final decision on all construction materials, methods, and procedures.

4. Construction inspection will be performed by representatives of the City, Engineer, 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.

5. 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 Contractor's responsibility to repair.

6. It will be the responsibility of each contractor to protect all existing public and private utilities throughout the construction of this project. Contractor shall contact the appropriate utility companies for line locations prior to commencement of construction and shall assume full liability to those companies for any damages caused to their facilities.

| | |
|---|---|
| DIGTESS | 1-800-DIG-TESS |
| Atmos Energy (Gas) | 972-485-6270 |
| TXU Electric Delivery | 972-699-2920 |
| AT&T | 972-569-4754 |
| City of Celina | 972-382-2682 |
| Comcast Cable | 972-416-6385 |
| Grande Communications | 940-270-7413 |
| Co-Serv Electric | 940-390-8034 |
| Co-Serv Gas | 940-321-7800 X7555 |

7. 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 Celina Public Works Director and Project Engineer for review prior to the start of any utility construction.

8. The contractor shall provide a clear and safe route for pedestrians throughout the duration of construction.

9. The contractor shall protect the existing trees, bushes, landscaping plants, sprinklers, and lawns noted otherwise on the construction drawings. Any damage to these existing trees, bushes, landscaping plants, sprinklers, and lawns caused by the construction shall be replaced to the satisfaction of the City of Celina at no additional cost. Continuous mail service shall be provided during construction.

10. Removal, replacement, and or relocation of all existing fixtures within the construction area, including, but not limited to: water valves, fire hydrants, sewer clean-outs, mailboxes, signs, light standards shall be considered subsidiary to the overall project bid, if not covered by an individual bid item.

11. The existence and locations of all underground utilities shown (main lines, no lateral or services shown) on the drawings were obtained from available records and are approximate. Neither the Owner nor the engineer assumes any responsibility for utilities not in the location shown. The Contractor shall determine the depth and location of existing underground utilities prior to trenching and shall be required to take any precautionary measures to protect all lines shown and/or other underground utilities not of record or not shown on the plans. The Contractor shall be responsible for contacting all franchise and city utilities prior to construction.

12. Any Contractor/Subcontractor performing work on this project shall familiarize himself with the site and shall be solely responsible for any damage to existing facilities resulting directly or indirectly from his operations. Said existing improvements shall include, but not limited to berms, ditches, fences, and plants. Any removal or damage to existing improvements shall be replaced or repaired by the Contractor at his expense and shall be approved by the the city of Celina.

13. All submittals must be originals with signatures where applicable: facsimiles or emails shall be followed up with originals.

14. All testing and inspection of materials required by the specifications shall be performed by a commercial laboratory, selected and paid for by Celina I.S.D. 1

15. The Contractor shall be responsible for furnishing and installing all temporary and permanent traffic control in accordance with the minimum requirements of the latest revision of the Texas Manual on Uniform Traffic Control Handbook. All reference for using Texas Department of Transportation (TxDOT) standards and construction details shall be the latest revisions and/or amendments thereof.

16. The Contractor shall make every effort not to impede traffic on existing highways, streets alleys, or firelanes open to the public. In the event the construction work requires the closure of an existing street, alley, or firelane, the Contractor shall request the road closure through the City of Celina.

## UTILITY CROSSINGS

1. Tunneling and boring under City streets shall be accomplished by means of jacking, boring, or tunneling equipment which is subject to the City approval prior to start of construction.

2. The voids inside of the carrier pipe or casing pipe shall be backfilled by hydraulically placed material so that there are no open voids over the roof of the tunnel or bore. This shall be done without damage to the roadway structure.

3. All bore pits, trenches and inspection holes shall be backfilled within 48 hours of the installation of utility lines. The method of compaction shall be such that a soil density equal to that existing prior to the start of construction will be required as verified by an approved testing laboratory. Any excess of surplus material resulting due to displacement of utility lines and conduits shall be disposed of in an acceptable manner to the City.

4. The contractor shall be required to install all necessary warning and safety devices that would protect the safety and health of the public until the work has been finished and accepted by the City.

5. The use of casing pipe will be based upon specific project location and soil conditions. In general, the minimum casing thickness is 0.25 inch and the material shall be steel. Where more than one section is required, the casing ends shall be welded together. Raci spacers or City approved other, shall be used to support the carrier pipe. The use of wood skids in not permitted.

## SANITARY SEWER SYSTEM

1. All sanitary sewer pipes from four inches (4") to fifteen inches (15") nominal size shall be PVC SDR-35 or SDR-26 meeting ASTM D3034. All sewer pipe eighteen inches (18") and larger nominal size shall be PVC meeting ASTM F679 or ASTM F794. All pipes shall be "green" in color and be laid on a minimum of Class "H" embedment. Detectable Metallic Tape ("Green-Caution Buried Sewer Below" or arproved other) shall be installed after backfill on approximate centerline of pipe prior to final backfill.

2. All sewer mains shall be a minimum diameter of eight inches (8") and shall maintain a minimum flow velocity of two (2) feet per second.

3. The Contractor shall be responsible for providing "As Recorded" plans to the engineer of record showing the location of sewer services by distance to the lot lines or property lines. This information shall be placed on the engineering plans and marked "As-Recorded"plans by the engineer of record. Copies of these "As-Recorded" plans shall be furnished to the City as required. Ties shall be made by distance measurements for all manholes, cleanouts & services.

4. TV inspections, low pressure air testing, vacuum testing of manholes, and deflection testing are required on all sewer lines.

5. Manholes shall have a 400# traffic bearing frame and cover and shall have a minimum concrete compressive strength of 4000 psi at twenty-eight (28) days.

6. All concrete structures, whether precast or cast-in-place, shall be designed with an appropriate sulfate resistant cement or equivalent based on local soil conditions. Precast manholes or other special structures in any right-of-way or fire lane easement will require a certification from the manufacturer that the product meets the design criteria and twenty-eight (28) days compressive strength. Cast-in-place manholes or other special structures in any right-of-way and fire lane or utility easements will require cylinders to be made for strength tests by an approved laboratory. Samples for strength tests of each class of concrete placed each day shall be taken not less than once a day, nor less than once for each 100-150 cu yd of concrete, nor less than once for each 5000 sq ft of surface area for slabs or walls. Four (4) cylinders shall be made: one (1) shall be broken at seven (7) days, two (2) shall be broken at twenty-eight (28) days, and one (1) shall be held in case damage of any of the other three (3). The average strength of two (2) cylinders from the same sample, tested at twenty-eight (28) days, is required for each strength test; any strength test beyond twenty-eight (28) days is unacceptable. If the twenty-eight (28) days design strength is not reached upon strength testing the cylinders, the deficient area shall be cored immediately to be proven. Cores shall be extracted according to ASTM C 42 latest version, and conditioned in a moisture condition most representative of the in-place service condition. For any areas deficient in strength by not more than 500 psi, the Contractor shall pay to the City one (1) times the unit bid price per square yard for the area determined to be deficient in strength. For any areas deficient in strength by more than 500 psi, but not more than 1000 psi, the Contractor shall pay the City two(2) times the unit price per square yard for the area determined to be deficient in strength. For any areas deficient in strength by more than 1000 psi, the structure shall be removed and reconstructed at full expense of the Contractor. Prior to City acceptance of any penalty payments for any traffic bearing structure that does not meet twenty-eight (28) days design strength, the Design Engineer shall provide a sealed structural evaluation that assesses the performance adequancy of the deficient structure as constructed under the design service loads. All coring and additional laboratory testing shall be at the expense of the Contractor.

7. The Contractor shall furnish a maintenance bond in the amount of 10 % (ten percent) of the total contract price to the City (as Obligee) to run two (2) years from the date of Final Acceptance of the project by the City.

1 8. The Construction will be located within a twenty foot (20') sanitary sewer easement and temporary construction easement fifty feet (50') adjacent to one side of the sanitary sewer easement.

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | 1 | 01/02/2008 | REVISED GENERAL NOTE NO. 14. (ALL TESTING AT EXPENSE OF CELINA I.S.D.) ADDED SANITARY SEWER SYSTEM NOTE NO. 8 (50' CONSTRUCTION EASEMENT) |
| | | | |
| | | | |
| | | | |

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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
PE 2/12/08

CELINA
Celina ISD

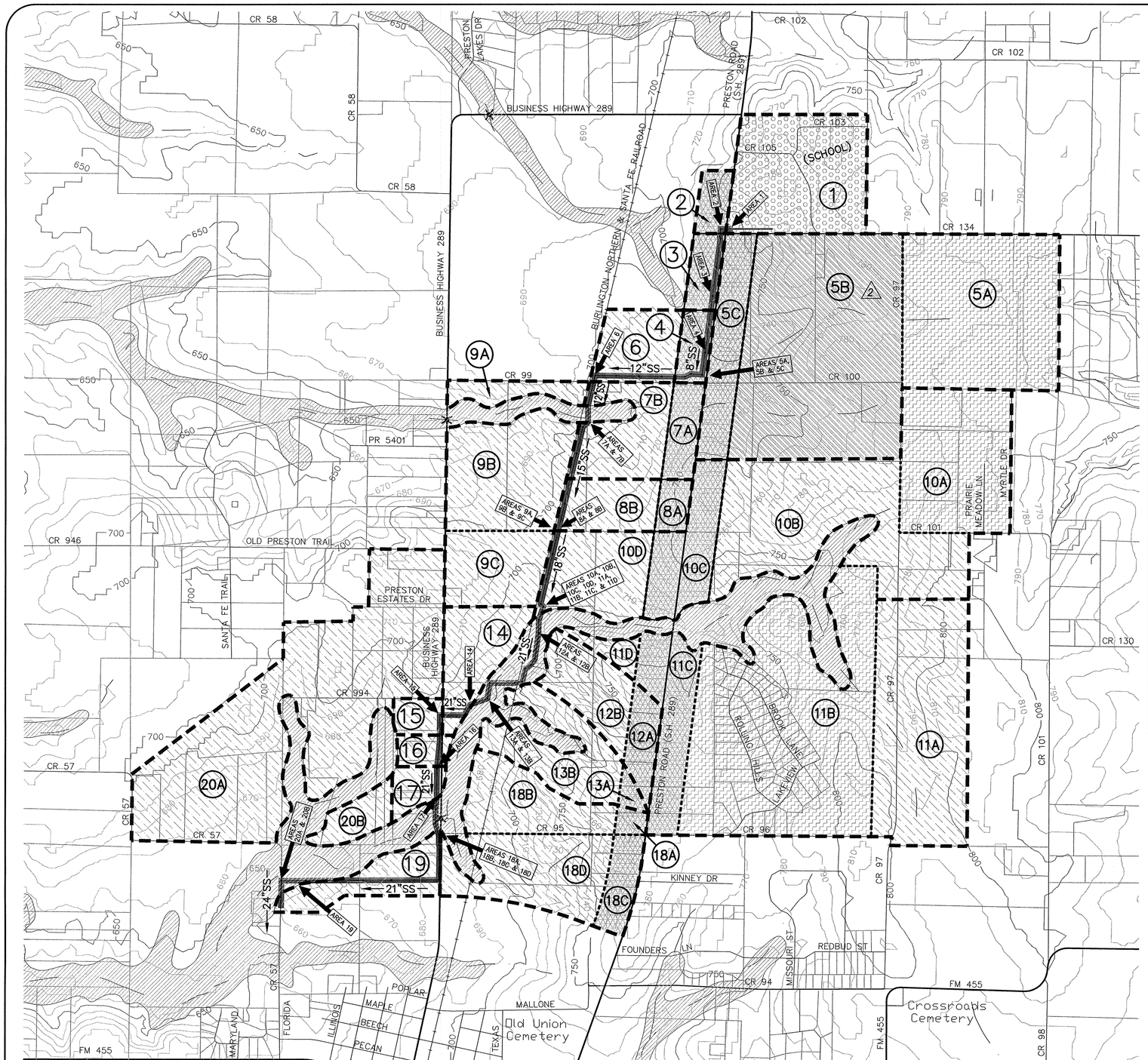
# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

## GENERAL NOTES SHEET

| | | | | |
|---|---|---|---|---|
| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127F Notes.dwg | DRAWING SCALE: NTS | SHEET: 4 OF 28 |
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK: 06127F | |

SS-200802-01




1000 500 0 1000 2000

1" = 1000'

## SANITARY SEWER DESIGN CALCULATIONS

| Area No. | Area Size (Acres) | Design Land Use | Lots Per Acre | No. of Lots | Populat. Per Unit/Lot | Usage Per Resident (gpd) | Peak Factor | Peak Flow (gpd) | Inflow/Infilt (400 gad) | Total Flow (gpd) | Total Flow (cfs) | Accum. Flow (gpd) | Accum. Flow (cfs) | Pipe Capacity (cfs) | Pipe Slope (ft/ft) | Pipe Size (Inches) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 111.0 | School | - | - | 2000 | 20 | 4.80 | 192,000 | 0 | 192,000 | 0.2971 | **192,000** | **0.30** | **2.0** | 0.024 | 8 |
| 2 | 14.0 | Commercial | - | - | - | 1200 | 4.72 | 79,296 | 5,600 | 84,896 | 0.1314 | **276,896** | **0.43** | **1.8** | 0.020 | 8 |
| 3 | 17.0 | Commercial | - | - | - | 1200 | 4.65 | 94,860 | 6,800 | 101,660 | 0.1573 | **378,556** | **0.59** | **0.8** | 0.004 | 8 |
| 4 | 16.0 | Commercial | - | - | - | 1200 | 4.58 | 87,936 | 6,400 | 94,336 | 0.1460 | **472,892** | **0.73** | **0.8** | 0.004 | 8 |
| 5A | 170.0 | Residential | 1.0 | 170 | 2.8 | 100 | 4.50 | 214,200 | 68,000 | 282,200 | 0.4366 | - | - | - | - | - |
| 5B | 252.0 | Residential | 3.0 | 756 | 2.8 | 100 | 3.70 | 783,216 | 100,800 | 884,016 | 1.3678 | - | - | - | - | - |
| 5C | 50.0 | Commercial | - | - | - | 1200 | 3.67 | 220,200 | 20,000 | 240,200 | 0.3716 | **1,879,308** | **2.91** | **3.0** | 0.006 | 12 |
| 6 | 41.0 | Residential | 4.0 | 164 | 2.8 | 100 | 3.65 | 167,608 | 16,400 | 184,008 | 0.2847 | **2,063,316** | **3.19** | **3.8** | 0.003 | 15 |
| 7A | 21.0 | Commercial | - | - | - | 1200 | 3.62 | 91,224 | 8,400 | 99,624 | 0.1541 | - | - | - | - | - |
| 7B | 54.0 | Residential | 4.0 | 216 | 2.8 | 100 | 3.60 | 217,728 | 21,600 | 239,328 | 0.3703 | **2,402,268** | **3.72** | **3.8** | 0.003 | 15 |
| 8A | 12.0 | Commercial | - | - | - | 1200 | 3.57 | 51,408 | 4,800 | 56,208 | 0.0870 | - | - | - | - | - |
| 8B | 36.0 | Residential | 4.0 | 144 | 2.8 | 100 | 3.55 | 143,136 | 14,400 | 157,536 | 0.2437 | **2,616,012** | **4.05** | **5.6** | 0.0025 | 18 |
| 9A | 20.0 | Residential | 4.0 | 80 | 2.8 | 100 | 3.55 | 79,520 | 8,000 | 87,520 | 0.1354 | - | - | - | - | - |
| 9B | 94.0 | Residential | 4.0 | 376 | 2.8 | 100 | 3.45 | 363,216 | 37,600 | 400,816 | 0.6202 | - | - | - | - | - |
| 9C | 53.0 | Residential | 4.0 | 212 | 2.8 | 100 | 3.40 | 201,824 | 21,200 | 223,024 | 0.3451 | **3,327,372** | **5.15** | **5.6** | 0.0025 | 18 |
| 10A | 111.0 | Residential | 1.0 | 111 | 2.8 | 100 | 3.35 | 104,118 | 44,400 | 148,518 | 0.2298 | - | - | - | - | - |
| 10B | 171.0 | Residential | 4.0 | 684 | 2.8 | 100 | 3.10 | 593,712 | 68,400 | 662,112 | 1.0244 | - | - | - | - | - |
| 10C | 52.0 | Commercial | - | - | - | 1200 | 3.10 | 193,440 | 20,800 | 214,240 | 0.3315 | - | - | - | - | - |
| 10D | 61.0 | Residential | 4.0 | 244 | 2.8 | 100 | 3.10 | 211,792 | 24,400 | 236,192 | 0.3654 | **4,588,434** | **7.10** | **10.0** | 0.0035 | 21 |
| 11A | 161.0 | Residential | 4.0 | 644 | 2.8 | 100 | 3.10 | 558,992 | 64,400 | 623,392 | 0.9645 | - | - | - | - | - |
| 11B | 280.0 | Residential | 1.0 | 280 | 2.8 | 100 | 3.10 | 243,040 | 112,000 | 355,040 | 0.5493 | - | - | - | - | - |
| 11C | 57.0 | Commercial | - | - | - | 1200 | 3.10 | 212,040 | 22,800 | 234,840 | 0.3634 | - | - | - | - | - |
| 11D | 11.0 | Residential | 4.0 | 44 | 2.8 | 100 | 3.10 | 38,192 | 4,400 | 42,592 | 0.0659 | **5,844,298** | **9.04** | **10.0** | 0.0035 | 21 |
| 12A | 21.0 | Commercial | - | - | - | 1200 | 3.10 | 78,120 | 8,400 | 86,520 | 0.1339 | - | - | - | - | - |
| 12B | 44.0 | Residential | 4.0 | 176 | 2.8 | 100 | 3.10 | 152,768 | 17,600 | 170,368 | 0.2636 | **6,101,186** | **9.44** | **10.0** | 0.0035 | 21 |
| 13A | 5.0 | Commercial | - | - | - | 1200 | 3.10 | 18,600 | 2,000 | 20,600 | 0.0319 | - | - | - | - | - |
| 13B | 61.0 | Residential | 4.0 | 244 | 2.8 | 100 | 3.10 | 211,792 | 24,400 | 236,192 | 0.3654 | **6,357,978** | **9.84** | **10.7** | 0.004 | 21 |
| 14 | 48.0 | Residential | 4.0 | 192 | 2.8 | 100 | 3.00 | 161,280 | 19,200 | 180,480 | 0.2792 | **6,538,458** | **10.12** | **10.7** | 0.004 | 21 |
| 15 | 12.0 | Residential | 4.0 | 48 | 2.8 | 100 | 3.00 | 40,320 | 4,800 | 45,120 | 0.0698 | **6,583,578** | **10.19** | **10.7** | 0.004 | 21 |
| 16 | 12.0 | Residential | 4.0 | 48 | 2.8 | 100 | 3.00 | 40,320 | 4,800 | 45,120 | 0.0698 | **6,628,698** | **10.26** | **10.7** | 0.004 | 21 |
| 17 | 15.0 | Residential | 4.0 | 60 | 2.8 | 100 | 3.00 | 50,400 | 6,000 | 56,400 | 0.0873 | **6,685,098** | **10.34** | **10.7** | 0.004 | 21 |
| 18A | 5.0 | Commercial | - | - | - | 1200 | 3.00 | 18,000 | 2,000 | 20,000 | 0.0309 | - | - | - | - | - |
| 18B | 57.0 | Residential | 4.0 | 228 | 2.8 | 100 | 3.00 | 191,520 | 22,800 | 214,320 | 0.3316 | - | - | - | - | - |
| 18C | 22.0 | Commercial | - | - | - | 1200 | 3.00 | 79,200 | 8,800 | 88,000 | 0.1362 | - | - | - | - | - |
| 18D | 78.0 | Residential | 4.0 | 312 | 2.8 | 100 | 3.00 | 262,080 | 31,200 | 293,280 | 0.4538 | **7,300,698** | **11.30** | **12.0** | 0.005 | 21 |
| 19 | 40.0 | Residential | 4.0 | 160 | 2.8 | 100 | 3.00 | 134,400 | 16,000 | 150,400 | 0.2327 | **7,451,098** | **11.53** | **12.0** | 0.005 | 21 |
| 20A | 304.0 | Residential | 4.0 | 1216 | 2.8 | 100 | 2.80 | 953,344 | 121,600 | 1,074,944 | 1.6632 | - | - | - | - | - |
| 20B | 20.0 | Residential | 4.0 | 80 | 2.8 | 100 | 2.80 | 62,720 | 8,000 | 70,720 | 0.1094 | **8,596,762** | **13.30** | **14.3** | 0.0035 | 24 |
| | | | | | | | **Totals** | **7,597,562** | **999,200** | **8,596,762** | **13.3012** | | | | | |

**RECORD DRAWING**

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**Drawing Date: August 10, 2009**

**ZONING LEGEND**

- SINGLE FAMILY – 1 LOT PER ACRE
- SINGLE FAMILY – 3 LOTS PER ACRE
- SINGLE FAMILY – 4 LOTS PER ACRE
- COMMERCIAL
- SCHOOL
- FLOOD PLAIN (THESE AREAS NOT INCLUDED IN DESIGN)

**LEGEND**

- MAJOR AREA DIVIDE
- MINOR AREA DIVIDE
- 8A — AREA NUMBER
- AREAS 3A & 3B — SEWAGE COLLECTION POINT
- PROPOSED SANITARY SEWER

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | REVISED AREAS AND DESIGN CALCULATIONS CHART |
| 2 | 02/11/2008 | REVISED AREAS, SEWER ALIGNMENT AND DESIGN CALCULATIONS CHART |

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STATE OF TEXAS — CHAD A. PENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER — 2/12/08

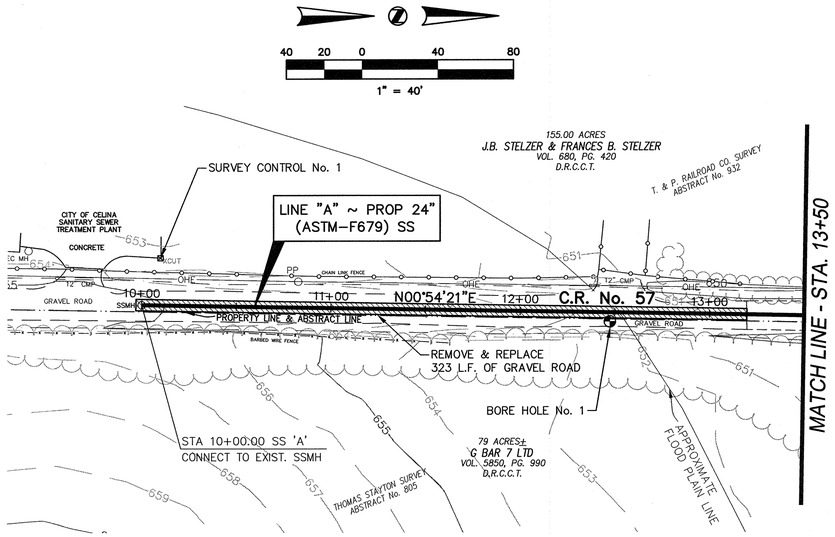
# CELINA NORTH OUTFALL SEWER MAIN

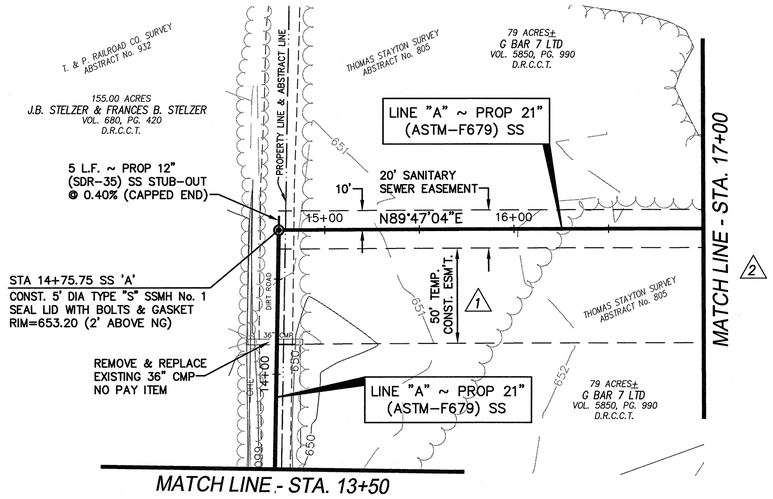
Celina, Texas

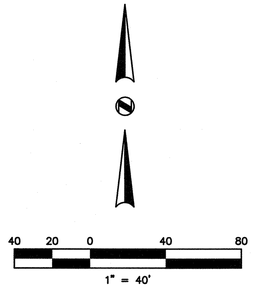
## SANITARY SEWER MAP

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSANSWRMAP.dwg | 1"=1000' | 5 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK: 06127F | |

SS-200802-01




## RECORD DRAWING

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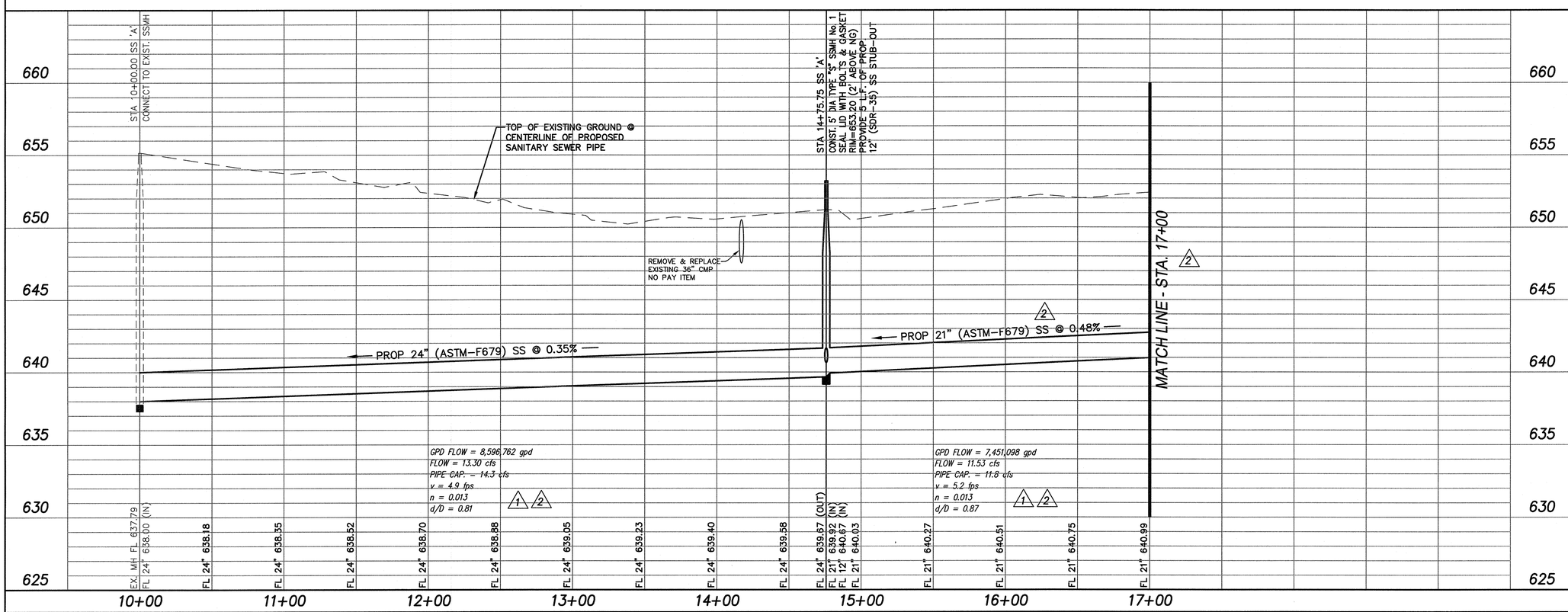
**Drawing Date: August 10, 2009**

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
5. CONTRACTOR SHALL PROTECT ALL TREES AND LANDSCAPING AND NO TREES SHALL BE REMOVED WITHOUT WRITTEN PERMISSION FROM OWNER/ENGINEER OR PROPERTY OWNER.
6. PROVIDE TEMPORARY CONSTRUCTION FENCING (SAFETY ORANGE BARRIER FENCE) AROUND ANY TRENCHING OR POT HOLES LEFT OPEN AFTER WORKING HOURS OR UNATTENDED DURING CONSTRUCTION.
7. ANY FENCE REMOVED DURING CONSTRUCTION, MUST BE REPLACED WITH A NEW FENCE AND MATERIALS MUST BE THE SAME OR BETTER AS BEFORE.

## NOTE II

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*




Survey Control:

***CONTROL #1***

*X-CUT in Concrete Retaining Wall on NE Corner of Waste Water Treatment Plant Catch Basin Along County Road No. 57.*
*Sanitary Sewer Line "A" – Sta. 10+09.57, 24.86' Lt.*
*Northing = 18288.0880 Easting = 13607.7110 Elev = 653.10*

***CONTROL #2***

*X-Cut in Concrete Driveway on East Side of Business Highway No. 289.*
*Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt.*
*Northing = 18940.9080 Easting = 16456.6620 Elev = 680.90*

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| 2 | 02/11/2008 | CHANGED SHEET ENDING MATCH LINE STATION FROM STA. 18+50 TO STA. 17+00. REVISED PROFILE GRADE FROM STA. 14+75.75 TO STA. 17+00. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 10+00 TO STA. 17+00

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA01.dwg | 1"=40'H; 1"=4'V | 6 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK 06127F | |

SS-200802-01

## RECORD DRAWING

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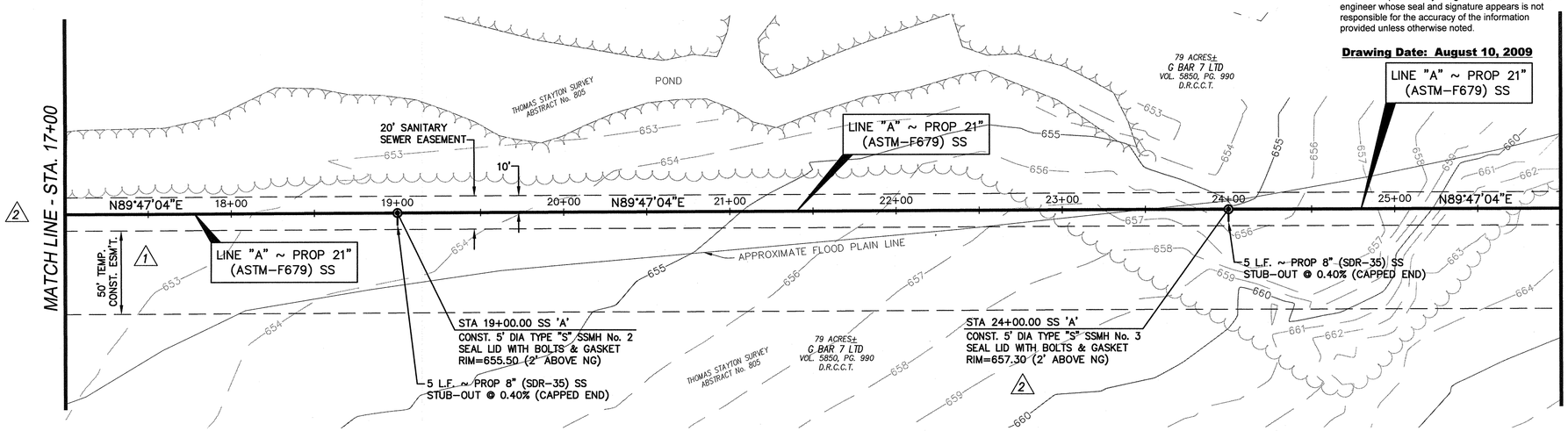
**Drawing Date: August 10, 2009**




40 20 0 40 80

1" = 40'

## SHEET NOTES:

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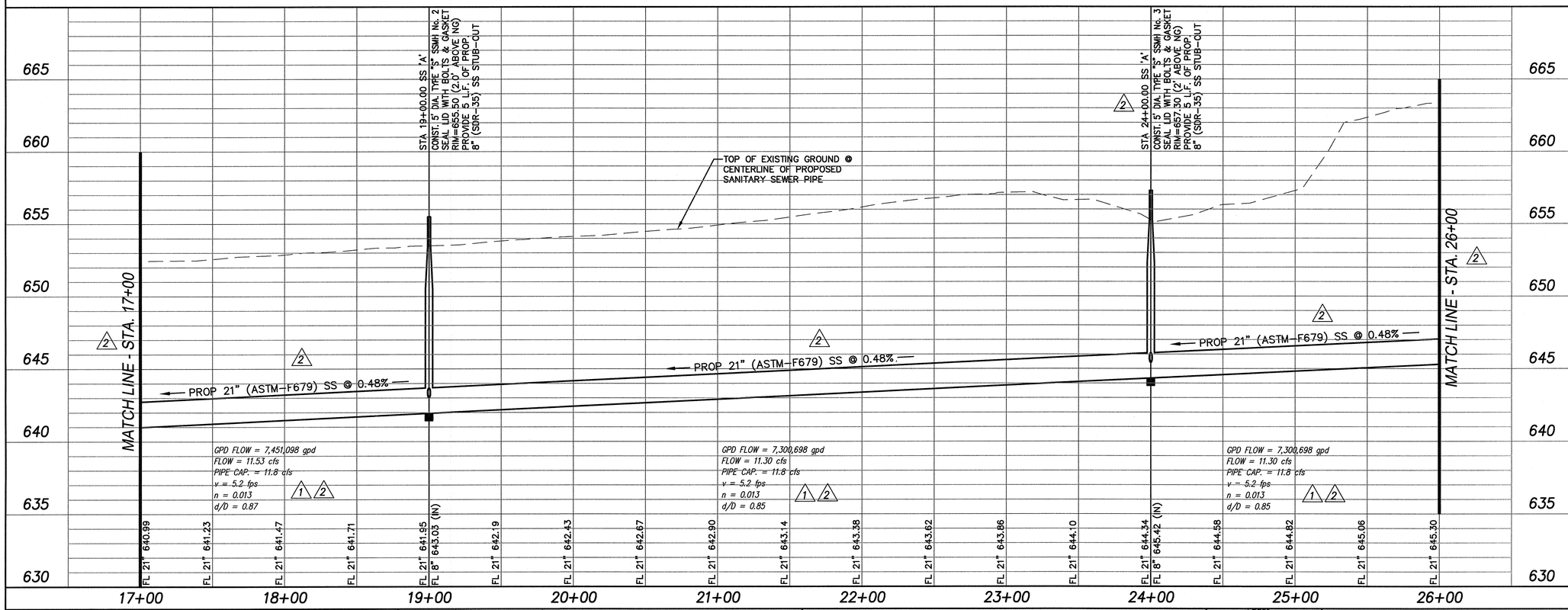


Survey Control:

**CONTROL #1**

*X-CUT in Concrete Retaining Wall on NE Corner of Waste Water Treatment Plant Catch Basin Along County Road No. 57.*
*Sanitary Sewer Line "A" – Sta. 10+09.57, 24.86' Lt.*
*Northing = 18288.0880 Easting = 13607.7110 Elev = 653.10*

**CONTROL #2**

*X-Cut in Concrete Driveway on East Side of Business Highway No. 289.*
*Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt.*
*Northing = 18940.9080 Easting = 16456.6620 Elev = 680.90*

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | PI |
| | | | | POE |

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. ADDED VENT TO 5' DIA. TYPE "S" SSMH No. 3 AT STA. 24+00 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 18+50 – STA. 27+50 TO STA. 17+00 – STA. 28+00. REVISED PROFILE GRADE FROM STA. 17+00 TO STA. 26+00. REMOVED VENT FROM SSMH No. 3 AT STA. 24+00. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED PROFESSIONAL ENGINEER
2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

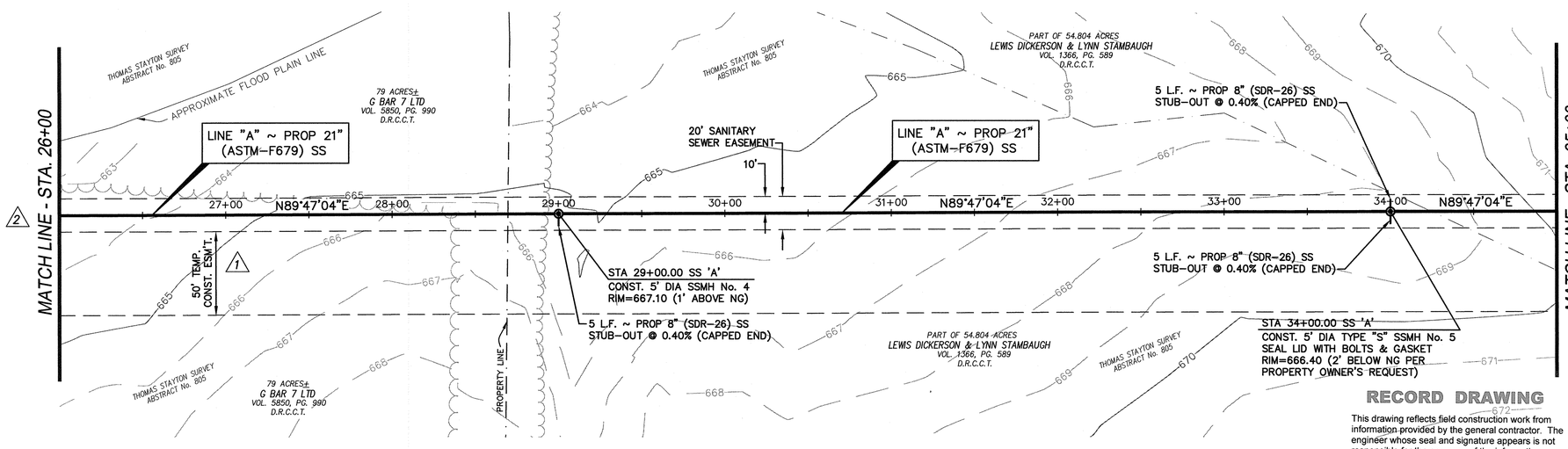
Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 17+00 TO STA. 26+00

| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA01.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V | SHEET: 7 OF 28 |
|---|---|---|---|---|
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK:06127F | |

SS-200802-01




40 20 0 40 80
1" = 40'

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
5. CONTRACTOR SHALL PROTECT ALL TREES AND LANDSCAPING AND NO TREES SHALL BE REMOVED WITHOUT WRITTEN PERMISSION FROM OWNER/ENGINEER OR PROPERTY OWNER.
6. PROVIDE TEMPORARY CONSTRUCTION FENCING (SAFETY ORANGE BARRIER FENCE) AROUND ANY TRENCHING OR POT HOLES LEFT OPEN AFTER WORKING HOURS OR UNATTENDED DURING CONSTRUCTION.
7. ANY FENCE REMOVED DURING CONSTRUCTION, MUST BE REPLACED WITH A NEW FENCE AND MATERIALS MUST BE THE SAME OR BETTER AS BEFORE.

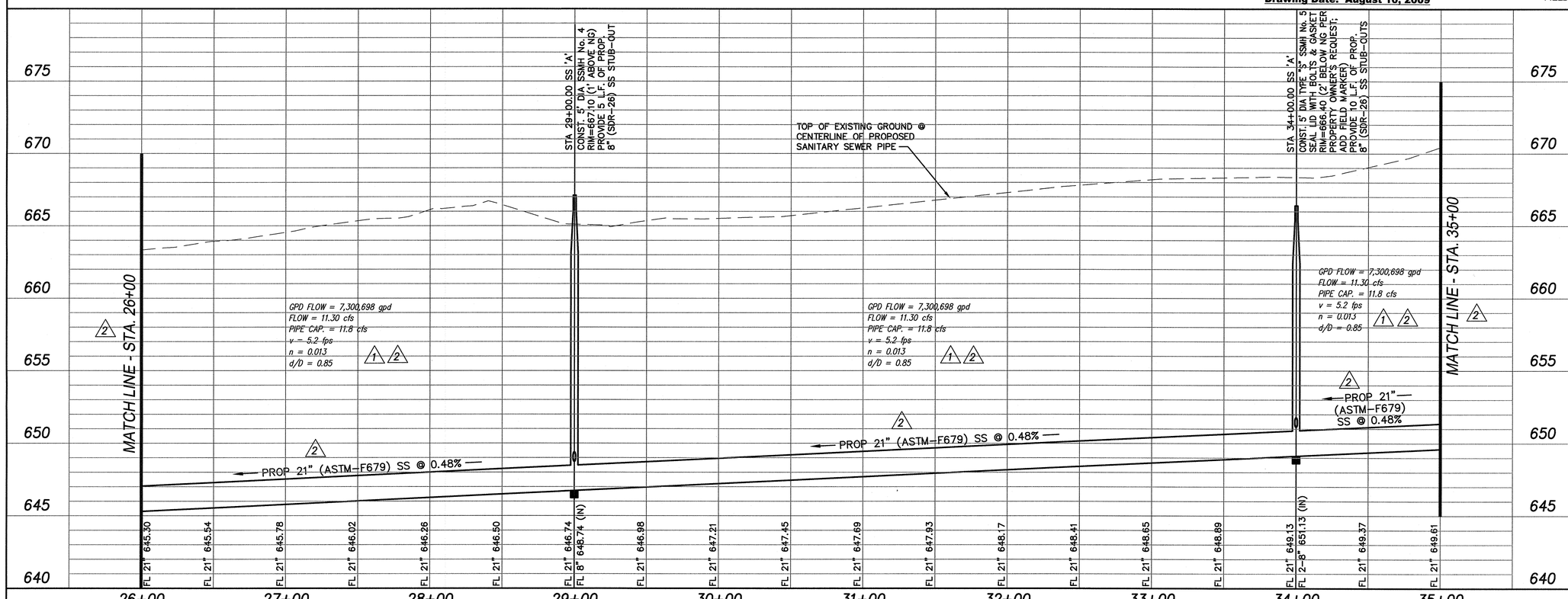
**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

## NOTE II

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*




Survey Control:

**CONTROL #1**
*X-CUT in Concrete Retaining Wall on NE Corner of Waste Water Treatment Plant Catch Basin Along County Road No. 57.*
*Sanitary Sewer Line "A" – Sta. 10+09.57, 24.86' Lt.*
*Northing = 18288.0880 Easting = 13607.7110 Elev = 653.10*

**CONTROL #2**
*X-Cut in Concrete Driveway on East Side of Business Highway No. 289.*
*Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt.*
*Northing = 18940.9080 Easting = 16456.6620 Elev = 680.90*

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | N00°54'21"E | POB |
| 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
| 54+71.96 | 19990.75 | 16334.64 | N05°44'12"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N00°18'51"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N05°43'52"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N00°18'27"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | S89°41'09"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | N30°18'51"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N70°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N08°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | S89°58'19"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | N80°14'24"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N12°50'36"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N57°57'17"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N32°46'15"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N08°07'32"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N00°42'47"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N18°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N46°36'33"W | PI |
| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | | POE |

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 27+50 – STA. 36+50 TO STA. 26+00 – 35+00. REVISED PROFILE GRADE FROM STA. 26+00 TO STA. 35+00. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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STATE OF TEXAS — CHAD A. PENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER — 2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

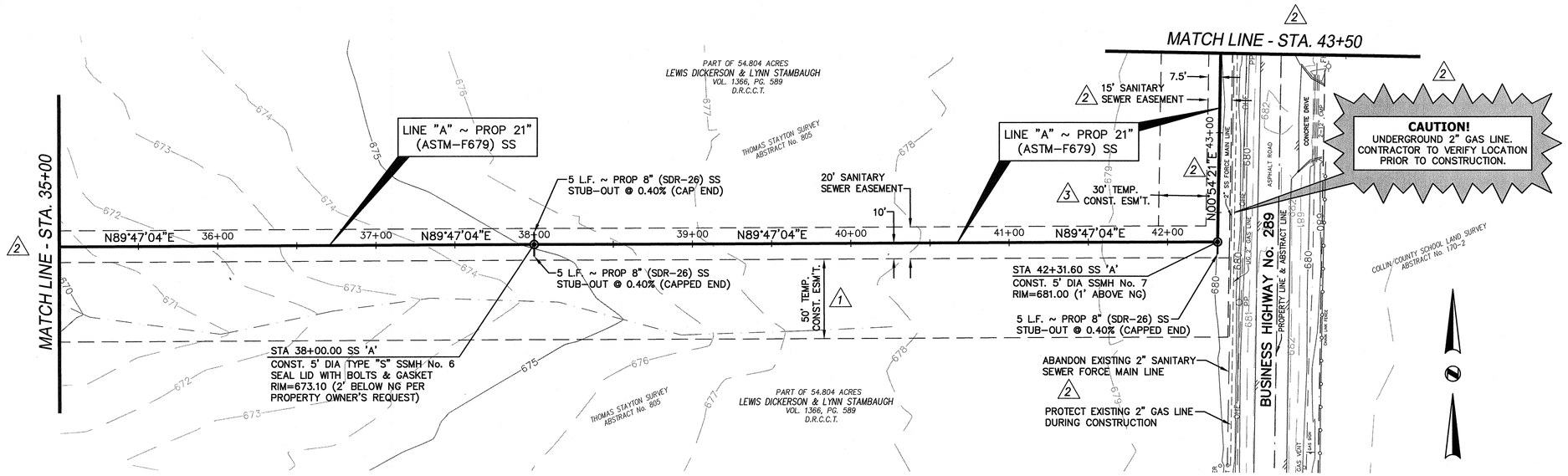
Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 26+00 TO STA. 35+00

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA01 dwg | 1"=40'H; 1"=4'V | 8 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK:06127F | |

SS-200802-01




## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
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## NOTE II

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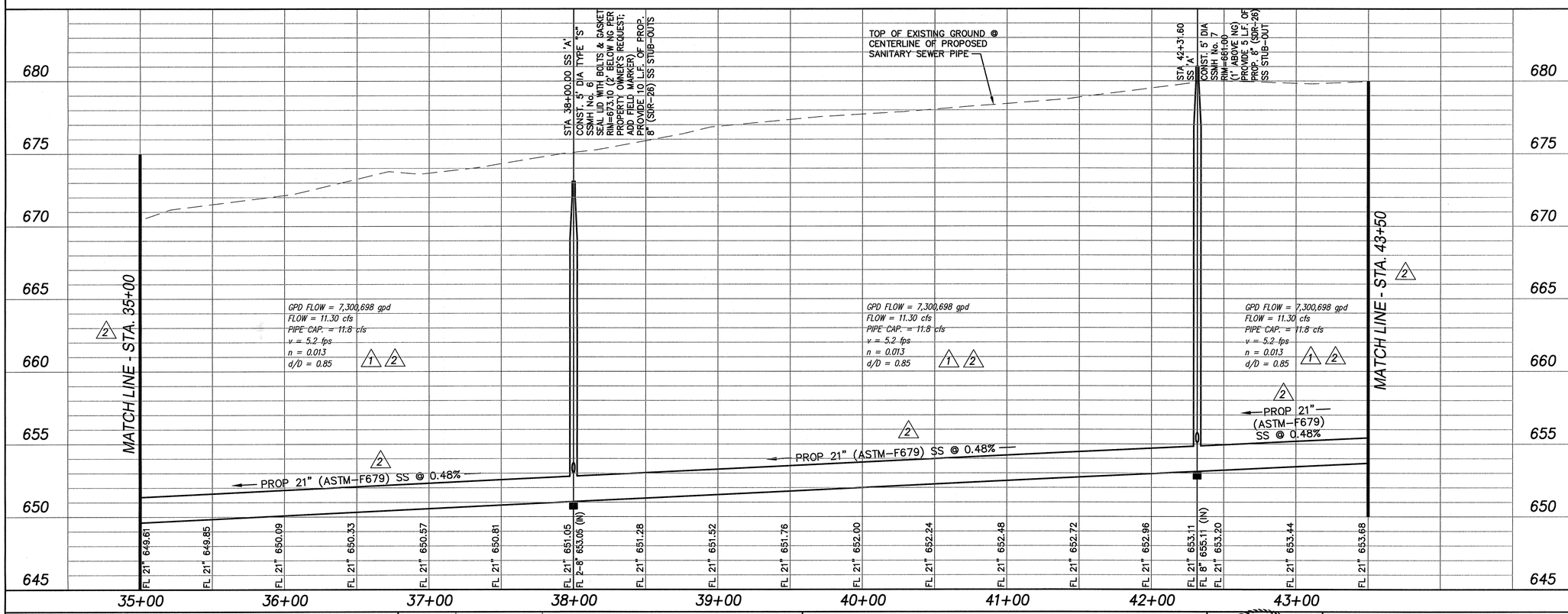


Survey Control:

**CONTROL #1**
X-CUT in Concrete Retaining Wall on NE Corner of Waste Water Treatment Plant Catch Basin Along County Road No. 57.
Sanitary Sewer Line "A" – Sta. 10+09.57, 24.86' Lt.
Northing = 18288.0880 Easting = 13607.7110 Elev = 653.10

**CONTROL #2**
X-Cut in Concrete Driveway on East Side of Business Highway No. 289.
Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt.
Northing = 18940.9080 Easting = 16456.6620 Elev = 680.90

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

MISC. INFORMATION

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 36+50 – STA. 45+50 TO STA. 35+00 TO STA. 43+50. REVISED PROFILE GRADE FROM STA. 35+00 TO STA. 43+50. REVISED ALL FLOW DATA CALCULATIONS. CHANGED THE SANITARY SEWER EASEMENT WIDTH FROM 20' TO 15' FROM STA. 42+31.60 TO STA. 43+50. MOVED SS ALIGNMENT TO EAST 12.5' FROM STA. 42+31.60 TO STA. 43+50. ADDED EX. 2" SS FORCE MAIN LINE & 2" GAS LINE WITH CALLOUTS. REVISED ALIGNMENT DATA CHART. |
| 3 | 04/11/2008 | ADDED 30' TEMP. CONSTRUCTION EASEMENT ON DICKERSON PROPERTY. REVISED 50' TEMP. CONSTRUCTION EASEMENT ON DICKERSON PROPERTY. |


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STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
PE 4/11/08

CELINA

# CELINA NORTH OUTFALL SEWER MAIN

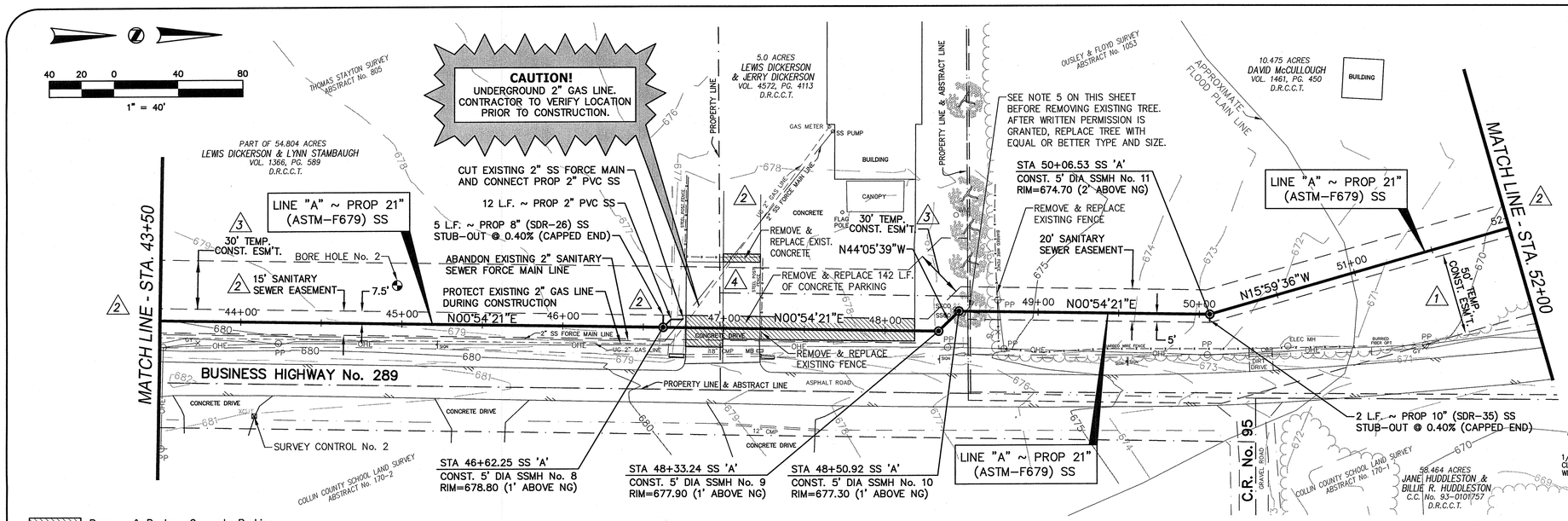
Celina, Texas

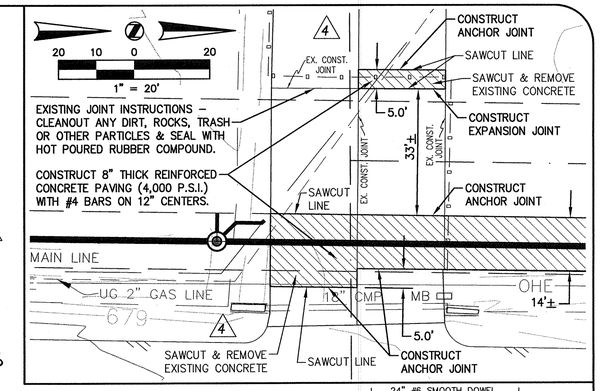
## SANITARY SEWER LINE "A" - PLAN & PROFILE

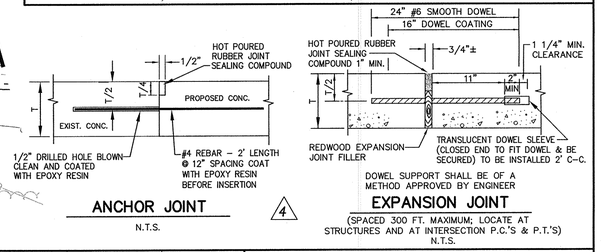
STA. 35+00 TO STA. 43+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA01 dwg | 1"=40'H, 1"=4'V | 9 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK-06127F | |

SS-200802-01




**SHEET NOTES:**

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
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**NOTE !!**

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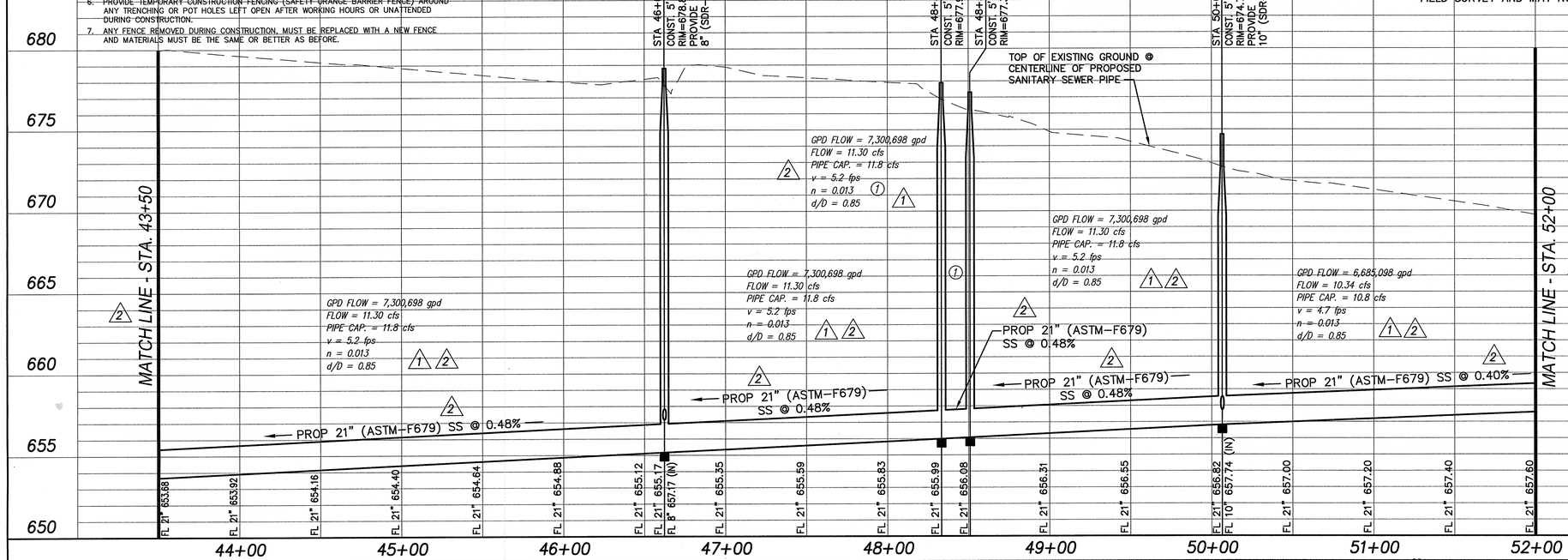


Survey Control:

**CONTROL #2**

*X-Cut in Concrete Driveway on East Side of Business Hwy. No. 289. Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt. Northing = 18940.9080 Easting = 16456.6620 Elev = 680.90*

**CONTROL #3**

*X-Cut in Concrete on NW Corner of Business Hwy. No. 289 Bridge. Sanitary Sewer Line "A" – Sta. 52+97.24, 101.09' Rt. Northing = 19832.9090 Easting = 16434.8700 Elev = 672.68*

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | N00°54'21"E | POB |
| 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
| 54+71.96 | 19990.75 | 16334.64 | N05°44'12"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N00°18'51"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N05°43'52"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N00°18'27"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | S89°41'09"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | N30°18'51"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N70°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N08°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | S89°58'19"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | N80°14'24"E | PI |
| 89+43.89 | 22223.17 | 17868.70 | N03°24'28"E | PI |
| 89+98.10 | 22277.29 | 17871.93 | CURVE No. 1 | PC |
| 91+20.08 | 22397.81 | 17889.72 | N13°23'30"E | PT |
| 92+53.85 | 22527.94 | 17920.70 | N55°30'11"E | PI |
| 94+33.45 | 22629.66 | 18068.73 | CURVE No. 2 | PC |
| 95+61.03 | 22753.59 | 18098.26 | N08°10'59"E | PT |
| 99+02.14 | 23091.23 | 18146.82 | N09°11'17"E | PI |
| BACK 103+52.14= AHEAD 103+39.66 | 23535.46 | 18218.67 | N46°36'33"W | STATION EQUATION |
| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | | POE |

**LINE "A" - CURVE DATA**

| CURVE | RADIUS | DELTA | LENGTH | TANGENT |
|---|---|---|---|---|
| CURVE No. 1 | 700.00' | 09°59'02" | 121.98' | 61.14' |
| CURVE No. 2 | 700.00' | 10°26'32" | 127.58' | 63.96' |

MISC. INFORMATION

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 45+50 – STA. 54+00 TO STA. 43+50 TO STA. 52+00. REVISED PROFILE GRADE FROM STA. 43+50 TO STA. 52+00. REVISED ALL FLOW DATA CALCULATIONS. CHANGED THE SANITARY SEWER EASEMENT WIDTH FROM 20' TO 15' FROM STA. 43+50 TO STA. 48+50.92 & MOVED SS ALIGNMENT TO EAST 12.5' FROM STA. 43+50 TO STA. 48+50.92 & REVISED ALIGNMENT DATA CHART. ADDED EX. 2" SS FORCE MAIN LINE & 2" GAS LINE WITH CALLOUTS & ADDED PROP. 2" PVC SS FOR EX. 2" SS FM CONNECTION. |
| 3 | 04/11/2008 | ADDED 30' TEMP. CONSTRUCTION EASEMENT ON DICKERSON PROPERTY. REMOVED 50' TEMP. CONSTRUCTION EASEMENT ON DICKERSON PROPERTY. |
| 4 | 10/17/2008 | ADDITIONAL CONCRETE REPLACEMENT ON DICKERSON'S DRIVEWAY/PARKING LOT, ADDED ENLARGED DETAIL OF AREA & ADDED JOINT SECTIONS. |


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(214) 619-1833 Fax


STATE OF TEXAS — CHAD A. PENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER — P.E. 10/18/08

# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 43+50 TO STA. 52+00

| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA02.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V | SHEET: 10 OF 28 |
|---|---|---|---|---|
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: APRIL 11, 2008 | PROJECT NUMBER: RLK.06127F | |

SS-200802-01

**RECORD DRAWING**

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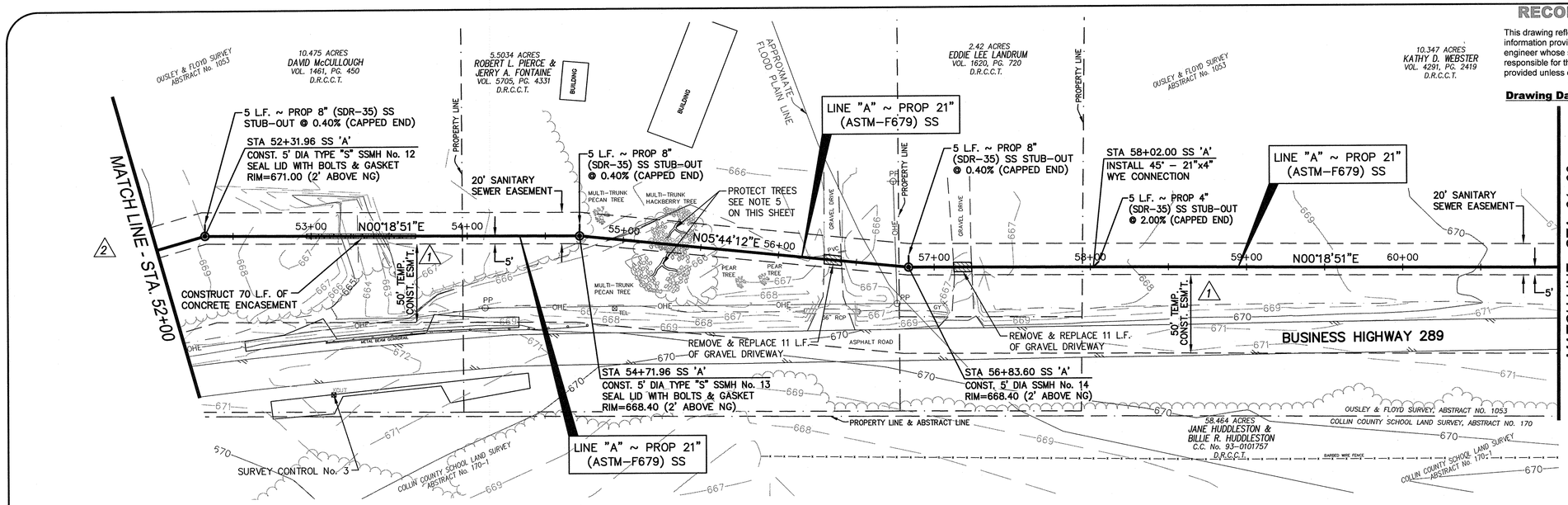
**Drawing Date: August 10, 2009**

40 20 0 40 80

1" = 40'



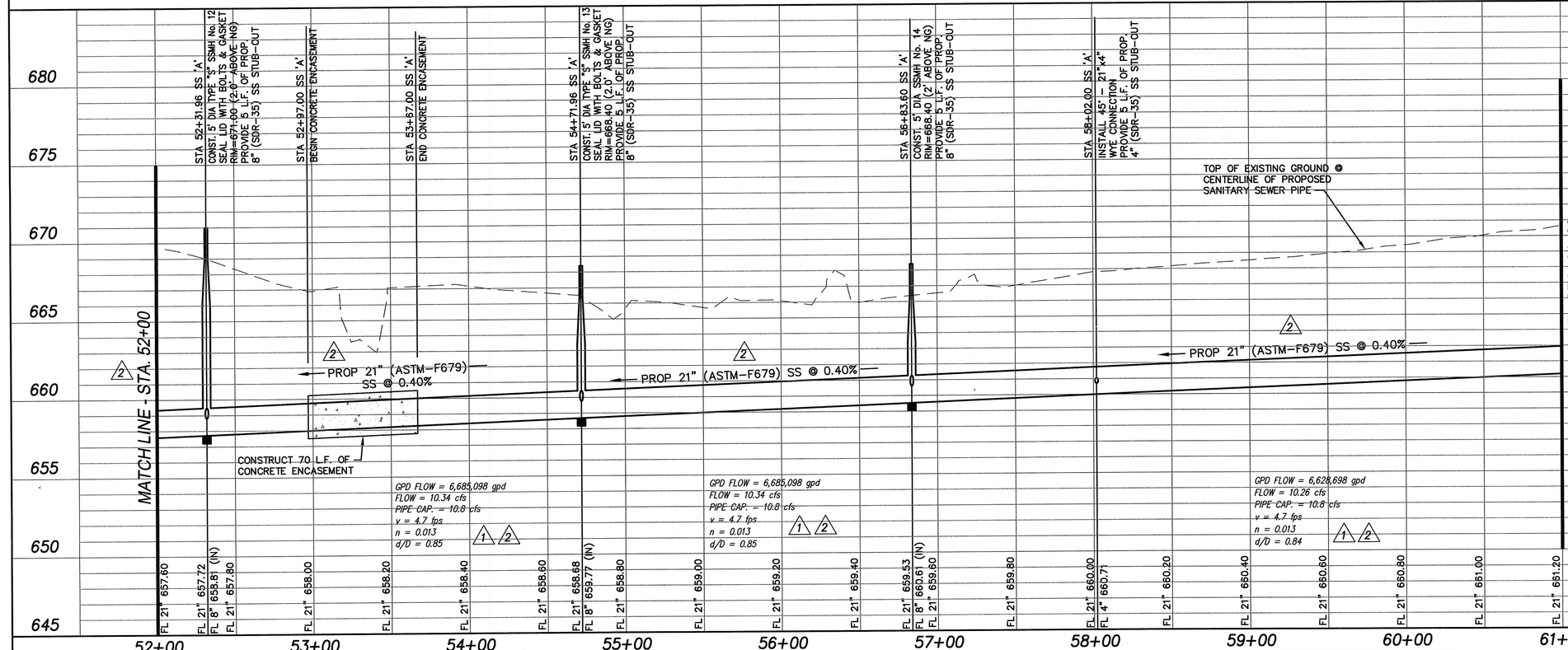

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
5. CONTRACTOR SHALL PROTECT ALL TREES AND LANDSCAPING AND NO TREES SHALL BE REMOVED WITHOUT WRITTEN PERMISSION FROM OWNER/ENGINEER OR PROPERTY OWNER.
6. PROVIDE TEMPORARY CONSTRUCTION FENCING (SAFETY ORANGE BARRIER FENCE) AROUND ANY TRENCHING OR POT HOLES LEFT OPEN AFTER WORKING HOURS OR UNATTENDED DURING CONSTRUCTION.
7. ANY FENCE REMOVED DURING CONSTRUCTION, MUST BE REPLACED WITH A NEW FENCE AND MATERIALS MUST BE THE SAME OR BETTER AS BEFORE.

## NOTE !!

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*

Remove & Replace Gravel Driveway




Survey Control:

**CONTROL #2**
X-Cut in Concrete Driveway on East Side of Business Highway No. 289.
Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt.
Northing = 18940.9080 Easting = 16456.6620 Elev = 680.90

**CONTROL #3**
X-Cut in Concrete on NW Corner of Business Highway No. 289 Bridge.
Sanitary Sewer Line "A" – Sta. 52+97.24, 101.09' Rt.
Northing = 19832.9090 Easting = 16434.8700 Elev = 672.68

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | N00°54'21"E | POB |
| 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
| 54+71.96 | 19990.75 | 16334.64 | N05°44'12"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N00°18'51"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N05°43'52"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N00°18'27"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | S89°41'09"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | N30°18'51"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N70°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N08°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | S89°58'19"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | N80°14'24"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N12°50'36"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N57°57'17"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N32°46'15"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N08°07'32"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N00°42'47"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N18°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N46°36'33"W | PI |
| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | | POE |

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 54+00 – STA. 63+00 TO STA. 52+00 – 61+00. REVISED PROFILE GRADE FROM STA. 52+00 TO STA. 61+00. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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STATE OF TEXAS CHAD A. PENDLEY 90374 LICENSED PROFESSIONAL ENGINEER 2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

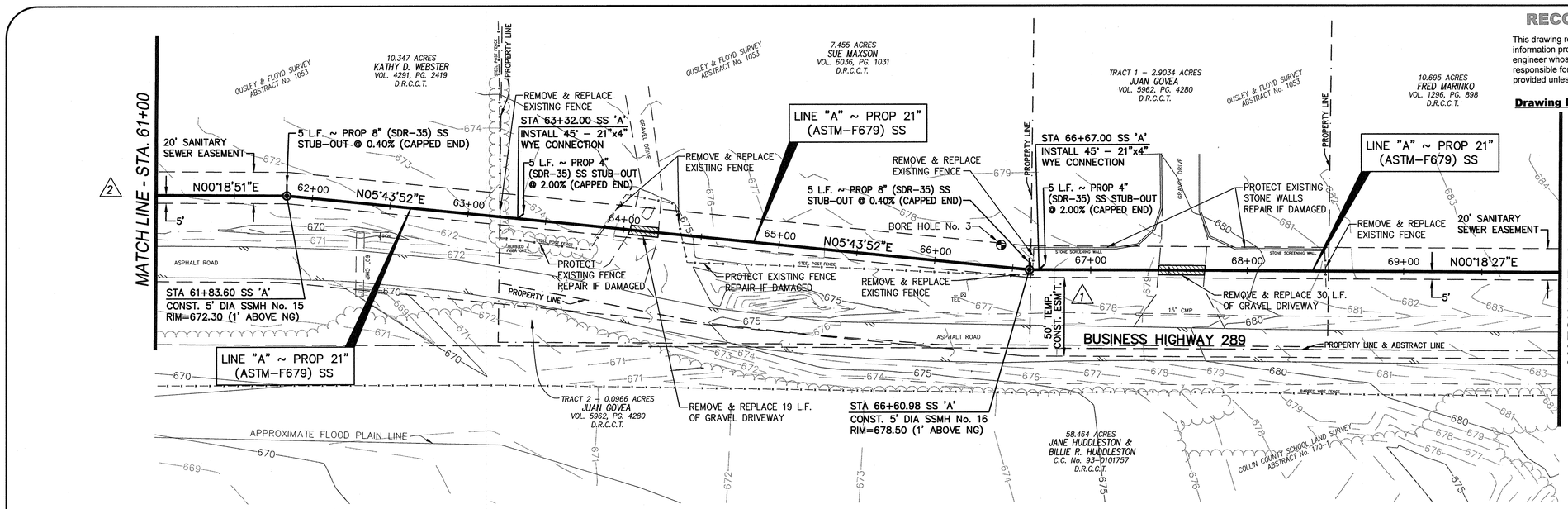
Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 52+00 TO STA. 61+00

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA02.dwg | 1"=40'H; 1"=4'V | 11 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK:06127F | |

SS-200802-01




## RECORD DRAWING

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**Drawing Date: August 10, 2009**

40 20 0 40 80

1" = 40'

## SHEET NOTES:

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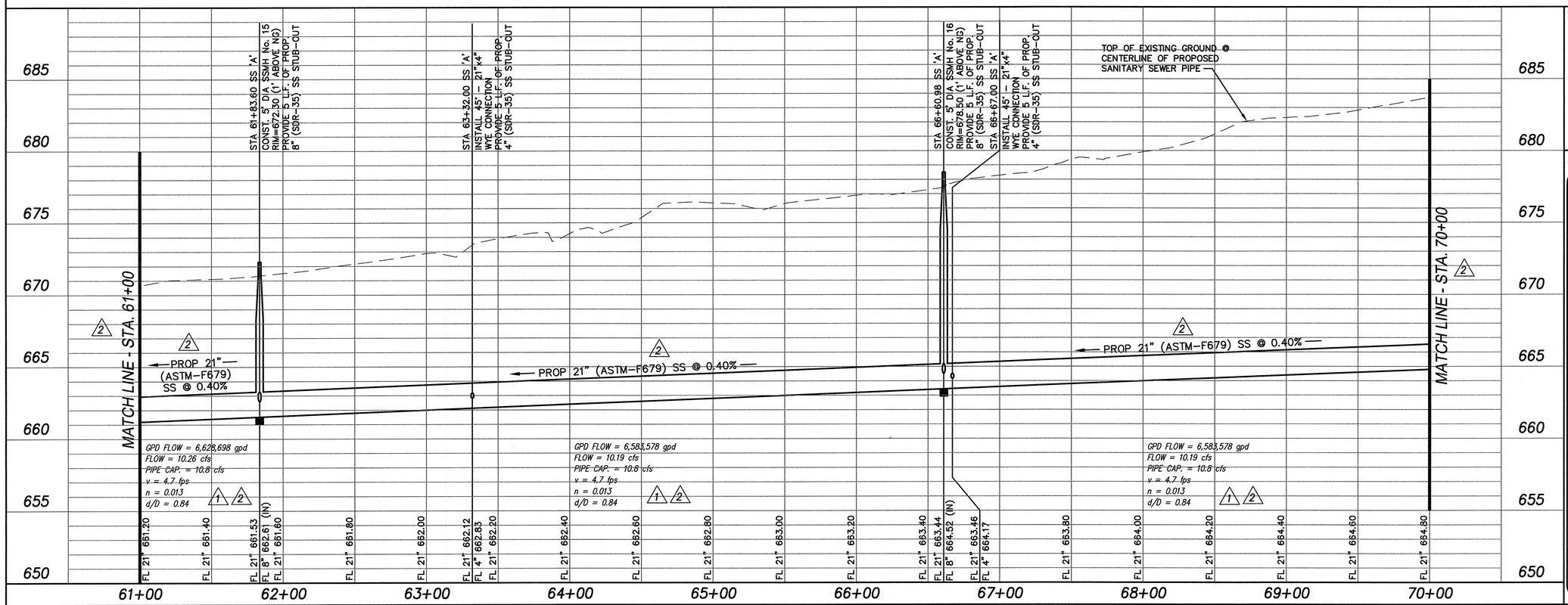
Remove & Replace Gravel Driveway




Survey Control:

**CONTROL #2**
X-Cut in Concrete Driveway on East Side of Business Highway No. 289.
Sanitary Sewer Line "A" – Sta. 43+97.00, 70.59' Rt.
Northing = 18940.9080 Easting = 16456.6620 Elev = 680.90

**CONTROL #3**
X-Cut in Concrete on NW Corner of Business Highway No. 289 Bridge.
Sanitary Sewer Line "A" – Sta. 52+97.24, 101.09' Rt.
Northing = 19832.9090 Easting = 16434.8700 Elev = 672.68

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | N00°54'21"E | POB |
| 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
| 54+71.96 | 19990.75 | 16334.64 | N05°44'12"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N00°18'51"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N05°43'52"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N00°18'27"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | S89°41'09"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | N30°18'51"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N70°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N08°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | S89°58'19"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | N80°14'24"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N12°50'36"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N57°57'17"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N32°46'15"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N08°07'32"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N00°42'47"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N18°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N46°36'33"W | PI |
| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
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MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 63+00 – STA. 72+00 TO STA. 61+00 – STA. 70+00. REVISED PROFILE GRADE FROM STA. 61+00 TO STA. 70+00. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED PROFESSIONAL ENGINEER
2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

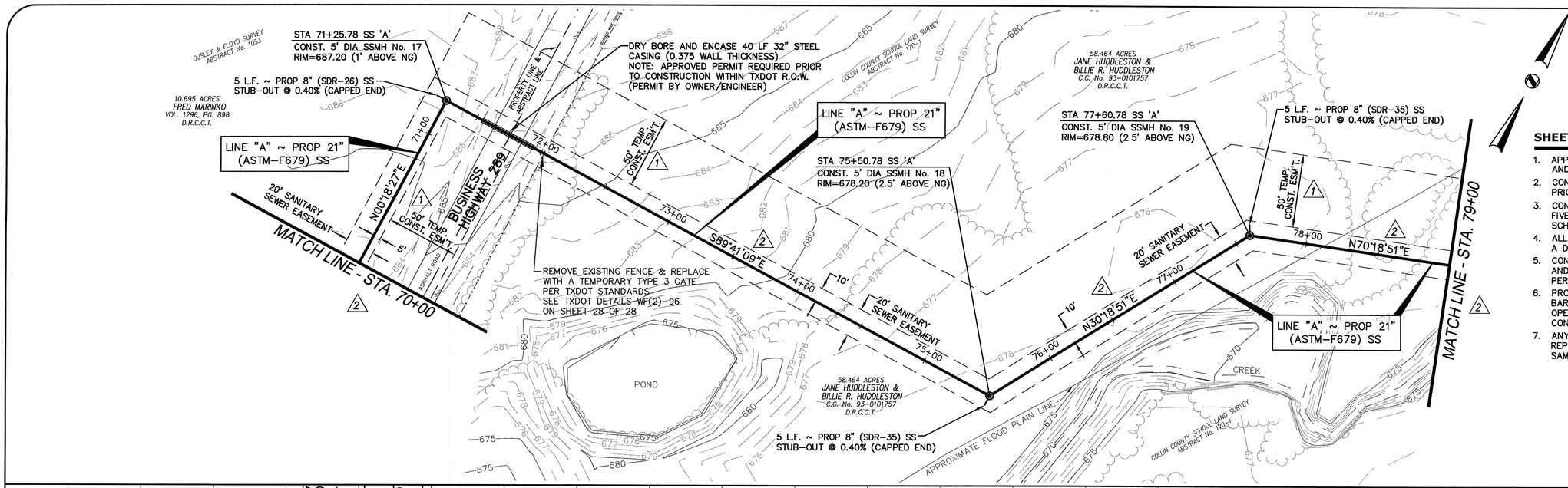
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 61+00 TO STA. 70+00

| | | | |
|---|---|---|---|
| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA02.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V |
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK.06127F |

SHEET: 12 OF 28

SS-200802-01




## SHEET NOTES:

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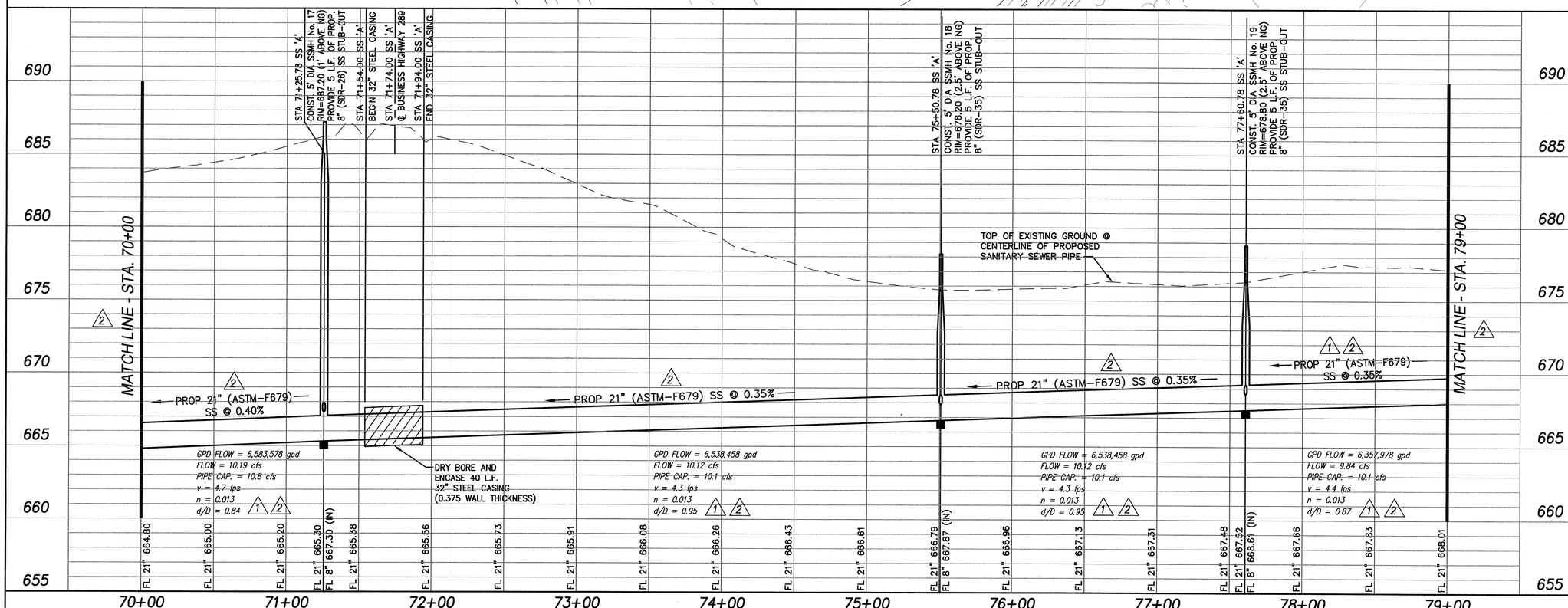


Survey Control:

**CONTROL #3**
X-CUT in Concrete on NW Corner of Business Highway No. 289 Bridge.
Sanitary Sewer Line "A" – Sta. 52+97.24, 101.09' Rt.
Northing = 19832.9090 Easting = 16434.8700 Elev = 672.68

**CONTROL #4**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.
Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | N00°54'21"E | POB |
| 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
| 54+71.96 | 19990.75 | 16334.64 | N05°44'12"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N00°18'51"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N05°43'52"E | PI |
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| 75+50.78 | 21638.78 | 16833.68 | N30°18'51"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N70°18'51"E | PI |
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| 89+24.60 | 22219.90 | 17849.70 | N12°50'36"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N57°57'17"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N32°46'15"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N08°07'32"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N00°42'47"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N18°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N46°36'33"W | PI |
| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | | POE |

MISC. INFORMATION

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 21" SS GRADE FROM SSMH No. 16 AT STA. 74+28.35 TO STA. 81+00 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 72+00 – STA. 81+00 TO STA. 70+00 – STA. 79+00. REVISED PROFILE GRADE FROM STA. 70+00 TO STA. 79+00. REVISED SS ALIGNMENT LOCATION FROM STA. 71+25.78 TO STA. 79+00. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED PROFESSIONAL ENGINEER
2/12/08


CELINA
Celina ISD

# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

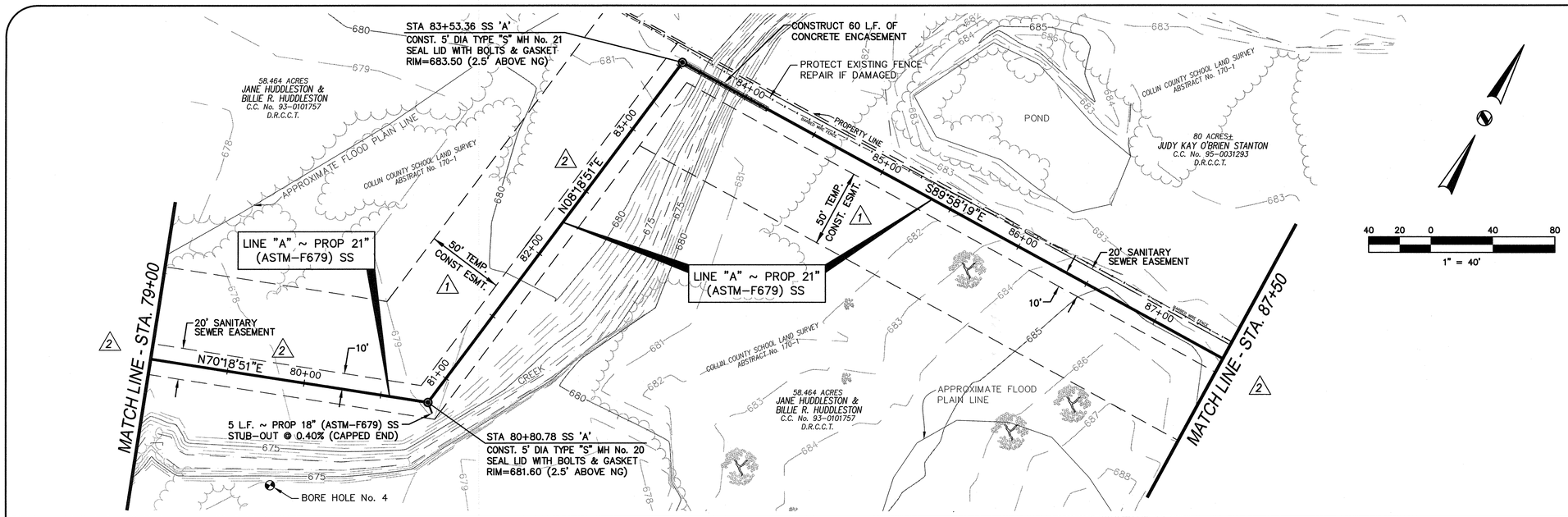
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 70+00 TO STA. 79+00

| | | | |
|---|---|---|---|
| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA02.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V |
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK.06127F |

SHEET: 13 OF 28

SS-200802-01




## RECORD DRAWING

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

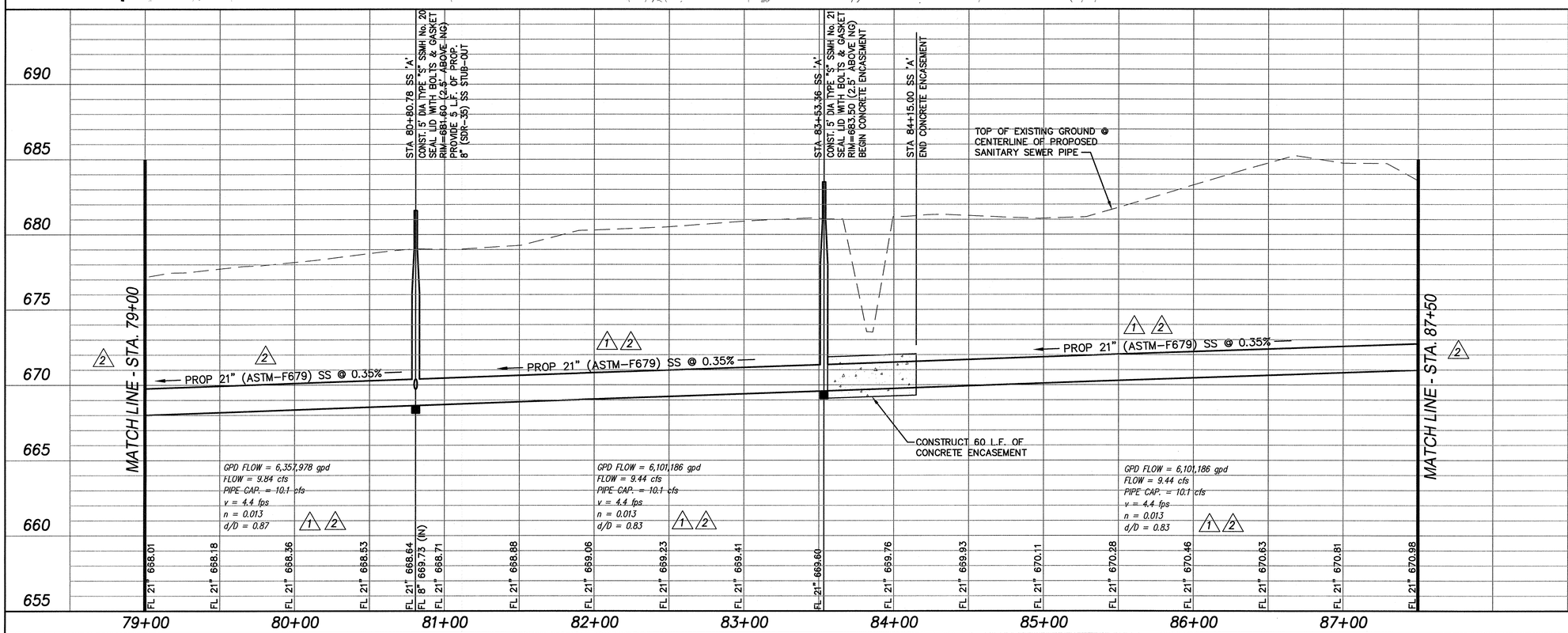
**Drawing Date: August 10, 2009**

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
5. CONTRACTOR SHALL PROTECT ALL TREES AND LANDSCAPING AND NO TREES SHALL BE REMOVED WITHOUT WRITTEN PERMISSION FROM OWNER/ENGINEER OR PROPERTY OWNER.
6. PROVIDE TEMPORARY CONSTRUCTION FENCING (SAFETY ORANGE BARRIER FENCE) AROUND ANY TRENCHING OR POT HOLES LEFT OPEN AFTER WORKING HOURS OR UNATTENDED DURING CONSTRUCTION.
7. ANY FENCE REMOVED DURING CONSTRUCTION, MUST BE REPLACED WITH A NEW FENCE AND MATERIALS MUST BE THE SAME OR BETTER AS BEFORE.

## NOTE II

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*




Survey Control:

***CONTROL #3***
*X-CUT in Concrete on NW Corner of Business Highway No. 289 Bridge.*
*Sanitary Sewer Line "A" – Sta. 52+97.24, 101.09' Rt.*
*Northing = 19832.9090 Easting = 16434.8700 Elev = 672.68*

***CONTROL #4***
*X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.*
*Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.*
*Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82*

Alignment Data:

**LINE 'A' - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION EASEMENT. REMOVED VENT FROM 5' DIA. TYPE "S" SSMH No. 20 AT STA. 88+16.96 & ADDED VENT TO 5' DIA. TYPE "S" SSMH No. 19 AT STA. 86+87.31 REVISED 21" SS GRADE FROM STA. 81+00 TO STA. 89+50 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 81+00 – STA. 89+50 TO STA. 79+00 – STA. 87+50. REVISED PROFILE GRADE FROM STA. 79+00 TO STA. 87+50. REVISED SS ALIGNMENT LOCATION FROM STA. 79+00 TO STA. 83+53.36. REMOVED VENT FROM SSMH No. 19. CHANGED LINEAR FOOT OF CONCRETE ENCASEMENT FROM 70' TO 60'. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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CHAD A. PENDLEY
90374
LICENSED PROFESSIONAL ENGINEER
2/12/08

CELINA
Celina ISD

# CELINA NORTH OUTFALL SEWER MAIN

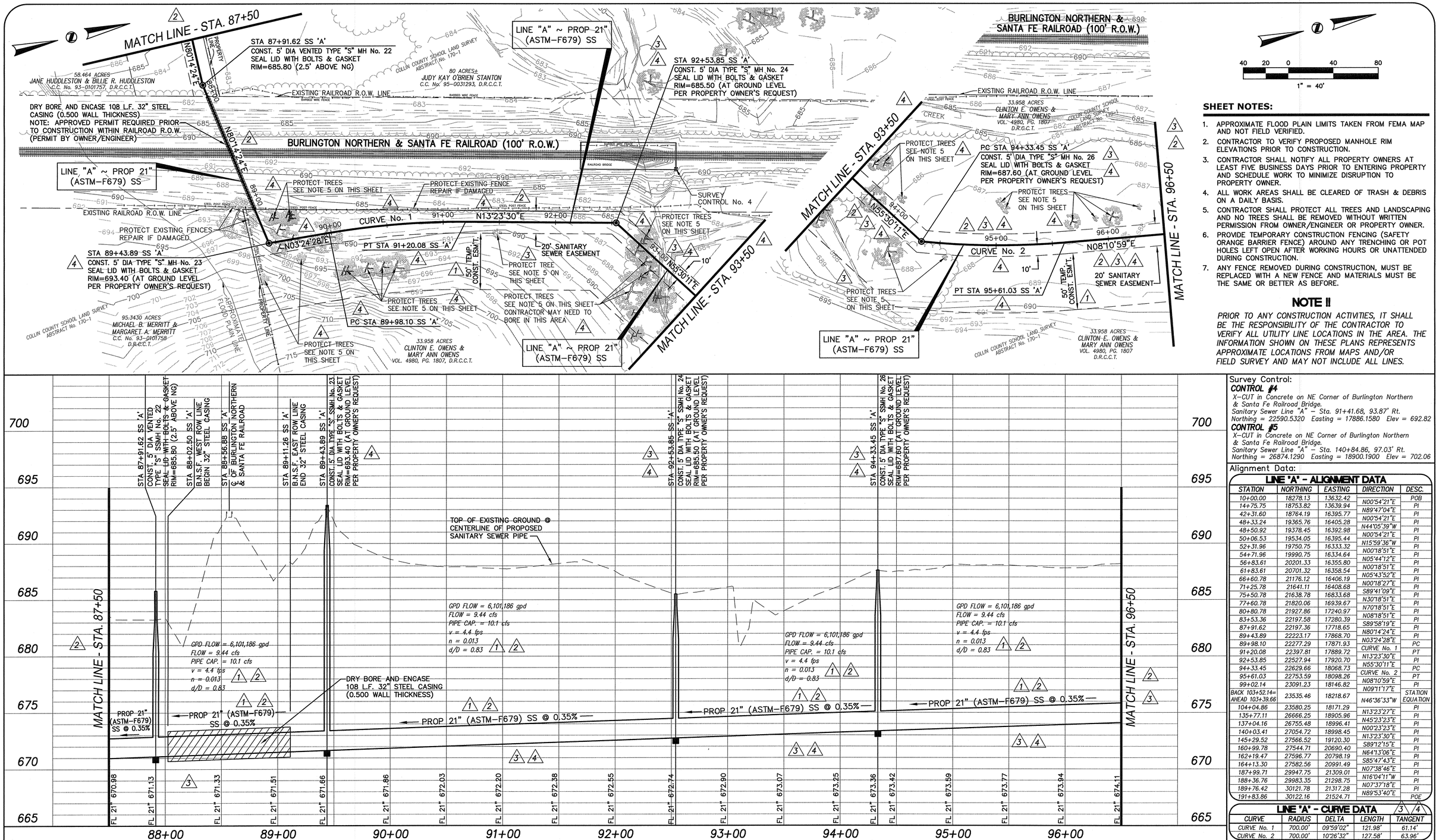
Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 79+00 TO STA. 87+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA03.dwg | 1"=40'H; 1"=4'V | 14 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK.06127F | |

SS-200802-01




40 20 0 40 80
1" = 40'

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
5. CONTRACTOR SHALL PROTECT ALL TREES AND LANDSCAPING AND NO TREES SHALL BE REMOVED WITHOUT WRITTEN PERMISSION FROM OWNER/ENGINEER OR PROPERTY OWNER.
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7. ANY FENCE REMOVED DURING CONSTRUCTION, MUST BE REPLACED WITH A NEW FENCE AND MATERIALS MUST BE THE SAME OR BETTER AS BEFORE.

## NOTE II

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*

Survey Control:

**CONTROL #4**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.
Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82

**CONTROL #5**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 140+84.86, 97.03' Rt.
Northing = 26874.1290 Easting = 18900.1900 Elev = 702.06

Alignment Data:

### LINE "A" – ALIGNMENT DATA

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+43.89 | 22223.17 | 17868.70 | N80°14'24"E | PI |
| 89+98.10 | 22277.29 | 17871.93 | N03°24'28"E | PI |
| 91+20.08 | 22397.81 | 17889.72 | CURVE No. 1 | PC |
| 92+53.85 | 22527.94 | 17920.70 | N13°23'30"E | PT |
| 94+33.45 | 22629.66 | 18068.73 | N55°30'11"E | PI |
| 95+61.03 | 22753.59 | 18098.26 | CURVE No. 2 | PC |
| 99+02.14 | 23091.23 | 18146.82 | N08°10'59"E | PT |
| BACK 103+52.14= AHEAD 103+39.66 | 23535.46 | 18218.67 | N09°11'17"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | STATION EQUATION |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

### LINE "A" – CURVE DATA

| CURVE | RADIUS | DELTA | LENGTH | TANGENT |
|---|---|---|---|---|
| CURVE No. 1 | 700.00' | 09°59'02" | 121.98' | 61.14' |
| CURVE No. 2 | 700.00' | 10°26'32" | 127.58' | 63.96' |

MISC. INFORMATION

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 21" SS GRADE FROM STA. 89+50 TO STA. 98+00 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 89+50 – STA. 98+00 TO STA. 87+50 – STA. 96+50. REVISED PROFILE GRADE FROM STA. 87+50 TO STA. 96+50. REVISED SS ALIGNMENT LOCATION FROM STA. 87+91.62 TO STA. 96+50. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |
| 3 | 07/09/2008 | REVISED SS ALIGNMENT LOCATION AND STATIONS FROM STA. 90+75 TO STA. 96+50. ADDED CURVE No. 1 AND DELETED SSMH No. 26. ADDED MORE LEADER LINES TO "PROTECT TREE" CALLOUTS SO MORE TREES CAN BE PROTECTED. REVISED STATIONS AND ELEVATIONS IN PROFILE FROM STA 87+91.62 TO STA. 96+50. ADDED CURVE CHART AND REVISED ALIGNMENT CHART. |
| 4 | 07/18/2008 | REVISED SS ALIGNMENT LOCATION & STATIONS FROM STA. 89+24.60 TO STA. 96+50. REVISED CURVE No. 1, ADDED CURVE No. 2, ADDED SSMH No. 26 & DELETED SSMH No. 25. ADDED MORE LEADER LINES TO "PROTECT TREE" CALLOUTS SO MORE TREES CAN BE PROTECTED. REVISED STATIONS & ELEVATIONS IN PROFILE FROM STA 87+91.62 TO STA. 96+50. REVISED CURVE CHART & REVISED ALIGNMENT CHART. |


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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
7/20/08

# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

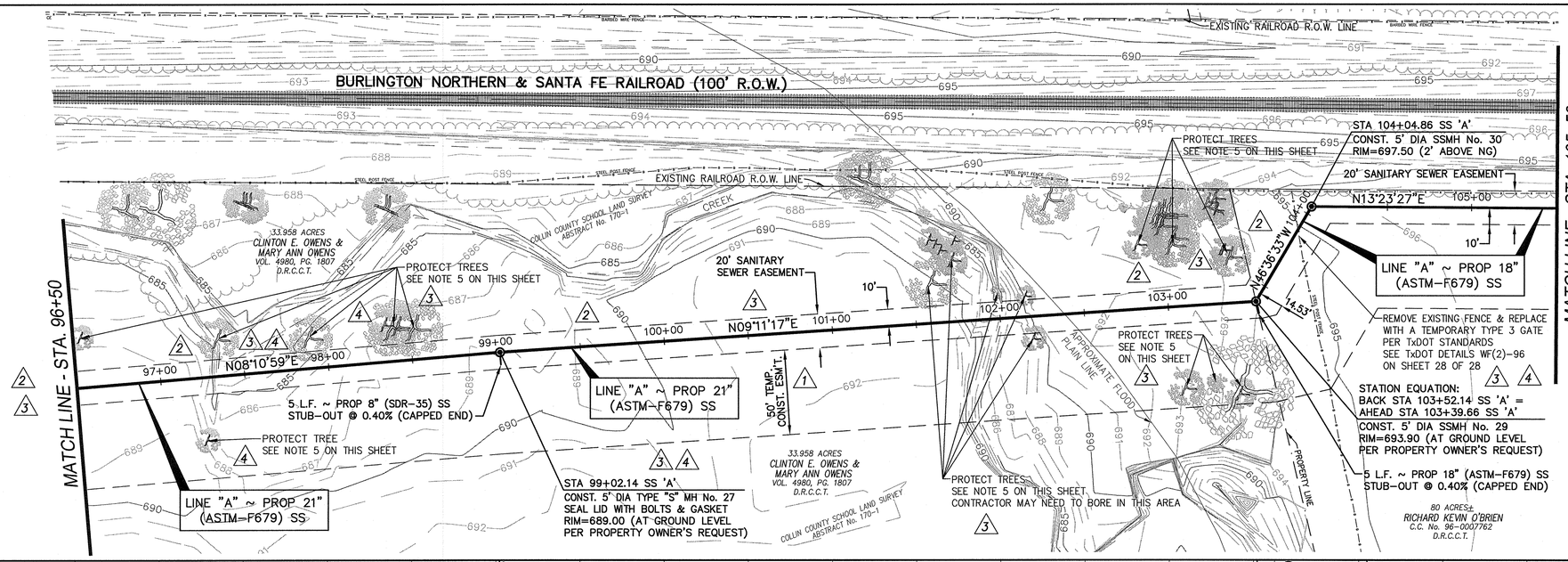
## SANITARY SEWER LINE "A" - PLAN & PROFILE

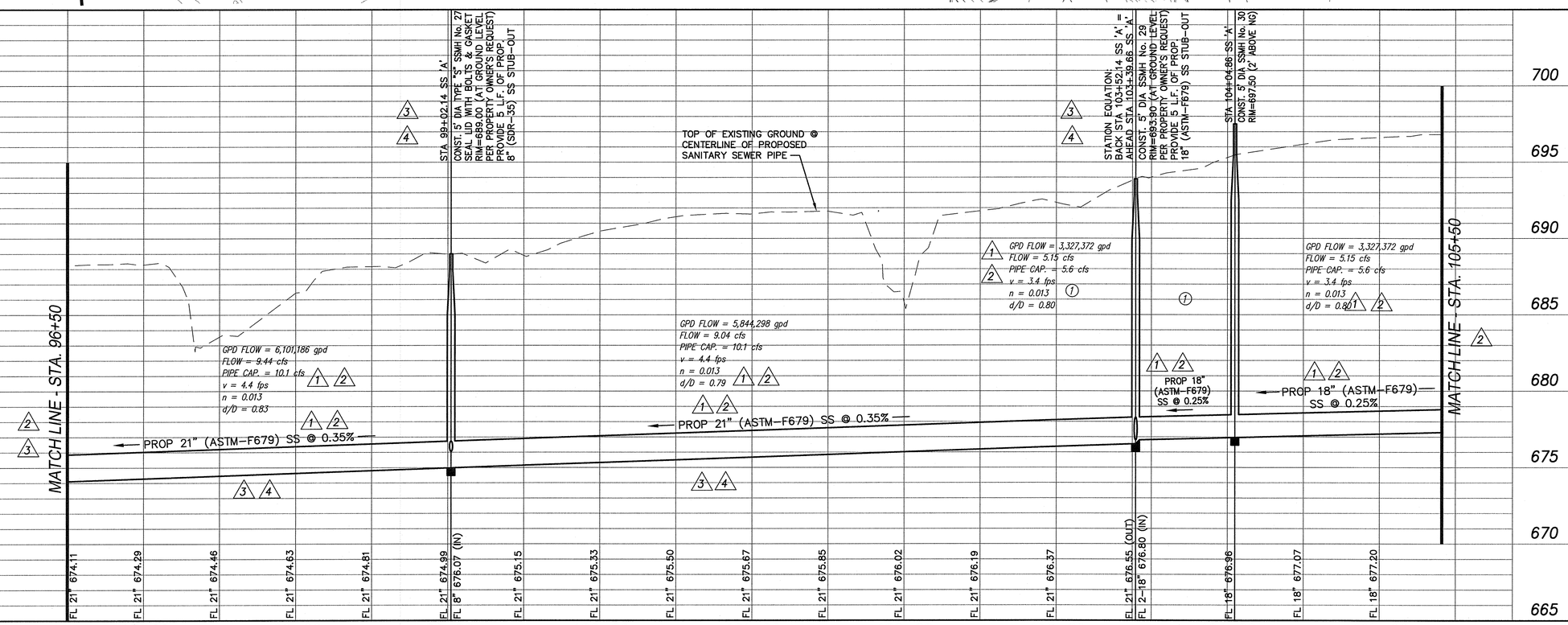
STA. 87+50 TO STA. 96+50

| | | | |
|---|---|---|---|
| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA03Rev2.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V |
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: JULY 18, 2008 | PROJECT NUMBER: RLK-06127F |

SHEET: 15 OF 28

SS-200802-01




40 20 0 40 80

1" = 40'

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
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Survey Control:

**CONTROL #4**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.
Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82

**CONTROL #5**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 140+84.86, 97.03' Rt.
Northing = 26874.1290 Easting = 18900.1900 Elev = 702.06

Alignment Data:

**LINE "A" – ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+43.89 | 22223.17 | 17868.70 | N80°14'24"E | PI |
| 89+98.10 | 22277.29 | 17871.93 | N03°24'28"E | PI |
| 91+20.08 | 22397.81 | 17889.72 | CURVE No. 1 | PC |
| 92+53.85 | 22527.94 | 17920.70 | N13°23'30"E | PT |
| 94+33.45 | 22629.66 | 18068.73 | N55°30'11"E | PI |
| 95+61.03 | 22753.59 | 18098.26 | CURVE No. 2 | PC |
| 99+02.14 | 23091.23 | 18146.82 | N08°10'59"E | PT |
| BACK 103+52.14= AHEAD 103+39.66 | 23535.46 | 18218.67 | N09°11'17"E | PI |
| | | | N46°36'33"W | STATION EQUATION |
| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | | POE |

**LINE "A" – CURVE DATA** 3 4

| CURVE | RADIUS | DELTA | LENGTH | TANGENT |
|---|---|---|---|---|
| CURVE No. 1 | 700.00' | 09°59'02" | 121.98' | 61.14' |
| CURVE No. 2 | 700.00' | 10°26'32" | 127.58' | 63.96' |

MISC. INFORMATION

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 21" SS GRADE FROM STA. 98+00 TO SSMH No. 24 AT STA. 102+20.70 REVISED 18" SS GRADE FROM SSMH No. 24 AT STA. 102+20.70 TO STA. 107+00 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 98+00 – STA. 107+00 TO STA. 96+50 – STA. 105+50. REVISED PROFILE GRADE FROM STA. 96+50 TO STA. 105+50. REVISED SS ALIGNMENT LOCATION FROM STA. 96+50 TO STA. 104+04.86 REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |
| 3 | 07/09/2008 | REVISED SS ALIGNMENT LOCATION AND STATIONS FROM STA. 96+50 TO STA. 103+23.68. ADDED STATION EQUATION AT SSMH No. 29 AND DELETED SSMH No. 28. ADDED MORE LEADER LINES TO "PROTECT TREE" CALLOUTS SO MORE TREES CAN BE PROTECTED. REVISED STATIONS AND ELEVATIONS IN PROFILE FROM STA 96+50 TO STA. 103+23.68. ADDED CURVE CHART AND REVISED ALIGNMENT CHART. |
| 4 | 07/18/2008 | REVISED SS ALIGNMENT LOCATION FROM STA. 96+50 TO STA. 99+02.14 & STATIONS FROM STA. 96+50 TO STA. 103+52.14. REVISED STATION EQUATION AT SSMH No. 29. ADDED MORE LEADER LINES TO "PROTECT TREE" CALLOUTS SO MORE TREES CAN BE PROTECTED. REVISED STATIONS & ELEVATIONS IN PROFILE FROM STA 96+50 TO STA. 103+52.14. REVISED CURVE CHART & REVISED ALIGNMENT CHART. |


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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
7/20/08

# CELINA NORTH OUTFALL SEWER MAIN

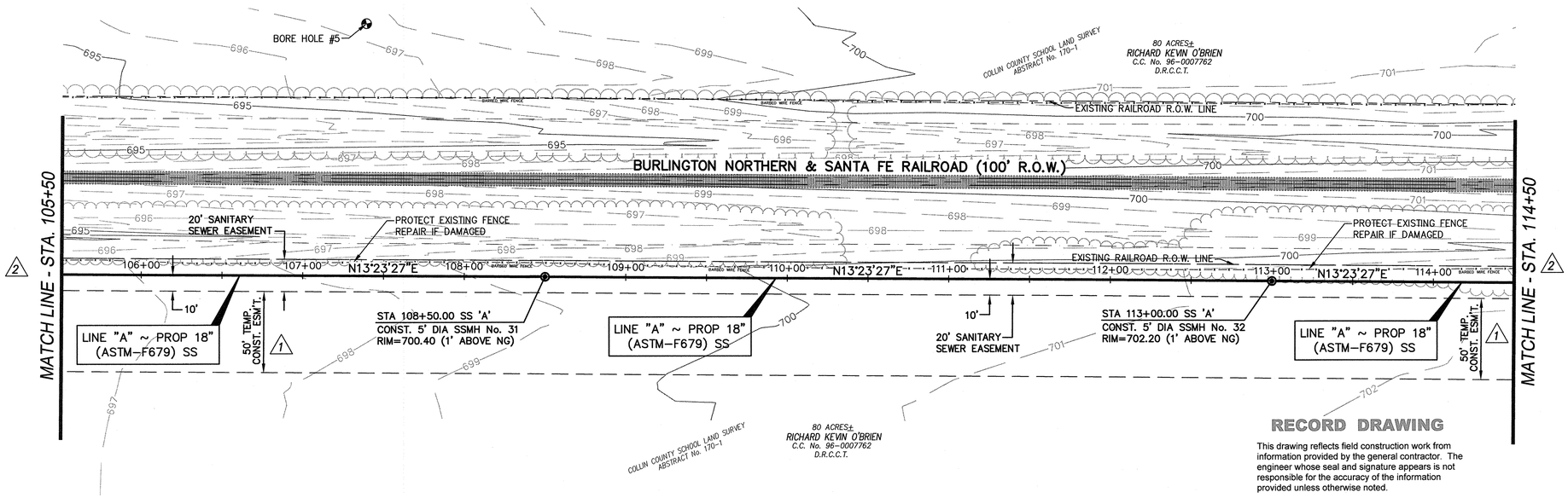
Celina, Texas

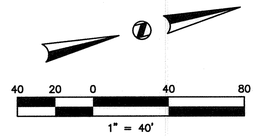
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 96+50 TO STA. 105+50

| DESIGNED BY: IDW / IDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA03Rev2.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V | SHEET: 16 OF 28 |
|---|---|---|---|---|
| DRAWN BY: IDS | PEER REVIEW: CAP | DRAWING DATE: JULY 18, 2008 | PROJECT NUMBER: RLK.06127F | |

SS-200802-01




## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
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**RECORD DRAWING**

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**Drawing Date: August 10, 2009**

## NOTE II

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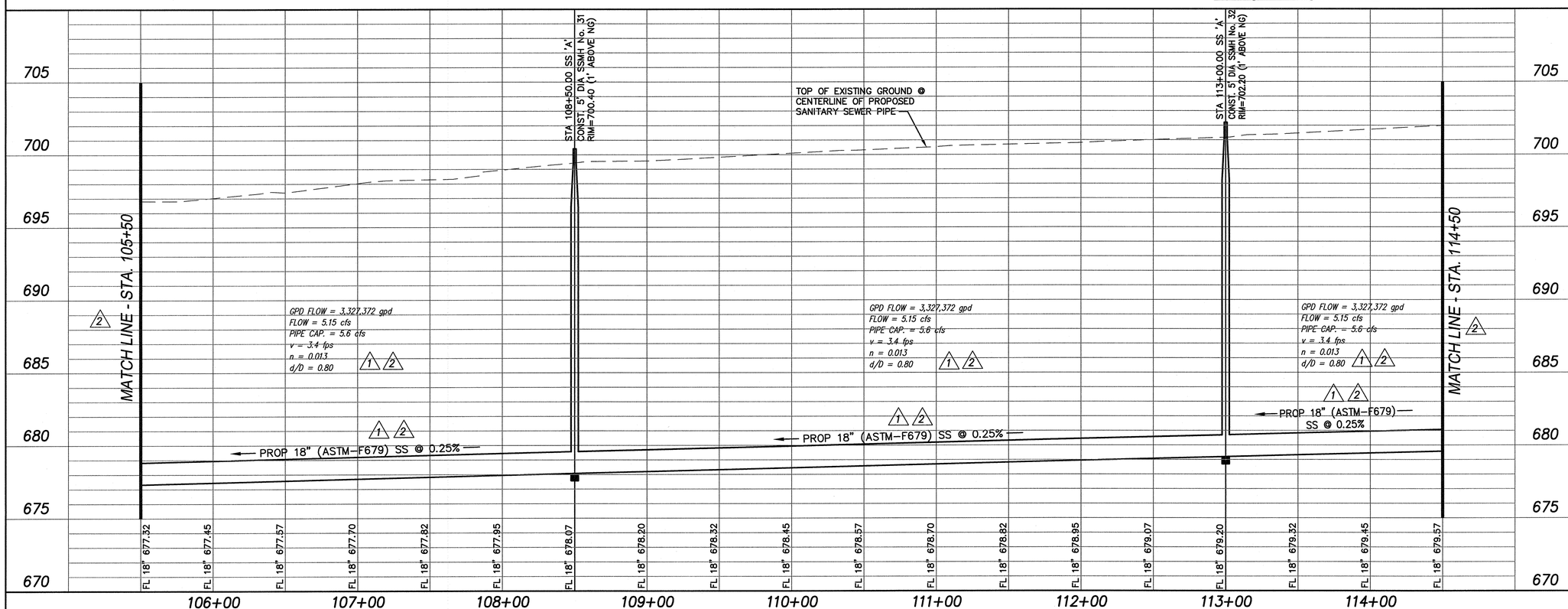


Survey Control:

**CONTROL #4**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.
Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82

**CONTROL #5**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 140+84.86, 97.03' Rt.
Northing = 26874.1290 Easting = 18900.1900 Elev = 702.06

Alignment Data:

**LINE "A" – ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | N00°54'21"E | POB |
| 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
| 54+71.96 | 19990.75 | 16334.64 | N05°44'12"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N00°18'51"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N05°43'52"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N00°18'27"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | S89°41'09"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | N30°18'51"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N70°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N08°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | S89°58'19"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | N80°14'24"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N12°50'36"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N57°57'17"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N32°46'15"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N08°07'32"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N00°42'47"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N18°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N46°36'33"W | PI |
| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
| 135+77.11 | 26666.25 | 18905.96 | N45°23'23"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N00°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | S89°12'15"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | N64°13'06"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | S85°47'43"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N16°04'11"W | PI |
| 188+36.76 | 29983.35 | 21298.75 | N07°37'18"E | PI |
| 189+76.42 | 30121.78 | 21317.28 | N89°53'40"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | | POE |

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 18" SS GRADE FROM STA. 107+00 TO STA. 115+00 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 107+00 – STA. 115+00 TO STA. 105+50 – STA. 114+50. REVISED PROFILE GRADE FROM STA. 105+50 TO STA. 114+50. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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2/12/08

CELINA

# CELINA NORTH OUTFALL SEWER MAIN

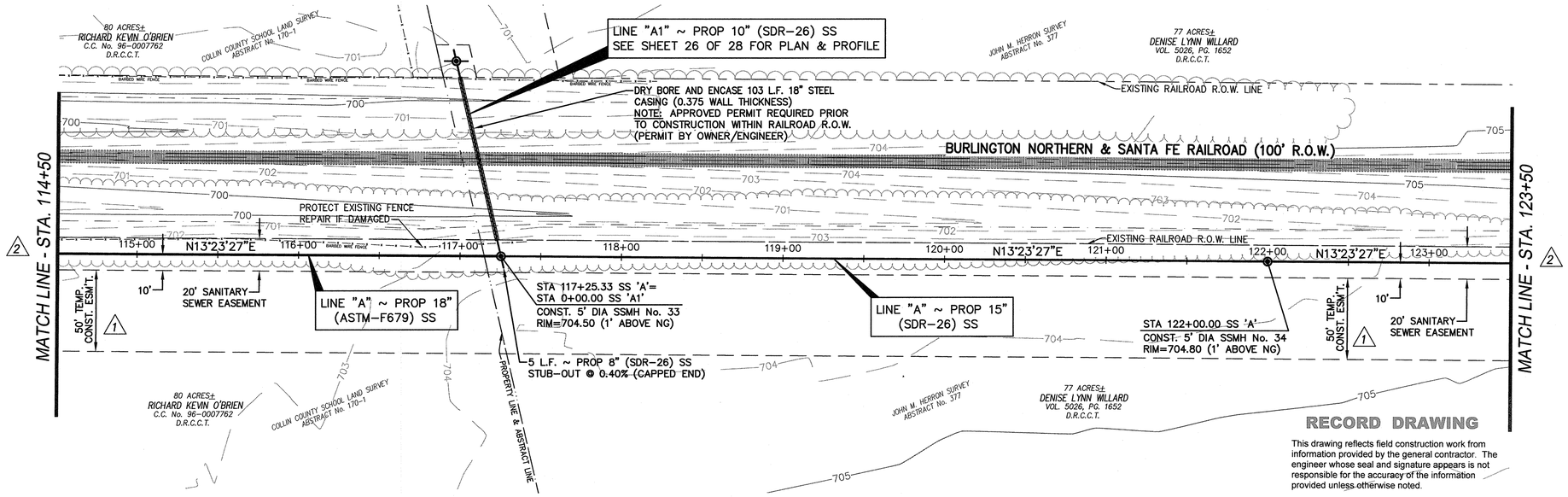
Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 105+50 TO STA. 114+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA03.dwg | 1"=40'H; 1"=4'V | 17 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK.06127F | |

SS-200802-01




**RECORD DRAWING**

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**Drawing Date: August 10, 2009**

40 20 0 40 80
1" = 40'

## SHEET NOTES:

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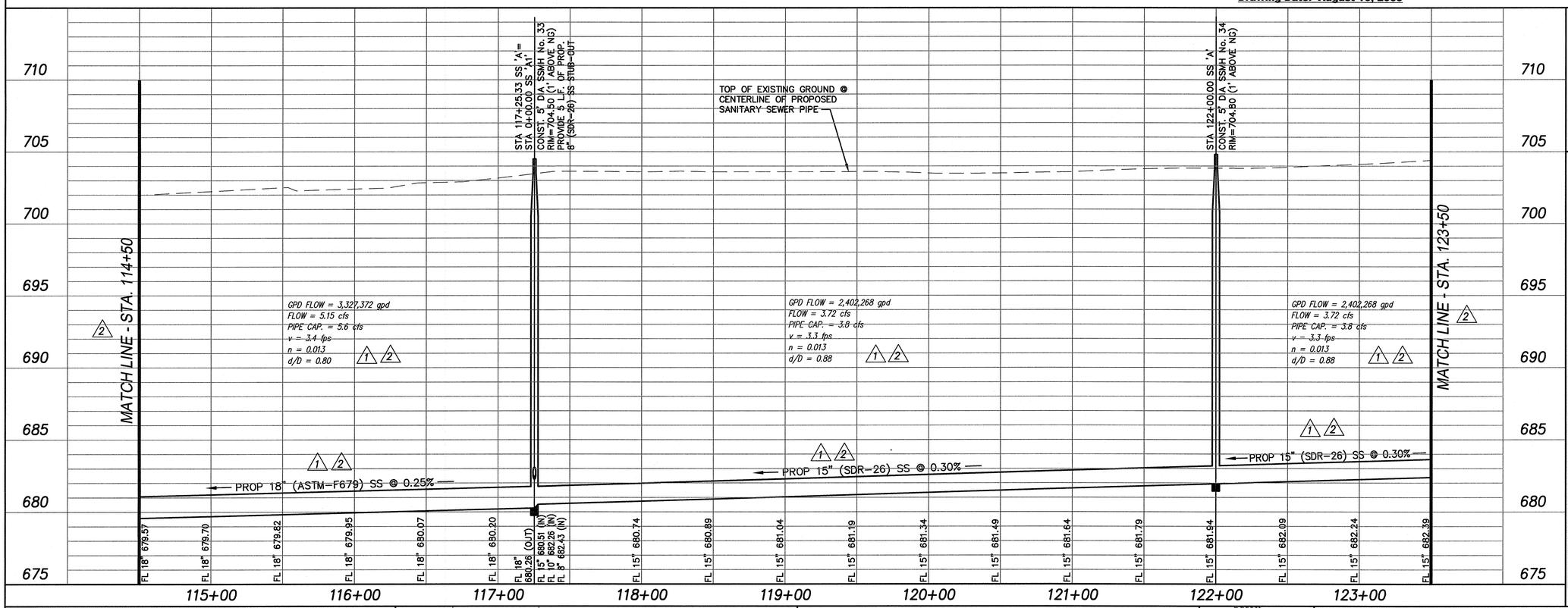


Survey Control:

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X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.
Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82

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X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
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Northing = 26874.1290 Easting = 18900.1900 Elev = 702.06

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

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|---|---|---|---|---|
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| 14+75.75 | 18753.82 | 13639.94 | N89°47'04"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N00°54'21"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N44°05'39"W | PI |
| 48+50.92 | 19378.45 | 16392.98 | N00°54'21"E | PI |
| 50+06.53 | 19534.05 | 16395.44 | N15°59'36"W | PI |
| 52+31.96 | 19750.75 | 16333.32 | N00°18'51"E | PI |
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| 66+60.78 | 21176.12 | 16406.19 | N00°18'27"E | PI |
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| 104+04.86 | 23580.25 | 18171.29 | N13°23'27"E | PI |
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| 140+03.41 | 27054.72 | 18998.45 | N13°23'30"E | PI |
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| 164+13.30 | 27582.56 | 20991.49 | N07°38'46"E | PI |
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MISC. INFORMATION

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|---|---|---|
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| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 115+00 – STA. 124+00 TO STA. 114+50 – STA. 123+50. REVISED PROFILE GRADE FROM STA. 114+50 TO STA. 123+50. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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CELINA

# CELINA NORTH OUTFALL SEWER MAIN

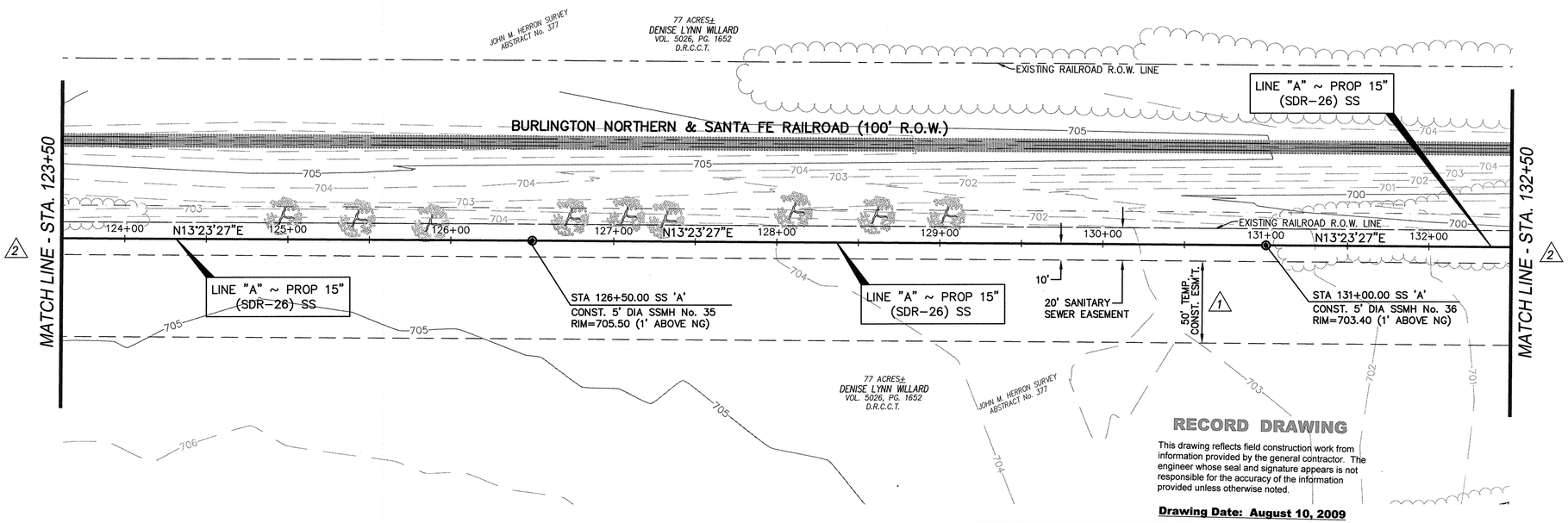
Celina, Texas

## SANITARY SEWER LINES "A" - PLAN & PROFILE

STA. 114+50 TO STA. 123+50

| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA03.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V | SHEET: 18 OF 28 |
|---|---|---|---|---|
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK-06127F | |

SS-200802-01




**RECORD DRAWING**

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**Drawing Date: August 10, 2009**

40 20 0 40 80

1" = 40'

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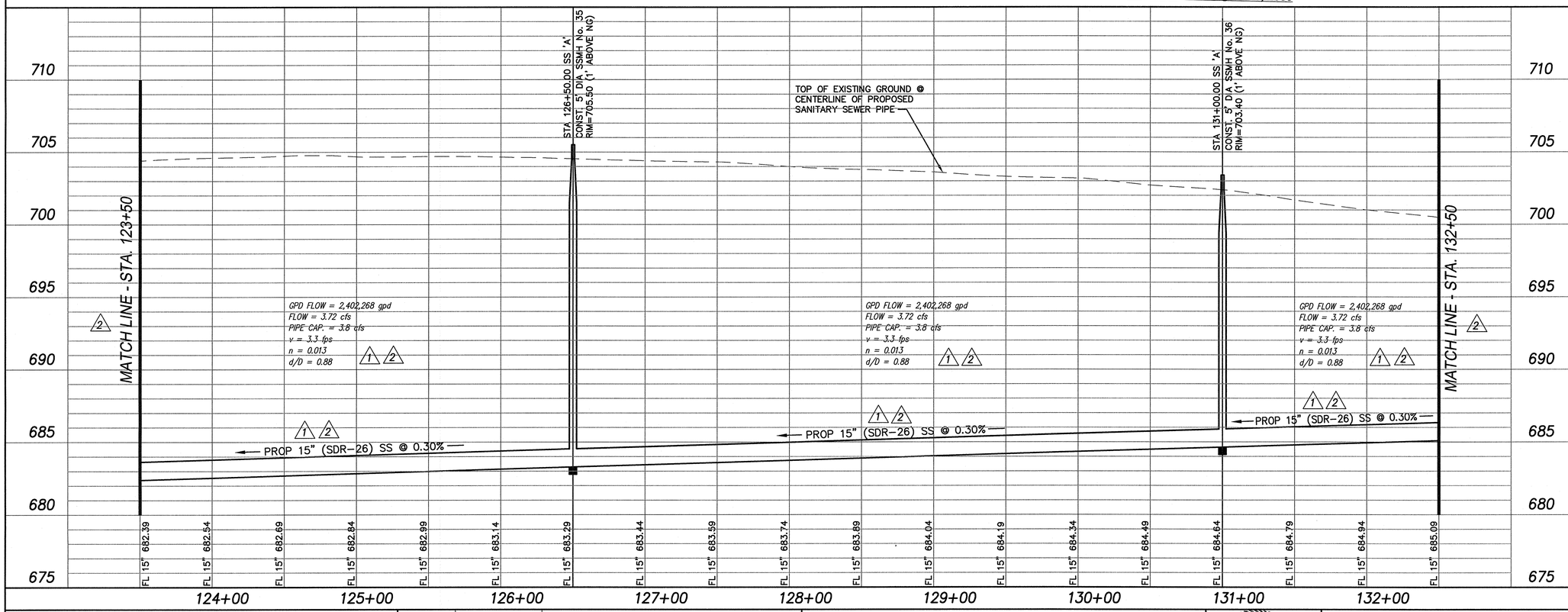


Survey Control:

**CONTROL #4**

*X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.*
*Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.*
*Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82*

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*X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.*
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**LINE "A" - ALIGNMENT DATA**

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| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
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| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
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| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
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| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
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| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 15" SS GRADE FROM STA. 124+00 TO STA. 137+00 |
| | 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 124+00 – STA. 137+00 TO STA. 123+50 – STA. 132+50. REVISED PROFILE GRADE FROM STA. 123+50 TO STA. 132+50. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

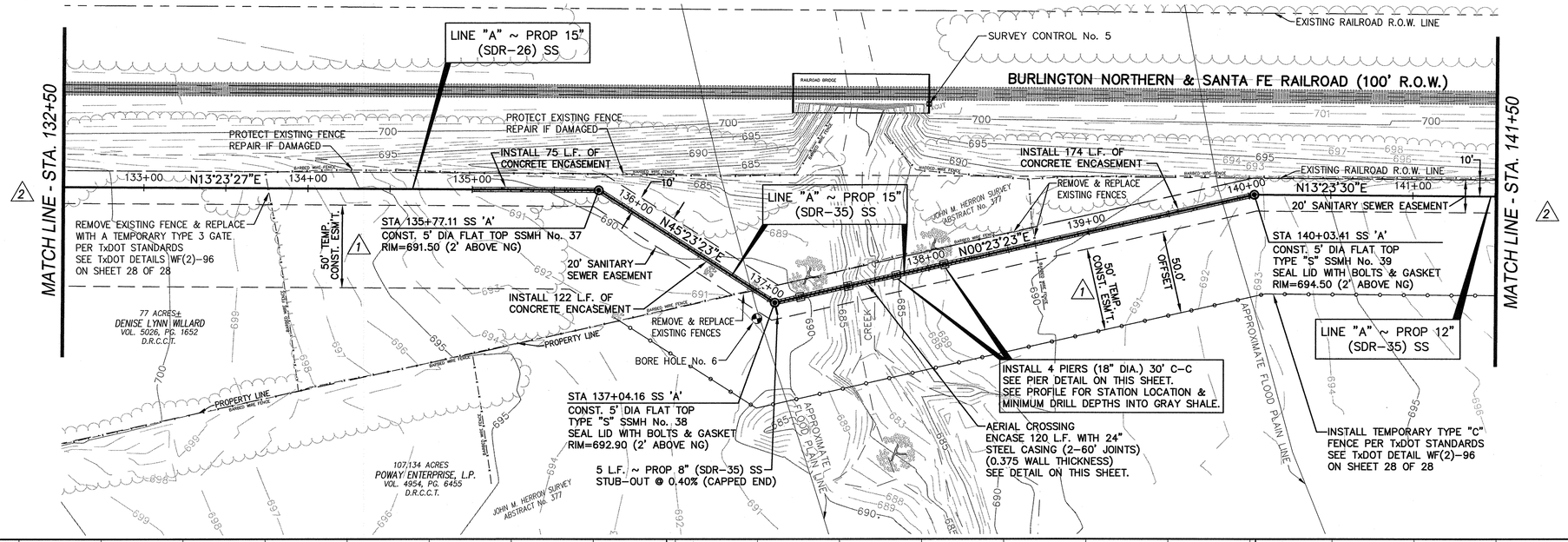
Celina, Texas

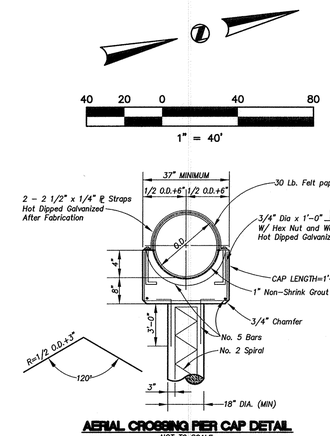
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 123+50 TO STA. 132+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA04.dwg | 1"=40'H; 1"=4'V | 19 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK.06127F | |

SS-200802-01

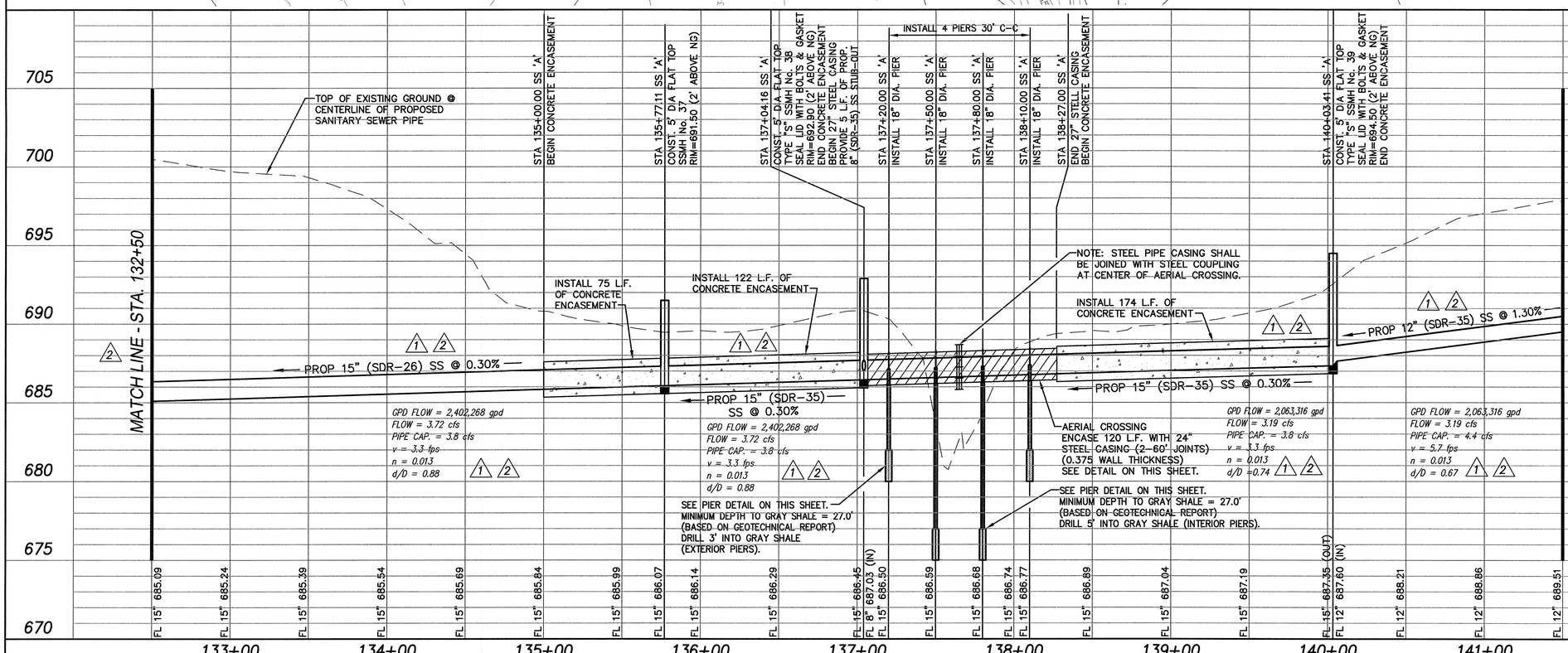



**AERIAL CROSSING PIER CAP DETAIL**
NOT TO SCALE

## NOTE II

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*




Survey Control:

**CONTROL #4**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 91+41.68, 93.87' Rt.
Northing = 22590.5320 Easting = 17886.1580 Elev = 692.82

**CONTROL #5**
X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.
Sanitary Sewer Line "A" – Sta. 140+84.86, 97.03' Rt.
Northing = 26874.1290 Easting = 18900.1900 Elev = 702.06

Alignment Data:

**LINE 'A' - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

MISC. INFORMATION

**RECORD DRAWING**

This drawing reflects field construction work from information provided by the general contractor. The engineer whose seal and signature appears is not responsible for the accuracy of the information provided unless otherwise noted.

**Drawing Date: August 10, 2009**

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 15" SS GRADE FROM STA. 137+00 TO SSMH No. 33 AT STA. 142+66.12 REVISED 12" SS GRADE FROM SSMH No. 33 AT STA. 142+66.12 TO STA. 146+00 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 137+00 – STA. 146+00 TO STA. 132+50 – STA. 141+50. REVISED PROFILE GRADE FROM STA. 132+50 TO STA. 141+50. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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STATE OF TEXAS — CHAD A. PENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER — 2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

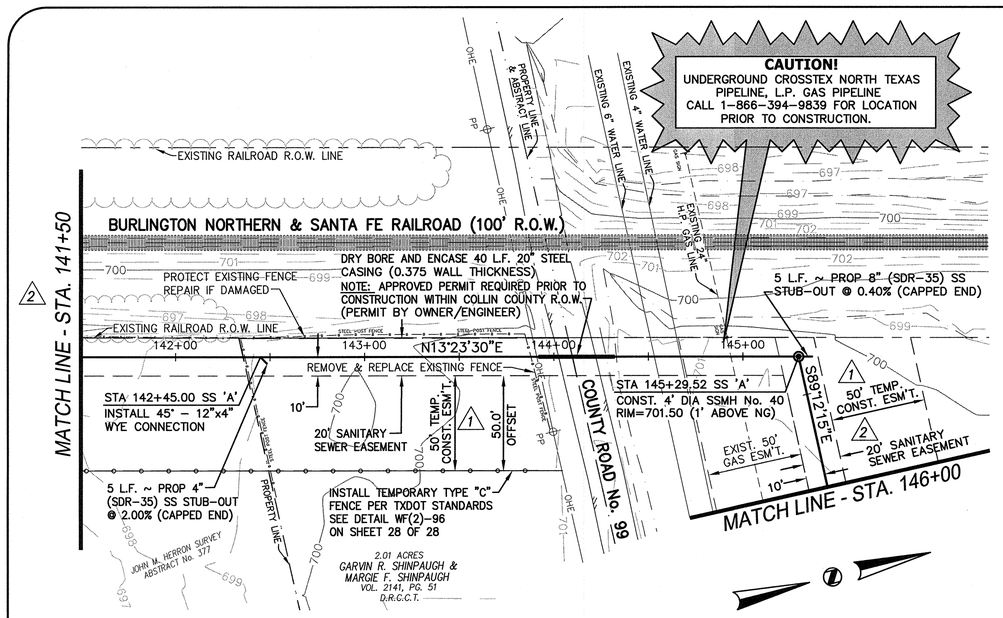
Celina, Texas

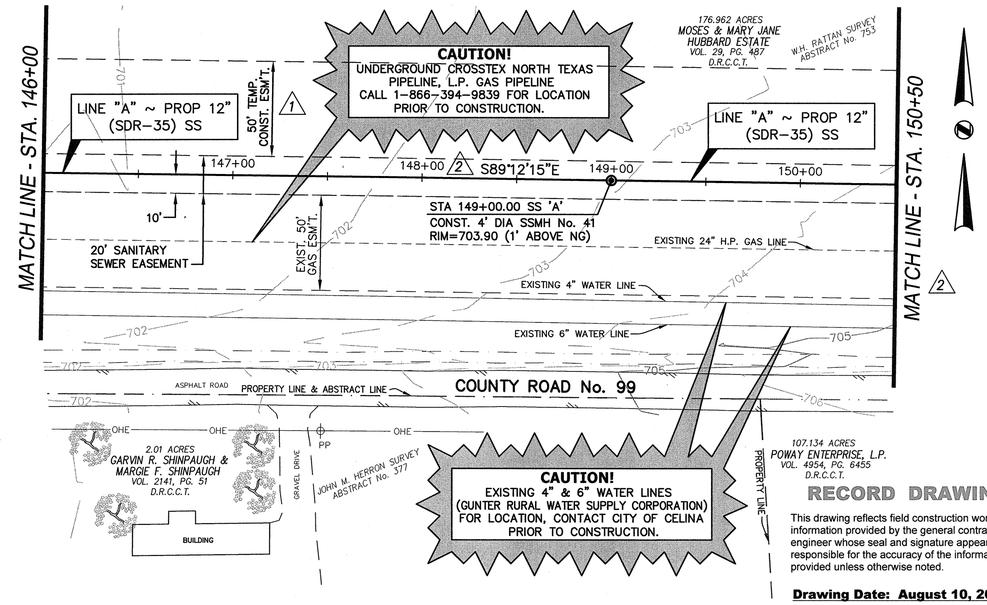
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 132+50 TO STA. 141+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA04.dwg | 1"=40'H; 1"=4'V | 20 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK.06127F | |

SS-200802-01




40 20 0 40 80
1" = 40'

**SHEET NOTES:**

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
5. CONTRACTOR SHALL PROTECT ALL TREES AND LANDSCAPING AND NO TREES SHALL BE REMOVED WITHOUT WRITTEN PERMISSION FROM OWNER/ENGINEER OR PROPERTY OWNER.
6. PROVIDE TEMPORARY CONSTRUCTION FENCING (SAFETY ORANGE BARRIER FENCE) AROUND ANY TRENCHING OR POT HOLES LEFT OPEN AFTER WORKING HOURS OR UNATTENDED DURING CONSTRUCTION.
7. ANY FENCE REMOVED DURING CONSTRUCTION, MUST BE REPLACED WITH A NEW FENCE AND MATERIALS MUST BE THE SAME OR BETTER AS BEFORE.

**NOTE II**

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**RECORD DRAWING**

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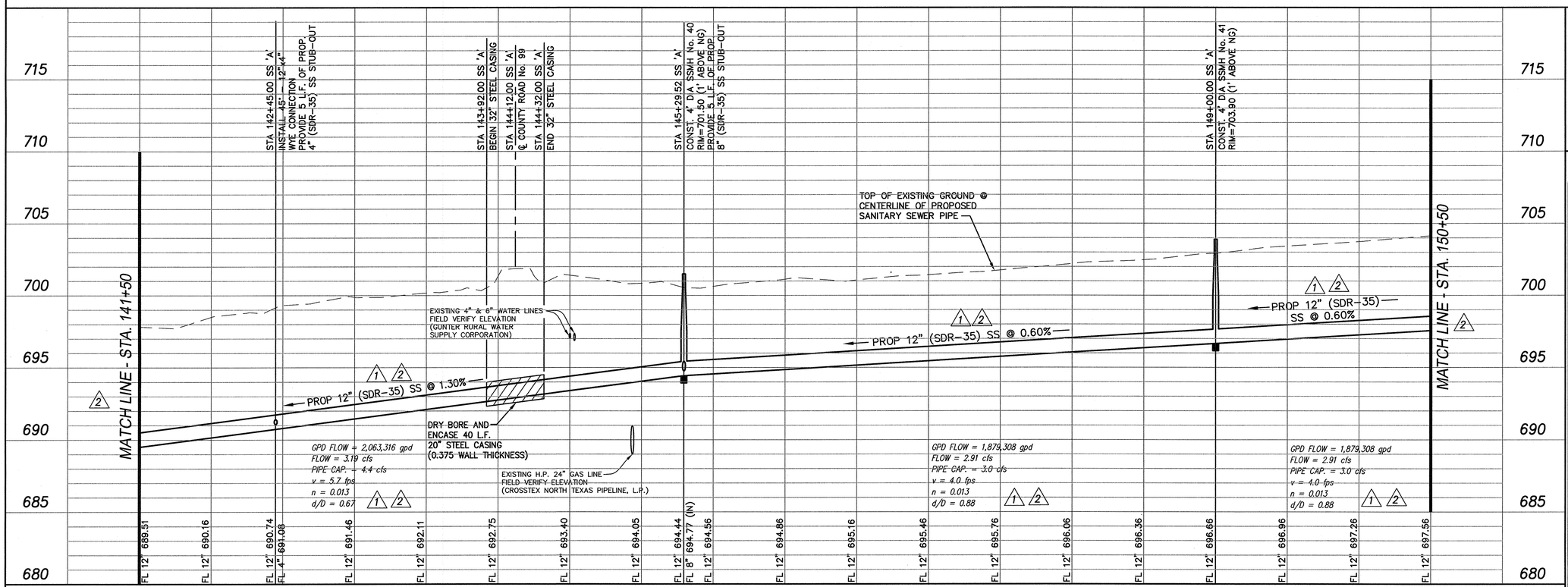
**Drawing Date: August 10, 2009**

Remove & Replace Asphalt Road




Survey Control:

***CONTROL #5***

*X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.*
*Sanitary Sewer Line "A" – Sta. 140+84.86, 97.03' Rt.*
*Northing = 26874.1290 Easting = 18900.1900 Elev = 702.06*

***CONTROL #6***

*X-CUT on Top and Center of Concrete Headwall Along the West Side of State Highway 289 (Preston Road).*
*Sanitary Sewer Line "A" – Sta. 171+40.63, 38.89' Rt.*
*Northing = 28033.3267 Easting = 21091.2456 Elev = 717.80*

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 12" SS GRADE FROM STA. 146+00 TO STA. 155+00 |
| | 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 146+00 – STA. 155+00 TO STA. 141+50 – STA. 150+50. REVISED PROFILE GRADE FROM STA. 141+50 TO STA. 150+50. MOVED SS ALIGNMENT TO NORTH SIDE OF 50' GAS EASEMENT. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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STATE OF TEXAS — CHAD A. PENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER — 2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

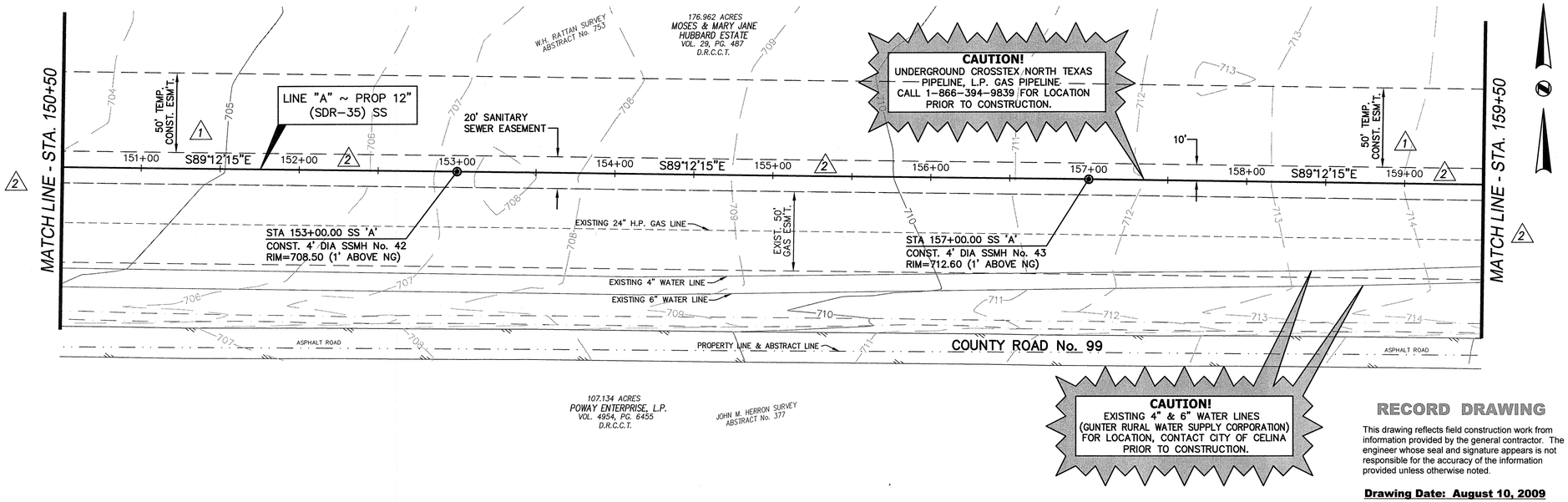
Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 141+50 TO STA. 150+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA04.dwg | 1"=40'H; 1"=4'V | 21 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK-06127F | |

SS-200802-01




40 20 0 40 80

1" = 40'

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
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**RECORD DRAWING**

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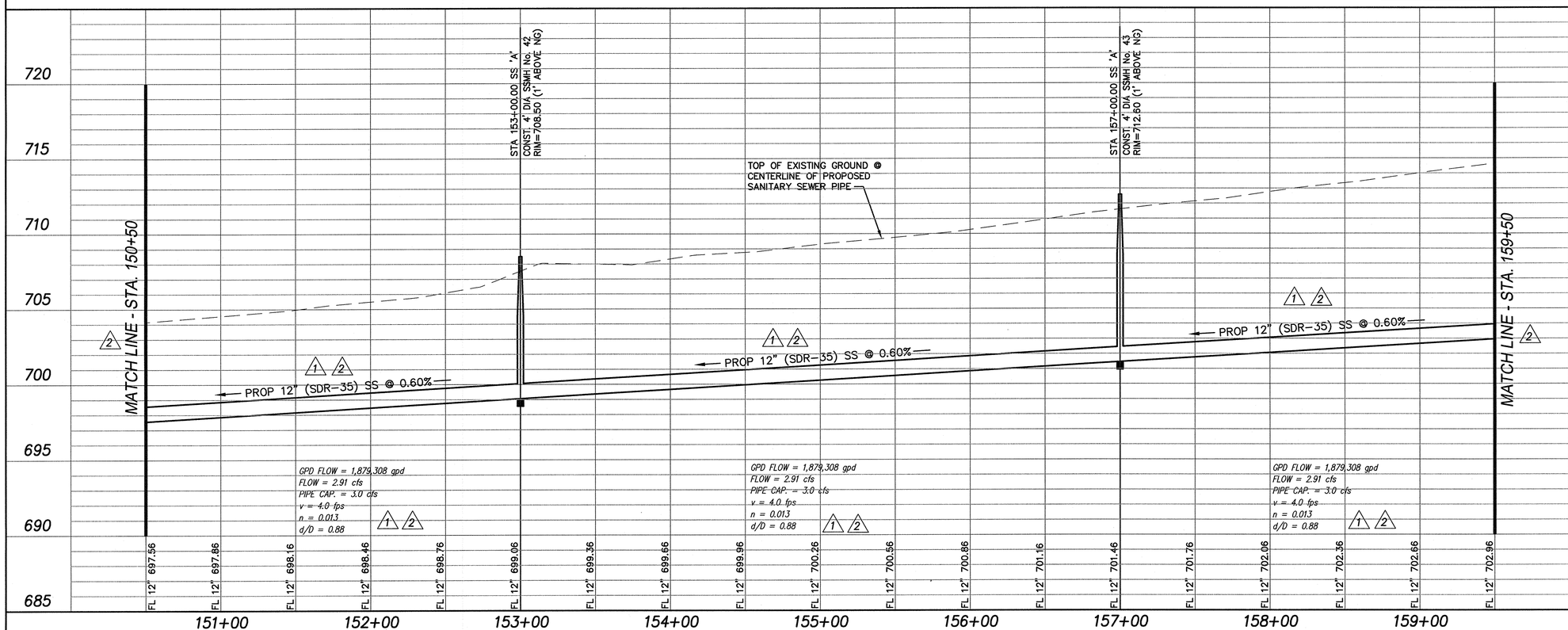
**Drawing Date: August 10, 2009**

## NOTE !!

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*




Survey Control:

***CONTROL #5***

*X-CUT in Concrete on NE Corner of Burlington Northern & Santa Fe Railroad Bridge.*
*Sanitary Sewer Line "A" – Sta. 140+84.86, 97.03' Rt.*
*Northing = 26874.1290 Easting = 18900.1900 Elev = 702.06*

***CONTROL #6***

*X-CUT on Top and Center of Concrete Headwall Along the West Side of State Highway 289 (Preston Road).*
*Sanitary Sewer Line "A" – Sta. 171+40.63, 38.89' Rt.*
*Northing = 28033.3267 Easting = 21091.2456 Elev = 717.80*

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | PI |
| | | | | POE |

MISC. INFORMATION

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 12" SS GRADE FROM STA. 155+00 TO STA. 164+00 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 155+00 – STA. 164+00 TO STA. 150+50 – STA. 159+50. REVISED PROFILE GRADE FROM STA. 150+50 TO STA. 159+50. MOVED SS ALIGNMENT TO NORTH SIDE OF 50' GAS EASEMENT. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
2/12/08

CELINA

# CELINA NORTH OUTFALL SEWER MAIN

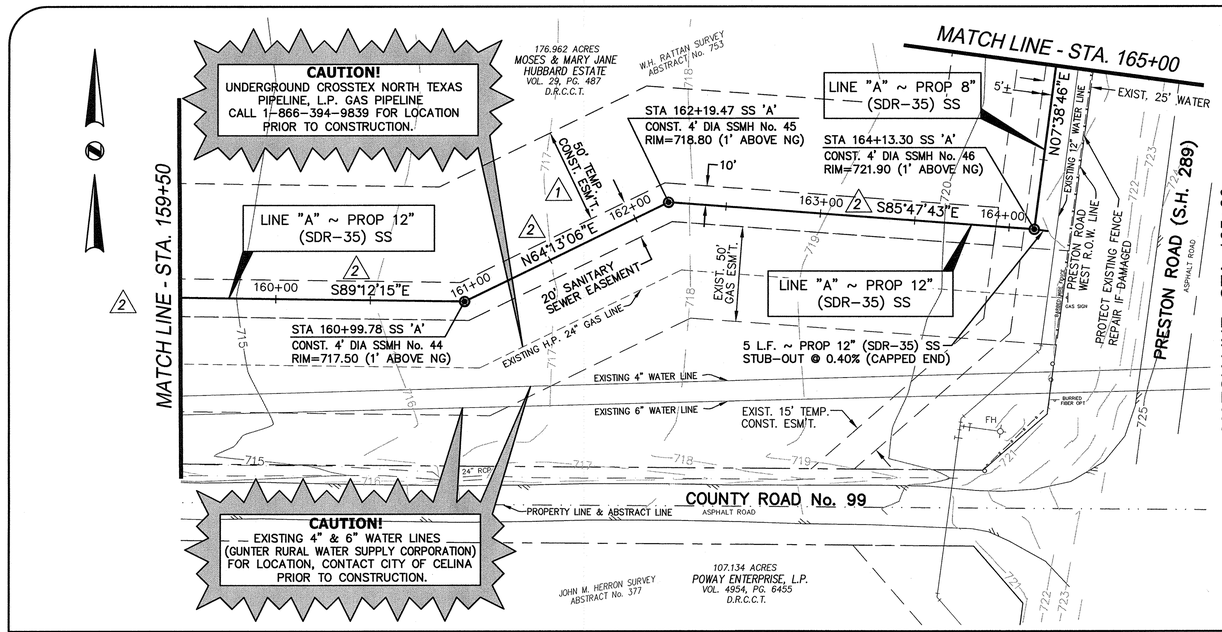
Celina, Texas

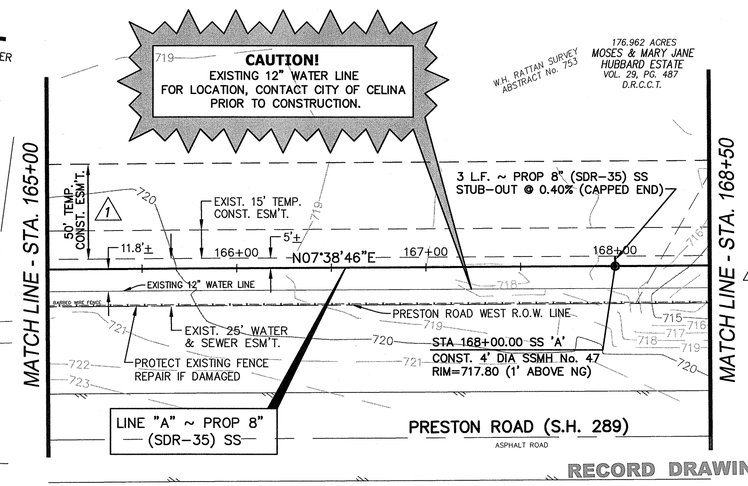
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 150+50 TO STA. 159+50

| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA04.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V | SHEET: 22 OF 28 |
|---|---|---|---|---|
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK.06127F | |

SS-200802-01




40 20 0 40 80
1" = 40'

## SHEET NOTES:

1. APPROXIMATE FLOOD PLAIN LIMITS TAKEN FROM FEMA MAP AND NOT FIELD VERIFIED.
2. CONTRACTOR TO VERIFY PROPOSED MANHOLE RIM ELEVATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AT LEAST FIVE BUSINESS DAYS PRIOR TO ENTERING PROPERTY AND SCHEDULE WORK TO MINIMIZE DISRUPTION TO PROPERTY OWNER.
4. ALL WORK AREAS SHALL BE CLEARED OF TRASH & DEBRIS ON A DAILY BASIS.
5. CONTRACTOR SHALL PROTECT ALL TREES AND LANDSCAPING AND NO TREES SHALL BE REMOVED WITHOUT WRITTEN PERMISSION FROM OWNER/ENGINEER OR PROPERTY OWNER.
6. PROVIDE TEMPORARY CONSTRUCTION FENCING (SAFETY ORANGE BARRIER FENCE) AROUND ANY TRENCHING OR POT HOLES LEFT OPEN AFTER WORKING HOURS OR UNATTENDED DURING CONSTRUCTION.
7. ANY FENCE REMOVED DURING CONSTRUCTION, MUST BE REPLACED WITH A NEW FENCE AND MATERIALS MUST BE THE SAME OR BETTER AS BEFORE.

**RECORD DRAWING**

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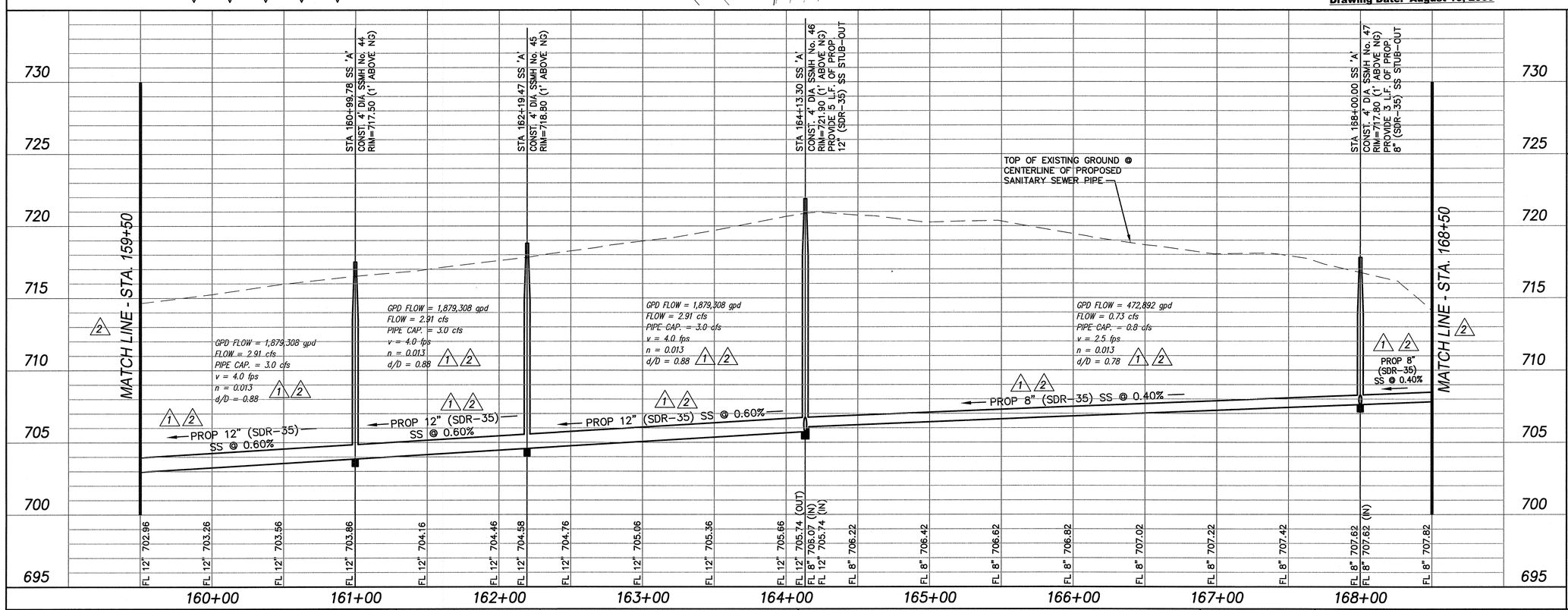
**Drawing Date: August 10, 2009**

## NOTE II

*PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.*




Survey Control:

**CONTROL #6**
*X-CUT on Top and Center of Concrete Headwall Along the West Side of State Highway 289 (Preston Road). Sanitary Sewer Line "A" – Sta. 171+40.63, 38.89' Rt. Northing = 28033.3267 Easting = 21091.2456 Elev = 717.80*

**CONTROL #7**
*X-CUT on Top of South End of Concrete Headwall Along the East Side State Highway 289 (Preston Road). Sanitary Sewer Line "A" – Sta. 184+51.31, 133.52' Rt. Northing = 29319.7660 Easting = 21359.4220 Elev = 725.98*

Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED 12" SS GRADE FROM STA. 164+00 TO SSMH No. 39 AT STA. 166+23.13 |
| | 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 164+00 – STA. 173+00 TO STA. 159+50 – STA. 168+50. REVISED PROFILE GRADE FROM STA. 159+50 TO STA. 168+50. MOVED SS ALIGNMENT TO NORTH SIDE OF 50' GAS EASEMENT. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |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(214) 619-1833 Fax


STATE OF TEXAS
CHAD A. PENDLEY
90374
LICENSED
PROFESSIONAL ENGINEER
2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

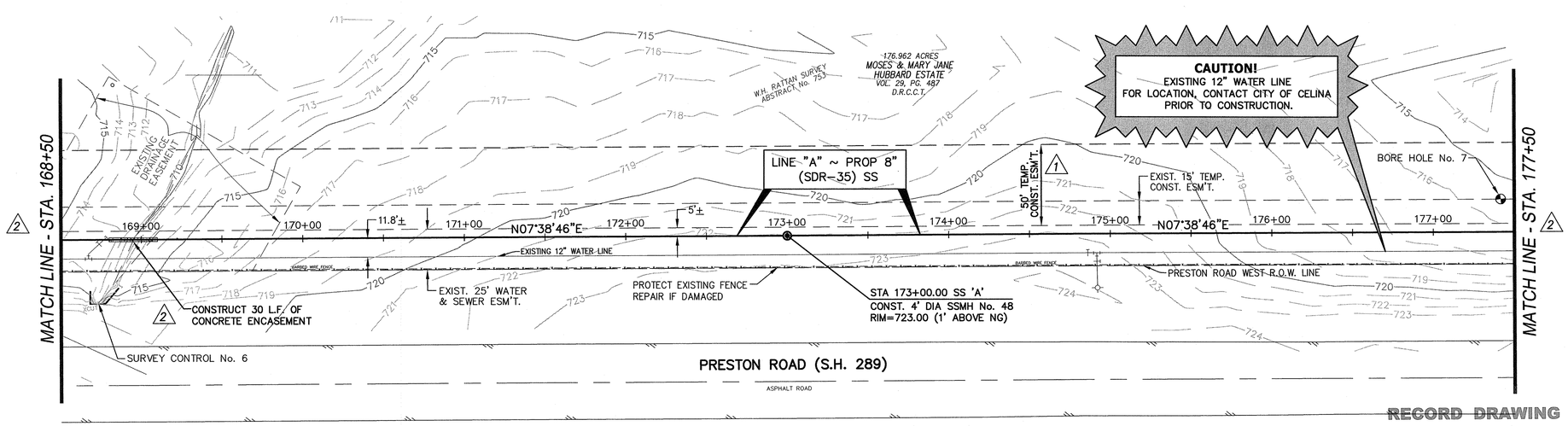
Celina, Texas

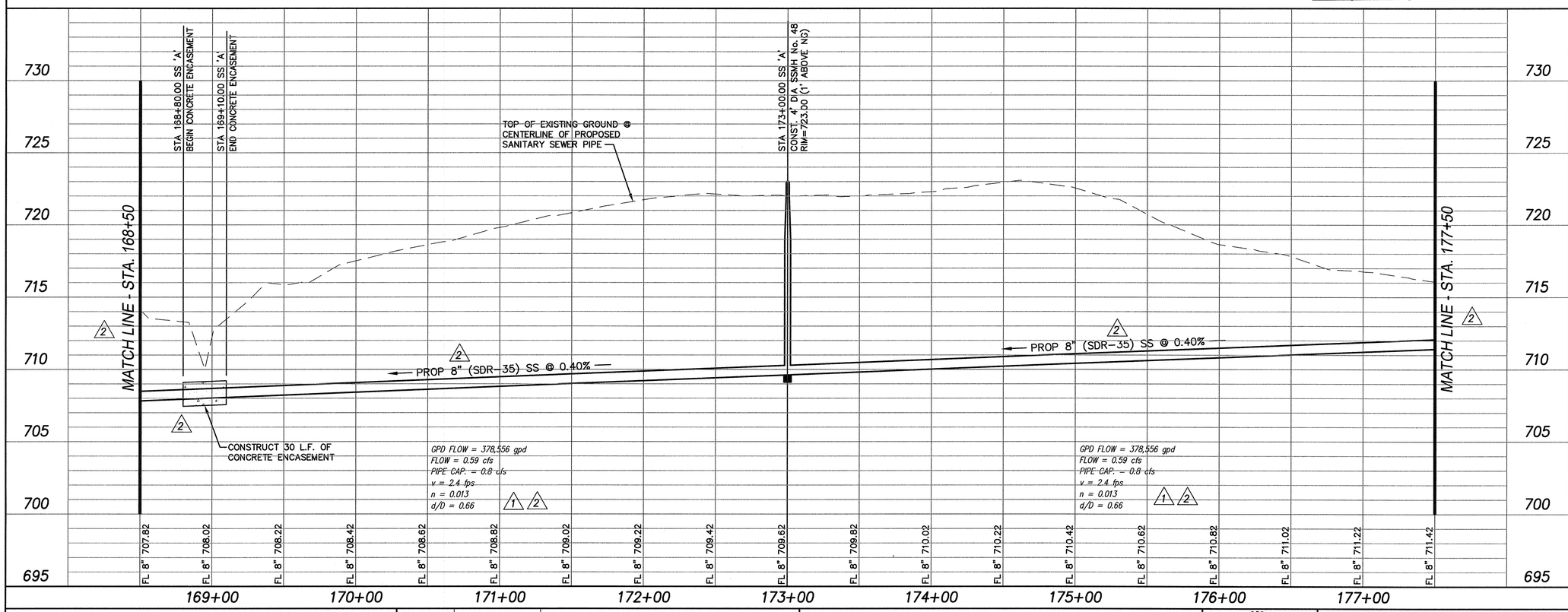
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 159+50 TO STA. 168+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA05.dwg | 1"=40'H; 1"=4'V | 23 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK:06127F | |

SS-200802-01




40 20 0 40 80

1" = 40'

## SHEET NOTES:

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**Drawing Date: August 10, 2009**

## NOTE !!

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Survey Control:

***CONTROL #6***

*X-CUT on Top and Center of Concrete Headwall Along the West Side of State Highway 289 (Preston Road). Sanitary Sewer Line "A" – Sta. 171+40.63, 38.89' Rt. Northing = 28033.3267 Easting = 21091.2456 Elev = 717.80*

***CONTROL #7***

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Alignment Data:

**LINE "A" - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
| 189+76.42 | 30121.78 | 21317.28 | N07°37'18"E | PI |
| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | POE |

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| | 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 173+00 – STA. 182+00 TO STA. 168+50 – STA. 177+50. REVISED PROFILE GRADE FROM STA. 168+50 TO STA. 177+50. CHANGED LINEAR FOOT OF CONCRETE ENCASEMENT FROM 25' TO 30'. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


RLK ENGINEERING

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STATE OF TEXAS — CHAD A. PENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER — 2/12/08

CELINA

# CELINA NORTH OUTFALL SEWER MAIN

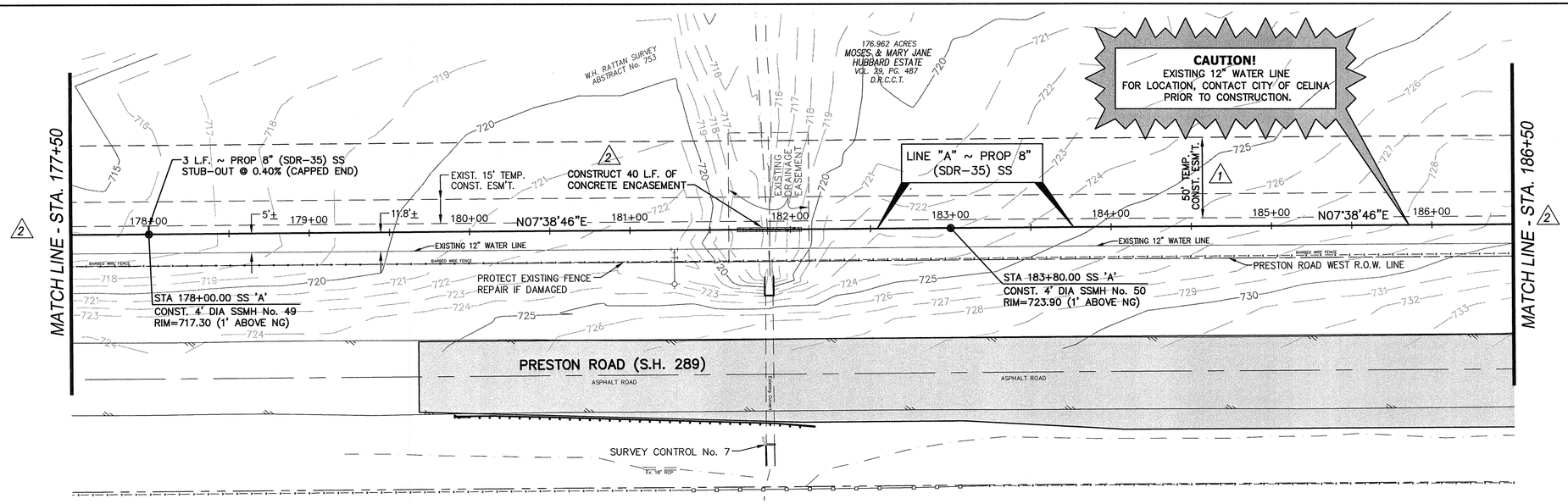
Celina, Texas

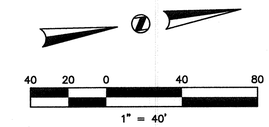
## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 168+50 TO STA. 177+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| IDW / IDS | JDW | 06127FRSSA05.dwg | 1"=40'H; 1"=4'V | 24 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| IDS | CAP | FEBRUARY 11, 2008 | RLK.06127F | |

SS-200802-01




## RECORD DRAWING

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**Drawing Date: August 10, 2009**

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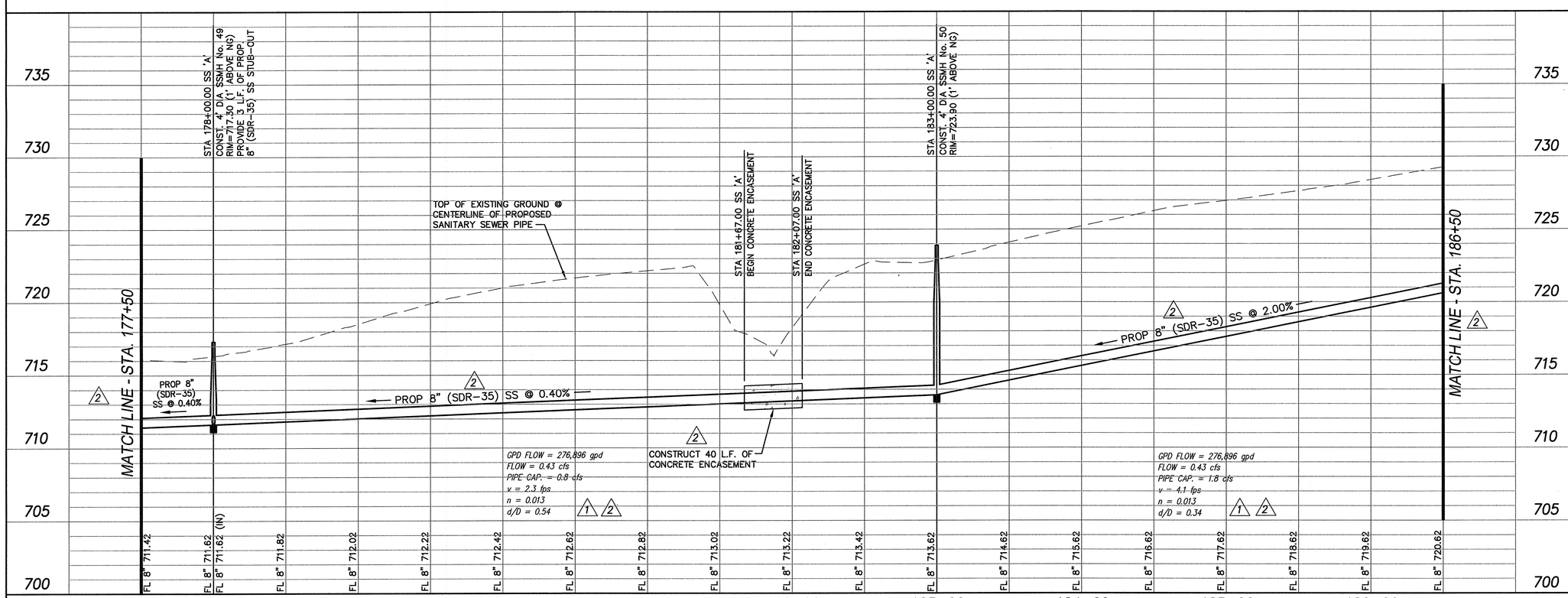


Survey Control:

**CONTROL #6**
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**CONTROL #7**
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Alignment Data:

**LINE 'A' - ALIGNMENT DATA**

| STATION | NORTHING | EASTING | DIRECTION | DESC. |
|---|---|---|---|---|
| 10+00.00 | 18278.13 | 13632.42 | | POB |
| 14+75.75 | 18753.82 | 13639.94 | N00°54'21"E | PI |
| 42+31.60 | 18764.19 | 16395.77 | N89°47'04"E | PI |
| 48+33.24 | 19365.76 | 16405.28 | N00°54'21"E | PI |
| 48+50.92 | 19378.45 | 16392.98 | N44°05'39"W | PI |
| 50+06.53 | 19534.05 | 16395.44 | N00°54'21"E | PI |
| 52+31.96 | 19750.75 | 16333.32 | N15°59'36"W | PI |
| 54+71.96 | 19990.75 | 16334.64 | N00°18'51"E | PI |
| 56+83.61 | 20201.33 | 16355.80 | N05°44'12"E | PI |
| 61+83.61 | 20701.32 | 16358.54 | N00°18'51"E | PI |
| 66+60.78 | 21176.12 | 16406.19 | N05°43'52"E | PI |
| 71+25.78 | 21641.11 | 16408.68 | N00°18'27"E | PI |
| 75+50.78 | 21638.78 | 16833.68 | S89°41'09"E | PI |
| 77+60.78 | 21820.06 | 16939.67 | N30°18'51"E | PI |
| 80+80.78 | 21927.86 | 17240.97 | N70°18'51"E | PI |
| 83+53.36 | 22197.58 | 17280.39 | N08°18'51"E | PI |
| 87+91.62 | 22197.36 | 17718.65 | S89°58'19"E | PI |
| 89+24.60 | 22219.90 | 17849.70 | N80°14'24"E | PI |
| 91+61.45 | 22450.83 | 17902.35 | N12°50'36"E | PI |
| 92+80.25 | 22513.87 | 18003.05 | N57°57'17"E | PI |
| 94+05.72 | 22619.36 | 18070.96 | N32°46'15"E | PI |
| 98+62.15 | 23071.21 | 18135.47 | N08°07'32"E | PI |
| 100+89.15 | 23298.19 | 18138.30 | N00°42'47"E | PI |
| 103+39.66 | 23535.46 | 18218.67 | N18°42'47"E | PI |
| 104+04.86 | 23580.25 | 18171.29 | N46°36'33"W | PI |
| 135+77.11 | 26666.25 | 18905.96 | N13°23'27"E | PI |
| 137+04.16 | 26755.48 | 18996.41 | N45°23'23"E | PI |
| 140+03.41 | 27054.72 | 18998.45 | N00°23'23"E | PI |
| 145+29.52 | 27566.52 | 19120.30 | N13°23'30"E | PI |
| 160+99.78 | 27544.71 | 20690.40 | S89°12'15"E | PI |
| 162+19.47 | 27596.77 | 20798.19 | N64°13'06"E | PI |
| 164+13.30 | 27582.56 | 20991.49 | S85°47'43"E | PI |
| 187+99.71 | 29947.75 | 21309.01 | N07°38'46"E | PI |
| 188+36.76 | 29983.35 | 21298.75 | N16°04'11"W | PI |
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| 191+83.86 | 30122.16 | 21524.71 | N89°53'40"E | PI |
| | | | | POE |

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. |
| | 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FROM STA. 182+00 – STA. 190+00 TO STA. 177+50 – STA. 186+50. REVISED PROFILE GRADE FROM STA. 177+50 TO STA. 186+50. CHANGED LINEAR FOOT OF CONCRETE ENCASEMENT FROM 30' TO 40'. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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6136 Frisco Square Blvd., Suite 325
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STATE OF TEXAS — CHAD A. FENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER
2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

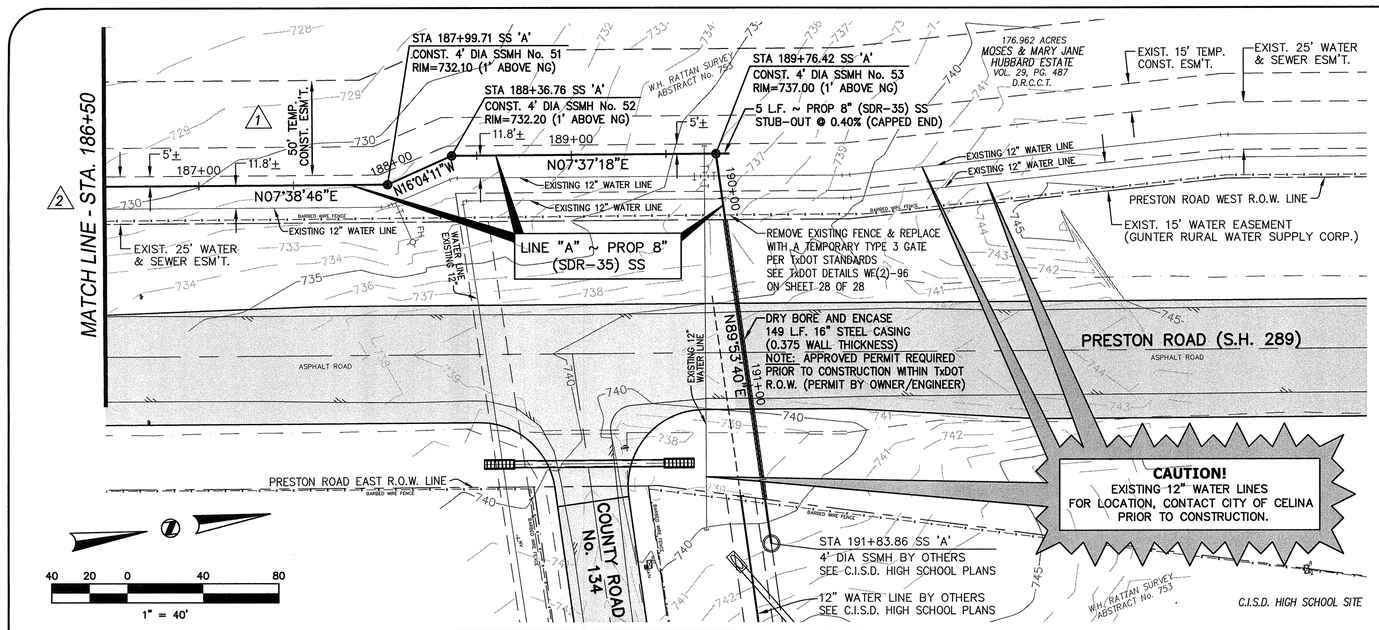
Celina, Texas

## SANITARY SEWER LINE "A" - PLAN & PROFILE

STA. 177+50 TO STA. 186+50

| DESIGNED BY: | TECH REVIEW: | DRAWING FILE: | DRAWING SCALE: | SHEET: |
|---|---|---|---|---|
| JDW / JDS | JDW | 06127FSSA05.dwg | 1"=40'H; 1"=4'V | 25 OF 28 |
| DRAWN BY: | PEER REVIEW: | DRAWING DATE: | PROJECT NUMBER: | |
| JDS | CAP | FEBRUARY 11, 2008 | RLK:06127F | |

SS-200802-01

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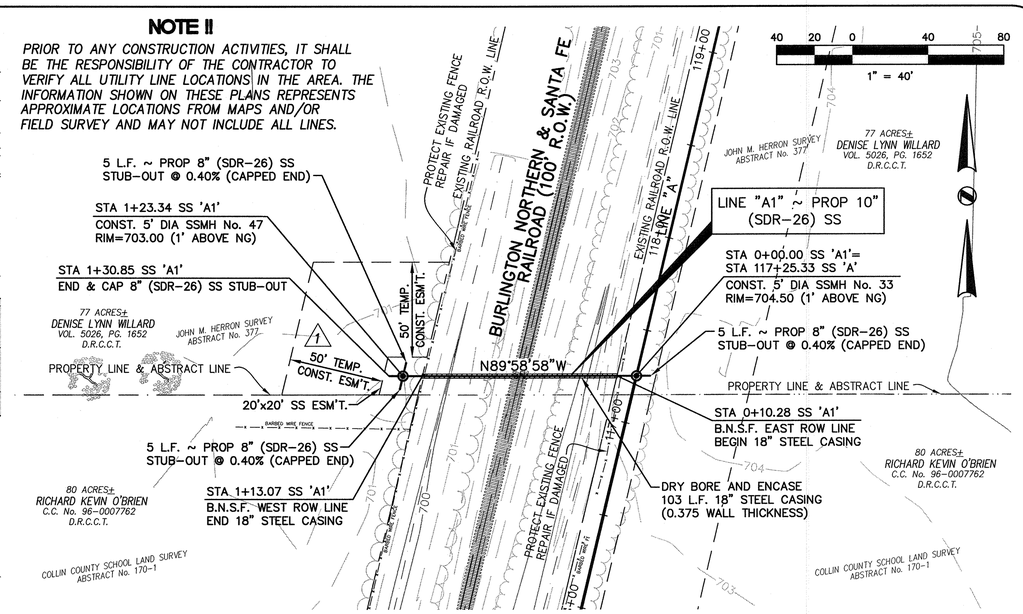


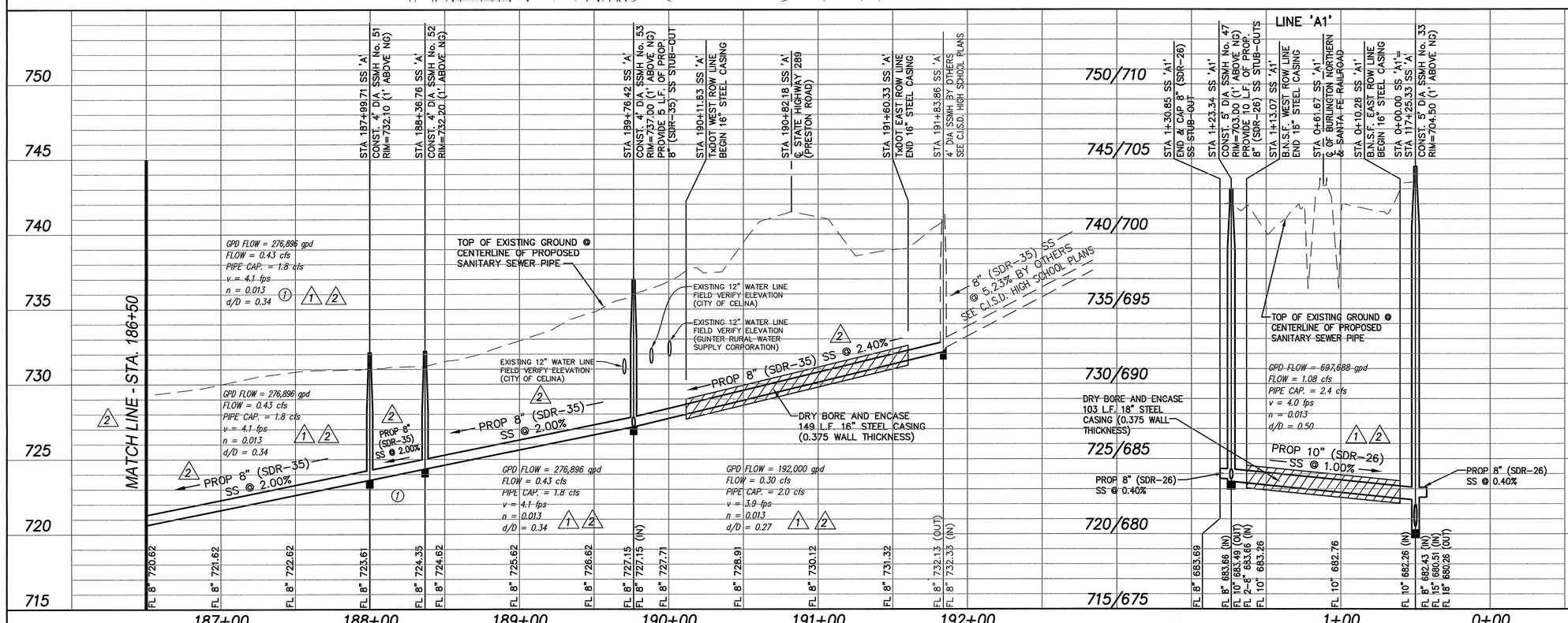


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| 10+00.00 | 18278.13 | 13632.42 | | POB |
| | | | N00°54'21"E | |
| 14+75.75 | 18753.82 | 13639.94 | | PI |
| | | | N89°47'04"E | |
| 42+31.60 | 18764.19 | 16395.77 | | PI |
| | | | N00°54'21"E | |
| 48+33.24 | 19365.76 | 16405.28 | | PI |
| | | | N44°05'39"W | |
| 48+50.92 | 19378.45 | 16392.98 | | PI |
| | | | N00°54'21"E | |
| 50+06.53 | 19534.05 | 16395.44 | | PI |
| | | | N15°59'36"W | |
| 52+31.96 | 19750.75 | 16333.32 | | PI |
| | | | N00°18'51"E | |
| 54+71.96 | 19990.75 | 16334.64 | | PI |
| | | | N05°44'12"E | |
| 56+83.61 | 20201.33 | 16355.80 | | PI |
| | | | N00°18'51"E | |
| 61+83.61 | 20701.32 | 16358.54 | | PI |
| | | | N05°43'52"E | |
| 66+60.78 | 21176.12 | 16406.19 | | PI |
| | | | N00°18'27"E | |
| 71+25.78 | 21641.11 | 16408.68 | | PI |
| | | | S89°41'09"E | |
| 75+50.78 | 21638.78 | 16833.68 | | PI |
| | | | N30°18'51"E | |
| 77+60.78 | 21820.06 | 16939.67 | | PI |
| | | | N70°18'51"E | |
| 80+80.78 | 21927.86 | 17240.97 | | PI |
| | | | N08°18'51"E | |
| 83+53.36 | 22197.58 | 17280.39 | | PI |
| | | | S89°58'19"E | |
| 87+91.62 | 22197.36 | 17718.65 | | PI |
| | | | N80°14'24"E | |
| 89+24.60 | 22219.90 | 17849.70 | | PI |
| | | | N12°50'36"E | |
| 91+61.45 | 22450.83 | 17902.35 | | PI |
| | | | N57°57'17"E | |
| 92+80.25 | 22513.87 | 18003.05 | | PI |
| | | | N32°46'15"E | |
| 94+05.72 | 22619.36 | 18070.96 | | PI |
| | | | N08°07'32"E | |
| 98+62.15 | 23071.21 | 18135.47 | | PI |
| | | | N00°42'47"E | |
| 100+89.15 | 23298.19 | 18138.30 | | PI |
| | | | N18°42'47"E | |
| 103+39.66 | 23535.46 | 18218.67 | | PI |
| | | | N46°36'33"W | |
| 104+04.86 | 23580.25 | 18171.29 | | PI |
| | | | N13°23'27"E | |
| 135+77.11 | 26666.25 | 18905.96 | | PI |
| | | | N45°23'23"E | |
| 137+04.16 | 26755.48 | 18996.41 | | PI |
| | | | N00°23'23"E | |
| 140+03.41 | 27054.72 | 18998.45 | | PI |
| | | | N13°23'30"E | |
| 145+29.52 | 27566.52 | 19120.30 | | PI |
| | | | S89°12'15"E | |
| 160+99.78 | 27544.71 | 20690.40 | | PI |
| | | | N64°13'06"E | |
| 162+19.47 | 27596.77 | 20798.19 | | PI |
| | | | S85°47'43"E | |
| 164+13.30 | 27582.56 | 20991.49 | | PI |
| | | | N07°38'46"E | |
| 187+99.71 | 29947.75 | 21309.01 | | PI |
| | | | N16°04'11"W | |
| 188+36.76 | 29983.35 | 21298.75 | | PI |
| | | | N07°37'18"E | |
| 189+76.42 | 30121.78 | 21317.28 | | PI |
| | | | N89°53'40"E | |
| 191+83.86 | 30122.16 | 21524.71 | | POE |

MISC. INFORMATION

**RECORD DRAWING**

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**Drawing Date: August 10, 2009**

| REVISION | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/04/2008 | ADDED FLOW DATA TO PROFILE & ADDED 50' TEMP. CONSTRUCTION ESM'T. REVISED LINE "A1" – 10" SS GRADE FROM STA. 0+00 TO STA. 1+30.85 |
| 2 | 02/11/2008 | CHANGED SHEET MATCH LINE STATIONS FOR LINE "A" FROM STA. 190+00 – END TO STA. 186+50 – END. REVISED LINE "A" PROFILE GRADE FROM STA. 186+50 TO END. REVISED LINE "A1" PROFILE GRADE FROM STA. 0+00 TO STA. 1+30.85. REVISED ALL FLOW DATA CALCULATIONS. REVISED ALIGNMENT DATA CHART. |


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STATE OF TEXAS — CHAD A. PENDLEY — 90374 — LICENSED PROFESSIONAL ENGINEER — 2/12/08

# CELINA NORTH OUTFALL SEWER MAIN

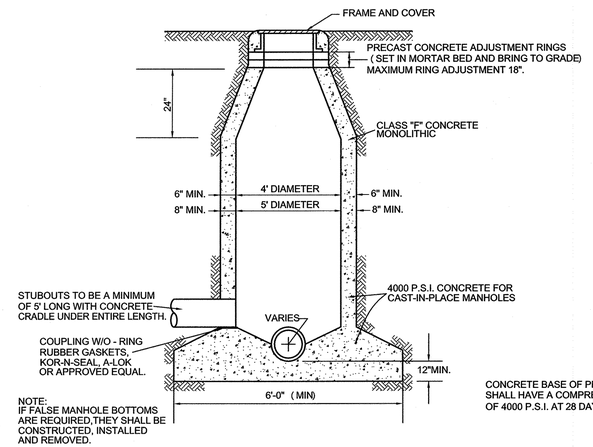
Celina, Texas

## SANITARY SEWER LINE "A" & LINE "A1" - PLAN & PROFILE

LINE "A" ~ STA. 186+50 TO END & LINE "A1" ~ STA. 0+00 TO END

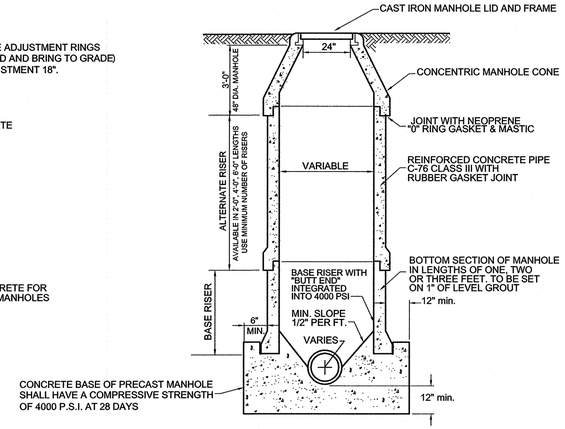
| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127FSSA05.dwg | DRAWING SCALE: 1"=40'H; 1"=4'V | SHEET: 26 OF 28 |
|---|---|---|---|---|
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK-06127F | |

SS-200802-01




## STANDARD CAST IN PLACE MANHOLE

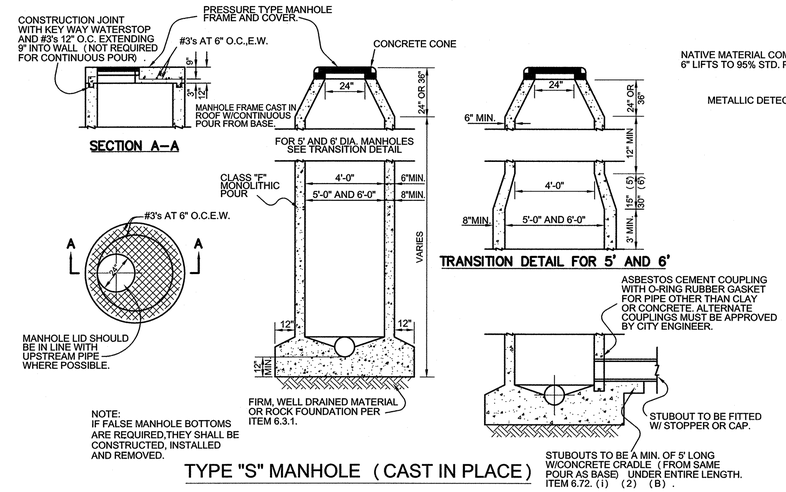
NTS




## PRECAST MANHOLE

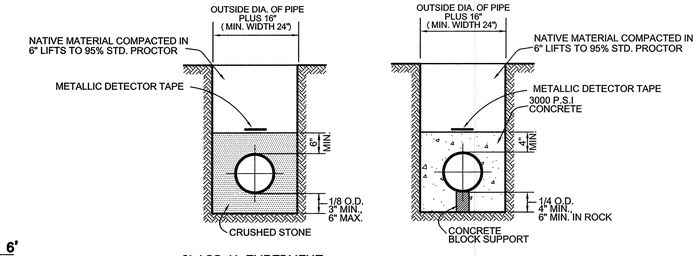
NTS

## ROOF OPTIONS




## TYPE "S" MANHOLE (CAST IN PLACE)

NTS




### CLASS H EMBEDMENT

P.V.C. PIPE ONLY
STD. P.V.C. SEWER INSTALLATION
NTS

### CLASS G EMBEDMENT

CONCRETE ENCASEMENT
NTS

## SEWER PIPE EMBEDMENT DETAIL

NTS

**RECORD DRAWING**

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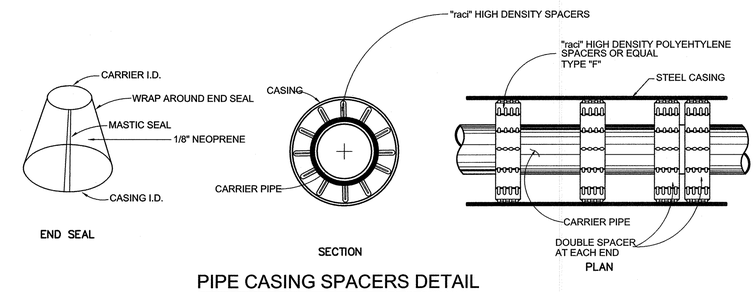
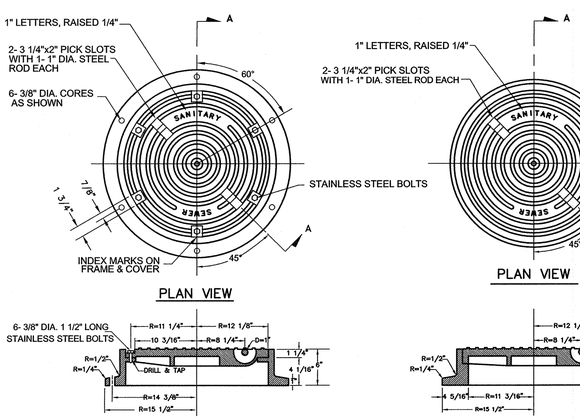
**Drawing Date: August 10, 2009**




## PIPE CASING SPACERS DETAIL

NTS

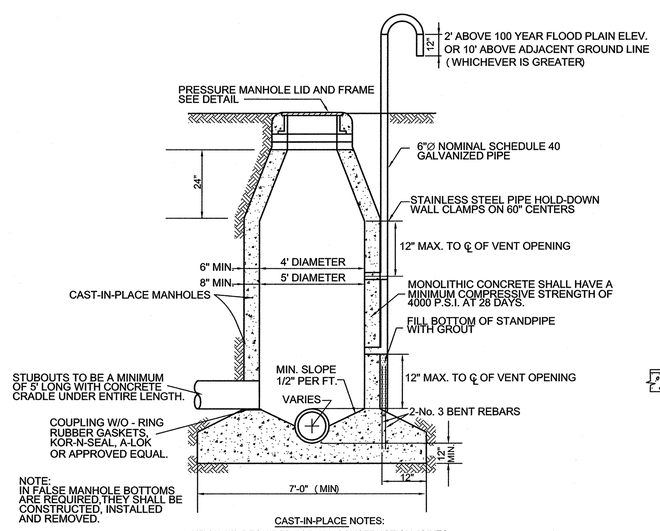



## SEALED MANHOLE FRAME AND COVER

NTS

## STANDARD MANHOLE FRAME AND COVER

NTS

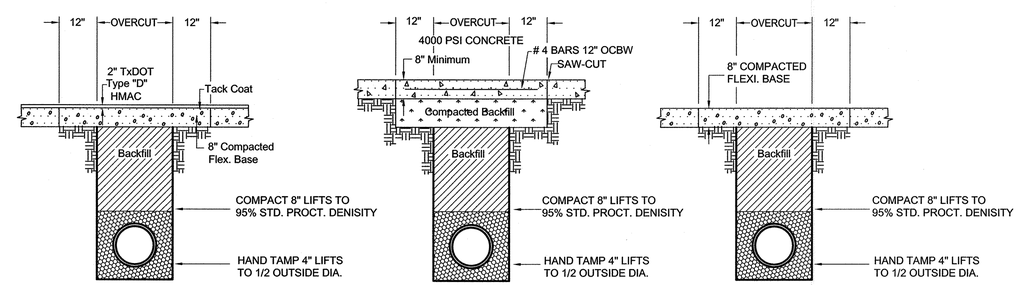



CAST-IN-PLACE NOTES:

1. KEYWAYS REQUIRED FOR ALL CONSTRUCTION JOINTS.
2. P.V.C. WATER STOP REQUIRED FOR ALL JOINTS IN LOWER 4'-0" OF MANHOLES
3. CONCRETE SHALL BE CLASS "F" P.S.I.

## STANDARD VENTED MANHOLE

NTS




## DRIVEWAY AND STREET REPAIR DETAILS

NTS

| MISC. INFORMATION | REVISION | DATE | DESCRIPTION |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

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CHAD A. PENDLEY
90374
LICENSED PROFESSIONAL ENGINEER
2/12/08

CELINA
Celina ISD

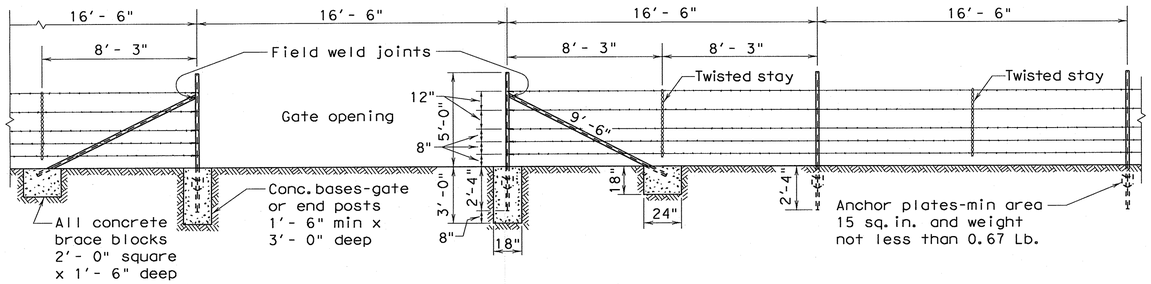
# CELINA NORTH OUTFALL SEWER MAIN

Celina, Texas

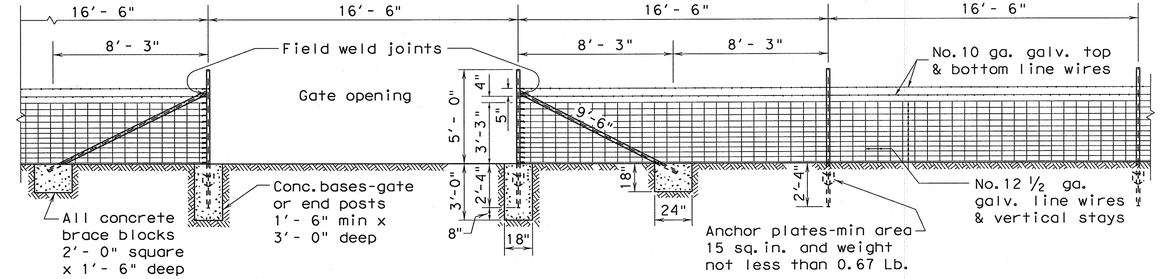
## SANITARY SEWER STANDARDS DETAILS SHEET

| DESIGNED BY: JDW / JDS | TECH REVIEW: JDW | DRAWING FILE: 06127F Sewer Details.dwg | DRAWING SCALE: 1"=1000' | SHEET: 27 OF 28 |
|---|---|---|---|---|
| DRAWN BY: JDS | PEER REVIEW: CAP | DRAWING DATE: FEBRUARY 11, 2008 | PROJECT NUMBER: RLK: 06127F | |

SS-200802-01

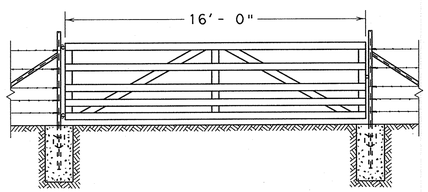



**SECTION GALVANIZED BARBED WIRE FENCE WITH METAL POSTS**
BRACING DETAIL USED AT ENDS AND GATES
**TYPE "C" FENCE**

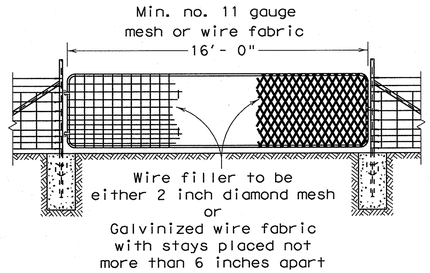



**SECTION GALVANIZED WOVEN WIRE FENCE WITH METAL POSTS**
BRACING DETAIL USED AT ENDS AND GATES
**TYPE "D" FENCE**

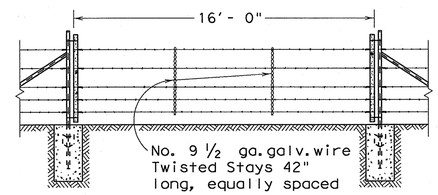
Metal gate shall consist of 5 panels not less than 4'- 4" high and shall be aluminum or galvanized metal and of good quality. Gate and hardware shall meet the approval of the engineer.




**DETAIL TYPE 1 GATE**



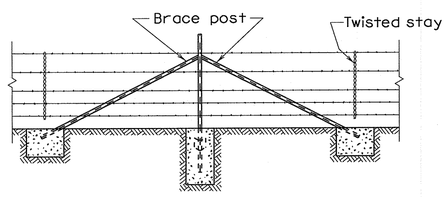

**DETAIL TYPE 2 GATE**



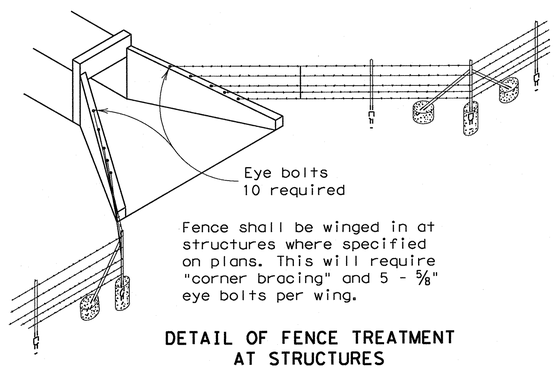

**DETAIL TYPE 3 GATE**

## GENERAL NOTES

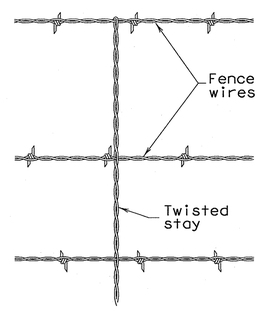
1. Any high point which interferes with the placing of wire mesh shall be excavated to provide a 2 inch clearance.
2. Latches for Type 1 and Type 2 gates shall be good commercial quality and design latch of the spring, fork or chain type. All latches shall be suitable to the gate and shall be approved by the Engineer.
3. Concrete shall be of the design and consistency approved by the Engineer and shall contain not less than 4 sacks of cement per cubic yard.
4. Hinges for Type 2 gates shall be a commercial design approved by the Engineer suitable for post and gate.
5. Anchor plates shall be of a design and thickness sufficient to prevent turning of the post in firm soil. Metal end, corner and pull post shall be a minimum of 2 inch inside diameter pipe minimum (3.65 lbs./lin.ft.) with minimum 1 ¼ inch inside diameter pipe brace minimum (2.27 lbs./lin.ft.), minimum 2 ½" x 2 ½" x ¼" angle (4.1 lbs./lin.ft.) with minimum 2"x 2"x ¼" angle brace (3.19 lbs./lin.ft.) or other section approved by the Engineer. Fasteners for securing barbed wire or wire mesh to metal posts shall be a minimum of 11 gauge galvanized steel wire. Tubular posts shall be fitted with water tight malleable iron caps.
6. Metal line posts shall be not less than 6'- 6" in length and shall weigh not less than (1.33 lbs./lin.ft.).
7. The location of gates and corner posts will be as indicated elsewhere in these plans.



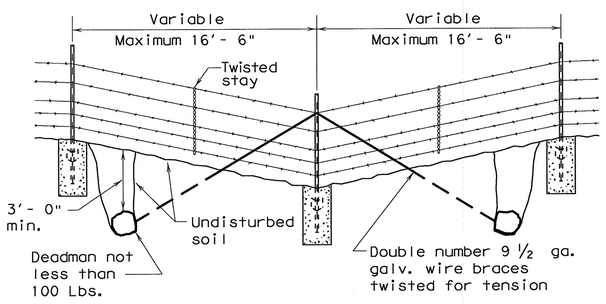

**CORNER OR PULL POST ASSEMBLY**



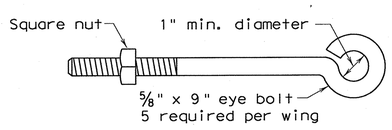

**DETAIL OF FENCE TREATMENT AT STRUCTURES**




**DETAIL OF STAY**




**DETAIL OF FENCE SAG**




**DETAIL OF EYE BOLT**

**RECORD DRAWING**

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**Drawing Date: August 10, 2009**

*Texas Department of Transportation*
*Design Division (Roadway)*

# BARBED WIRE FENCE AND WOVEN WIRE FENCE STEEL POSTS

# WF (2) -96

| FILE: WF296.DGN | DN: MAM | CK: MAM | DW: BGD | CK: | |
|---|---|---|---|---|---|
| © TxDOT 1996 | DIST | FEDERAL AID PROJECT | | | SHEET |
| REVISIONS | | | | | 28 of 28 |
| | COUNTY | | CONTROL | SECT | JOB | HIGHWAY |

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LEVELS DISPLAYED

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