THE CITY OF CELINA, TEXAS

CONSTRUCTION PLANS
FOR

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

CITY COUNCIL

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DIRECTOR OF PUBLIC WORKS

JOSEPH JOHNSON

CITY OF CELINA, TEXAS
142 N. Ohio Street
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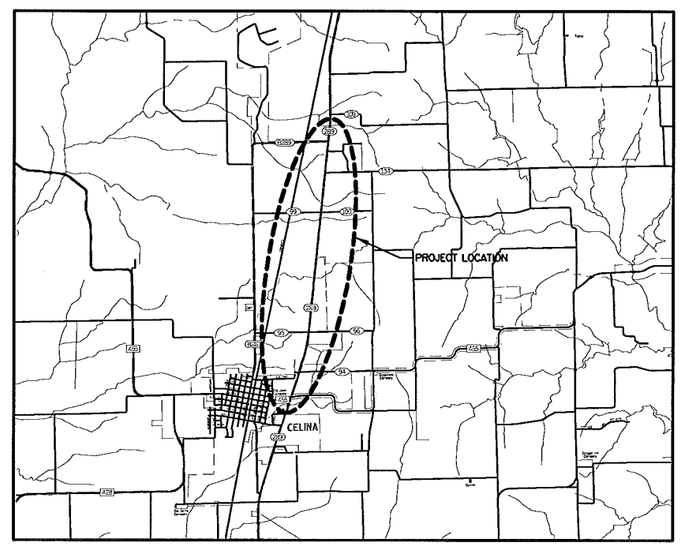

LOCATION MAP
N.T.S.

RECORD DRAWING

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BROWN & GAY ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-1046
By: _____ Date: 8/7/13

2012

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— *Civil engineers and surveyors* —
TBPE Registration No. F-1046

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SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

W-201308-01

LEGEND

EXISTING

- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- ASPHALT
- FENCE
- GUARD RAIL
- VEGETATION
- GAS
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND TELEPHONE
- WASTE WATER COF CELINA
- WASTE WATER COF CELINA
- WATER COF CELINA
- WATER WARILEE SPECIAL UTIL DIST
- ABANDONED LINES
- BUSH
- ELECTRICAL POWER BOX
- FIBER OPTIC VAULT
- FIRE HYDRANT
- GAS METER
- GAS VALVE
- LIGHT POLE
- MANHOLE
- SIGN
- SIGNAL BOX
- TELEPHONE MANHOLE
- UTILITY POLE
- WATER METER
- WATER VALVE
- WATER VAULT
- WASTE WATER MANHOLE

PROPOSED

- PROPOSED RIGHT-OF-WAY
- WATER LINE
- PROPOSED EASEMENT
- CUT, PLUG AND ABANDON EXIST LINES
- FIRE HYDRANT
- WATER VALVE
- REDUCER
- TEE
- SINGLE WATER METER
- BULL HEAD WATER METER
- CONTROL POINT

ABBREVIATIONS

CI - CAST IRON
CO - CLEAN OUT
DIA - DIAMETER
DI - DUCTILE IRON
DW - DRIVEWAY
EA - EDGE OF ASPHALT
F&C - FRAME & COVER
GT - GUTTER
L - LATERAL
MB - MAIL BOX
M - MAIN
PP - POWER POLE
PVC - POLYVINYL CHLORIDE
SD - STANDARD DETAILS
SH - SPRINKLER HEAD
SSMH - SANITARY SEWER MANHOLE
SSTL - STAINLESS STEEL
SV - SPRINKLER VALVE
SW - SIDEWALK
TC - TOP OF CURB
WL - WATER LINE
WM - WATER METER
WV - WATER VALVE

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BENCHMARKS

N	E	ELEV	DESCRIPTION
7169340.41	2495288.97	712.01	PK NAIL
7169917.16	2495433.36	712.98	PK NAIL
7171184.13	2495913.61	745.73	PK NAIL
7174290.36	2496746.54	787.68	PK NAIL
7177427.71	2497041.00	738.80	PK NAIL
7183399.57	2497741.45	725.61	PK NAIL
7187489.87	2498220.04	721.54	PK NAIL
7187489.86	2498220.06	721.55	PK NAIL

RECORD DRAWING

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08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

LEGEND & INDEX OF SHEETS

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W-201308-01

GENERAL ITEMS

1. All construction shall be in accordance with the latest revision of the North Central Texas Council of Governments "Standard Specifications for Public Works Construction" including the Standard Drawings therein and the City of Celina's addendum thereto. Contractor shall have at least one set of approved Engineering Plans and Specifications on-site at all times.

2. Before beginning construction, the contractor shall prepare a construction sequence schedule. The construction schedule shall be such that there is minimal interference with traffic along or adjacent to the project.

3. Construction may not begin earlier than 7:00 A.M. on weekdays nor continued after dark without permission from the City of Celina. Construction on holidays and Saturday must be approved two days in advance, a fee of $300.00 a day for working on holidays and Saturday will be accessed payable to the city before work is performed. Work may not begin before 8:00 A.M. on holidays and Saturday and work on Sunday is prohibited without special permission and payment of fees.

4. Utilities shown on the plans were taken from field surveys and information provided by the utility companies. The completeness and the accuracy of this data is not guaranteed.

The contractor is responsible for verifying the location of all underground utilities and structures and protecting them from damage during construction.

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 location prior to commencement of construction and shall assume full liability to those companies for any damages caused to their facilities.

DIG TESS	800-DIG-TESS
GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
CITY OF CELINA	972-658-2052
CITY OF PROSPER	972-347-9969
MARILEE SUD	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

5. Work may not be backfilled or covered until the City has inspected it.

6. Material testing shall be performed by an independent testing laboratory ~~and paid for by the Contractor~~. The following material tests shall be provided by the Contractor:
   a. Embankment – One soil density test shall be performed at each location for each 500 C.Y. of backfill placed.
   b. Pavement Sub grade – One gradation test (where lime stabilized) and one soil density test shall be performed for each 100 linear feet of pavement unless otherwise noted.
   c. Utility Trench Backfill – One soil density test shall be performed as directed by City of Celina.
   d. Concrete Tests:
      (1). Compressive Strength – as specified in the N.C.T.C.O.G. specifications or city specifications.
      (2). Air Content – One test for each 25 C.Y. of concrete or fraction thereof unless otherwise noted.
      (3). Slump – One test for each 9 C.Y. unless otherwise noted.

The City shall select the location and depth of each soil density test unless otherwise directed.

7. All excavation on the project is unclassified.

8. Temporary erosion control shall be used to minimize the spread of silt and mud from the project on to existing streets, alleys, drainage ways and public and private property. Temporary erosion controls may include silt fences, rock check dams, stabilized construction entrances, straw bales, berms, dikes, swales, strips of undisturbed vegetation, check dams and other methods as required by the City Administrator or his representative and shall conform to the Storm Water Quality Best Management Practices for Construction Activities as published by the North Central Texas Council of Governments.

9. Finished slopes on public rights-of-way and easements shall not be steeper than 4:1. All slopes steeper than 6:1 shall be covered with erosion control matting and are hydro mulched and maintained by the contractor until grass covers all parts of the slope.

10. The contractor shall maintain two-way traffic at all times along the project.

11. Remove, salvage and replace all street and traffic control signs, which may be damaged by the construction of the project.

12. All trenching and excavation shall be performed in accordance with OSHA standards. Trench safety design will be the responsibility of the Contractor. Contractor shall submit a trench safety design approved by a professional engineer to the City for review prior to the start of any underground utility construction.

PAVING

1. All embankments shall be compacted to 95% Standard Proctor density.

2. All streets and alleys shall be placed on lime stabilized sub grade with a lime content of not less than 7%. Or approved by city engineer.

3. The minimum 28 day compressive strength of concrete street paving shall not be less than 3600 psi and shall be air entrained. Water may not be applied to the surface of concrete paving to improve workability.

4. All curb and gutter shall be integral with the pavement.

5. Parabolic crowns are required on all street pavements except on major thoroughfares where straight sections are required.

6. Streets and alleys shall be constructed with provisions for sidewalk ramps at all intersections.

DRAINAGE

1. Storm sewer pipe shall be reinforced concrete, Class III unless otherwise noted.

2. All structural concrete shall be Class "C" (3600 psi compressive strength at 28 days), air entrained.

3. The contractor shall install plugs in storm sewer lines or otherwise prevent mud from entering the storm sewer system during construction.

WATER AND SANITARY SEWER

1. Water mains shall be AWWA C-900 or 905 PVC Class 200 unless otherwise noted. Minimum cover for waterlines is 48" below top of curb, 60" where no curbed street is present or as required to clear existing utilities, whichever is greater. Class B+ embedment unless otherwise noted.

2. Marking tape shall be installed one foot above and over PVC water lines.

3. Fittings for PVC water lines shall be ductile iron and be encased in a polyethylene sheath.

4. All Mechanical Joints will be restrained. (Mega-Lug etc.)

5. Valves, including tapping valves shall be resilient seat gate valves, unless noted otherwise.

6. All direct burial valves shall be provided with cast iron valve boxes with PVC stacks. Valve stacks shall be vertical and concentric with the valve stem. Stainless steel valve extensions are required on all valves where the operating nut is greater than 4 feet below finished grade.

7. Fire hydrants shall be Waterous or equal as directed or approved by the City of Celina on a case by case basis and field painted silver with bonnet and caps color-coded to pipe size.
   a. Six inch line- silver body with RED bonnet and caps.
   b. Eight inch line- silver body with BLUE bonnet and caps.
   c. Ten inch line- silver body with GREEN bonnet and caps.
   d. Twelve inch and larger- silver body with YELLOW bonnet and caps.

8. All exposed bolting on any buried equipment or material shall be stainless steel. Included are:
   a. Bonnet and stuffing box bolts on valves.
   b. Shoe bolts on fire hydrants.
   c. Flange bolts.
   d. "Cor-ten" mechanical joint "T" bolts are acceptable for direct burial service.

9. Meter boxes shall approved by the City of Celina.

10. Sanitary sewer mains shall be DR 35 PVC. Class H embedment unless otherwise noted.
    a. The contractor shall install and maintain watertight plugs in all connections to the City's sanitary sewer system until the City accepts the project.
    b. All sanitary sewer lines and manholes shall be leak tested before the project is accepted. Deflection testing of PVC sewer lines is required.

CONSTRUCTION AND PHASING

1. Water Line 7 must be in service before connections can be made on Lines 8 & 9. Other work, including borings, may be performed for lines 8 & 9 prior to connections on Line 7. All work on Lines 7, 8 & 9 and the abandonment should be completed before beginning work on Lines 1 thru 5.

2. Water Lines 1 thru 5 and Line 7 shall have connections made at night. The line may be out of service for a maximum of 6 hours between the hours of 10PM-5AM.

3. Water Line 8 & 9 shall have connections made at night or on Sunday. The lines may be be out of service for a maximum of 6 hours between the hours of 10PM-5AM on weekdays or between the hours of 10PM Saturday and 5AM Monday for Sunday work.

4. Work on the abandonment may occur at any time within the limits set forth in the General Items section.

5. All outages are to be coordinated with the City of Celina and will require a minimum 3 working days notice.

6. Road closure at Founders Lane (Water Line 7) is to be limited to 2 days. All work signage and detours will be provided in accordance with Manual on Uniform Traffic Control Devices (MUTCD) and to be approved by the City of Celina before implementation. Detour and traffic control devices are paid for under the bid item "Installation & Maintenance of Traffic Control Devices."

PROJECT NOTES

1. Exception to General Items note 3:
   –$300 per day fee not required during pipe connections that occur at night or on Sunday.

2. Exception to General Item note 10:
   –Founders Lane may be closed for a maximum of 2 consecutive days during construction of Water Line 7. Liquidated damages will be assessed if road closure exceeds 2 days.

3. Temporary fencing for containment of livestock is considered subsidiary to the water line bid items.

4. Material testing will be paid for by the city.

5. Contractor shall not block any ports of SH 289.

6. Solid ductile iron sleeves are to be used at all horizontal and vertical deflections of greater than 3 degrees.

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142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

CITY OF CELINA
GENERAL CONSTRUCTION NOTES

BROWN & GAY ENGINEERS, INC.
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DAL SPECIAL PROVISION 3-BORING

1. **GENERAL** – WATER JETTING OR JACKING WILL NOT BE PERMITTED. All paved streets which ere mainteined by TxDOT must be bored & encased unless it is specifically stated on the permit that an exception for open cutting and/or no encasement is granted.

   At no time shell the boring operation interfere with the traveling public. The safety of the traveling public and maintaining the integrity of the roadway is the primary concern.

2. **BORE PIT LOCATIONS** – No excavations for bore pits will be ellowed to be eny closer to the edge of the pavement (travel lane) than as outlined in the "TRENCH EXCAVATIONS AND PIT LOCATION" specificetion. If the required clear zoned distance is closer than outlined in the above mentloned specification, then appropriate traffic control devices such as barricades, signs, barrel mounted guard fence and/or concrete traffic barriers will be required as deemed necessary by the TxDOT inspector.

   No excavated material will be stored closer to the traveled wey than the bore pit. All pits and trenches shall be backfilled immediately after the encasement and carrier pipes have been installed. Upon completion of the backfill, all excess material will be removed from the right of wey.

3. **METHOD OF INSTALLATION** – Crossings are to be installed by the AUGER or "DRY" BORE method end shall be accomplished by use of a laser sighted bore machine or e bore machine requiring a pilot hole. The pilot hole will serve as the centerline of the large diamater hole to be bored. The user of water or fluids in the boring operation will only be ellowed for lubricating the cutting head.

   The boring operation shall be performed from the low or downstream end. Leteral or vertical variation of the encasement pipe from the proposed line end grade will be permitted only to the extent of one (1) inch in ten (10) feet, provided that such a variation shall be regular and only in one direction.

   The encesement pipe shall be approximately the same diameter es the bore hole. Over cutting in excess of one (1) inch shall be remedied by pressure grouting the entire length of the installation with a mixture consisting of two (2) sacks of cement per yard of sand.

4. **OPTIONAL WET BORE** – The utility or contractor may request installation by the Slurry or "Wet" bore method. The approval to wet bore is granted by the Area Engineer or his designated representative on an individual permit basis. It the area office allows wet bores in their designated area, epproval will be based on bore size end soil conditions. Wet bores should be restricted to areas of rock or other suitable material which will prevent the sides of the bore hole from "caving in". A geotechnical report may be required prior to epproval. In no instance will wet boras be allowed to exceed eighteen (18) inches in diameter.

   The amount of water used for creating the slurry will be such that little or no runoff is encountered. If, in the opinion of the TxDOT inspector, at any time during the boring operation inadequate conditions are encountered for performing the wet bore, the process will be stopped and the bore will be completed by Augar bore.

   The slurry material removed from the bore may not be used in the backfilling of the bore pit.

DAL SPECIAL PROVISION 8-TRENCH EXCAVATE PIT

1. **GENERAL** – No dirt from a trench or pit excavetion shall be placed on the roadway or shoulders. All equipment and stockpiled dirt shall meet the safety clear zone distances listed below or have edequate barricades end warning devices to protect the traveling public.

   Topsoil shall be kept separate from other excavation meterial, and be replaced in accordance with "BACKFILLING" specification.

   All pits and trenches shall be kept free from standing water. If trenches end/or bore pits ere left open for extended periods of time without a continuous progression of work, the utility will be required to backfill the trench end/or bore pits. Any other pit will not be left open for more than a forty eight (48) hour period.

   In all excavations where sloughing is likely to occur, shoring will be utilized to prevent damage to the highway structure(s). The utility agency or contractor shall be responsible for maintaining trench excavation protections as required by provisions of Part 1926, Subpart P – Excavations, Trenching and Shoring of OSHA Standards.

2. **TRENCHING** – Longitudinal installations must be pleced as near e uniform alignment to the right of way line as possible. Trenching machine or backhoe mey be used. A backhoe will be required if a uniform elignment can't be maintained by use of a trenching machine.

3. **SAFETY CLEAR ZONE DISTANCES** – Minimum clear zone distances required for trench excavations end bore pit locations are as follows:

   For UNCURBED Highways

   A. Thirty (30) ft. from the edge of pavement (traveled lane) of high-speed (more than 40 mph), high volume (more than 750 vehicles per day) highways.
   B. Sixteen (16) ft* from edge of pavement of high-speed, low volume (less than 750 vehicles par dey) highways.
   C. Sixteen (16) ft* from ramps.
   D. Ten (10) ft* for low-speed (40 mph or less) highways.
   E. Ten (10) ft* for any paved intersections side streets.

   * Five (5) ft MINIMUM from edge of any shoulder.

   For CURBED Highways

   A. Thirty (30) ft from the back of curb for high-speed highweys
   B. Five (5) ft from the back of curb, plus any additional distance to clear sidewalks, for low-spaed highways
   C. Five (5) ft from the back of curb for intersecting side street.

DAL SPECIAL PROVISION 12-WATER & SANITARY SEWER

1. **GENERAL** – Longitudinal water and sanitary sewer pipelines shall be placed on uniform alignment three (3) to ten (10) feet from the right of way line. The minimum depth of cover shall be twenty-four (24) inches for non-plastic lines and thirty (30) inches for plestic lines. If a nonmetellic line is installed, a durable metal wire or other device shall be concurrently installed for detection purposes.

   Each line may be installed with enough vertical flexibility to prevent stresses; however, horizontal "snaking" of the line is prohibited.

   The utility agency shall place identification markers at the right of way line in sufficient number for longitudinal installations and at each highway crossing.

   All paved side streets crossed by a longitudinal line within TxDOT right of way must be installed as outlined in item #2 below.

2. **CROSSING** – Highway crossings are to be instelied at or near right angles to highway and must be installed with an encasemant pipe. Encasement pipe is elso to be installed under normal center medians, extend from the top of back slope for cut sections, and five (5) feet beyond the toe of slope for fill sections, unless an additional length is required as outlined in the "TRENCH EXCAVATION AND PIT LOCATION" specification.

   All crossings under existing pavement must be installed as outlined in the "CONSTRUCTION OF HIGHWAY CROSSINGS BY BORE" specification.

   The depth of cover for crossings shall be twenty-four (24) inches for non-plastic pipe and thirty (30) inches for plastic pipe under ditches. The encasement pipe must be a minimum of eighteen (18) inches or ½ the diameter of the pipe, whichever is greater, below the bottom of the pavement structure.

   The encasement shall consist of a steel pipe around and outside the carrier pipe and support the load of the ground above the pipe, the highway, and the superimposed loads there on, including construction equipment. HDPE pipe with a SDR ratio of 11 or greater may be used for encasement of water service lines. The HDPE pipe must be a single continuous piece with no joints. The strength of the encasement pipe shall equal or exceed the structural requirements for highway drainage culverts covered under ASTM specifications.

3. **ABOVE GROUND APPURTENANCES** – Fire hydrants, air release valves, and other similar appurtenances should be located et or near the right of way line. All fire hydrants will be equipped with breakaway bases and should not be located in the sidewalk. Any appurtenances may not be located any closer than 3 ft from back of curb.

   Pumps, wells, and other structures essociated with lift stations and pump stations will not be permitted within the limits of TxDOT right of way.

4. **MANHOLES** – The outside diameter of the manhole chimney et ground level shall not exceed thirty-six (36) inches. The inside diameter of the manhole for lines up to twelve (12) inches shall not excaed four (4) feet. For any increase in line size greater than twelve (12) inches the manhole may be increased a like amount. The manhole cover shall be installed flush with the ground, meet HS-20 load requirements, and weigh et least 175 pounds.

DAL SPECIAL PROVISION 14-BACKFILL

1. **GENERAL** – As soon as practical, all portions of the excavation shall be backfilled. Trenches and pits shall be backfilled with the material obtained from the excavation or from other sources. Backfill material will be free from stones of such size as to interfere with compactions; free from large lumps which will not break down readily under compaction; and free from frozen lumps, wood or other extraneous material. The TxDOT inspector may reject any material containing more than twenty (20) percent by weight of material retained on a three (3) inch sieve.

   The portion of top soil removed from the original excavation shall be replaced, as nearly as feasible, in its original position.

2. **DEPTH OF LIFTS** – The portion of backfill below the top of pipe shall be placad in uniform layers not to excaed eight (8) inches in dapth (loose measuremant). Backfill above the top of the pipe shall be placed in layers not to exceed tan (10) inches in depth (loose measuremant). If the backfill is to support a portion of roadway or embankmant, than the material will be placad in uniform layers not to exceed eight (8) inches in depth (loose measurement).

3. **PROCEDURE FOR COMPACTION** – Each layer of backfill material, if dry, shall be wetted uniformly to the moisture content required to obtain a density comparable with the adjacent undisturbed soil and shall be compacted to that density by means of mechanical tampers or rammers. The use of rolling equipment of the type generally used in compacting embankments will be permitted on portions that are accessible to such equipment. Water jetting or ponding will not be permitted.

   Special care shall be taken to ensure thorough compaction of material placed under the haunches of the pipe.

   Cohesionless materials, such as sand, may be used for general backfilling purposes. Compaction of cohesionless materials shall be done with vibratory equipment.

4. **RESTORATION OF RIGHT OF WAY** – Prompt replacement of sod, removal of debris, and any other restoration necessary to restore the right of way to a condition equal to that which existed prior to the utility installation will be required. In areas of erosion, the use of stabilized backfill may be required. Should settlement or erosion occur within six (6) months of the utility installation, the utility agency will be required to reshape, reseed, and/or resod the area.

5. **EROSION CONTROL** – In order to minimize erosion and sedimentation resulting from the proposed installation, the project area will be revegetated in accordance with items 162 for Resodding or item 164 for Reseeding in the latest edition of TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges.

   Remove all erosion control devises from the State Right of Way upon concurrence with TxDOT's Inspector that 70% of the vegetative coverage of disturbed areas has been established.

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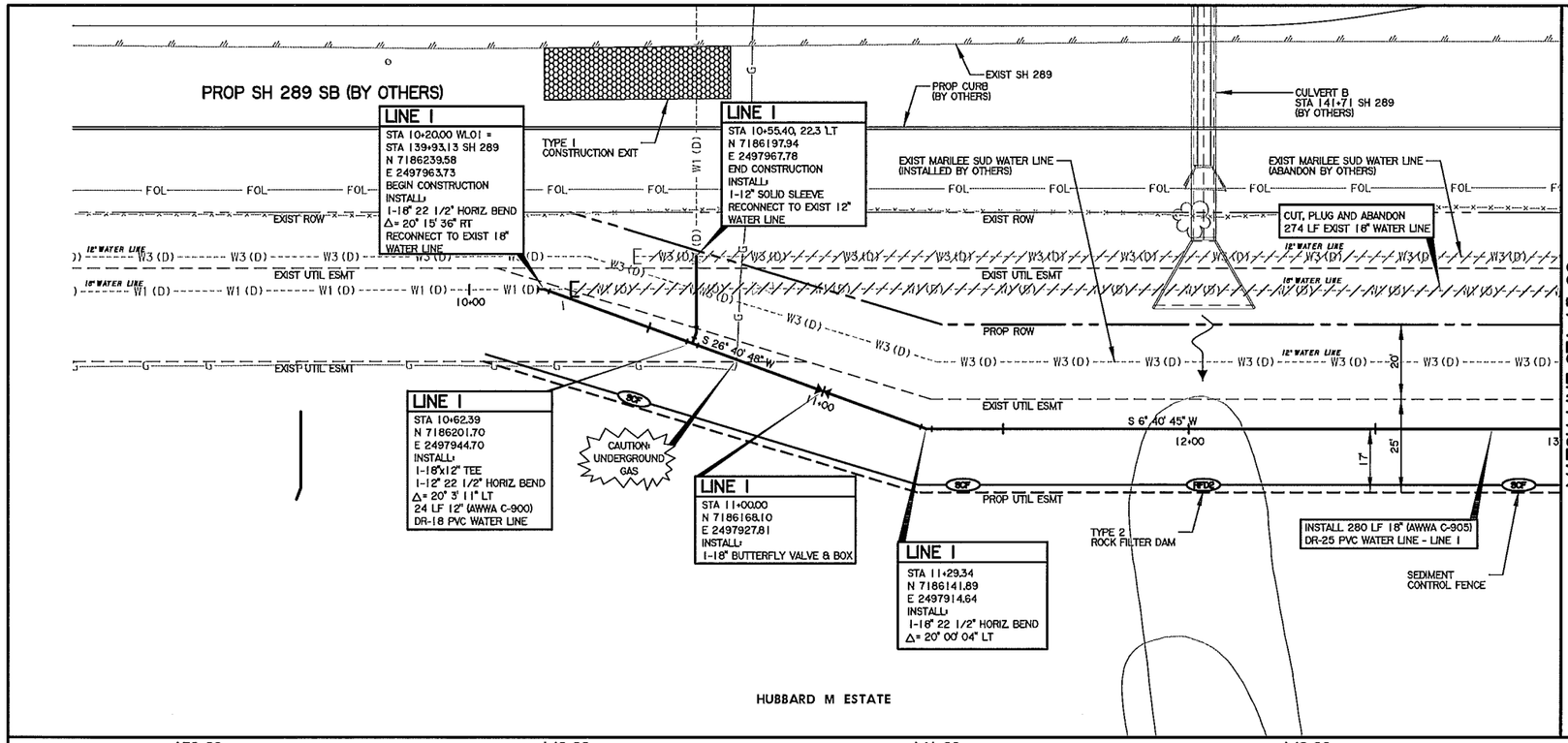

NOTES:

THE CONTRACTOR SHALL MAKE ALL THE NECESSARY PROVISIONS FOR THE SUPPORT, LOCATING, PROTECTION, RELOCATION, AND TEMPORARY RELOCATION OF ALL UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW THE GROUND DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES AS A RESULT OF CONSTRUCTION OPERATIONS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

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THE CONTRACTOR SHALL CONTACT THE FOLLOWING AGENCIES AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION AT ANY LOCATION:

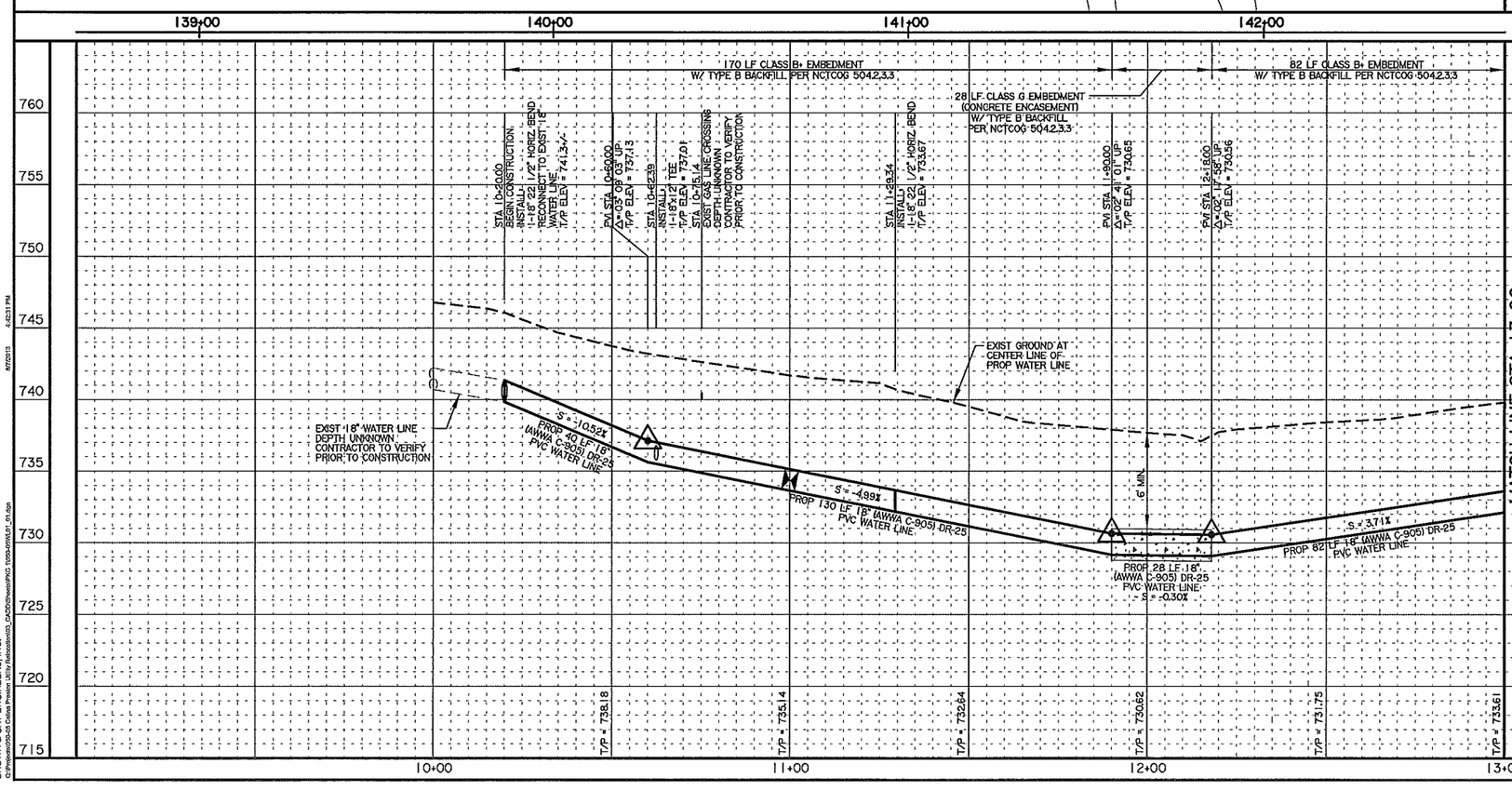
DIG TESS	800-DIG-TESS
ATMOS ENERGY (GAS)	800-460-3030
GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-558-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	778
TYPE 2 ROCK FILTER DAM	LF	35
TYPE 1 CONSTRUCTION EXIT	SY	78
SEDIMENT CONTROL FENCE	LF	260
DISTURBED AREA	ACRES	0.16

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

SCALE: 1" = 20'

RECORD DRAWING

THIS DRAWING REFLECTS FIELD INFORMATION REPORTED BY THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED.

08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 1
STA 10+00 TO STA 13+00

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
--- Civil engineers and surveyors ---
TBPE Registration No. F-1046

Copyright 2012

DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	5 of 24
CHECKED: JJF				

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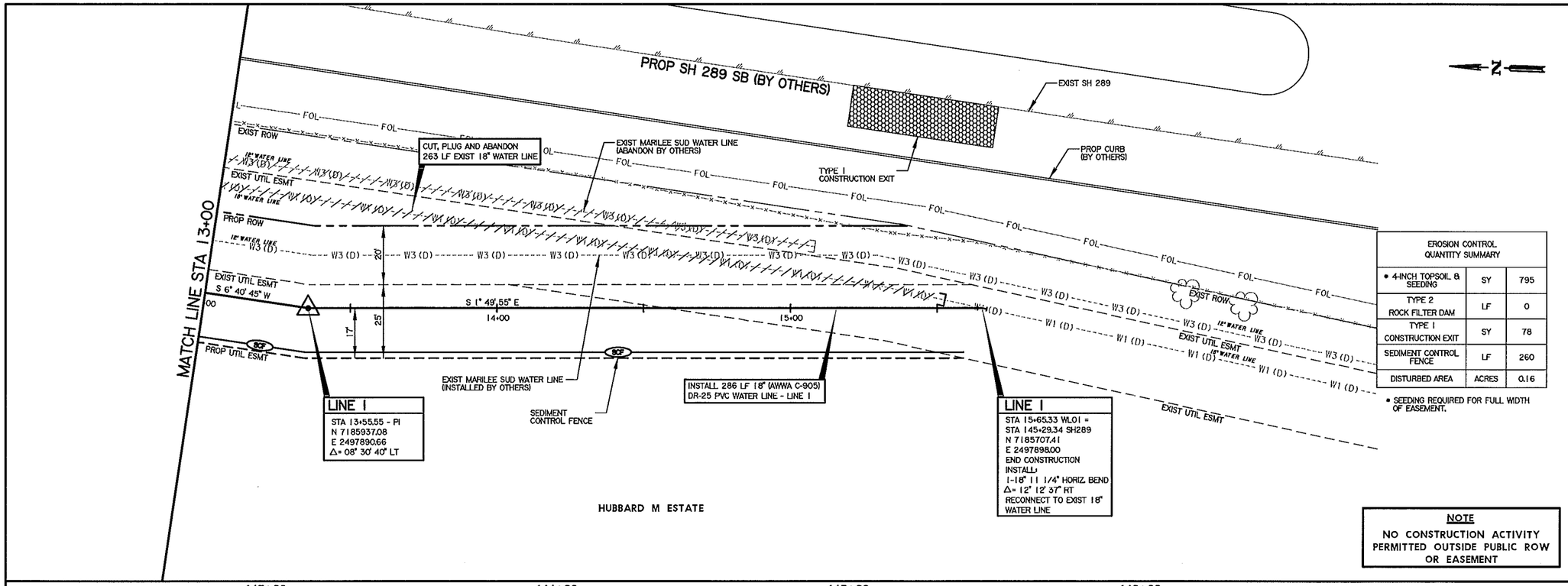

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	795
TYPE 2 ROCK FILTER DAM	LF	0
TYPE I CONSTRUCTION EXIT	SY	78
SEDIMENT CONTROL FENCE	LF	260
DISTURBED AREA	ACRES	0.16

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

NOTES:

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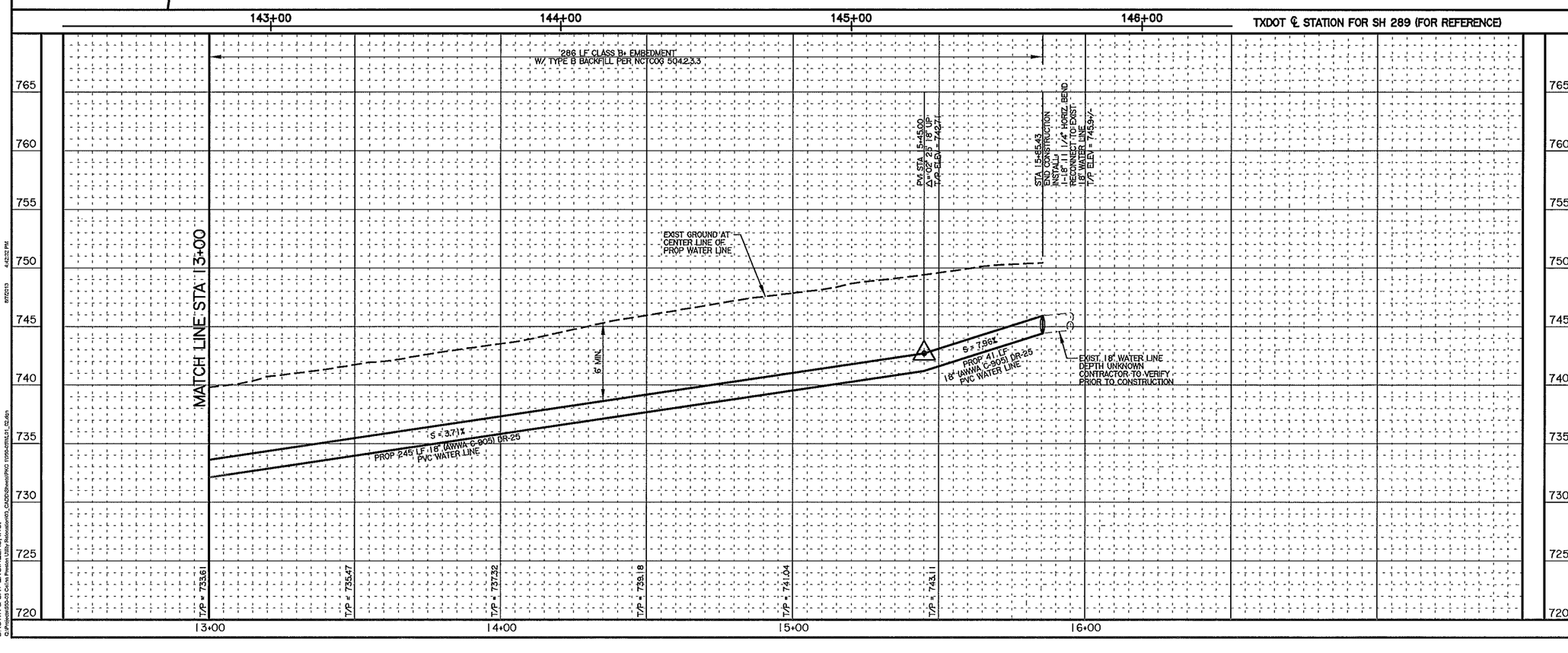
DIG TESS	800-DIG-TESS
ATMOS ENERGY (GAS)	800-460-3030
GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
SCALE: 1" = 20'

RECORD DRAWING

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08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 1
STA 13+00 TO STA 15+85.43

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046

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DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	6 of 24
CHECKED: JJF				

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BROWN & GAY ENGINEERS, INC.
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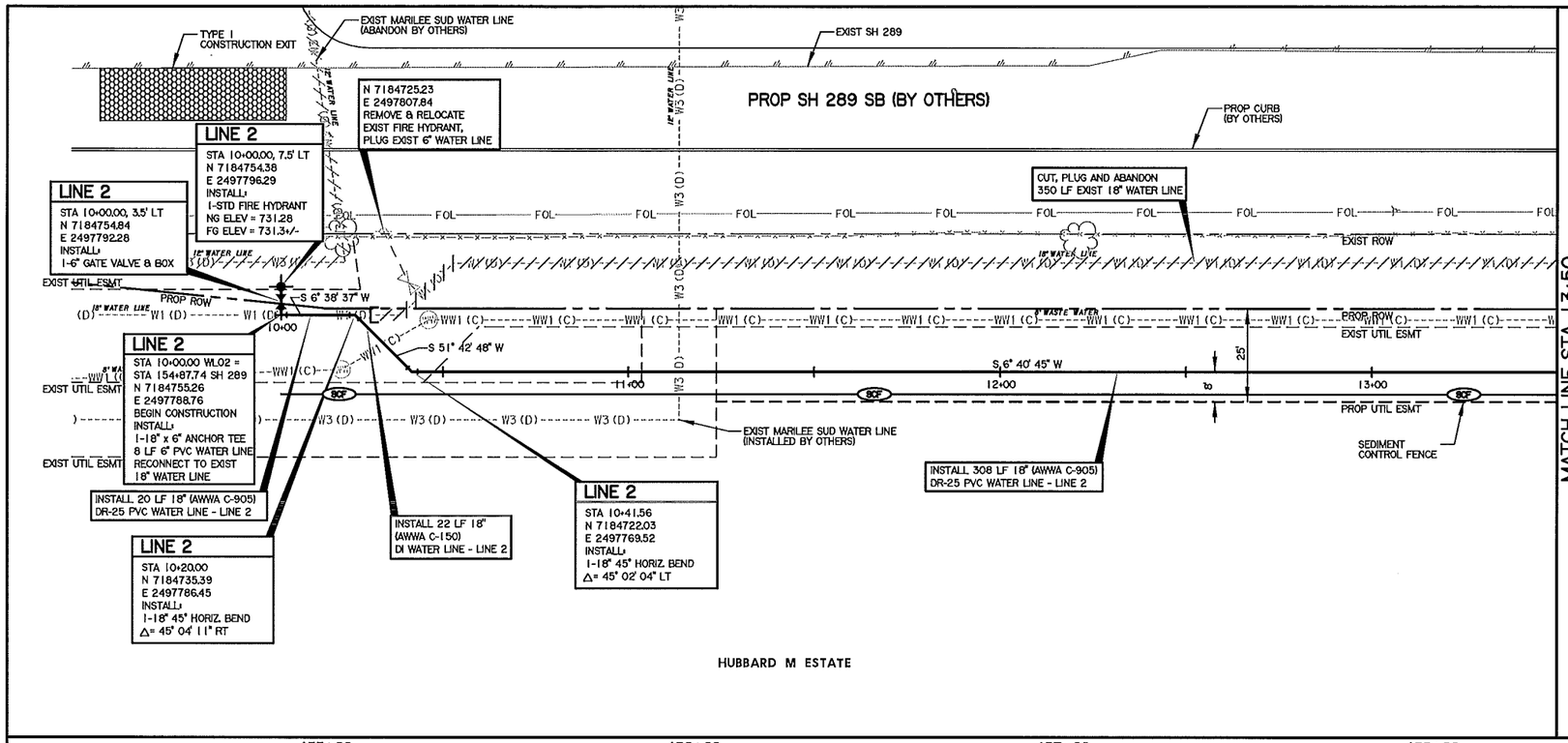

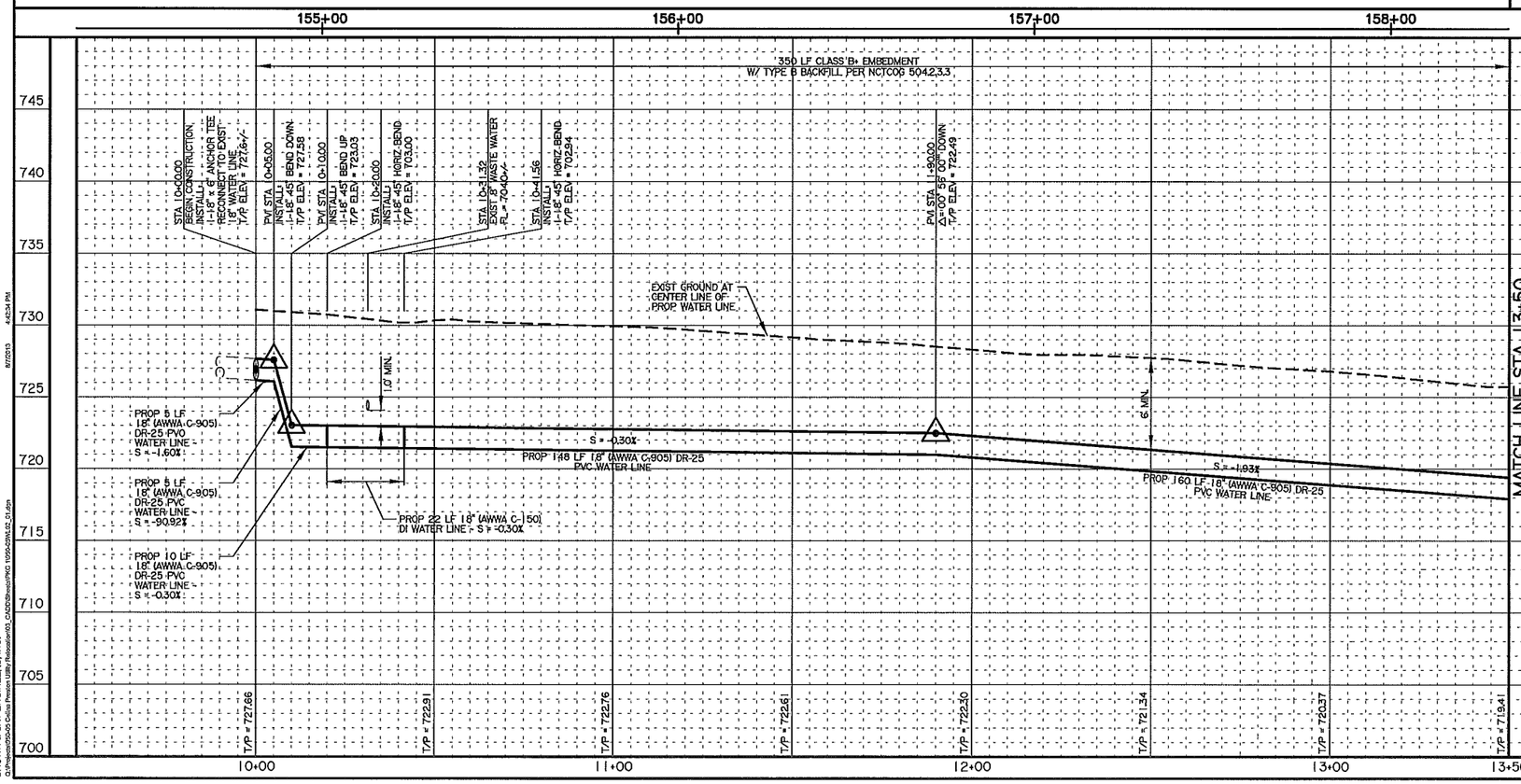

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ATMOS ENERGY (GAS)	800-460-3030
GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	972
TYPE 2 ROCK FILTER DAM	LF	0
TYPE I CONSTRUCTION EXIT	SY	78
SEDIMENT CONTROL FENCE	LF	345
DISTURBED AREA	ACRES	0.20

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

SCALE: 1" = 20'

RECORD DRAWING

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08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 2
STA 10+00 TO STA 13+50

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046

Copyright 2012

DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	7 of 24
CHECKED: JJF				

W-201308-01

BROWN & GAY ENGINEERS, INC.
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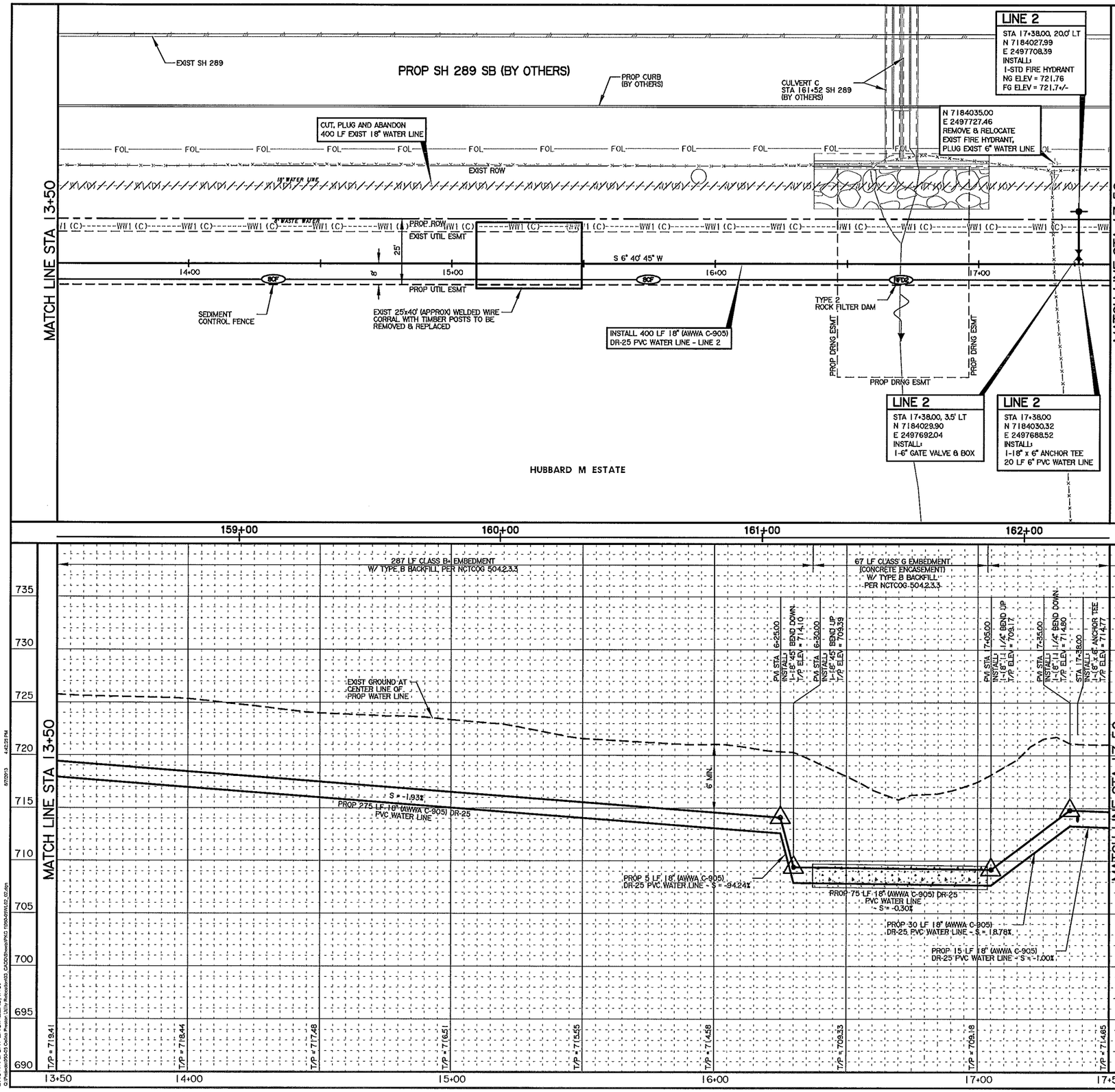

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ATMOS ENERGY (GAS)	800-460-3030
GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	1111
TYPE 2 ROCK FILTER DAM	LF	67
TYPE 1 CONSTRUCTION EXIT	SY	0
SEDIMENT CONTROL FENCE	LF	335
DISTURBED AREA	ACRES	0.23

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

RECORD DRAWING

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0 10 20 40
SCALE: 1" = 20'

08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 2
STA 13+50 TO STA 17+50

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
--- Civil engineers and surveyors ---
TBPE Registration No. F-1046

Copyright 2012

DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	8 of 24
CHECKED: JJF				

W-201308-01

BROWN & GAY ENGINEERS, INC.
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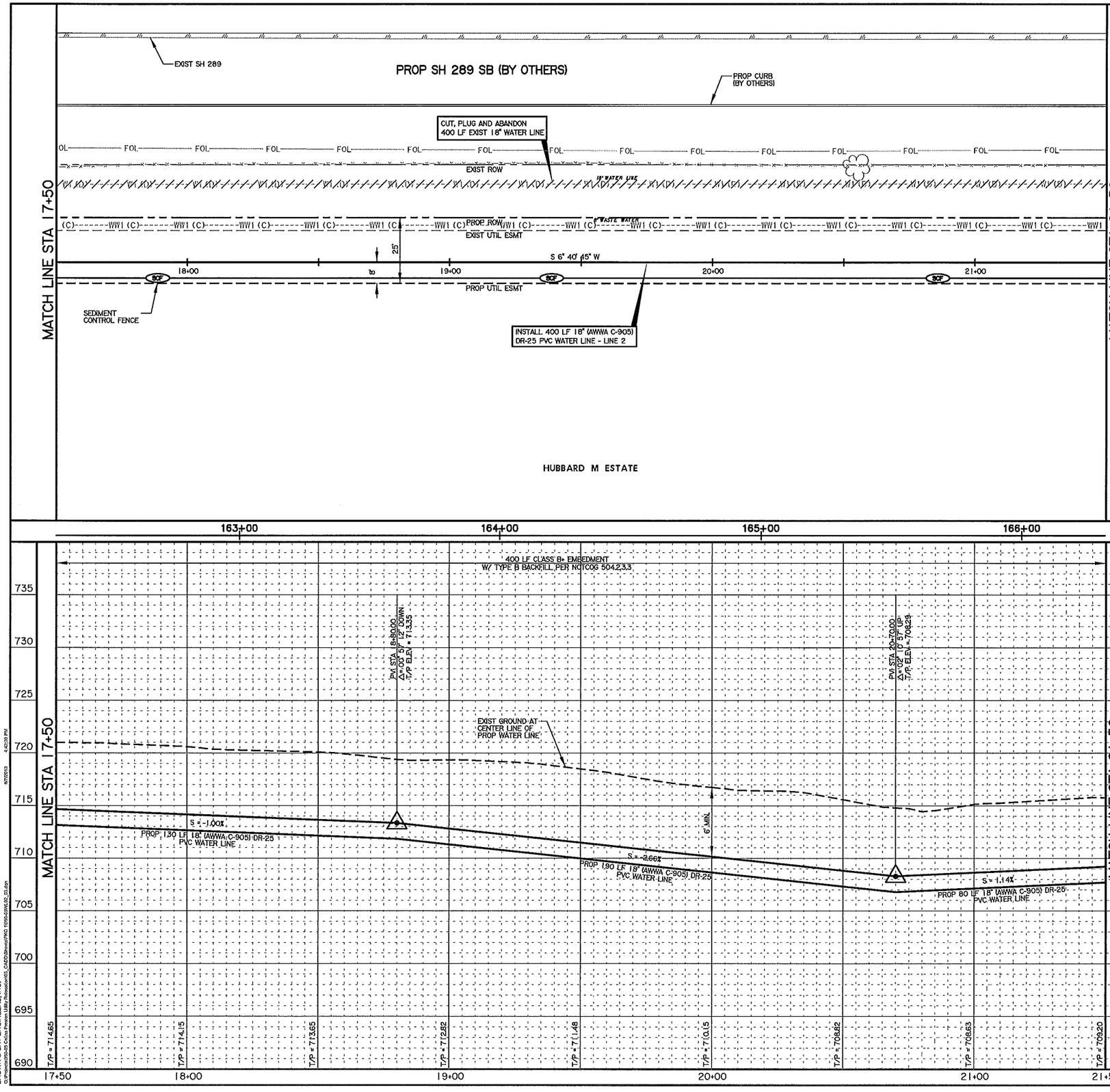

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GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	1111
TYPE 2 ROCK FILTER DAM	LF	0
TYPE 1 CONSTRUCTION EXIT	SY	0
SEDIMENT CONTROL FENCE	LF	400
DISTURBED AREA	ACRES	0.23

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE
NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

LEGEND
- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
SCALE: 1" = 20'

RECORD DRAWING

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08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 2
STA 17+50 TO STA 21+50

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4600 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046

Copyright 2012

DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	9 of 24
CHECKED: JJF				

W-201308-01

BROWN & GAY ENGINEERS, INC.
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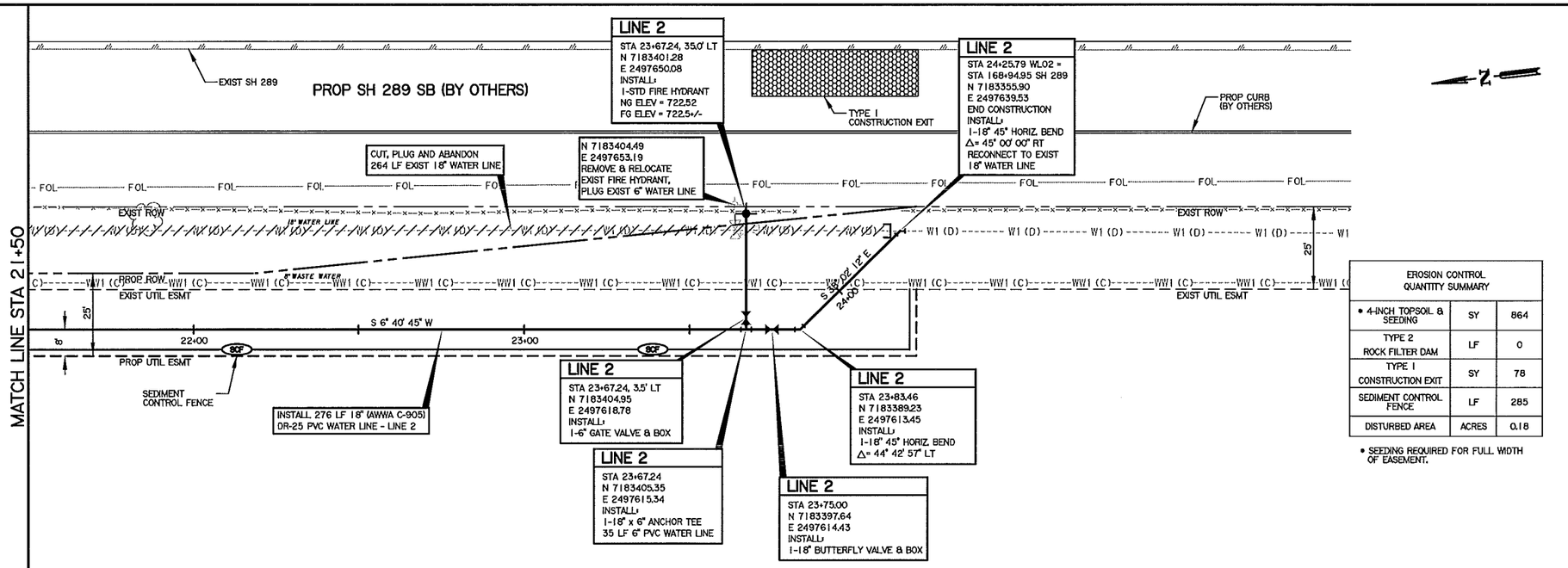

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	864
TYPE 2 ROCK FILTER DAM	LF	0
TYPE I CONSTRUCTION EXIT	SY	78
SEDIMENT CONTROL FENCE	LF	285
DISTURBED AREA	ACRES	0.18

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

NOTES:

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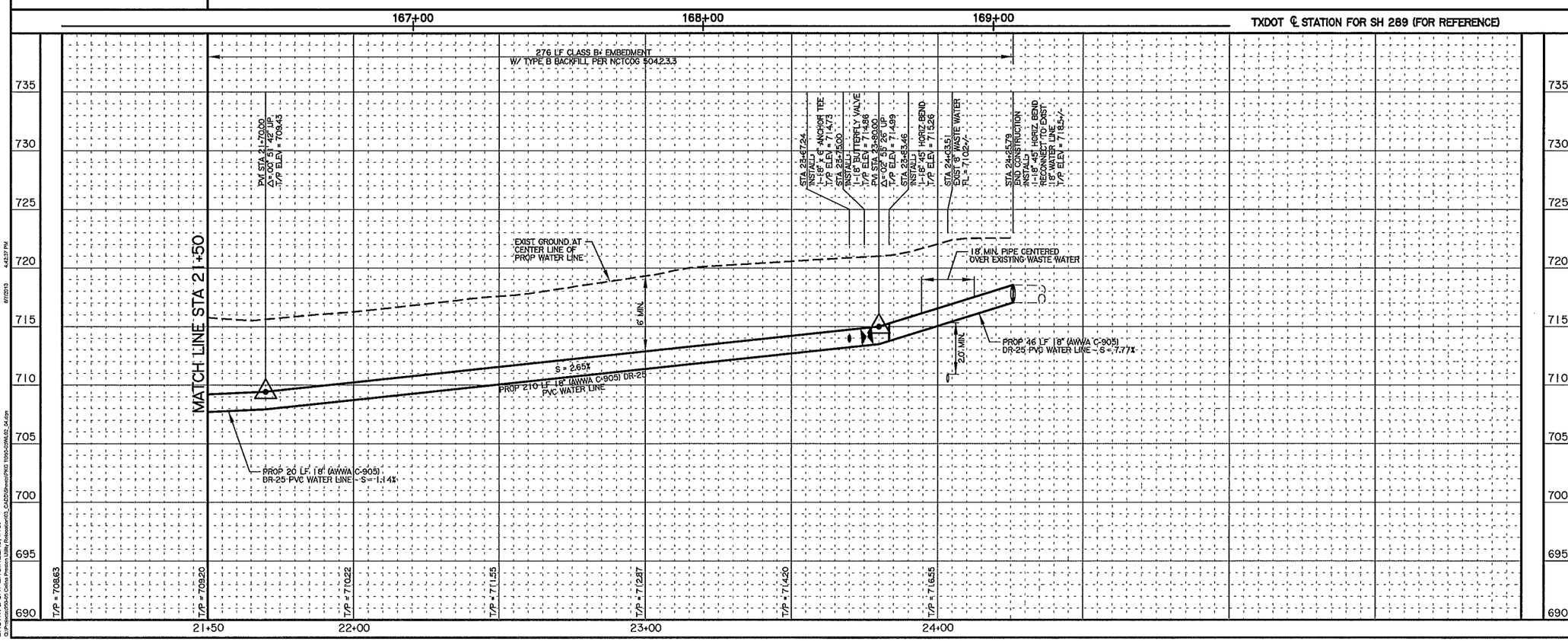
ATMOS ENERGY (GAS)	800-460-3030
GCEC-TELEGRAN	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-WoCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

RECORD DRAWING

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0 10 20 40
SCALE: 1" = 20'

08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 2
STA 21+50 TO STA 24+25.79

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4809
--- Civil engineers and surveyors ---
TBPE Registration No. F-1046

Copyright 2012

DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	10 of 24
CHECKED: JJF				

W-201308-01

BROWN & GAY ENGINEERS, INC.
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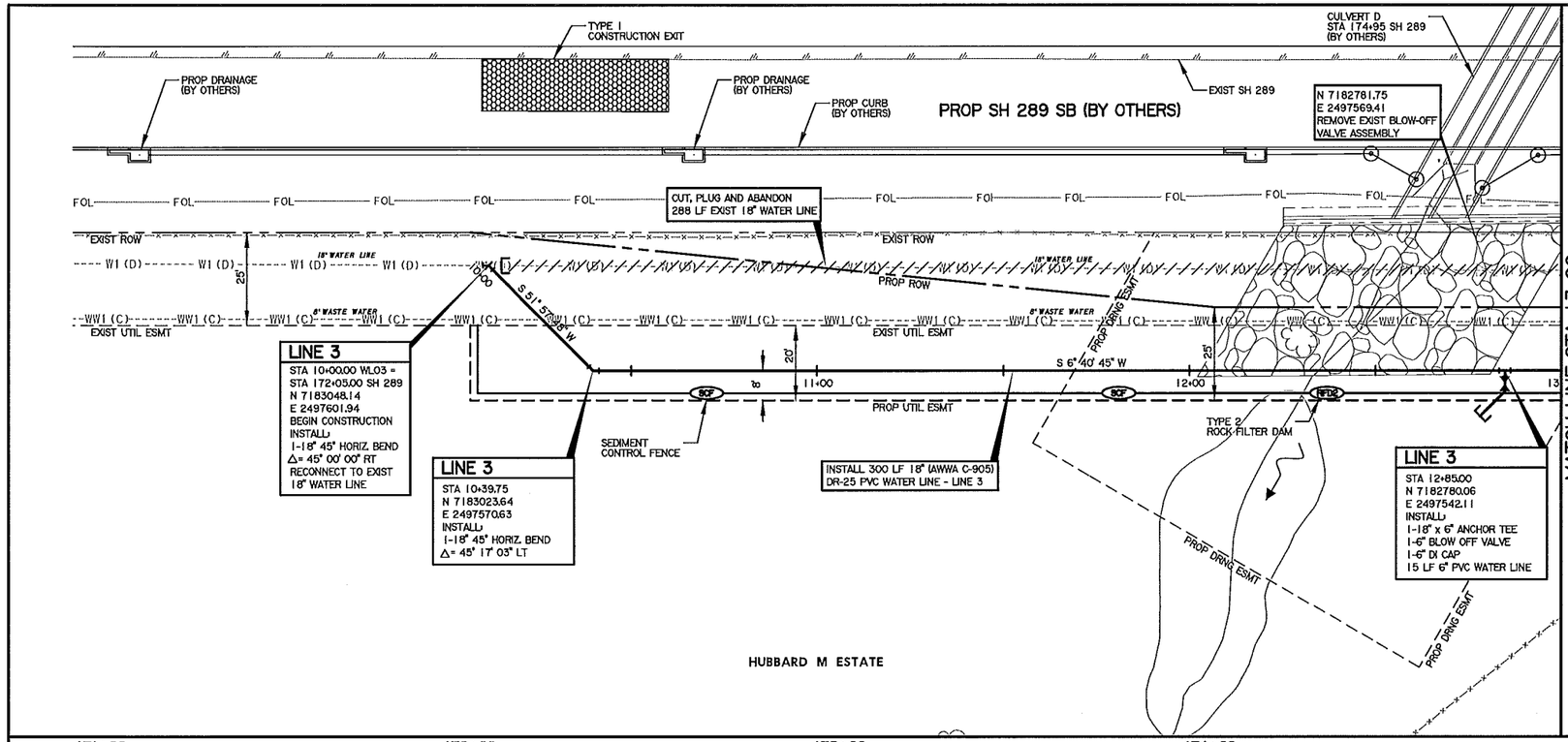

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GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
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CROSSTEX ENERGY	817-570-6753
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COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
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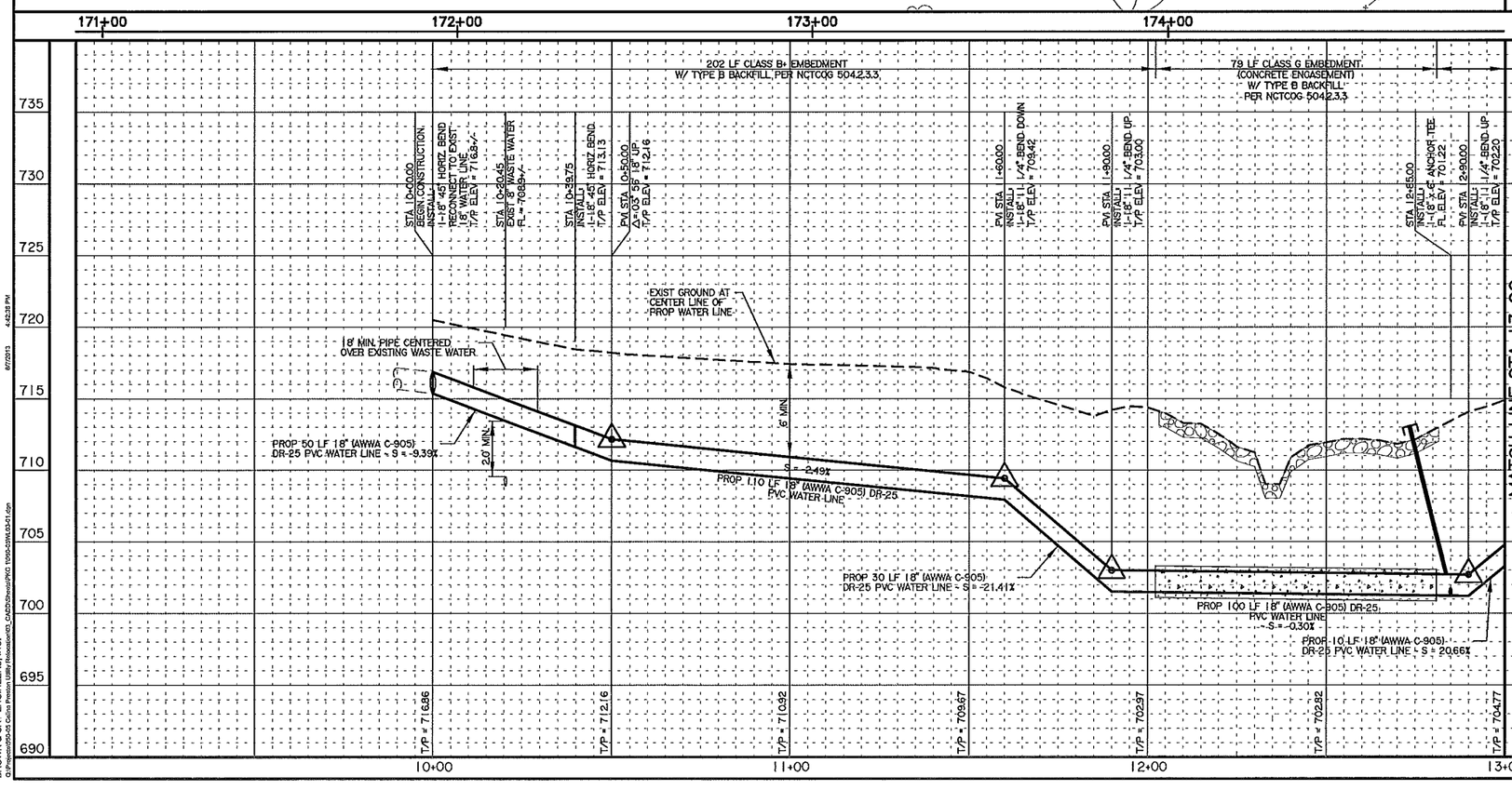
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY

* 4-INCH TOPSOIL & SEEDING	SY	833
TYPE 2 ROCK FILTER DAM	LF	80
TYPE 1 CONSTRUCTION EXIT	SY	78
SEDIMENT CONTROL FENCE	LF	230
DISTURBED AREA	ACRES	0.17

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE
NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

RECORD DRAWING

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08/07/2013

0 10 20 40
SCALE: 1" = 20'

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 3
STA 10+00 TO STA 13+00

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
--- Civil engineers and surveyors ---
TBPE Registration No. F-1046

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DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	11 of 24
CHECKED: JJF				

W-201308-01

BROWN & GAY ENGINEERS, INC.
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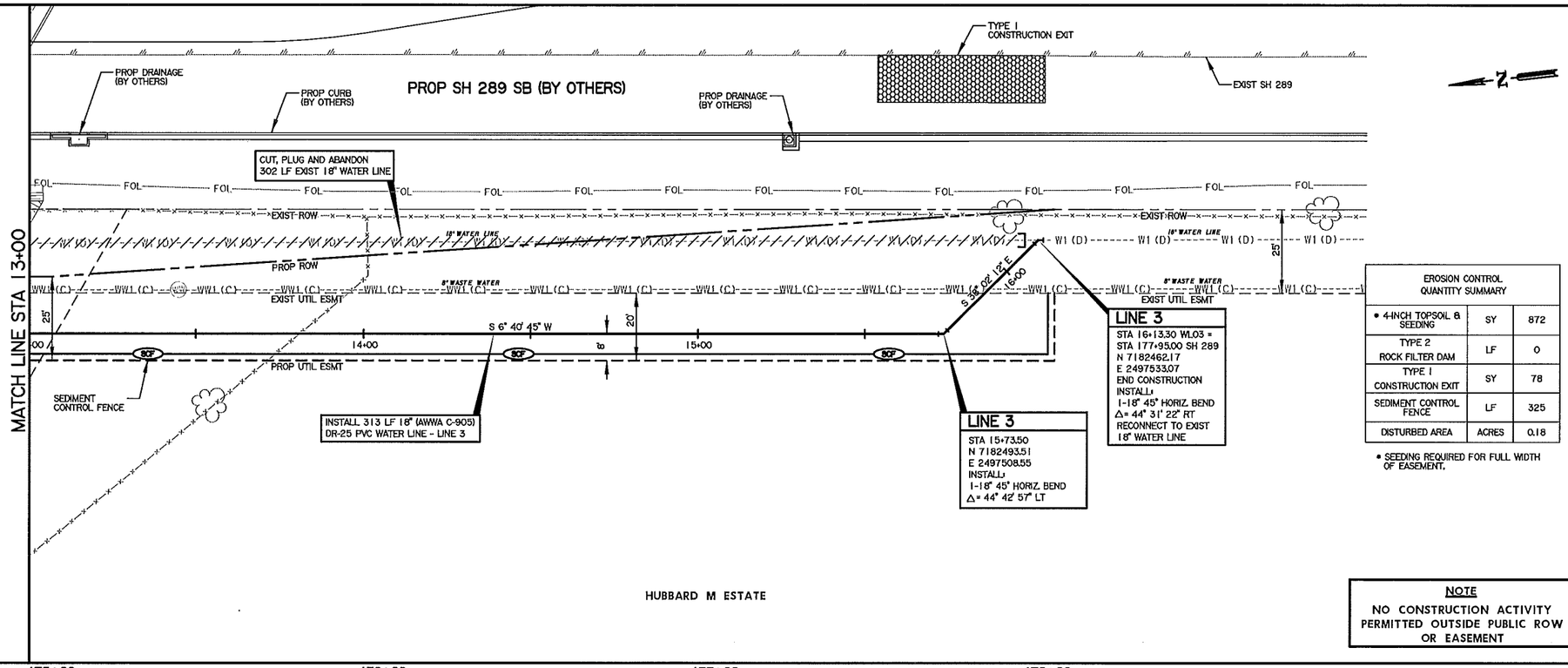

NOTES:

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THE CONTRACTOR SHALL CONTACT THE FOLLOWING AGENCIES AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION AT ANY LOCATION:

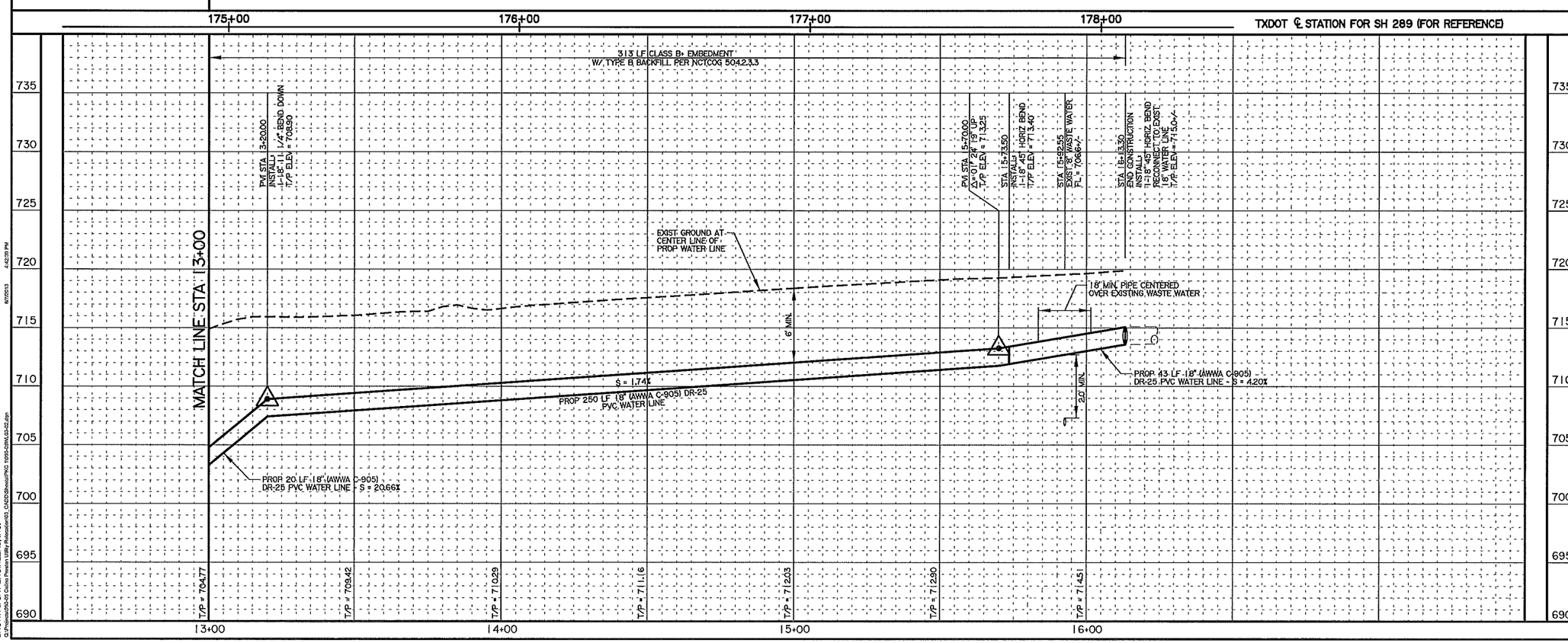
DIG TESS	800-DIG-TESS
ATMOS ENERGY (GAS)	800-460-3030
GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	872
TYPE 2 ROCK FILTER DAM	LF	0
TYPE I CONSTRUCTION EXIT	SY	78
SEDIMENT CONTROL FENCE	LF	325
DISTURBED AREA	ACRES	0.18

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
SCALE: 1" = 20'

RECORD DRAWING

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142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 3
STA 13+00 TO STA 16+13.30

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046

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DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	12 of 24
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BROWN & GAY ENGINEERS, INC.
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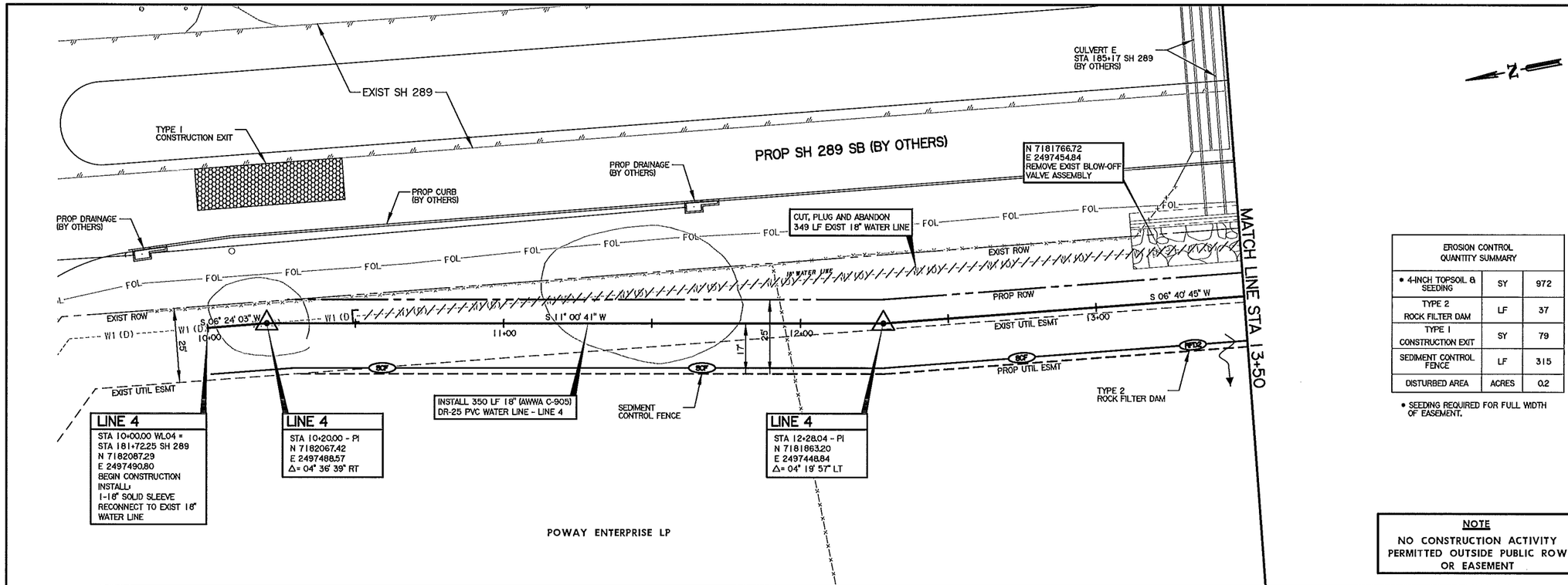

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GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
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ONEOK	903-257-6594
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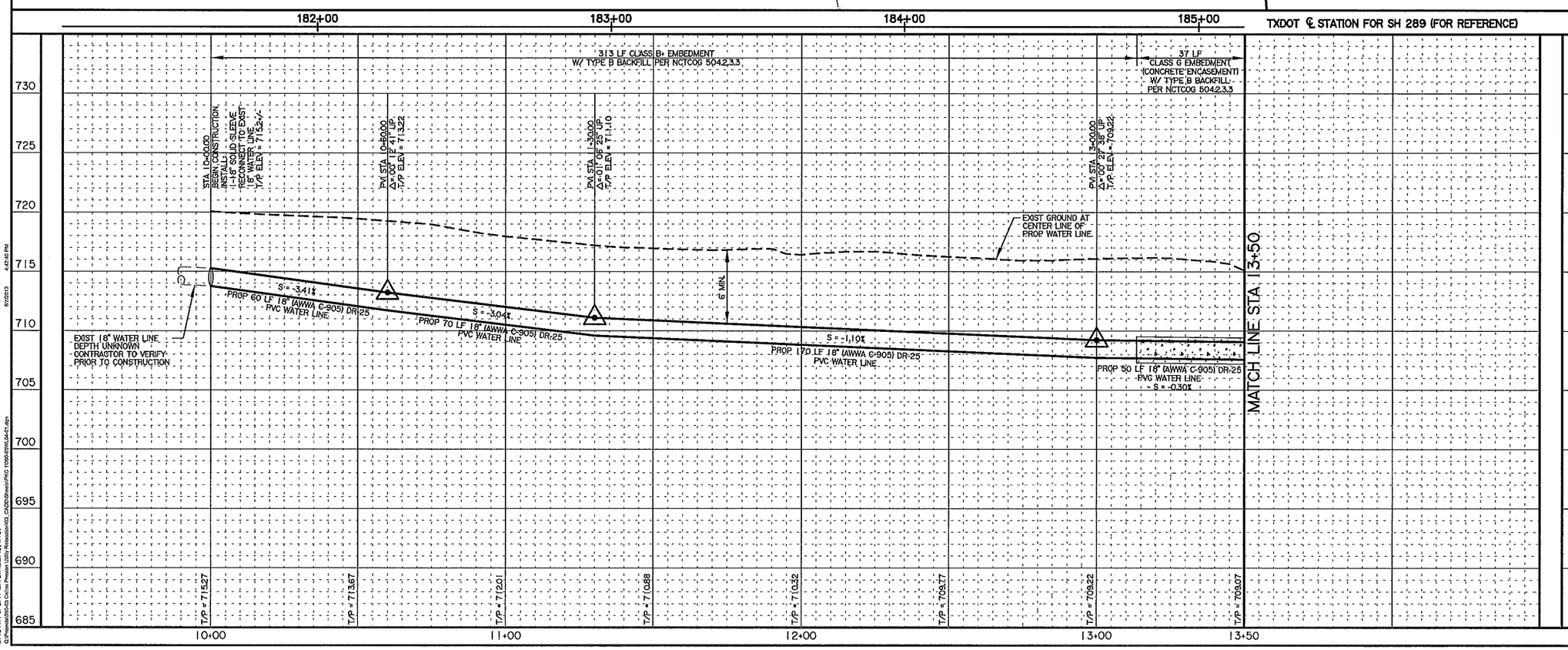
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
• 4-INCH TOPSOIL & SEEDING	SY	972
TYPE 2 ROCK FILTER DAM	LF	37
TYPE I CONSTRUCTION EXIT	SY	79
SEDIMENT CONTROL FENCE	LF	315
DISTURBED AREA	ACRES	0.2

• SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
SCALE: 1" = 20'

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CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 4
STA 10+00 TO STA 13+50

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046
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BROWN & GAY ENGINEERS, INC.
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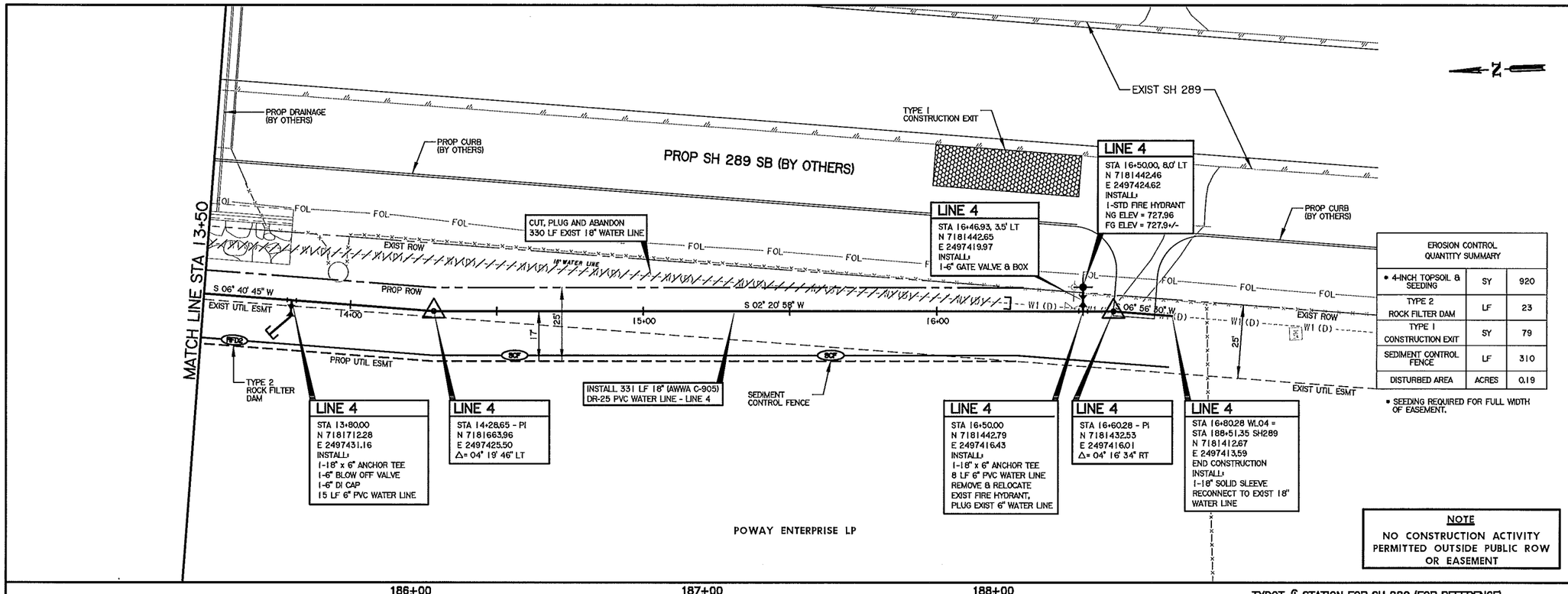

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	920
TYPE 2 ROCK FILTER DAM	LF	23
TYPE 1 CONSTRUCTION EXIT	SY	79
SEDIMENT CONTROL FENCE	LF	310
DISTURBED AREA	ACRES	0.19

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

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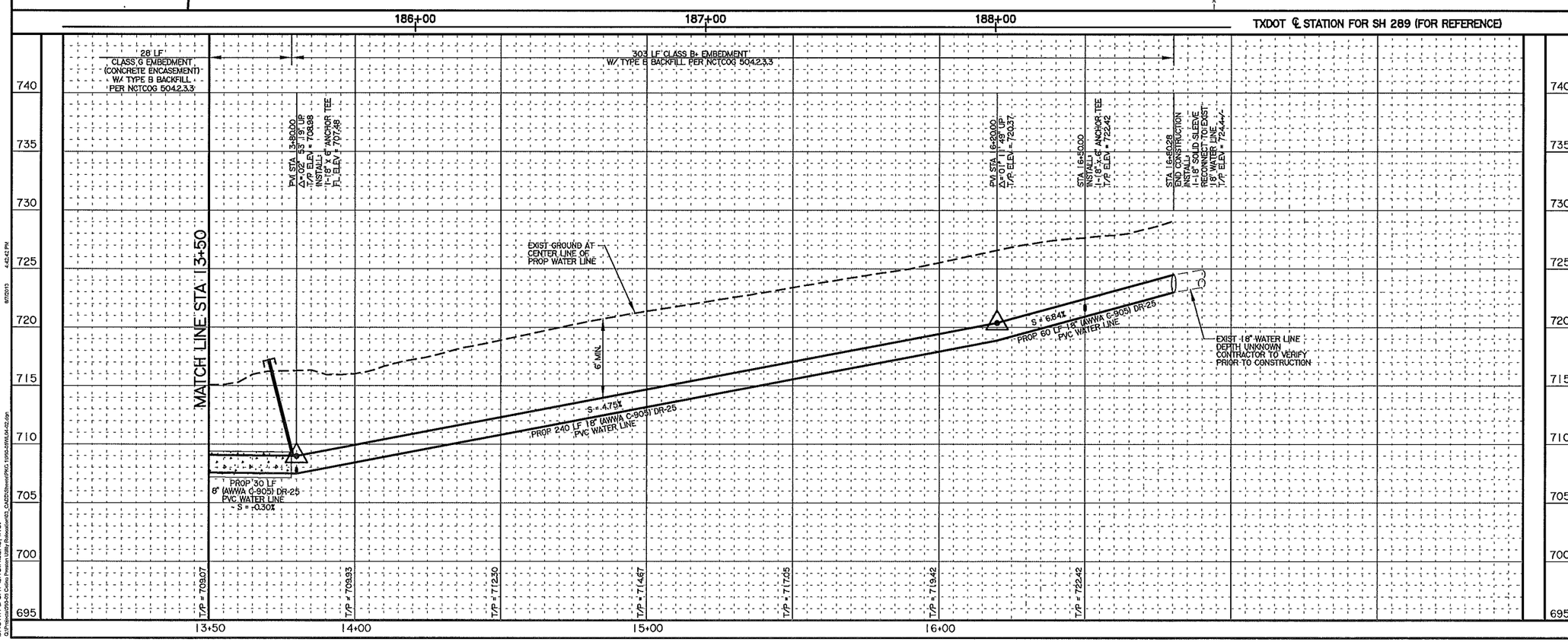
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-558-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
SCALE: 1" = 20'

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CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 4
STA 13+50 TO STA 16+60.28

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046
Copyright 2012

DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	14 of 24
CHECKED: JJF				

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BROWN & GAY ENGINEERS, INC.
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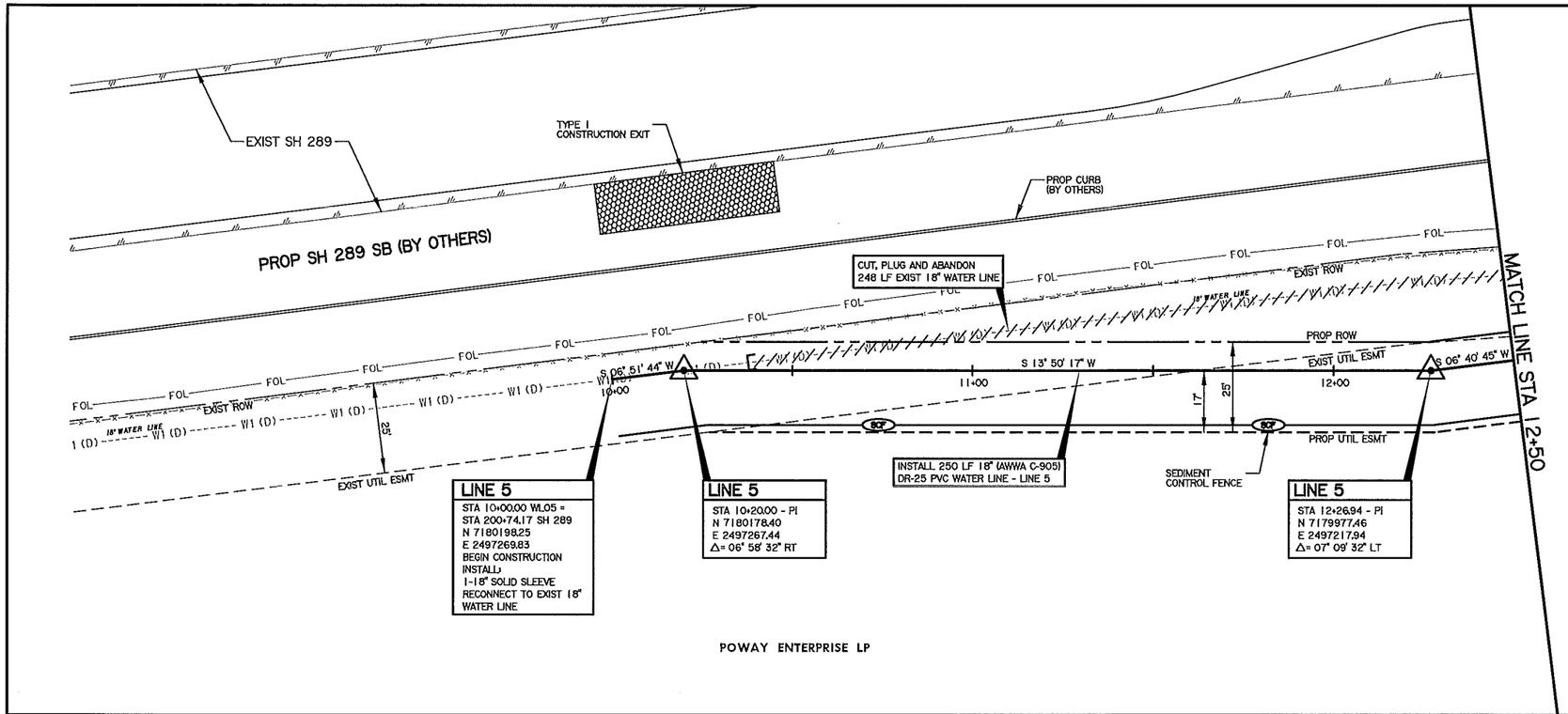

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AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
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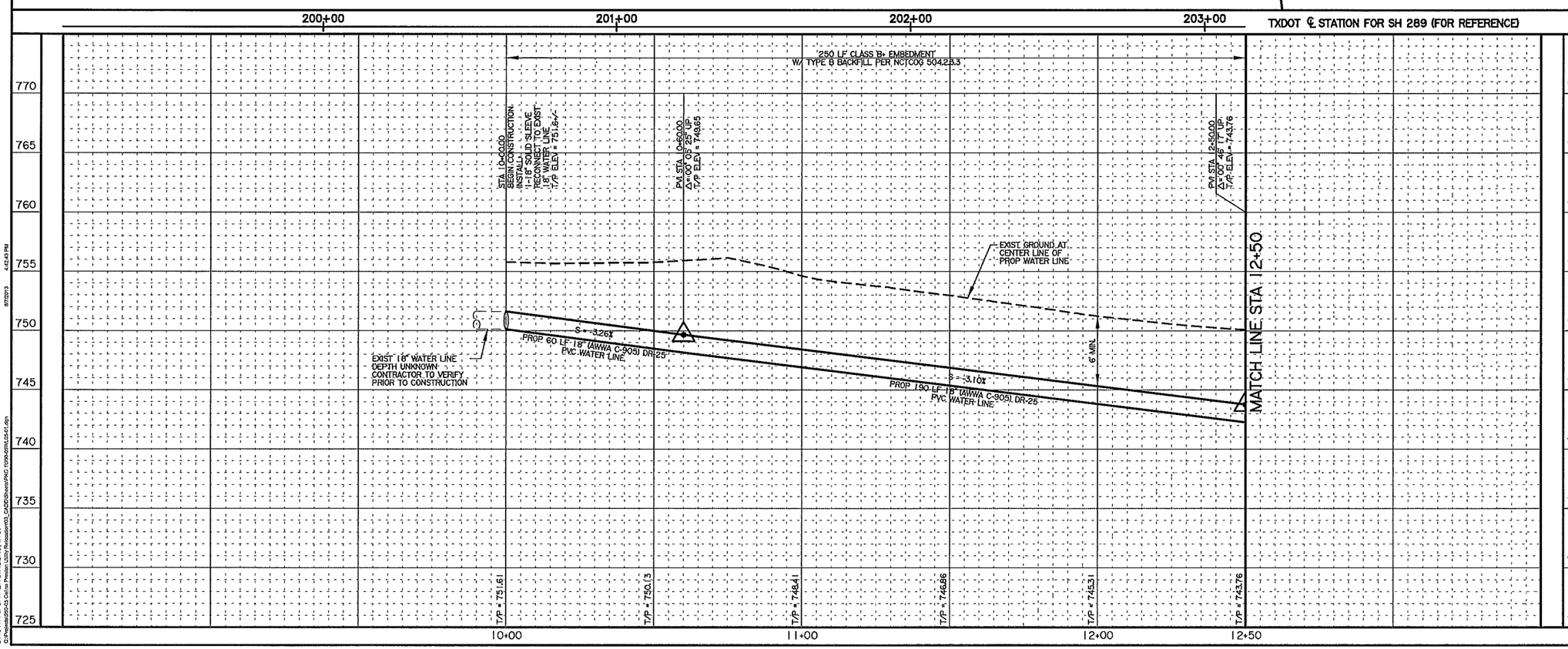
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-558-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	695
TYPE 2 ROCK FILTER DAM	LF	0
TYPE I CONSTRUCTION EXIT	SY	79
SEDIMENT CONTROL FENCE	LF	245
DISTURBED AREA	ACRES	0.5

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE
NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT



LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
SCALE: 1" = 20'

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CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 5
STA 10+00 TO STA 12+50

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
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DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	15 of 24
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BROWN & GAY ENGINEERS, INC.
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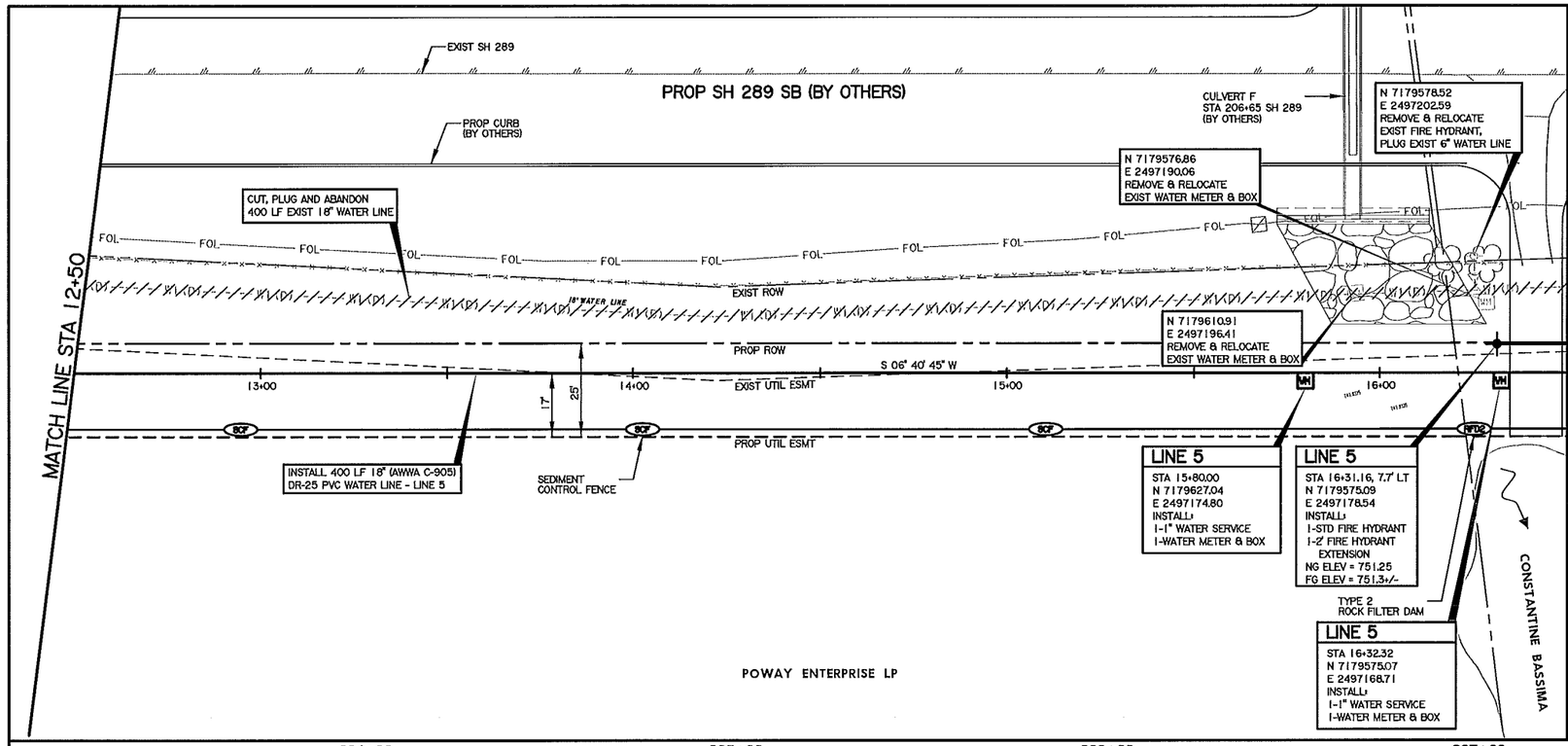

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COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	1111
TYPE 2 ROCK FILTER DAM	LF	50
TYPE 1 CONSTRUCTION EXIT	SY	0
SEDIMENT CONTROL FENCE	LF	350
DISTURBED AREA	ACRES	0.23

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE
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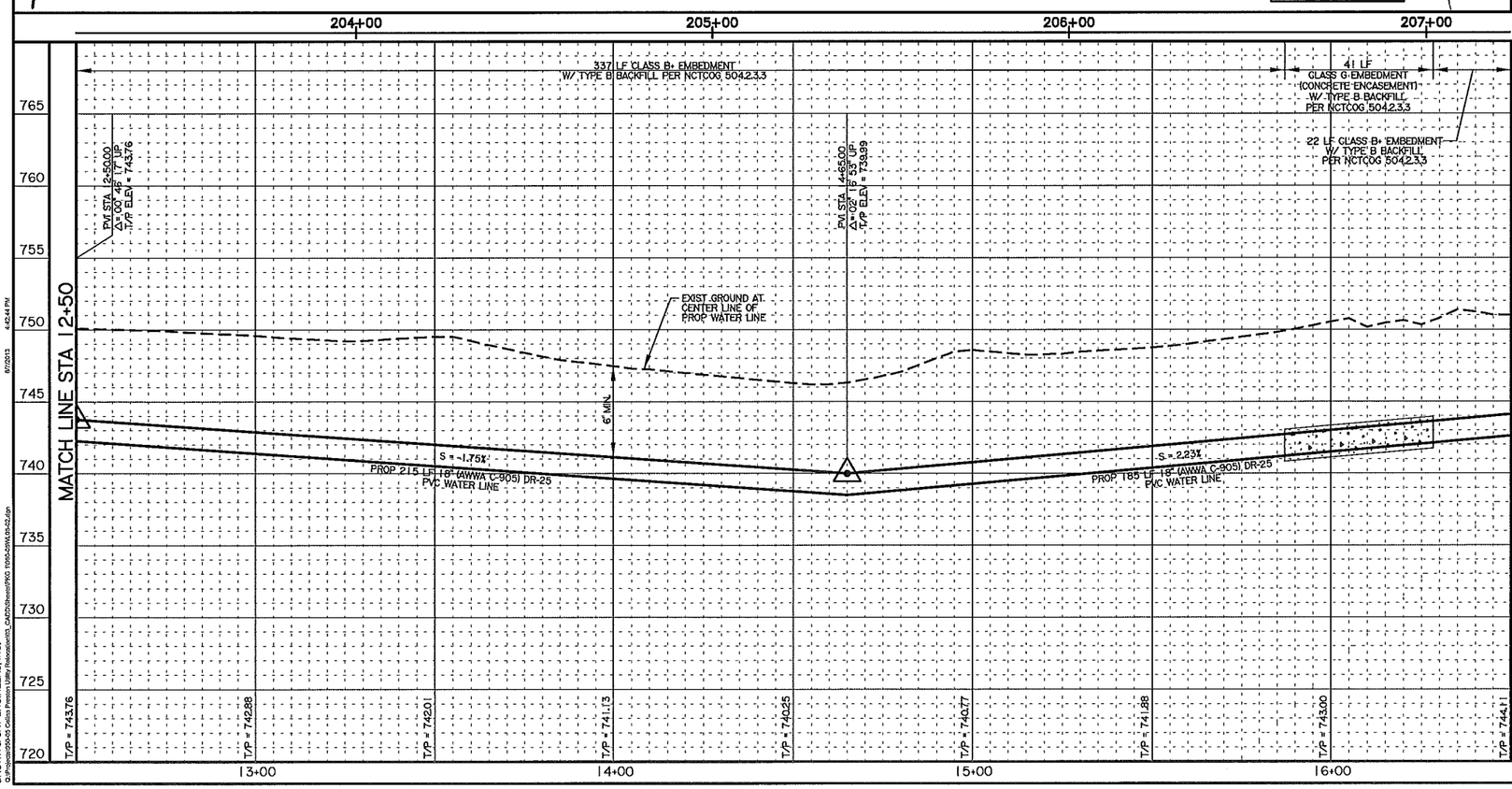

LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
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142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

18" WATER PLAN & PROFILE
LINE 5
STA 12+50 TO STA 16+50

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
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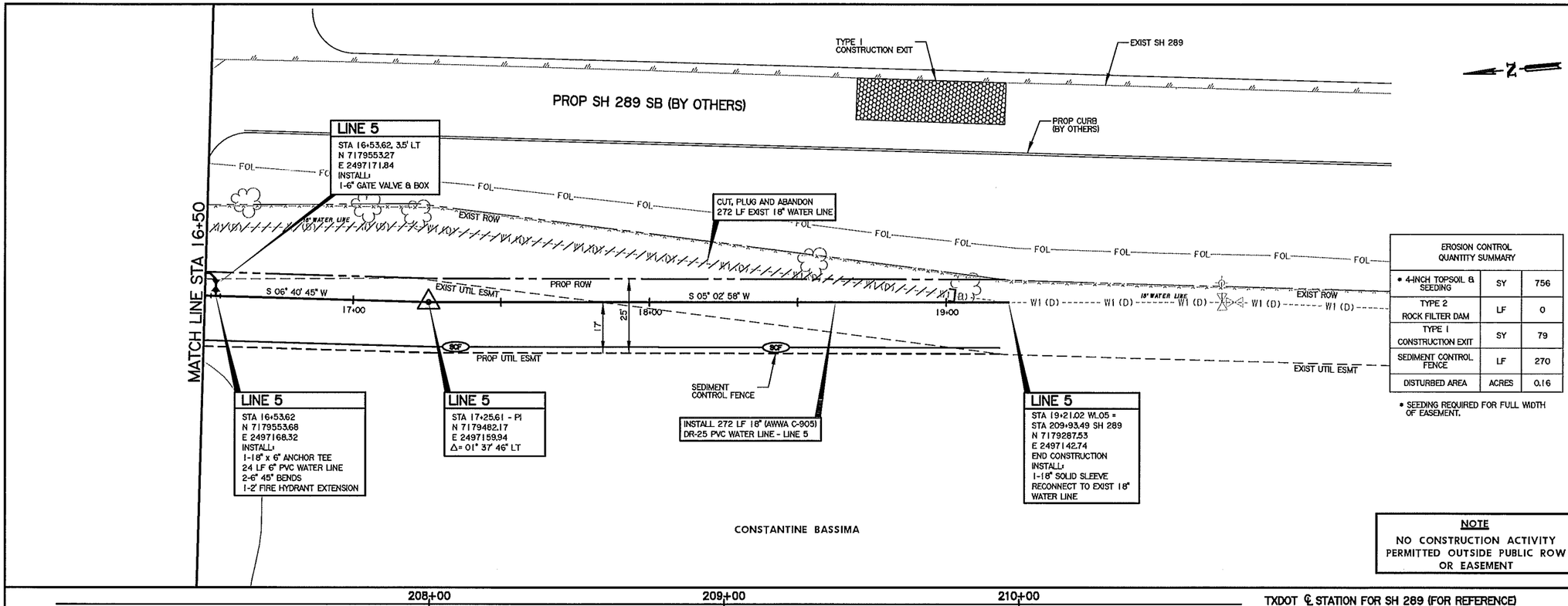

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COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

EROSION CONTROL QUANTITY SUMMARY		
* 4-INCH TOPSOIL & SEEDING	SY	756
TYPE 2 ROCK FILTER DAM	LF	0
TYPE I CONSTRUCTION EXIT	SY	79
SEDIMENT CONTROL FENCE	LF	270
DISTURBED AREA	ACRES	0.16

* SEEDING REQUIRED FOR FULL WIDTH OF EASEMENT.

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

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SCALE: 1" = 20'

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LINE 5
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BROWN & GAY ENGINEERS, INC.
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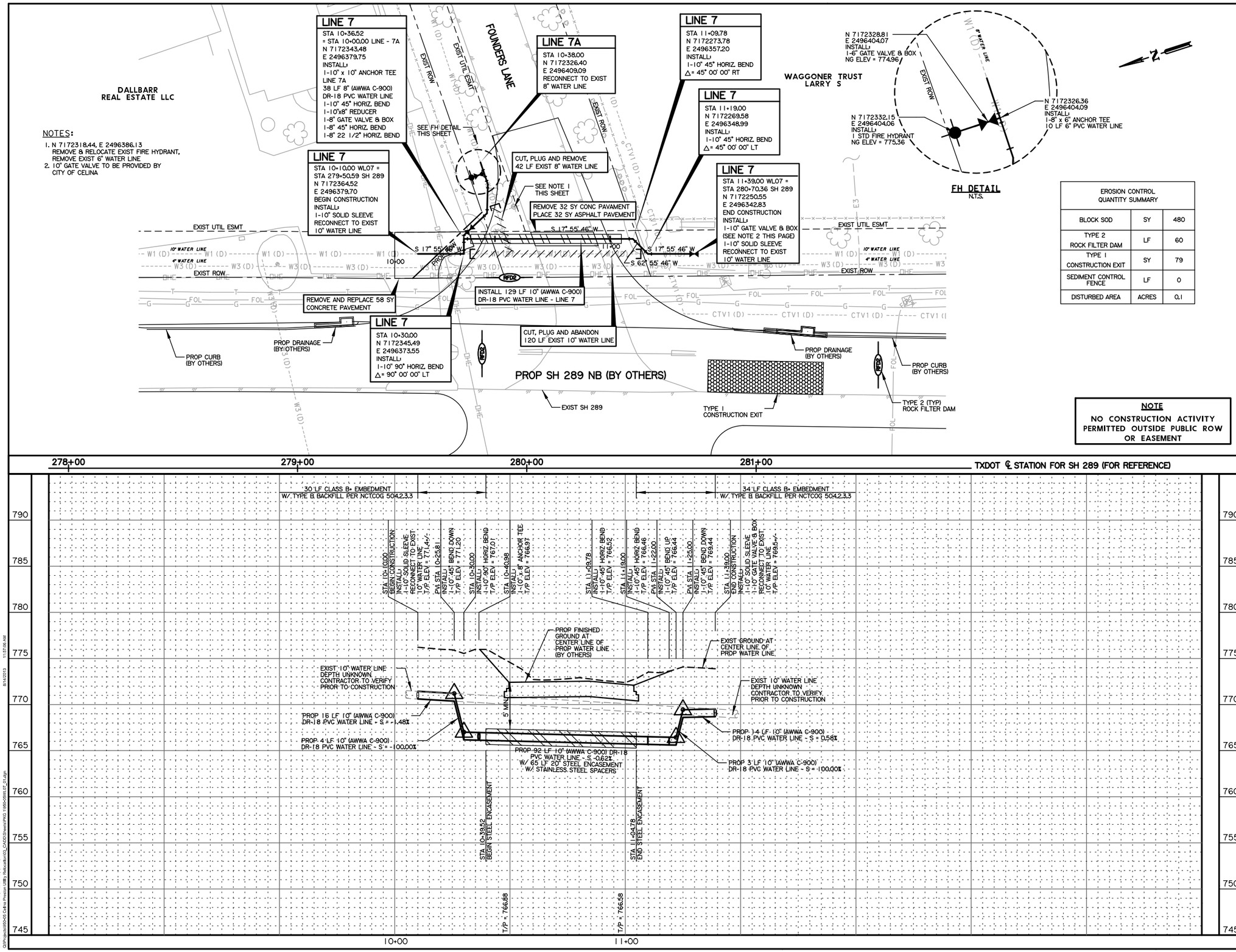

FH DETAIL
N.T.S.

NOTES:

1. N 7172318.44, E 2496386.13
   REMOVE & RELOCATE EXIST FIRE HYDRANT, REMOVE EXIST 6" WATER LINE
2. 10" GATE VALVE TO BE PROVIDED BY CITY OF CELINA

EROSION CONTROL QUANTITY SUMMARY		
BLOCK SOD	SY	480
TYPE 2 ROCK FILTER DAM	LF	60
TYPE 1 CONSTRUCTION EXIT	SY	79
SEDIMENT CONTROL FENCE	LF	0
DISTURBED AREA	ACRES	0.1

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

NOTES:

THE CONTRACTOR SHALL MAKE ALL THE NECESSARY PROVISIONS FOR THE SUPPORT, LOCATING, PROTECTION, RELOCATION, AND TEMPORARY RELOCATION OF ALL UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW THE GROUND DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES AS A RESULT OF CONSTRUCTION OPERATIONS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE CONTRACTOR SHALL VERIFY THE ELEVATION AND CONFIGURATION OF ALL EXISTING UTILITY LINES PRIOR TO CONSTRUCTION. SUCH VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO THE COST OF CONSTRUCTION (NO SEPARATE PAY ALLOWED).

THE CONTRACTOR SHALL CONTACT THE FOLLOWING AGENCIES AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION AT ANY LOCATION:

DIG TESS	800-DIG-TESS
ATMOS ENERGY (GAS)	800-460-3030
GCEC-TELEGRAM	903-482-7274
GCEC-ELECTRIC	903-821-3007
AT&T	972-569-3013
ATMOS ENERGY	972-881-4161
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

RECORD DRAWING

THIS DRAWING REFLECTS FIELD INFORMATION REPORTED BY THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED.

0 10 20 40
SCALE: 1" = 20'

08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

10" WATER PLAN & PROFILE
LINE 7

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY. STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046

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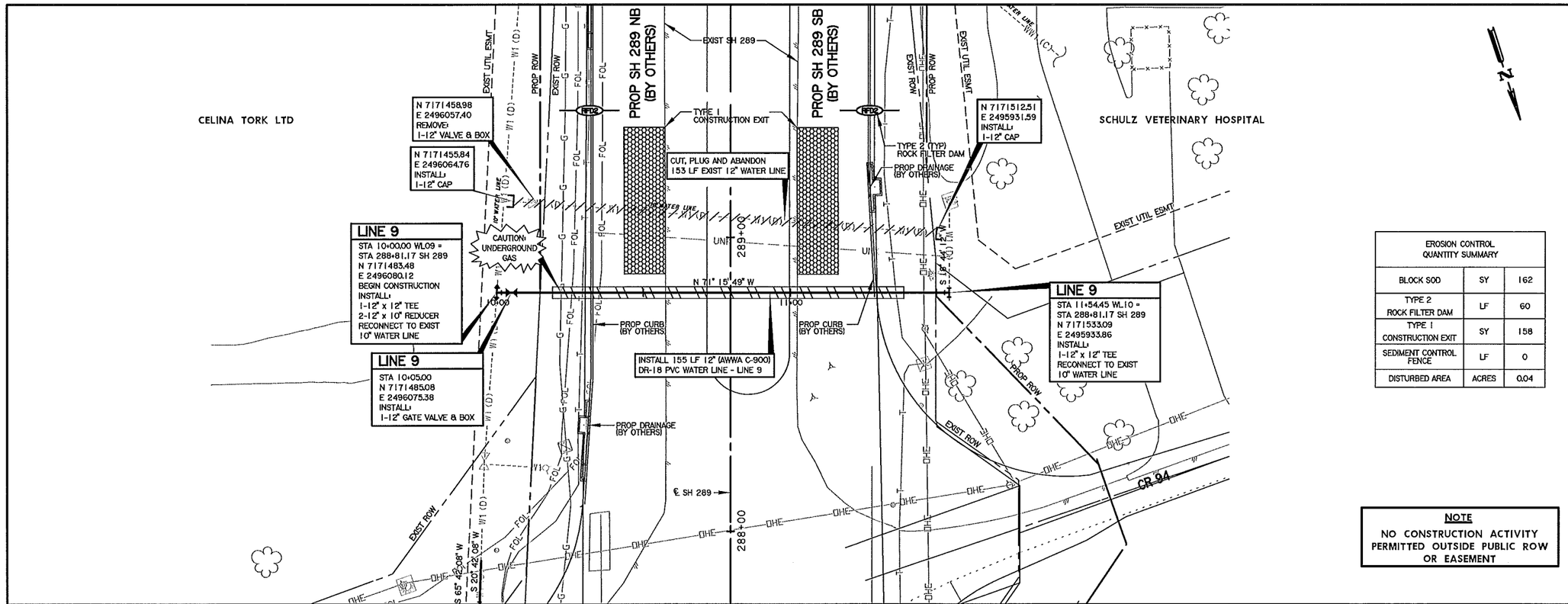
DESIGNED: ADL	DATE	SCALE	PROJECT NO.	Sheet
DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	19 of 24
CHECKED: JJF				

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

W-201308-01



EROSION CONTROL QUANTITY SUMMARY		
BLOCK SOD	SY	162
TYPE 2 ROCK FILTER DAM	LF	60
TYPE 1 CONSTRUCTION EXIT	SY	158
SEDIMENT CONTROL FENCE	LF	0
DISTURBED AREA	ACRES	0.04

NOTE

NO CONSTRUCTION ACTIVITY PERMITTED OUTSIDE PUBLIC ROW OR EASEMENT

NOTES:

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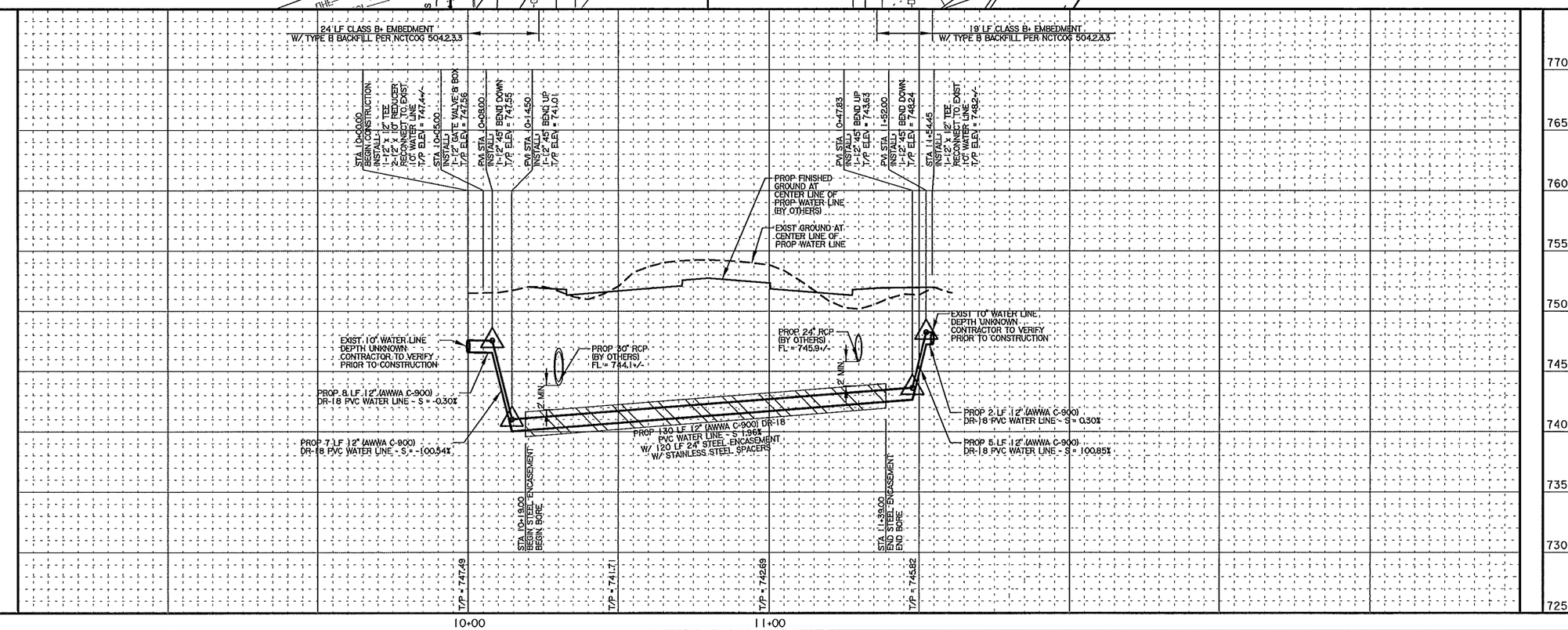
ATMOS ENERGY	214-341-9900
CROSSTEX ENERGY	817-570-6753
ONEOK	903-257-6594
COSERVE-ELEC	940-321-7800
COSERVE-GAS	940-321-7800
COSERVE-McCORD ENGINEERING	979-324-5597
COF PROSPER	972-347-9969
COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED



RECORD DRAWING

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0 10 20 40
SCALE: 1" = 20'

08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

12" WATER PLAN & PROFILE
LINE 9

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046

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DRAWN: CAC	AUG 2013	1"=20'H 1"=5'V	950-05	21 of 24
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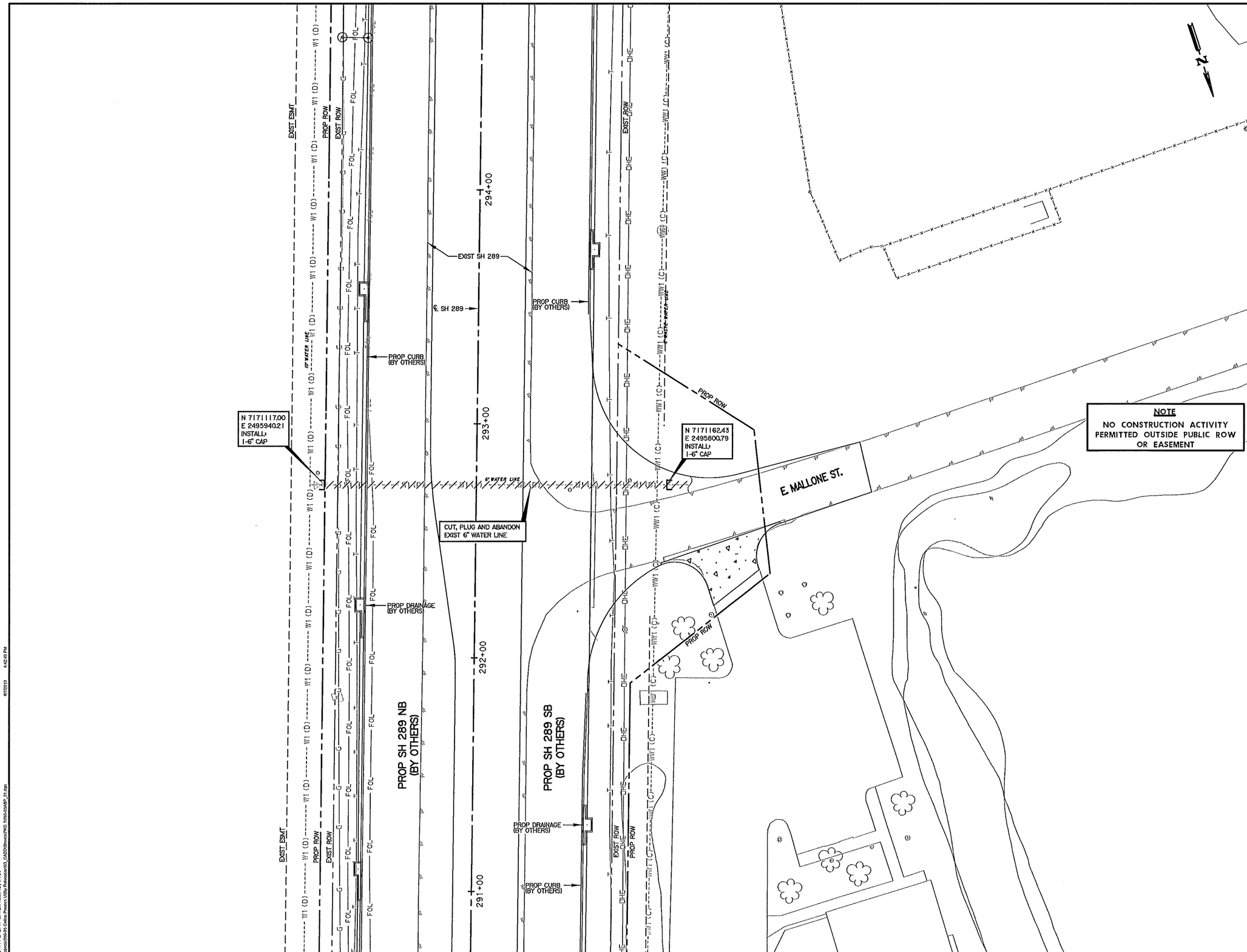

NOTES:

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COF CELINA	972-658-2052
MARILEE SPECIAL UTILITY DISTRICT	972-382-3222
GRANDE	972-410-0583
SUDDEN LINK	469-853-0486

LEGEND

- CONCRETE ENCASEMENT
- STEEL ENCASEMENT
- LINE TO BE ABANDONED

0 10 20 40
SCALE: 1" = 20'

RECORD DRAWING

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08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

6" WATER LINE CROSSING SH 289
ABANDONMENT PLAN

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
— Civil engineers and surveyors —
TBPE Registration No. F-1046
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BROWN & GAY ENGINEERS, INC.
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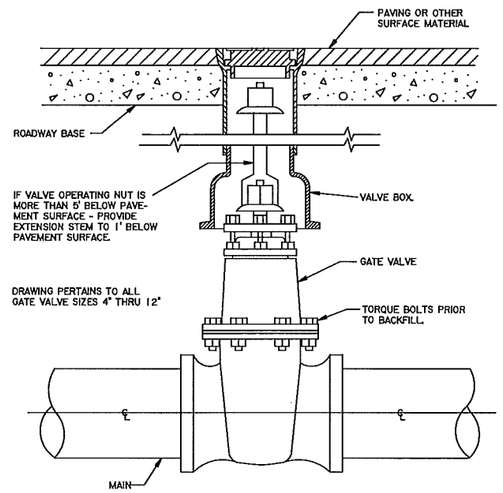
NOTE:

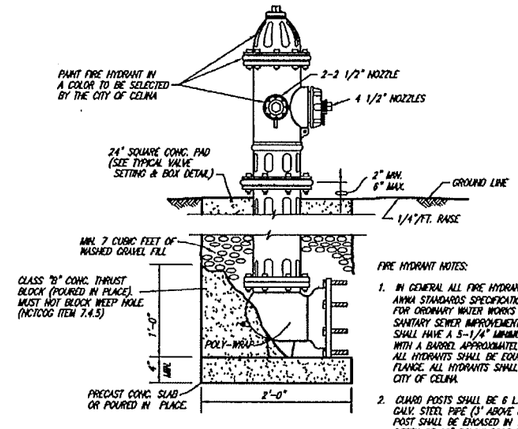
IN UNPAVED AREAS, INSTALL 2' x 2' x 4" CONCRETE VALVE PAD FLUSH WITH THE TOP OF VALVE BOX. REINFORCE WITH #3 BARS ON 6" CENTERS BOTH WAYS.



GATE VALVE BOX AND EXTENSION STEM

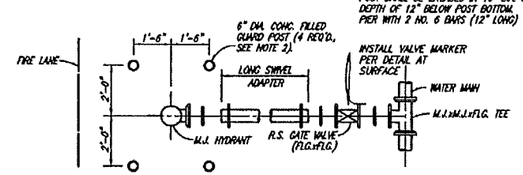
N.T.S.

GATE VALVE 4" TO 12"	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.6	
BOX & EXTENSION STEM		DATE OCT. '04	STANDARD DRAWING NO. 4050



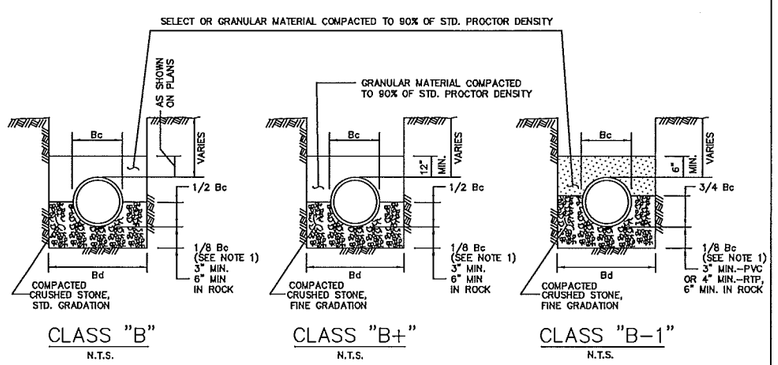
FIRE HYDRANT NOTES:

1. IN GENERAL ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARDS SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE FOR WATER AND SANITARY SEWER IMPROVEMENTS. FIRE HYDRANTS SHALL HAVE A 5-1/4" MINIMUM VALVE OPENING AND WITH A BARREL APPROXIMATELY 7" INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE. ALL HYDRANTS SHALL BE APPROVED BY THE CITY OF CELINA.
2. GUARD POSTS SHALL BE 6 L.F. OF 6" DIA. HOT DIPPED GALV. STEEL PIPE (3' ABOVE & BELOW GROUND LEVEL). POST SHALL BE ENCASED IN 16" DIA. CONC. PIER TO A DEPTH OF 12" BELOW POST BOTTOM. REINFORCE CONC. PIER WITH 2 NO. 6 BARS (12" LONG) THRU POST INTO PIER.



TYPICAL FIRE HYDRANT INSTALLATION

NO SCALE



CLASS "B" N.T.S.

CLASS "B+" N.T.S.

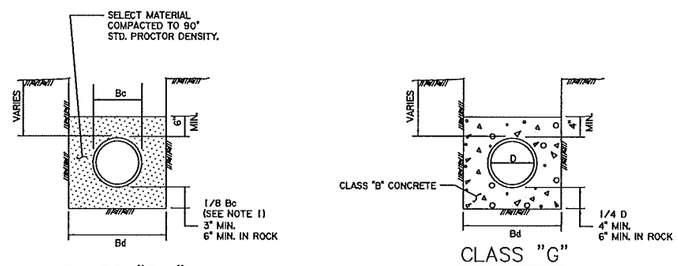
CLASS "B-1" N.T.S.

NOTES:

1. FOR MAINS 42" DIAMETER AND LARGER LARGER, 1/8 Bc SHALL BE TAKEN AS 6".
2. Bc = OUTSIDE DIAMETER OF PIPE
3. Bd = TRENCH WIDTH

STANDARD DRAWING NO. 3020

EMBEDMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 504.5	
CLASS "B", "B+", & "B-1"		DATE OCT. '04	STANDARD DRAWING NO. 3020



CLASS "D+" N.T.S.

CLASS "G" N.T.S.

NOTES:

1. FOR MAINS 42" DIAMETER AND LARGER, 1/8 Bc SHALL BE TAKEN AS 6".
2. Bc = OUTSIDE DIAMETER OF PIPE
3. Bd = TRENCH WIDTH
4. D = INSIDE DIAMETER OF PIPE

STANDARD DRAWING NO. 3050

EMBEDMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 504.5	
CLASS "D+" & "G"		DATE OCT. '04	STANDARD DRAWING NO. 3050

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08/07/2013

REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

STANDARD DETAILS
SHEET 1 OF 2

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4600 Fax: 972-464-4699
— Civil engineers and surveyors —
TBPE Registration No. F-1046

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BROWN & GAY ENGINEERS, INC.
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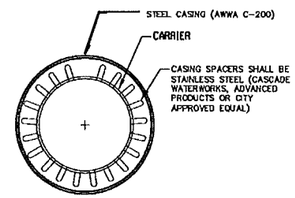
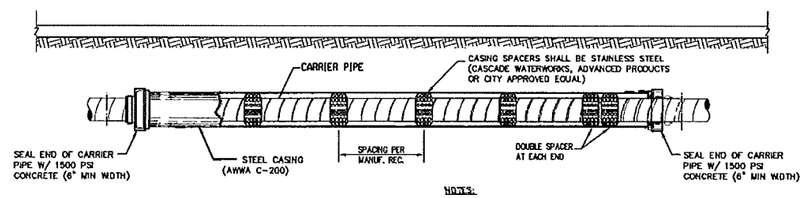


CARRIER PIPE AND CASING PIPE FOR STEEL ENCASEMENT
SECTION DETAIL



NOTES:

1. CASING SHALL BE INSTALLED AS SHOWN IN PLANS WHERE APPLICABLE. THIS DETAIL ILLUSTRATES THE GENERAL LOCATION OF CASING SPACERS FOR SUPPORTING CARRIER PIPE AND GROUTING ENDS OF CASING PIPE.
2. WATER LINES INSTALLED WITH STEEL ENCASEMENT SHALL INCLUDE AN INTERNAL JOINT RESTRAINT SYSTEM FOR EACH PIPE JOINT OR PROVIDE JOINT RESTRAINT THAT WILL ACCOMMODATE 20", 24" or 28" CASING PIPE AS APPLICABLE.

BORE AND STEEL ENCASEMENT STANDARD DETAIL
N.T.S.

RECORD DRAWING

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REV.	DESCRIPTION	BY	DATE

CITY OF CELINA, TEXAS
142 N. Ohio Street
Celina, Texas 75009
(972) 382-2682

SH 289 WATER LINE RELOCATIONS
FROM FM 455 TO SH 289 (BUS)

STANDARD DETAILS
SHEET 2 OF 2

BROWN & GAY ENGINEERS, INC.
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2595 DALLAS PKWY, STE 204, FRISCO, TX 75034
Tel: 972-464-4800 Fax: 972-464-4899
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SH 289 WATER LINE RELOCATIONS FROM FM 455 TO SH 289 (BUS)

BROWN & GAY ENGINEERS, INC.
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