



**REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytexas.gov



Right of Way Permit



Commercial Driveway Permit

Permit No: 2017-14154

Applicant: Harper Brothers Construction, LLC

Job Location Site: University Boulevard, Sugar Land, TX 77479

Bond No. Not Required **Date of Bond:** _____ **Amount:** _____

The above applicant came to make use of certain Fort Bend County property subject to, "The Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
 - a. 48 hours in advance of construction start up, and
 - b. When construction is completed and ready for final inspection, submit notification to Permit Administrator thru MyGovernmentOnline.org portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 13th day of June, 2017, Upon Motion of Commissioner Meyers, seconded by Commissioner Morales, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

Signature

Presented to Commissioners Court and approved.

By: Charles O. Ay

Date Recorded 6-13-2017 Comm. Court No. 14H

for County Engineer

Clerk of Commissioners Court

By: _____

By: Jonda Wallis

N/A

Drainage District Engineer/Manager

Deputy



**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytx.gov

- ☒ **Right of Way Permit**
☐ **Commercial Driveway Permit**

Permit No: 2017-14154

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

- | | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | a. Name of road, street, and/or drainage ditch affected. |
| <input checked="" type="checkbox"/> | b. Vicinity map showing course of directions |
| <input checked="" type="checkbox"/> | c. Plans and specifications |

(2) BOND:

- | | | | |
|--------------------------|--|-----------------------|---------------|
| <input type="checkbox"/> | County Attorney, approval when applicable. | | |
| <input type="checkbox"/> | Perpetual bond currently posted. | Bond No: _____ | Amount: _____ |
| <input type="checkbox"/> | Performance bond submitted. | Bond No: Not Required | Amount: _____ |
| <input type="checkbox"/> | Cashier's Check | Check No: _____ | Amount: _____ |

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

We have reviewed this project and agree it meets minimum requirements.

Charles O. Al

Permit Administrator

4/5/17

Date

PERFORMANCE BOND

**30"/20" Surface Water Transmission Line from Stubout at First Colony Water Plant No. 1
to Riverstone Water Plant
CIP SW1602**

Bond No.

Name of Surety: Hartford Fire Insurance Company

Name of Contractor as Principal: Harper Brothers Construction, LLC

Name of Owner as Obligatee: City of Sugar Land, Texas

Name of Project: 30"/20" Surface Water Transmission Line from Stubout at First Colony Water
Plant No. 1 to Riverstone Water Plant

CIP Project No. SW1602

Date of Contract:

(Not before Bond execution date)

Bond Amount (Contract Price): Eight Million Five Hundred Twelve Thousand Seven
Hundred Fifty and Nine/100 (\$8,512,750.00)

RECITALS:

The Contractor has executed a Contract with the Owner for construction of the Project in the City of Sugar Land. The Contract requires the Contractor to furnish this Performance Bond.

AGREEMENT:

The Surety and Contractor enter into this Performance Bond and bind themselves in favor of the Owner in the Bond Amount shown above. The Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree, as follows:

1. **CONTRACT INCORPORATED.** The Contract is incorporated by reference and made a part of this Performance Bond. The Contractor and Surety will comply with all the terms and conditions of the Contract, both express and implied.
2. **DURATION OF BOND OBLIGATION.** This Performance Bond is conditioned on the faithful performance of the Work in accordance with the Contract and remains in effect until the Contractor performs all its obligations under the Contract and this Performance Bond, including the warranty period expressed in the Contract.

3. **NOTICE OF CONTRACTOR'S DEFAULT.** If the Surety receives written notice from the Owner (sent by certified or registered mail to the Surety's Registered Agent at the address identified in this Performance Bond) of the Contractor's default and failure to cure the default, the Surety will notify the Owner in writing within ten days of receipt of the notice which action it will take under Paragraph 4 of this Performance Bond.

4. **SURETY'S OBLIGATION UPON CONTRACTOR DEFAULT.** Upon the Surety's receipt of Owner's written notice of the Contractor's default and failure to cure the default, the Surety must begin to remedy the default within 30 days by taking one of the following actions:

(a) **Proceed itself.** Complete performance of the Contract, including correction of defective and nonconforming Work, through its own contractor(s), which are acceptable to the Owner, and make payments directly to the contractor(s) from the Surety's funds. During performance of the Contract the Surety will be paid only those sums that are due and payable under the Contract.

(b) **Tender a completing contractor acceptable to Owner.** Tender to the Owner a contractor acceptable to the Owner together with a contract for Owner's execution to fulfill and complete the Contract, including all corrective work, warranties and bonds required under the Contract. An acceptable contractor is one that is qualified to offer a bid or proposal on the Contract and is not affiliated with the Contractor.

The completing contractor must furnish to the Owner a separate performance bond and payment bond, each in the form of those bonds previously furnished by the Contractor for the Contract. Each such bond must be in the penal sum of the total cost to complete the Contract and correct defective, nonconforming Work.

The completing contractor will be paid only those sums as would have been due and payable to the Contractor. If the Owner must pay the completing contractor sums which would not have then been due and payable to the Contractor under the Contract (any sums in excess of the then remaining Contract balance less any sums due the Owner under the contract), the Surety must pay to the Owner the full amount of those sums at the time the completing Contractor is tendered to the Owner so that the Owner can use those sums to timely pay the completing contractor. The Surety's liability, however, will not exceed the Full Penal Sum of this Performance Bond.

(c) **Tender the full penal sum.** Tender to the Owner the Full Penal Sum of this Performance Bond. After the expiration of the warranties under the Contract, the Owner will refund to the Surety, without interest, any unused portion not spent by the Owner to procure and pay a completing contractor or to complete the construction contract itself.

(d) **Other acts.** Take any other acts the Owner and Surety mutually agree upon in writing.

- (e) **Failure to take action.** The Surety waives its right to take any of the above actions and to receive payment of the Contract balance if it does not begin work or tender a new completing contractor, as set forth above, within 30 days of the Surety's receipt of written notice that the Contractor has defaulted and not cured the default as required by the Contract.
5. **SURETY'S ADDITIONAL OBLIGATIONS.** In addition to its other obligations in this Performance Bond, the Surety must promptly pay the Owner all losses, costs, and expenses resulting from the:
- (a) Contractor's default(s), including, without limitation, liquidated damages under the Contract, and all fees, expenses and costs of procuring another contractor and for architects, engineers, consultants, testing, surveying and attorneys; and
- (b) Acts or omissions of the Surety; and
- (c) Owner's compliance with the Surety's directions or requests.
6. **SURETY'S WAIVER OF NOTICE.** The Surety waives notice of any modifications to the Contract, including changes in the Contract Price, the Substantial Completion Date, the amount of liquidated damages, or the Work to be performed. The Surety is held to have knowledge of all acts or omissions of the Contractor in matters pertaining to the Contract. Furthermore, the Surety relieves the Owner from exercising diligence in securing the Contractor's compliance with the Contract.
7. **GOVERNING LAW AND VENUE.** Texas law governs this Performance Bond and any lawsuit on this Performance Bond must be filed in a court that has jurisdiction in Fort Bend County, Texas.
8. **INCORPORATION OF STATUTE.** This Performance Bond is provided in compliance with the provisions of Chapter 2253, Texas Government Code, as amended, which is incorporated by reference. All liabilities on this Performance Bond shall be determined in accordance with that Chapter.
9. **SURETY REPRESENTATIONS.** The Surety represents that it meets the requirements of Chapter 3503 of the Texas Insurance Code, as amended.

Contractor:

Harper Brothers Construction LLC

(Typed Firm Name)

(Seal)

Surety:

Hartford Fire Insurance Company

(Typed Firm Name)

(Seal)

By: _____

(Signature—Attorney in Fact)

Jon Harper

(Printed Name)

CEO

(Title)

654 N Sam Houston Pkwy East Suite 100

Houston, Tx. 77060

(Physical Address)

654 N Sam Houston Pkwy East Suite 100

Houston, Tx. 77060

(Mailing Address)

713-893-4593

(Telephone No. with Area Code)

12/5/2016

(Date of Execution)

By: _____

(Signature—Attorney in Fact)

Susan L. Small

(Printed Name)

Attorney-In-Fact

(Title)

One Hartford Plaza, T-4

Hartford, CT 06115

(Physical Address)

One Hartford Plaza, T-4

Hartford, CT 06115

(Mailing Address)

(248) 822-6456

(Telephone No. with Area Code)

12/5/2016

(Date of Execution)

(Attach original Power of Attorney. Attach document with registered agent's name, mailing address, physical address, telephone number with area code, and facsimile number, if not same as attorney in fact).

PAYMENT BOND

**30"/20" Surface Water Transmission Line from Stubout at First Colony Water Plant No. 1
to Riverstone Water Plant
CIP SW1602**

Bond No.

Name of Surety: Hartford Fire Insurance Company

Name of Contractor, as Principal: Harper Brothers Construction, LLC

Name of Owner, as Oblige: City of Sugar Land, Texas

Name of Project: 30"/20" Surface Water Transmission Line from Stubout at First Colony Water
Plant No. 1 to Riverstone Water Plant

CIP Project No. SW1602

Date of Contract:

(Not before Bond execution date)

Bond Amount (Contract Price): Eight Million Five Hundred Twelve Thousand Seven
Hundred Fifty and None/100 (\$8,512,750.00)

RECITALS:

The Contractor has executed a Contract with the Owner for construction of the Project in the City of Sugar Land. The Contract requires the Contractor to furnish this Payment Bond.

AGREEMENT:

The Surety and Contractor enter into this Payment Bond and bind themselves in favor of the Owner. The Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree, as follows:

1. **CONTRACT INCORPORATED.** The Contract is incorporated by reference and made a part of this Payment Bond. The Contractor and Surety will comply with all the terms and conditions of the Contract, both express and implied.
2. **PAYMENT BOND BENEFICIARIES.** This Payment Bond is solely for the protection and use of the Payment Bond beneficiaries pursuant to Chapter 2253, Tex. Gov't Code.
3. **DURATION OF BOND OBLIGATION.** This Payment Bond remains in effect until the Contractor pays all the Payment Bond beneficiaries as required by Chapter 2253,

Tex. Gov't Code and the Contract.

4. **SURETY'S WAIVER OF NOTICE.** The Surety waives notice of any modifications to the Contract, including changes in the Substantial Completion Date, the Contract Price, the amount of liquidated damages, or the Work to be performed.
5. **GOVERNING LAW AND VENUE.** Texas law governs this Payment Bond and any lawsuit on this Performance Bond must be filed in a court that has jurisdiction in Fort Bend County, Texas.
6. **INCORPORATION OF STATUTE.** This Payment Bond is provided in compliance with the provisions of Chapter 2253, Texas Government Code, as amended, which is incorporated by reference. All liabilities on this Payment Bond shall be determined in accordance with that Chapter.
7. **SURETY REPRESENTATIONS.** The Surety represents that it meets the requirements of Chapter 3503 of the Texas Insurance Code, as amended.

Contractor:

Harper Brothers Construction LLC

(Typed Firm Name)

(Seal)

By: 

(Signature—Attorney in Fact)

Jon Harper

(Printed Name)

CEO

(Title)

654 N Sam Houston Pkwy East Suite 100

Houston, Tx. 77060

(Physical Address)

654 N Sam Houston Pkwy East Suite 100

Surety:

Hartford Fire Insurance Company

(Typed Firm Name)

(Seal) 

By: 

(Signature—Attorney in Fact)

Susan L. Small

(Printed Name)

Attorney-In-Fact

(Title)

One Hartford Plaza, T-4

Hartford, CT 06115

(Physical Address)

One Hartford Plaza, T-4

Houston, Tx. 77060

(Mailing Address)

713-893-4593

(Telephone No. with Area Code)

12/5/2016

(Date of Execution)

Hartford, CT 06115

(Mailing Address)

(248) 822-6456

(Telephone No. with Area Code)

12/5/2016

(Date of Execution)

(Attach original Power of Attorney. Attach document with registered agent's name, mailing address, physical address, telephone number with area code, and facsimile number, if not same as attorney in fact).

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-12

One Hartford Plaza

Hartford, Connecticut 06155

Bond.Claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

Agency Name: VTC INSURANCE GROUP

Agency Code: 35-351225

KNOW ALL PERSONS BY THESE PRESENTS THAT:

- ☒ Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- ☒ Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- ☒ Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- ☐ Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- ☐ Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- ☐ Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- ☐ Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- ☐ Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, **up to the amount of Unlimited :**

Susan L. Small of Farmington Hills MI, Jeffrey A. Chandler, Alan P. Chandler, Ian J. Donald, Wendy L. Hingson, Kathleen M. Irelan, Meagan Kress, Robert Trobec of TROY, Michigan

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



John Gray

John Gray, Assistant Secretary

M. Ross Fisher

M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT

COUNTY OF HARTFORD

ss. Hartford

On this 11th day of January, 2016, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

Nora M. Stranko

Nora M. Stranko
Notary Public

My Commission Expires March 31, 2018

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of **December 5th, 2016**
Signed and sealed at the City of Hartford.



Kevin Heckman

Kevin Heckman, Assistant Vice President

IMPORTANT NOTICE

To obtain information or make a complaint:

You may contact your agent.

You may call Hartford Insurance Group at the toll free telephone number for information or to make a complaint at:

1-800-392-7805

You may also write to The Hartford:

**The Hartford
Hartford Financial Products
2 Park Avenue, 5th Floor
New York, New York 10016
1-212-277-0400**

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance

P.O. Box 149104
Austin, TX 78714-9104
Fax Number (512) 475-1771
Web: <http://www.tdi.state.tx.us>
E-mail: ConsumerProtection@tdi.state.tx.us

PREMIUM OR CLAIMS DISPUTES: Should you have a dispute concerning your premium or about a claim you should contact the agent first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY: This notice is for your information only and does not become a part or condition of the attached document.

AVISO IMPORTANTE

Para obtener informacion o para someter una queja.

Puede comunicarse con su agente.

Usted puede llamar al numero de telefono gratis de The Hartford Insurance Group para informacion o para someter una queja al

1-800-392-7805

Usted tambien puede escribir a The Hartford.

**The Hartford
Hartford Financial Products
2 Park Avenue, 5th Floor
New York, New York 10016
1-212-277-0400**

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de compañías, coberturas, derechos o quejas al:

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas

P.O. Box 149104
Austin, TX 78714-9104
Fax Number (512) 475-1771
Web: <http://www.tdi.state.tx.us>
E-mail: ConsumerProtection@tdi.state.tx.us

DISPUTAS SOBRE PRIMAS O RECLAMOS: Si tiene una disputa concerniente a su prima o a un reclamo, debe comunicarse con su agente primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA: Este aviso es solo para propósito de informacion y no se convierte en parte o condicion del documento adjunto.

CITY OF SUGAR LAND, TEXAS

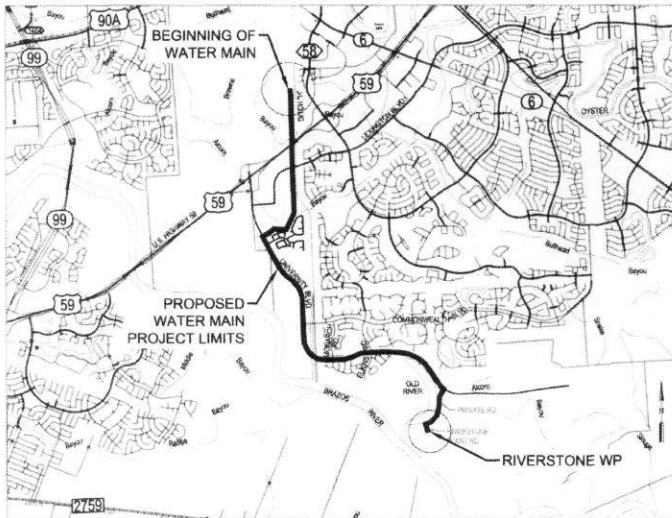
CIP PROJECT NO. SW1602

30"/20" SURFACE WATER TRANSMISSION LINE

FROM STUBOUT AT FIRST COLONY WATER PLANT NO. 1

TO RIVERSTONE WATER PLANT

September 2016



VICINITY MAP

N.T.S.

KEY MAP NO. 568W, 608A,
608E, 608J, 608N, 608P,
608T, 608Q, & 608U



MAYOR
JOE R. ZIMMERMAN

CITY COUNCIL

STEVE R. PORTER
DISTRICT 1

AMY MITCHELL
DISTRICT 3

HIMESH GANDHI
AT-LARGE 1

BRIDGET YEUNG
DISTRICT 2

HARISH JAJOO
DISTRICT 4

MARY JOYCE
AT-LARGE 2

CITY MANAGER
ALLEN BOGARD

*This is for the cover page only.
Must be placed on the right hand side of the page.*

| | |
|--|-------------------------------|
| HARRIS COUNTY ENGINEER | |
| ENGINEER | <i>Paul J. Steubing, P.E.</i> |
| DATE | 5/26/17 |
| THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL. | |
| APPROVED | <i>Shelley L. Steubing</i> |
| DATE | 5/26/17 |



LAN Lockwood, Andrews
& Noyes, Inc.
A LEO A. O'NEILL COMPANY
2925 BROADPARK DR., SUITE 400
HOUSTON, TX 77042
713-298-4800
TEXAS FIRM NO. F-2614

APPROVED
CITY OF SUGAR LAND

Christopher L. Steubing P.E. 9/14/16
CITY ENGINEER
CHRISTOPHER L. STEUBING, P.E., CFM

SHEET NO 1 OF 132 SHEETS

September 2016

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| 80 | UNIVERSITY BOULEVARD PROFILE STA 235+00 TO STA 239+00 |
| 81 | UNIVERSITY BOULEVARD PLAN STA 239+00 TO STA 242+00 |
| 82 | UNIVERSITY BOULEVARD PROFILE STA 239+00 TO STA 242+00 |
| 83 | PRIVATE ROAD PLAN & PROFILE STA 242+00 TO STA 246+00 |
| 84 | PRIVATE ROAD PLAN & PROFILE STA 246+00 TO STA 251+00 |
| 85 | PRIVATE ROAD PLAN & PROFILE STA 251+00 TO STA 256+00 |
| 86 | PRIVATE ROAD PLAN & PROFILE STA 256+00 TO STA 261+00 |
| 87 | PRIVATE ROAD PLAN & PROFILE STA 261+00 TO STA 265+00 |
| 88 | RIVERSTONE PLANT ROAD PLAN & PROFILE STA 265+00 TO END |
| 89 | STORMWATER POLLUTION PREVENTION PLAN STA 0+00 TO STA 68+00 (SHEET 1 OF 4) |
| 90 | STORMWATER POLLUTION PREVENTION PLAN STA 68+00 TO STA 135+00 (SHEET 2 OF 4) |
| 91 | STORMWATER POLLUTION PREVENTION PLAN STA 135+00 TO STA 205+00 (SHEET 3 OF 4) |
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SA CONSTRUCTION NOTES FBC











































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| SEAL:  | |
|  CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT | |
| CONSTRUCTION PLANS FOR: 30"/20" SURFACE WATER TRANSMISSION LINE TO RIVERSTONE WATER PLANT | |
| INDEX OF DRAWINGS | |
| JOB No.: 130-11884-000 DATE: 8/13/2018 DESIGNED BY: [Signature] DRAWN BY: [Signature] CHECKED BY: [Signature] SCALE: NOT TO SCALE | C-02-INDX.dwg SHEET 2 of 132 |

Magdy J. 8/26/17

PLOT TIME: 10:00 AM

Q:\GIS\PROJECTS\2013\1301-000\1301-000.dwg: Produced by G. D. Brimley, L. G. 03-10-2013

EXISTING PLAN LEGEND

| | |
|---|---|
|  | SHRUB OR BUSH |
|  | TREE |
|  | SAN MANHOLE, STORM MANHOLE |
|  | TELEPHONE MANHOLE |
|  | CLEANOUT |
|  | GAS METER |
|  | GAS VALVE |
|  | FIRE HYDRANT |
|  | WATER METER |
|  | WATER VALVE |
|  | POWER POLE, TELEPHONE & ELEC. POLE |
|  | DOWN GUY |
|  | STORM "B" INLET |
|  | STORM "B-B" INLET |
|  | STORM INLET, GRATE |
|  | TRAFFIC SIGNAL, SIGNAL POLE |
|  | IRON ROD/POLE |
|  | WOOD POST, BRICK COLUMN, BRICK PILLAR |
|  | TRAFFIC, METRO, BUSINESS, STOP SIGNS AT&T TEXAS/SWBT PEDESTAL, HISTORICAL MARKER |
|  | W.E. SURVEY MARKER, MONUMENT MARKER |
|  | SOIL BORING LOCATION |
|  | SOIL BORING & PIEZOMETER LOCATION |
|  | MAILBOX |
|  | METAL POST |
|  | UTILITY MARKER |
|  | LIGHT STANDARD |
|  | ELECTRICAL BOX |
|  | HEDGE |
|  | CURB LINE |
|  | LOT LINES |
|  | EASEMENT LINE |
|  | EDGE OF ASPHALT |
|  | CULVERT PIPE |
|  | BASILINE |
|  | BARBED WIRE FENCE |
|  | GAS LINE OR PIPELINE |
|  | TELEPHONE LINE |
|  | CENTERPOINT ENERGY CONDUIT |
|  | CENTERPOINT ENERGY OVERHEAD LINES |
|  | PROPERTY LINE (R.O.W.) |
|  | SAN SEWER LINE 24" DIA. & SMALLER |
|  | WOOD FENCE |

EXISTING PLAN LEGEND (CONT.)

| | |
|--|-----------------------------------|
| | SAN SEWER LINE 30" DIA. & LARGER |
| | STM SEWER LINE 24" DIA. & SMALLER |
| | STM SEWER LINE 30" DIA. & LARGER |
| | WATER LINE 24" DIA. & SMALLER |
| | WATER LINE 30" DIA. & LARGER |

EXISTING PROFILE LEGEND

| | |
|--|---|
| | BASELINE, CENTER LINE OF RIGHT-OF-WAY |
| | R.O.W. LINE N & E |
| | R.O.W. LINE S & W |
| | DITCH OR CURB LINE N & E |
| | DITCH OR CURB LINE S & W |
| | GAS LINE |
| | TELEPHONE CONDUIT |
| | SAN SEWER LINE 24" DIA. & SMALLER |
| | SAN SEWER LINE 30" DIA. & LARGER |
| | STM SEWER LINE 24" DIA. & SMALLER |
| | STM SEWER LINE 30" DIA. & LARGER |
| | WATER LINE 24" DIA. & SMALLER |
| | WATER LINE 30" DIA. & LARGER |
| | PIPELINE MARKER |
| | INFORMATION OBTAINED FROM RECORD DRAWINGS, NOT FIELD VERIFIED |

PROPOSED PLAN LEGEND

| | |
|--|---|
| | T.S.V. & BOX |
| | GATE VALVE |
| | 20" BUTTERFLY VALVE |
| | 30" BUTTERFLY VALVE |
| | 20" DISH HEAD PLUG |
| | 30"x20" REDUCER |
| | 30"x30"x24" TEE |
| | 20" CAV ASSEMBLY IN MANHOLE WITH VENT PIPE AND THREE BOLLARDS |
| | 20" CAV ASSEMBLY IN MANHOLE WITH VENT PIPE AND THREE BOLLARDS |
| | 2" CAV. BREAKAWAY VENT PIPING W/ SERVICE MANHOLE |
| | 30" CAV ASSEMBLY IN MANHOLE WITH VENT PIPE AND THREE BOLLARDS |
| | 30" CAV ASSEMBLY IN MANHOLE WITH VENT PIPE AND THREE BOLLARDS |
| | 30" CAV ASSEMBLY W/ BREAKAWAY VENT PIPE AND SERVICE MANHOLE |
| | 20" FLUSHING TYPE FIRE HYDRANT (5-1/4" FLUSH TYPE FIRE HYDRANT) |
| | 30" FLUSHING TYPE FIRE HYDRANT (5-1/4" FLUSH TYPE FIRE HYDRANT) |
| | LIMITS OF CONSTRUCTION |
| | WATER MAIN LESS THAN 24" BY OPEN CUT |
| | WATER MAIN GREATER THAN 24" BY OPEN CUT |
| | WATER MAIN BY TRENCHLESS CONSTRUCTION (20" AND SMALLER) |
| | WATER MAIN BY TRENCHLESS CONSTRUCTION (24" AND LARGER) |
| | WATER MAIN BY TRENCHLESS CONSTRUCTION IN CASING (20" AND SMALLER) |
| | WATER MAIN BY TRENCHLESS CONSTRUCTION IN CASING (24" AND LARGER) |
| | WATER MAIN BY OPEN CUT CONSTRUCTION IN CASING (20" AND SMALLER) |
| | WATER MAIN BY OPEN CUT CONSTRUCTION IN CASING (24" AND LARGER) |

PROPOSED PROFILE LEGEND

| | | | |
|--|---|--|--|
| | 20" GATE VALVE | | 30" BUTTERFLY VALVE |
| | COMBINATION AIR VALVE | | (5-1/4" FLUSH TYPE FIRE HYDRANT) |
| | WATER LINE (20" AND SMALLER) | | WATER MAIN (24" AND LARGER) |
| | WATER MAIN BY TRENCHLESS CONSTRUCTION (20" AND SMALLER) | | WATER MAIN BY TRENCHLESS CONSTRUCTION (24" AND LARGER) |
| | WATER MAIN BY TRENCHLESS CONSTRUCTION IN CASING (20" AND SMALLER) | | WATER MAIN BY TRENCHLESS CONSTRUCTION IN CASING (24" AND LARGER) |
| | WATER MAIN BY OPEN CUT CONSTRUCTION IN CASING (20" AND SMALLER) | | WATER MAIN BY OPEN CUT CONSTRUCTION IN CASING (24" AND LARGER) |

STANDARD ABBREVIATIONS

| | | | | | | | | | |
|--|--|--|---|--|---|--|---|--|--|
| <p> </p> | <p> AT AIR RELEASE/VACUUM RELEASE BUILDING LINE BLIND FLANGE BUTTERFLY VALVE BASELINE BACKSLOPE COMBINATION AIR VALVE CENTER LINE CLEARANCE CENTER TO CENTER CLEAN OUT CONCRETE CATHODIC PROTECTION CORRUGATED GALVANIZED PIPE CORRUGATED GALVANIZED METAL PIPE CORRUGATED METAL PIPE DRAINAGE EASEMENT DESCRIPTION </p> | <p> </p> | <p> DUCTILE IRON CEMENT LINED DUCTILE IRON PIPE DRIVEWAY EAST EDGE OF PAVEMENT ELEVATION ENTERGY EASEMENT EXISTING FIRE HYDRANT FLOOD LIGHT FORCE MAIN OR FLOW METER FUSIBLE PVC FLUSHING VALVE FLOW LINE GATE VALVE GROUNDWATER REDUCTION PROGRAM HOT MIX ASPHALTIC CONCRETE </p> | <p> </p> | <p> HIGH PRESSURE INTERMEDIATE PRESSURE IRON ROD INFLUENT INVERT ELEVATION LINEAR FEET LEAKING UNDERGROUND STORAGE TANK LEFT MAINTENANCE ACCESS MULTI CONDUIT DUCT MANHOLE MAXIMUM MINIMUM NORTH NATURAL GROUND NOT FIELD VERIFIED POINT OF CURVATURE POINT ON CURVE POINT OF INTERSECTION </p> | <p> </p> | <p> PROPERTY LINE POINT OF REVERSE CURVE PRESSURE REDUCING VALVE POINT OF TANGENCY POINT PROPOSED POINT OF VERTICAL INTERSECTION PAVEMENT RADIUS REINFORCED CONCRETE PIPE RIGHT-OF-WAY RADIUS POINT REDUCER RECORD DRAWING NOT FIELD VERIFIED RIGHT SLOPE SOUTH SAN JACINTO RIVER AUTHORITY SIDE SLOPE </p> | <p> </p> | <p> SANITARY SEWER EASEMENT SANITARY SOIL BORING/ BORE HOLE AT&T TEXAS/SWBT STATION STEEL STORM SEWER TOP OF CURB TEMPORARY CONSTRUCTION EASEMENT TOP OF PAVEMENT TYPICAL UTILITY EASEMENT VERTICAL POINT INTERSECTION WEST WATERLINE WATER LINE EASEMENT WITH </p> |
|--|--|--|---|--|---|--|---|--|--|

| | |
|--|---|
| <p> Lockwood, Andrews & Newnam, Inc. A LEGAL & GALT COMPANY 2925 Briarport Drive, Suite 400 Houston, TX 77047 Tel: 713-298-6900 www.lan-inc.com </p> | <p> CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT </p> |
| <p> CONSTRUCTION PLANS FOR: 30"/20" SURFACE WATER TRANSMISSION LINE TO INDIAN ROCK WATER PLANT </p> | |
| <p> LEGEND AND ABBREVIATIONS </p> | |
| <p> JOB No.: 130-11884-000 DATE: 4/12/2013 DESIGNED BY: S.S. CHECKED BY: S.S. SCALE: NOT TO SCALE </p> | <p> G-03-LGND.dwg SHEET 3 of 132 </p> |

WATER DISTRIBUTION NOTES:


1. WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED AS PER REQUIREMENTS OF THE CITY OF SUGAR LAND DESIGN STANDARDS AND CORRESPONDING STANDARD CONSTRUCTION DETAILS SHEETS AND AS PER THE CITY OF SUGAR LAND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE A COMPLETE AND ACCURATE INFORMATION DEPICTED ON APPROVED CONSTRUCTION DRAWINGS AND/OR INFORMATION INCLUDED IN PROJECT SPECIFICATIONS, CITY OF SUGAR LAND DESIGN STANDARDS SHALL APPLY.
2. ALL MATERIALS AND PRODUCTS USED IN THE CONSTRUCTION OF WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL COMPLY WITH THE CITY OF SUGAR LAND DESIGN STANDARDS AND THE CURRENT APPROVED PRODUCTS LIST AS MAINTAINED BY THE CITY OF SUGAR LAND.
3. ALL GATE VALVES INSTALLED BELOW GRADE SHALL BE OF NON-IRON STEEL DESIGN.
4. ALL FIRE HYDRANTS SHALL BE PAINTED AND/OR REPAINTED WITH GED-GLSEN 301 BRIGHT SILVER POLYURETHANE ENAMEL MANUFACTURED BY GED-GLSEN ENTERPRISES, INC. SURFACE PAINT SHALL BE APPLIED TO ALL HYDRANT BODIES AND COUPLERS BY MEANS OF AIRLESS BLASTING TO SSPC-SP15-10-83 SPECIFICATIONS (NEAR WHITE METAL) AS PER MANUFACTURER'S RECOMMENDATIONS. PRIME BARE METAL WITH TP-201 SPOXY PRIMER ON TOP COAT, TP-231 OR TP-232 TOP COAT SHALL BE APPLIED TO ALL HYDRANT BODIES. THERE ARE OPTIONAL CONDITIONS FOR APPLICATION OF PRIMER AND OF PAINT. DO NOT APPLY PRIMER AND/OR PAINT WHEN SURFACE TO BE PAINTED IS LESS THAN 97 ABOVE THE DDP POINT IN ORDER TO PREVENT MORTURE FROM CONDENSING ON THE SURFACE TO BE PRIMED. A 24-HOUR DRY TIME BETWEEN BUTTON SHALL BE INSTALLED ON THE STREET 12" OFF THE CENTER LINE FOR EACH HYDRANT.
5. MINIMUM SEPARATION DISTANCES AS REQUIRED BY TCD SECTION 371.12.300, APPROXIMATE ELEVATION OF UNPAVED SURFACE SHALL BE MAINTAINED AT ALL TIMES. MINIMUM SEPARATION LIFT STATIONS AND WASTEWATER TREATMENT PLANTS. INSTALLATION OF FIRE HYDRANTS WITHIN 6' (7') OF A SANITARY SEWER SYSTEM IS PROHIBITED. REFER TO C.O.S.L. STANDARDS FOR CONSTRUCTION REQUIREMENTS OF OTHER INSTALLATIONS WHERE DISTANCES ARE GREATER THAN 6' (7').
6. TESTING OF WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL BE CONDUCTED AS PER REQUIREMENTS OF AWWA C900-84.
7. INSPECTION OF WATER MAINS, WATER SERVICE LINES AND ASSOCIATED APPURTENANCES SHALL BE CONDUCTED AS PER REQUIREMENTS OF AWWA C900 AND TGGD. NO CONNECTIONS SHALL BE MADE TO EXISTING WATER LINES UNTIL HEAVY CONSTRUCTED WATER LINES HAVE BEEN THOROUGHLY DISCHARGED, TESTED, FLUSHED, AND SAMPLED AND CONNECTION HAS BEEN AUTHORIZED BY THE CITY OF SUGAR LAND.
8. ALL WATER PIPING AND BEDDING SHALL BE INSPECTED BY THE CITY INSPECTOR FOR CONFORMANCE TO DESIGN STANDARDS PRIOR TO BACKFILLING OF PIPING IN TRENCH.
9. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR INSPECTION OF THE EXISTING SANITARY CONTRACTOR THAT RESULTS OF PIPING INSPECTION ARE SATISFACTORY AND THAT BACKFILLING MAY BE ACCOMPLISHED. ANY PIPING INSTALLED AND/OR BACKFILLED WITHOUT INSPECTOR'S SPECIFIC APPROVAL, SHALL BE UNDOCKED AT INSPECTOR'S DIRECTION AND INSPECTED AT 24-HOUR NOTICE.
10. ALL MECHANICALLY RESTRAINED FITTINGS MUST BE MECHANICALLY RESTRAINED JOINTS OR APPROVED EQUAL.
11. THE CITY OF SUGAR LAND MUST HAVE A COPY OF THE BACTERIOLOGICAL TEST RESULTS AT LEAST 24 HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO THE INITIAL INSPECTION. IF NOT, THEN THE INSPECTION WILL BE RESCHEDULED.
12. CONTRACTOR MAY ADVISE THE CITY OF SUGAR LAND OF ANY NECESSARY PROPOSED LOCATION CONFLICTS WITH EXISTING SURROUNDINGS AND CITY APPROVES.


CEMENT STABILIZED SAND:


1. ALL STABILIZED SAND SHALL BE A MINIMUM OF 1.5 SK PER CUBIC YARD.
2. CEMENT STABILIZED SAND (C.S.S.) SHALL ACHIEVE A MINIMUM OF 100 PSI WITHIN 48 HOURS.
3. THE RESULTS OF 2 RANDOM SAMPLES SHALL BE TAKEN EACH WEEK. (FOR BALANCE PROJECTS, ONE SAMPLE MAY SUFFICE WITH CITY OF SUGAR LAND APPROVAL.) THE CITY OF SUGAR LAND RESERVES THE RIGHT TO REQUIRE ADDITIONAL TESTS, AT THE CONTRACTOR'S EXPENSE.
4. ANY C.S.S. NOT MEETING CITY OF SUGAR LAND STANDARDS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL CEMENT CONTENT AND COMPRESSIVE TESTS SHALL BE CONDUCTED ON C.S.S.
6. ALL C.S.S. SHALL BE COMPACTED IN MAXIMUM OF 8-INCH LIFTS AND REQUIRED TO REACH A MINIMUM DENSITY OF 90%.
7. REFER TO GENERAL NOTES.

1. BANK SAND IS DEFINED AS A WELL-GRADED SAND, FREE OF SILT, CLAY, FRAGILE OR SOLUBLE MATERIALS AND ORGANIC MATTER, MEETING THE UNIFIED SOILS CLASSIFICATIONS SYSTEM GROUP SYMBOL SW WITH A PLASTICITY INDEX OF LESS THAN 10. NO MORE THAN 12% OF MATERIAL CAN PASS THE No. 200 SIEVE.

- [illegible]

No. _____ DATE _____ REVISION _____

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 A LEGAL & DAILY COMPANY
 2925 Riverport Drive, Suite 400
 Houston, TX 77062
 Tel 713-260-6800
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SEAL:

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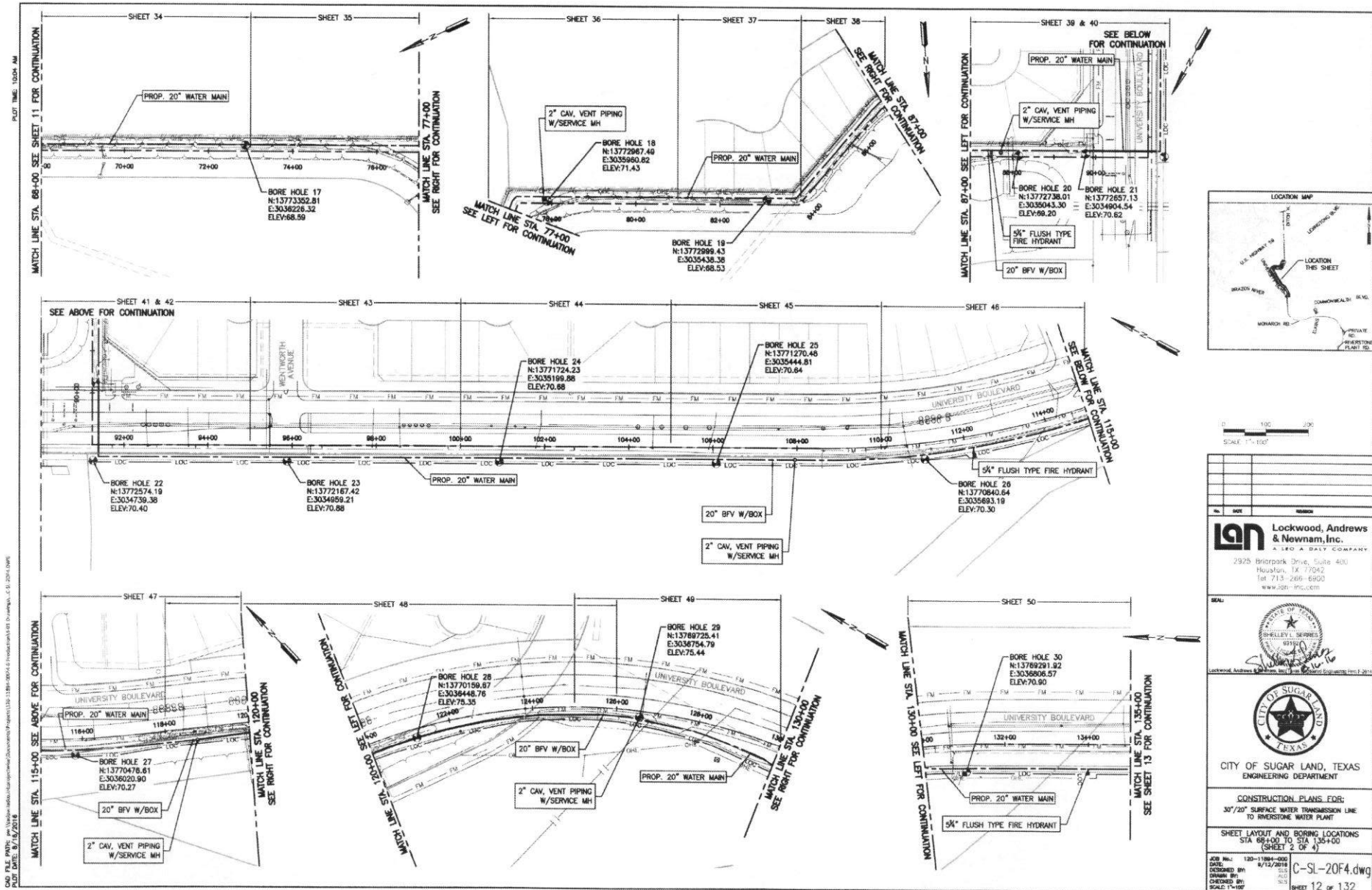

CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT

CONSTRUCTION NOTES FOR:
 307/207 SURFACE WATER TRANSMISSION LINE
 TO RIVERSIDE WATER PLANT

CONSTRUCTION NOTES
 GENERAL & PUBLIC UTILITIES
 SHEET 1 OF 2

JOB NO. 135-11884-000
 DATE 4/15/2016
 DESIGNED BY
 DRAWN BY
 CHECKED BY
 SCALE NONE

G-SL-01-GN15.dwg
 SHEET 4 OF 132



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 CUST. DATE: 8/12/2014

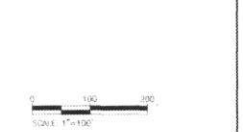
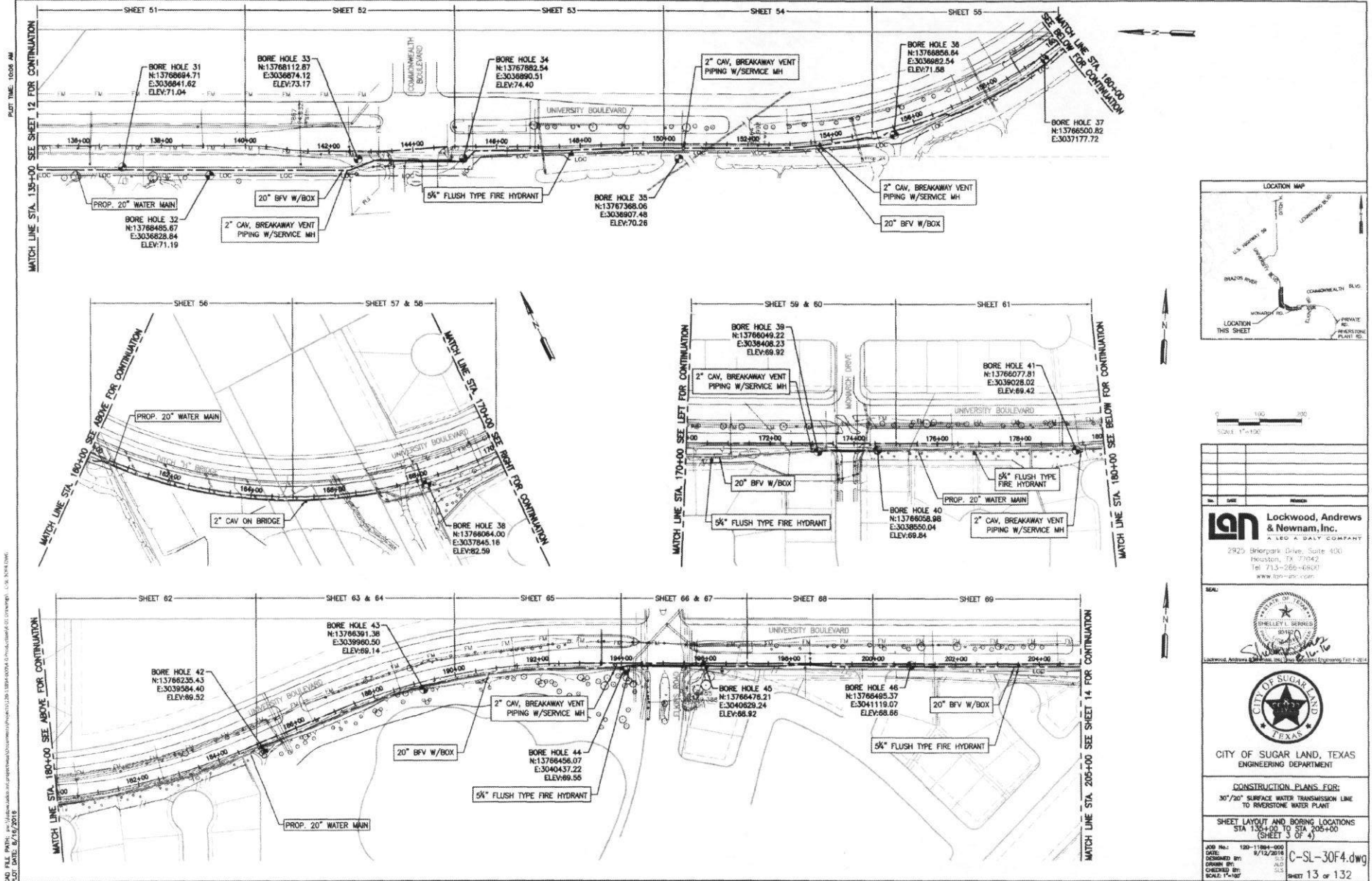
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CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
 30"/20" SURFACE WATER TRANSMISSION LINE
 TO RIVERSTONE WATER PLANT

SHEET LAYOUT AND BORING LOCATIONS
 STA 68+00 TO STA 135+00
 (SHEET 2 OF 4)
 JOB NO.: 130-11984-000
 DATE: 8/12/2014
 DESIGNED BY: [Signature]
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 SCALE: 1"=100'
C-SL-20F4.dwg
 SHEET 12 OF 132



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CITY OF SUGAR LAND, TEXAS
 ENGINEERING DEPARTMENT

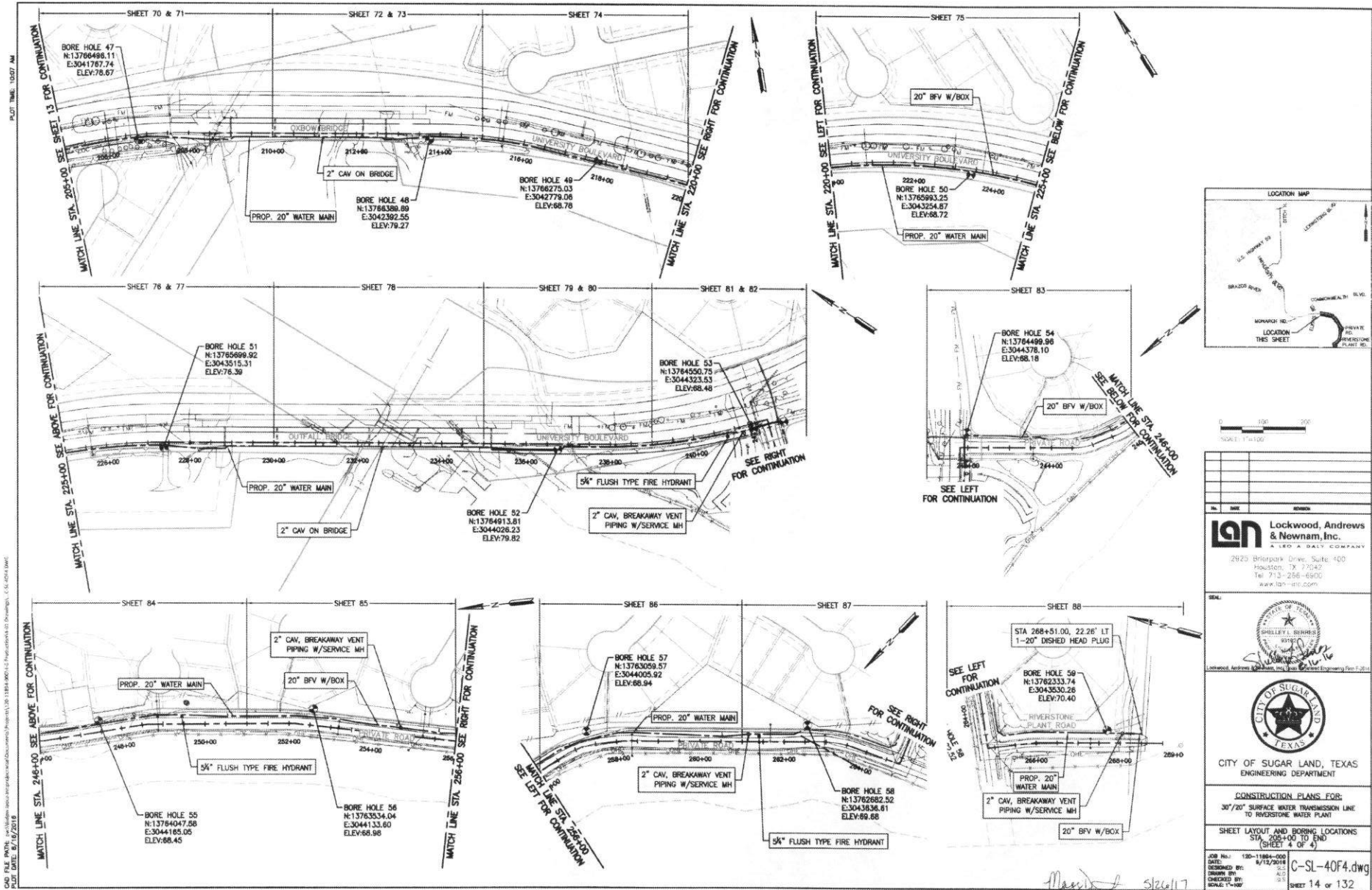
CONSTRUCTION PLANS FOR:
 30" DIA. SURFACE WATER TRANSMISSION LINE
 TO RIVERSTONE WATER PLANT

SHEET LAYOUT AND BORING LOCATIONS
 STA 136+00 TO STA 204+00
 (SHEET 3 OF 4)

200 Hrs. 130-11884-000
 DATE: 8/12/2016
 DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 SCALE: 1"=100'

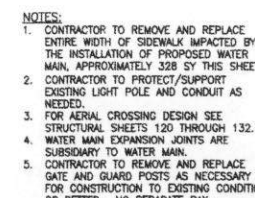
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 PLOT DATE: 8/16/2016
 PLOT TIME: 10:08 AM

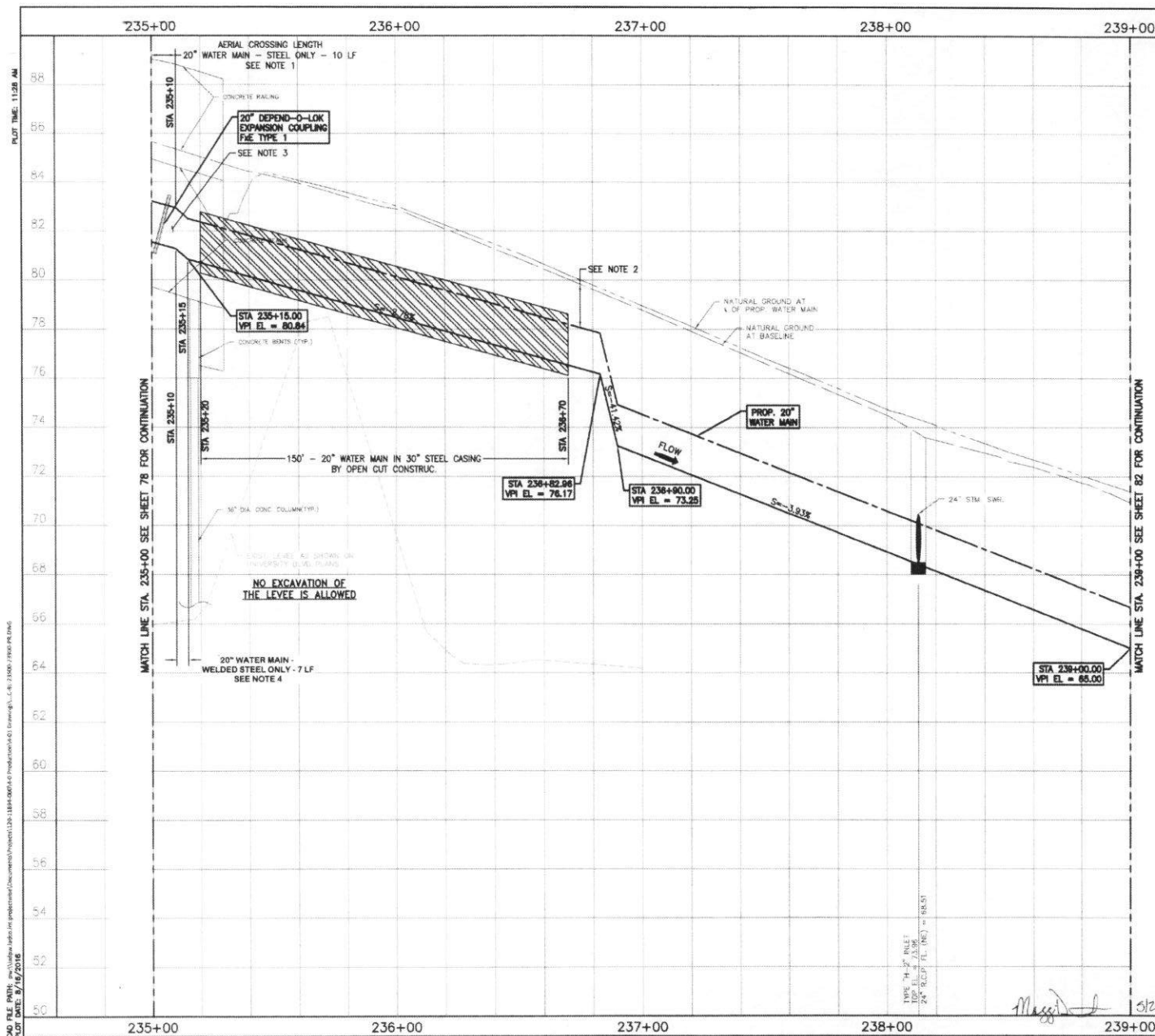


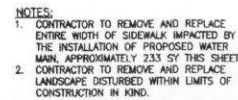
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CUT DATE: 8/12/2014

Major 1 5/26/17

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| |
|--|
| MODEL:  <i>Sherellie B. Bennett</i> Sherellie B. Bennett Licensed Professional Engineer No. 93166 (Licensed, Andrew & Associates Inc., 10000 E. Loop West, Suite 200, Houston, TX 77054) |
|  <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p> <p>CONSTRUCTION PLANS FOR:</p> <p>30"/20" SURFACE WATER TRANSMISSION LINE TO INVESTIGATIVE WATER PLANT</p> <p>UNIVERSITY BOULEVARD PLAN</p> <p>STA 235+00 TO STA 239+00</p> <p>JOB NO.: 120-11884-000 DATE: 8/12/09 DESIGNED BY: JLS CHECKED BY: JLS SCALE: VERTICAL 1"=10'</p> <p>C-H-L-2500-2900-Plan SHEET 79 OF 132</p> |

[illegible]



TO AVOID FOR LINES TO BE TURNED OFF OR REMOVED, CALL SUBSTATION NUMBER AT 713-260-4322.

NOTICE:

For your safety, you are required by Texas Law to call 811 at least 48 hours before you dig so that underground lines can be located. This verification does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

[Signature] Date: 9-6-16

Courtesy/Energy/Natural Gas Facilities Verification ONLY:
 (This Signature verifies that you have shown CNP Natural Gas Lines correctly - not to be used for certified verifications.) (Use written form over site address) Signature valid for six months.

[Signature] Date: 9-6-16

Courtesy/Electric/GAS/UNDERGROUND Electrical Facilities Verification ONLY:
 (This Signature verifies additional underground facilities - not to be used for certified verifications.) Signature Valid for six months.

LOCATION MAP

TRAVERSE POINT #6
 MAG NAD STATE: 241+150.15 OFFSET: 6.4' RT.
 N=13,782,741.34 E=3,043,832.78
 ELEV.=486.25'

SCALE: HORIZ. 1" = 20'
 VERT. 1" = 4'

| No. | DATE | REVISION |
|-----|------|----------|
| | | |
| | | |
| | | |

L&N Lockwood, Andrews & Newnam, Inc.
 A LEAD A DAUGHTER COMPANY

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 Houston, TX 77042
 Tel: 713-266-6900
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DRAWN BY:

Shelley S. Jones

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CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

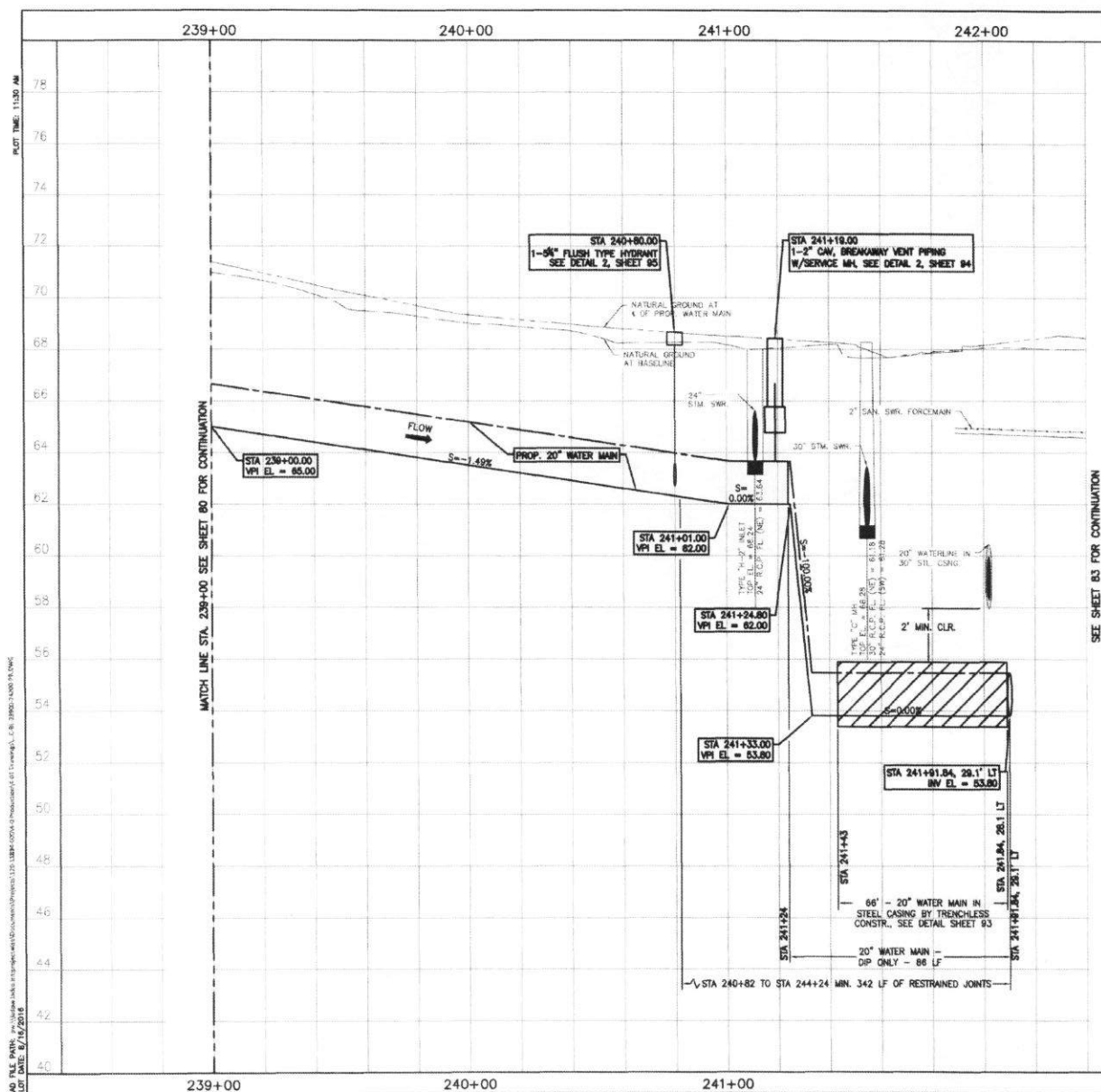
CONSTRUCTION PLANS FOR:
 30"/20" SURFACE WATER TRANSMISSION LINE
 TO REVERTONE WATER PLANT

**UNIVERSITY BOULEVARD
 PLAN**

STA 239+00 TO STA 242+00

JOB NO.: 120-112/2016
 DATED: 6/12/2016
 DESIGNED BY: ALD
 DRAWN BY: WJC
 CHECKED BY: WJC
 SCALE: 1"= 40' WT-C

SHEET 81 of 132



TO AVOID FOR LINES TO BE TURNED OFF OR MOVED, CALL
CONTRACTOR NUMBER AT 713-267-2322

NOTICE:

For your safety, you are advised by Texas Law to call 811 at least
48 hours before you dig on land that underground lines can be located.
This notification does not MAKE your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

2/15/16 Date: *2-16-16*

Contractor/Physical line Facilities notification (MIL)
(This signature certifies that you have asked OPR Infrared line lines
carefully - not to be used for contract verification). (One warning
line are not already) Signature valid for six months.

2/15/16 Date: *2-16-16*

Contractor/OPR/Infrared Detection Facilities Notification (MIL)
(This signature certifies that you have asked OPR Infrared line lines
carefully - not to be used for contract verification). Signature valid for six months.

LOCATION MAP

LOCATION
THIS SHEET

ANCHOR MARK

TRANSPOSE POINT #5
MAG. NAIL, STA. 241+40.15 OFFSET: 8.4' RT,
N=13,762,741.34 E=3,043,932.78
ELEV.=882.25

0 20 40
SCALE: HORIZ. 1"=20'
VERT. 1"=2'

| NO. | DATE | REVISION |
|-----|------|----------|
| 1 | | |

**Lockwood, Andrews
& Newnam, Inc.**
A LEO A DAILY COMPANY

2925 Briarclay Drive, Suite 400
Houston, TX 77042
Tel 713-266-6900
www.22nvl.com

SEAL: *Signature* *2-16-16*
LOCKWOOD, ANDREWS & NEWNAM, INC. (Professional Engineer) No. 3

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

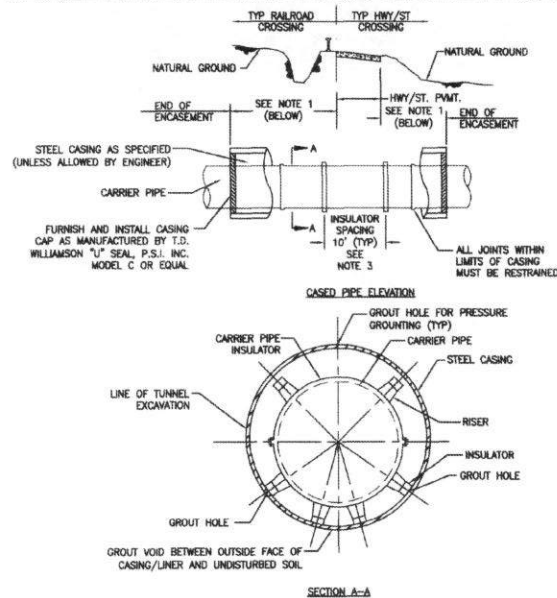
CONSTRUCTION PERS FOR:
387'28" SURFACE WATER TRANSMISSION LINE
TO RIVERSIDE WATER PLANT

**UNIVERSITY BOULEVARD
PROFILE**
STA 239+00 TO STA 242+00

3/24/16 NO. 122-11889-000
DATE: 8/15/2016
DESIGNED BY: C-H-2800-2000-PRD
CHECKED BY: SCALP-ML-0007
SHEET 82 OF 132

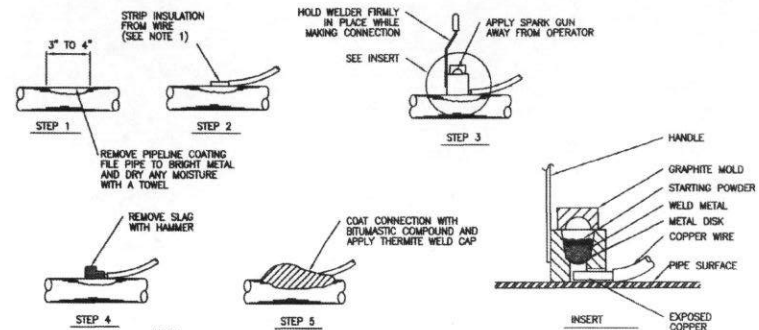
MINIMUM TUNNEL LINER / CASING SIZES AND THICKNESS

| LOCATION | WATER MAIN DIAMETER (IN) | PIPE MATERIAL | NOMINAL DIA./WALL THICKNESS (NOTE 1) (IN) | | MINIMUM CASING I.D./WALL THICKNESS |
|--------------------------------|--------------------------|---------------|---|----------------------|------------------------------------|
| | | | 2-FLANGE LINER PLATE (SEE NOTE 2) | 4-FLANGE LINER PLATE | |
| STA. 15+99.50 TO STA. 19+50.50 | 30" | DIP | N/A | N/A | 42"/0.375 |
| STA. 27+28 TO STA. 33+35 | 30" | DIP | N/A | N/A | 42"/0.375 |
| STA. 41+16 TO STA. 42+96 | 30" | DIP | N/A | N/A | 42"/0.375 |
| STA. 89+85 TO STA. 91+45 | 20" | DIP | N/A | N/A | 32"/0.25 |
| STA. 128+72 TO STA. 128+92 | 20" | DIP | N/A | N/A | 32"/0.25 |
| STA. 143+14 TO STA. 145+00 | 20" | DIP | N/A | N/A | 32"/0.25 |
| STA. 150+90 TO STA. 151+20 | 20" | DIP | N/A | N/A | 32"/0.25 |
| STA. 173+20 TO STA. 174+40 | 20" | DIP | N/A | N/A | 32"/0.25 |
| STA. 194+26 TO STA. 195+93 | 20" | DIP | N/A | N/A | 32"/0.25 |
| STA. 241+43 TO STA. 242+09 | 20" | DIP | N/A | N/A | 32"/0.25 |
| STA. 268+14 TO STA. 268+34 | 20" | DIP | N/A | N/A | 32"/0.25 |



- CASING NOTES:
1. LENGTH OF ENCASUREMENT SHALL BE AS SHOWN ON THE PLAN & PROFILE DRAWINGS.
 2. LAY CASING PIPE IN OPEN CUT, TUNNEL OR BORE, AS NOTED ON PLAN & PROFILE DRAWINGS.
 3. SEE SPECIFICATIONS FOR APPROPRIATE MODEL ACCORDING TO PIPE DIAMETER.
 4. ALL JOINTS WITHIN LIMITS OF CASING MUST BE RESTRAINED.

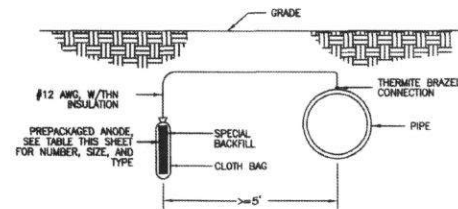
1 CASING DETAIL
SCALE: N.T.S.
(FOR 30" & 20" WATER MAIN)



NOTES:

1. WHEN #14 SOLID TO #10 SOLID WIRE IS USED, IT WILL BE NECESSARY TO INSTALL A COPPER SLEEVE OF ADEQUATE SIZE OVER BARE SECTION OF WIRE BEFORE CONNECTION IS ATTEMPTED.
2. THERMITE WELD PROCEDURES SIMILAR FOR "L" BRACKETS.
3. REPAIR ALL DAMAGE TO COATING AND LINING IN ACCORDANCE WITH MFG. RECOMMENDATIONS.

2 THERMITE BRAZED CONNECTION DETAIL
SCALE: N.T.S.



3 DIRECT CONNECT ANODE INSTALLATION DETAIL
SCALE: N.T.S.

| HIGH MAGNESIUM ANODE LOCATIONS | | | | | |
|--------------------------------|-------------|-----------------|--------------------|---------------|-------------|
| LOCATION | STATION NO. | SEGMENT | ANODE SPACING (FT) | NO. OF ANODES | ANODE MODEL |
| 1 | 160+20 | UNIVERSITY BLVD | N/A | 1 | 17D3 |
| 2 | 167+50 | UNIVERSITY BLVD | N/A | 1 | 6054 |
| 3 | 206+35 | UNIVERSITY BLVD | 5 | 2 | 6054 |
| 4 | 213+20 | UNIVERSITY BLVD | N/A | 1 | 6054 |
| 5 | 228+35 | UNIVERSITY BLVD | N/A | 1 | 6054 |
| 6 | 235+15 | UNIVERSITY BLVD | N/A | 1 | 9D3 |

Lockwood, Andrews & Newnam, Inc.
A LEAD & DAILY COMPANY
2925 Briarport Drive, Suite 400
Houston, TX 77242
Tel: 713-266-6900
www.lan-inc.com

SEAL: SHELLY L. DEWIS
ENGINEER
Lockwood, Andrews & Newnam, Inc. (Professional Engineer) No. 1012

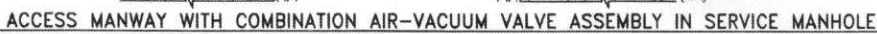
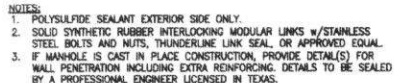
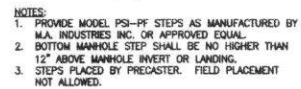
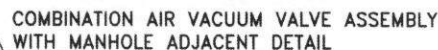
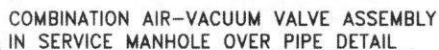
CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
30"/20" SURFACE WATER TRANSMISSION LINE
TO RIVERSTONE WATER PLANT

CASING DETAILS
SD-01

JOB No.: 130-11884-000
DATE: 8/12/2018
DESIGNED BY: SD
DRAWN BY: SD
CHECKED BY: SD
SCALE: AS SHOWN

SD-01.dwg
SHEET 93 OF 132



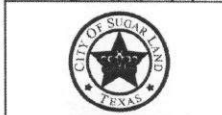
GENERAL NOTES:

1. PROVIDE RAM-NEX OR APPROVED EQUAL BETWEEN PRECAST SEGMENTS OF THE MANHOLE.
2. PROVIDE AN APPROVED PETROLEUM BASED TAPE ENCAPSULATING ALL BOLTS IN MANHOLES & VAULTS.
3. VERIFY THAT LOCATION OF SCREEN IS 1 FOOT ABOVE 10-YEAR FLOOD PLANE ELEVATION OR 4 FEET ABOVE NORMAL GROUND, WHICHEVER IS HIGHER.
4. REFER TO PLAN AND PROFILE SHEETS FOR THE LOCATIONS OF COMBINATION AIR VALVES.
5. FOR PAVEMENT REPAIR, SEE DETAILS, SL-21.DWG, CONCRETE PAVEMENT CONSTRUCTION DETAILS.
6. MANHOLES DEEPER THAN 18" SHALL INCREASE SIZE OF MANHOLE TO 72" OR 48" DIAMETER & PROVIDE SAFETY CLIMBING RAIL (SAF-T-CLIMB OR APPROVED EQUAL.)

BY
AN

LAN Lockwood, Andrews
& Newnam, Inc.
A LED A DALY COMPANY

2925 Briarpark Drive, Suite 400
Houston, TX 77042
Tel 713-266-6600
www.lan-inc.com

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:
30"/20" SURFACE WATER TRANSMISSION LINE
TO RIVERSTONE WATER PLANT

AIR VALVE & MANHOLE DETAILS
SD-02

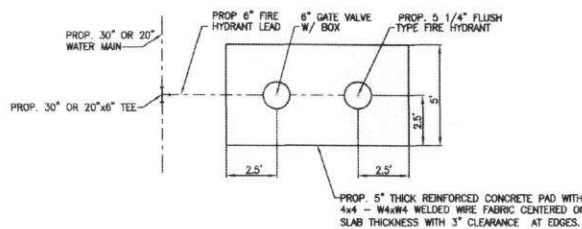
JOB No.: 120-11894-000
DATE: 6/12/2018
DESIGNED BY: SLS
DRAWN BY: ALG
CHECKED BY: SLS
SCALE: N.T.S.

SD-02.dwg
SHEET 94 OF 132

SD-02.dwg

SHEET 94 OF 132

PLOT TIME: 11:54 AM

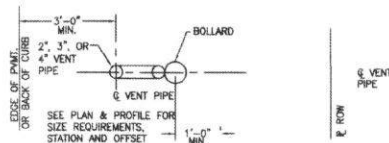


**TYPICAL FIRE HYDRANT & VALVE
CONCRETE PAD DETAIL**

SCALE: N.T.S.

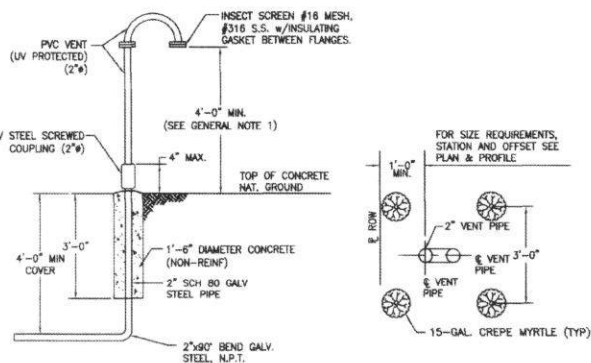
GENERAL NOTE:

1. VERIFY THAT LOCATION OF VENT PIPE SCREEN IS 1 FOOT ABOVE 100-YEAR FLOOD PLAN ELEVATION OR 4 FEET ABOVE NATURAL GROUND, WHICHEVER IS HIGHER.



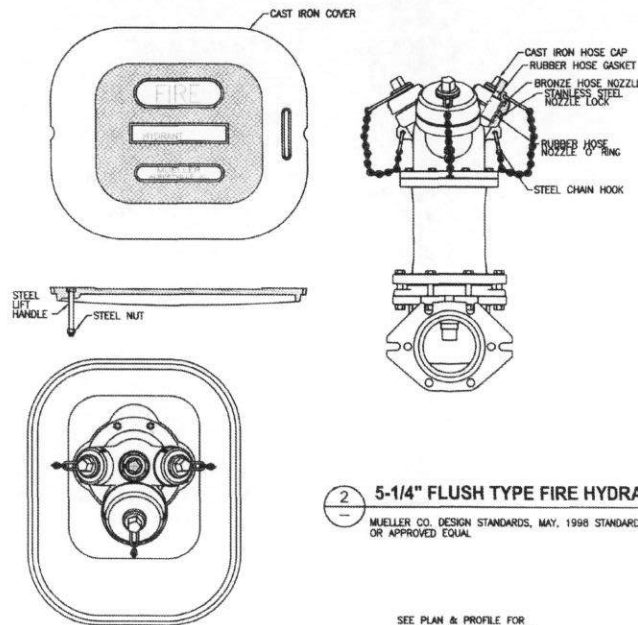
VENT PIPE WITH ONE BOLLARD DETAIL

SCALE: N.T.S.



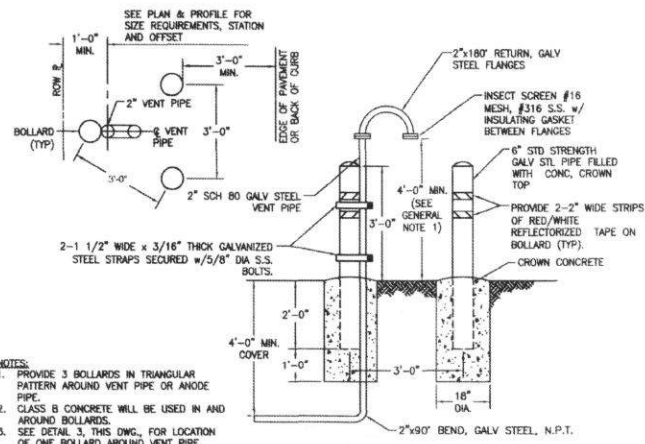
BREAKAWAY VENT PIPE DETAIL

SCALE: N.T.S.



5-1/4\"/>

MUELLER CO. DESIGN STANDARDS, MAY, 1998 STANDARD DETAIL
OR APPROVED EQUAL.



**VENT PIPE WITH
THREE BOLLARDS DETAIL**

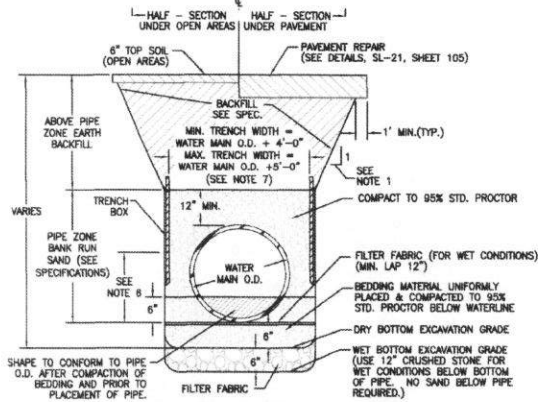
SCALE: N.T.S.

- NOTES:**
1. PROVIDE 3 BOLLARDS IN TRIANGULAR PATTERN AROUND VENT PIPE OR ANODE PIPE.
 2. CLASS B CONCRETE WILL BE USED IN AND AROUND BOLLARDS.
 3. SEE DETAIL 3, THIS DWG., FOR LOCATION OF ONE BOLLARD AROUND VENT PIPE.

| | |
|--|----------|
| DATE | REVISION |
| | |
| | |
| <p>Lockwood, Andrews & Newnam, Inc. A LEQ A DAILY COMPANY 2925 Briarport Drive, Suite 400 Houston, TX 77042 Tel: 713-266-0900 www.lan-inc.com</p> | |
| <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p> | |
| <p>CONSTRUCTION PLANS FOR: 30\"/> </p> | |
| <p>VENT PIPE DETAILS SD-03</p> | |
| <p>SD-03.dwg</p> | |
| <p>SHEET 95 of 132</p> | |

[illegible]

PLOT TIME: 11:40 AM

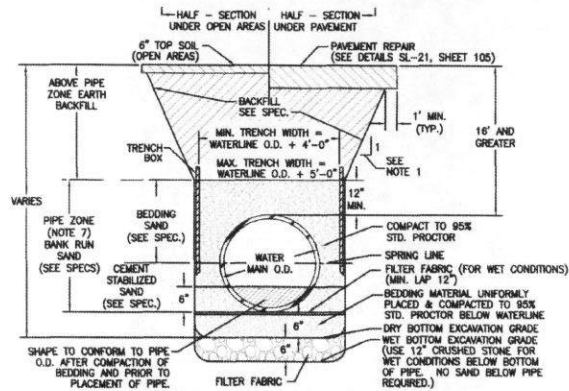


1 EXCAVATION & BACKFILL DETAIL

SCALE: N.T.S.

NOTES:

1. SEE TRENCH SAFETY SYSTEM SPECIFICATIONS FOR MAXIMUM ALLOWABLE SLOPES.
2. FOR WET BOTTOM EXCAVATION LIMITS OF CRUSHED STONE, EXTEND AS SHOWN.
3. KEY CONCRETE TRENCH DAM MINIMUM OF 8 INCHES INTO TRENCH BOTTOM AND WALLS.
4. TRENCH DAM MAY BE FORMED OR UNFORMED. ACTUAL SHAPE OF CONCRETE TRENCH DAM CROSS SECTION MAY BE DETERMINED BY CONTRACTOR IN FIELD, MEETING 6-INCH MINIMUM THICKNESS AND 6-INCH KEY DEPTH REQUIREMENTS.
5. TRENCH DAM SHALL BE PLACED AT LEAST 5 FT. AWAY FROM ANY PIPELINE STRUCTURE (EACH SIDE). SEE SECTION 02317 FOR OTHER REQUIREMENTS.
6. THIS PORTION OF PIPE EMBEDMENT ZONE MUST BE RECOMPACTED TO PROPER DENSITIES AFTER MOVING SUPPORT SYSTEM FORWARD.
7. FOR WATER LINE DIAMETERS LESS THAN 24-INCHES, MIN. TRENCH WIDTH = O.D. + 2'-0". MAX. TRENCH WIDTH = O.D. + 3'-0".



2 WATER MAIN WITH HEIGHT OF EARTH COVER GREATER THAN 16'

SCALE: N.T.S.

NOTES:

1. SEE TRENCH SAFETY SYSTEM SPECIFICATIONS FOR MAXIMUM ALLOWABLE SLOPES.
2. FOR WET BOTTOM EXCAVATION LIMITS OF CRUSHED STONE, EXTEND AS SHOWN.
3. KEY CONCRETE TRENCH DAM MINIMUM OF 6 INCHES INTO TRENCH BOTTOM AND WALLS.
4. TRENCH DAM MAY BE FORMED OR UNFORMED. ACTUAL SHAPE OF CONCRETE TRENCH DAM CROSS SECTION MAY BE DETERMINED BY CONTRACTOR IN FIELD, MEETING 6 INCH MIN. THICKNESS AND 6 INCH KEY DEPTH REQUIREMENTS.
5. TRENCH DAM SHALL BE PLACED AT LEAST 5 FT. AWAY FROM ANY PIPELINE STRUCTURE (EACH SIDE). SEE SECTION 02317 FOR OTHER REQUIREMENTS.
6. THIS PORTION OF PIPE EMBEDMENT ZONE MUST BE RECOMPACTED TO PROPER DENSITIES AFTER MOVING SUPPORT SYSTEM FORWARD.
7. USE POLYETHYLENE WRAP AS A BOND BREAKER BETWEEN CEMENT STABILIZED SAND AND PIPE.

GENERAL NOTES:

1. ROADWAY EXCAVATION, SITE GRADING, AND HYDROMULCH SEEDING OR SOODING WITHIN R.O.W. AND/OR LIMITS OF CONSTRUCTION SHALL BE AS PER SPECIFICATION SECTIONS UNLESS OTHERWISE SHOWN ON BID FORM.
2. MEASUREMENT AND PAYMENT (INCLUDING DRIVEWAYS) SHALL BE AS PER SPECIFICATION SECTIONS UNLESS OTHERWISE SHOWN ON BID FORM.
3. NEW ASPHALTIC PAVEMENTS SHALL BE MIN. 2" HMA TOP, WITH BASE AND SUBGRADE PER DETAILS AND SPECIFICATIONS.
4. NEW CONCRETE PAVEMENTS TO BE SAME THICKNESS AS EXISTING, UNLESS OTHERWISE DIRECTED BY THE COSL.
5. STREETS OR DRIVEWAYS SHALL BE REPAIRED OR REPLACED USING HIGH EARLY STRENGTH CONCRETE AS INDICATED ON DRAWINGS, ACCORDING TO PAVEMENT REPLACEMENT SCHEDULE WHERE PROVIDED, OR AS DIRECTED BY COSL.
6. ANY REMOVAL AND REPLACEMENT OF PAVEMENT NOT IDENTIFIED ON THE DRAWINGS SHALL BE COORDINATED WITH THE PROJECT MANAGER AND THE COSL.
7. ALL PAVEMENT REPLACEMENT SHALL BE CONDUCTED IN ACCORDANCE WITH APPLICABLE CONSTRUCTION SPECIFICATIONS.



CAD FILE PATH: \\p01\apps\cadd\proj\1300-11884-000\1300-11884-000.dwg
PLOT DATE: 8/12/2016

| | | | |
|---|---------------|-------------|-----------|
| No. | | DATE | REVISION |
| <p>Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY 2975 Briarwood Dr., Suite 400 Houston, TX 77042 Tel: 713-266-6900 www.lan-inc.com</p> | | | |
| <p>SEAL:</p> <p>LOCKWOOD, ANDREWS & NEWNAM, INC. 10161, EXPIRATION DATE 12/31/16</p> | | | |
| <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p> | | | |
| <p>CONSTRUCTION PLANS FOR: 107/207 SURFACE WATER TRANSMISSION LINE TO RIVERSTONE WATER PLANT</p> | | | |
| <p>WATER MAIN DETAILS SD-05</p> | | | |
| JOB No.: | 130-11884-000 | DATE: | 8/12/2016 |
| DESIGNED BY: | SD | CHECKED BY: | SD |
| SCALE: | AS SHOWN | SD-05.dwg | |
| SHEET | | 97 OF 132 | |

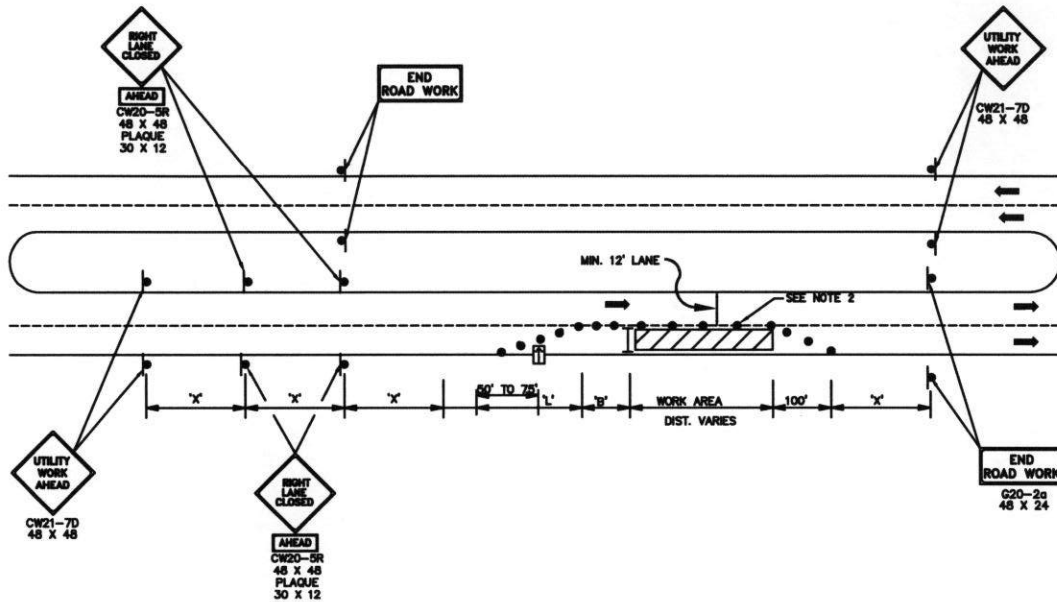
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NOT DATE.

NOTE: FORT BEND COUNTY NOTES SUPERSEDE ANY CONFLICTING NOTES.

| | | | |
|---|-------------------------------------|--|--|
| | | | |
| | | | |
| | | | |
| | | | |
| DATE | | REVISION | |
|  | | Lockwood, Andrew & Newnam, Inc. A LEAD & DRY COMPANY | |
| 2925 | | 2925 | |
| Warrington Drive, Suite 400 | | Warrington Drive, Suite 400 | |
| Houston, TX 77042 | | Houston, TX 77042 | |
| Tel 713-265-6900 | | Tel 713-265-6900 | |
| www.lan-inc.com | | www.lan-inc.com | |
| SEAL  <i>Shelley Dennis</i> Licensed Professional Engineer, State of Texas, No. 12804 | | | |
| CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT | | | |
| CONSTRUCTION PLANS FOR: 30" / 20" SURFACE WATER TRANSMISSION LINE TO WINDHOLSTER WATER PLANT | | | |
| CONSTRUCTION NOTES FORT BEND COUNTY SHEET ZA OF 2 | | | |
| JOB No.: 120-1189A-002 DATE: 8/26/2017 DESIGNED BY: CHECKED BY: SCALE: NONE | G-SL 03-GNTS.DWG SHEET 5A OF 132 | | |

Max Del 5/26/17



**TYPICAL RIGHT LANE CLOSURE DETAIL
FOR USE ON UNIVERSITY BLVD.**

NOTE:

1. PROVIDE ACCESS TO PROPERTY OWNERS AT ALL TIMES.
2. PLACE LOW PROFILE CONCRETE TRAFFIC BARRIER TYPE I AND TYPE II WITH WHITE DELINEATORS AT 10' C-C INSTEAD OF DRUMS IN FRONT OF ALL WORK ZONE. LOCATIONS WHERE EDGE OF TRAVEL WAY IS WITHIN 12' OF OPEN EXCAVATION. CONTRACTOR MAY USE LOW PROFILE BARRIER IN FRONT OF WORK ZONE IN LIEU OF DRUMS ALONG DITCH "H" BRIDGE (STA. 159+50 - STA. 167+25), OXBOW BRIDGE (STA. 209+00 - STA. 213+00), AND OUTFALL BRIDGE (STA. 228+50 - STA. 235+50).
3. TRAVEL LANES MAY BE CLOSED ON WEEKDAYS ONLY, BETWEEN THE HOURS OF 9 AM TO 4 PM, UNLESS OTHERWISE APPROVED BY CITY.
4. ACTIVE CONSTRUCTION ZONE LIMITED TO 1000 FEET. ALL CONSTRUCTION TRAFFIC ENTERING AND EXISTING CONSTRUCTION ZONE SHALL OCCUR WITHIN THIS 1000 FEET.

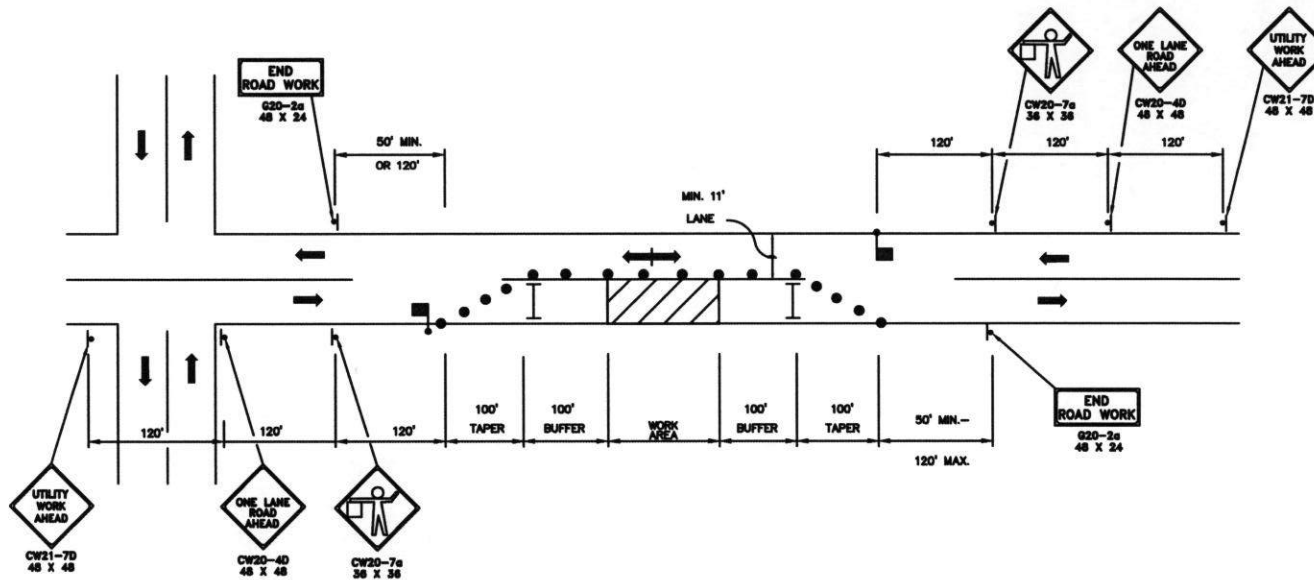
| Length for Longitudinal Buffer | |
|--------------------------------|---------------------|
| Posted Speed (mph) | Length in Feet (ft) |
| 20 | 35 |
| 25 | 55 |
| 30 | 85 |
| 35 | 120 |
| 40 | 170 |
| 45 | 220 |
| 50 | 280 |
| 55 | 335 |

| TYPICAL SIGN SPACING AND TAPER LENGTHS | | | | |
|--|------------------|-----------------------|------------|------------|
| Posted Speed (mph) | Sign Spacing "X" | Min. Taper Length "L" | | |
| | | 10' Offset | 11' Offset | 12' Offset |
| 30 | 120' | 150' | 185' | 180' |
| 35 | 180' | 205' | 225' | 245' |
| 40 | 240' | 285' | 285' | 320' |
| 45 | 320' | 450' | 495' | 540' |
| 50 | 400' | 500' | 550' | 600' |
| 55 | 500' | 550' | 605' | 660' |

LEGEND

- WORK ZONE
- TYPE III BARRICADE W/ TYPE A FLASHING WARNING LIGHT
- DRUMS
- EXISTING STRIPING
- TEMP GROUND MOUNTED SIGNS
- DIRECTION OF TRAFFIC
- LOW PROFILE CONC TRAFFIC BARRIER
- PEDESTRIAN SAFETY FENCE
- FLASHING ARROW PANEL

| | |
|---|--|
| <p>Lockwood, Andrews & Newnam, Inc. A LEO A BAY COMPANY 2925 Briarpark Drive, Suite 400 Houston, TX 77042 Tel 713-266-6900 www.lan-inc.com</p> | |
| | |
| <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p> | |
| <p>CONSTRUCTION PLANS FOR: 36"/36" SURFACE WATER TRANSMISSION LINE TO RIVERSTONE WATER PLANT</p> | |
| <p>TRAFFIC CONTROL PLAN TYPICAL DETAIL FOR TYPICAL RIGHT LANE CLOSURE</p> | |
| <p>JOB No.: 150-11884-005 DESIGNED BY: 4/12/2015 CHECKED BY: SLS SOLD FOR TO: NONE</p> | <p>C-TCP-010TL.dwg Sheet 114 of 132</p> |



**ONE LANE - TWO WAY/FLAGGING OPERATION
FOR USE ON PRIVATE ROAD ONLY
(DAY TIME WORKING HOURS ONLY)**

LEGEND

- WORK ZONE
- TYPE III BARRICADE W/ TYPE A FLASHING WARNING LIGHT
- DRUMS
- EXISTING STRIPING
- TEMP GROUND MOUNTED SIGNS
- DIRECTION OF TRAFFIC
- LOW PROFILE CONC TRAFFIC BARRIER
- PEDESTRIAN SAFETY FENCE
- FLAGGER

NOTE:


1. PROVIDE ACCESS TO PROPERTY OWNERS AT ALL TIMES.
2. PLACE LOW PROFILE CONCRETE TRAFFIC BARRIER TYPE I AND TYPE II WITH WHITE DELINEATORS AT 10' C-C INSTEAD OF DRUMS IN FRONT OF ALL WORK ZONE LOCATIONS WHERE EDGE OF TRAVEL WAY IS WITHIN 12' OF OPEN EXCAVATION.
3. TRAVEL LANES MAY BE CLOSED ON WEEKDAYS ONLY, BETWEEN THE HOURS OF 9 AM TO 4 PM, UNLESS OTHERWISE APPROVED BY CITY.
4. ACTIVE CONSTRUCTION ZONE LIMITED TO 1000 FEET. ALL CONSTRUCTION TRAFFIC ENTERING AND EXISTING CONSTRUCTION ZONE SHALL OCCUR WITHIN THIS 1000 FEET.

| | |
|--|--|
| <p>Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY 2925 Briarpark Drive, Suite 400 Houston, TX 77042 Tel 713-256-6900 www.lan-inc.com</p> | |
| | |
| <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p> | |
| <p>CONSTRUCTION PLANS FOR: 30"/36" SURFACE WATER TRANSMISSION LINE TO RIVERSTONE WATER PLANT</p> | |
| <p>TRAFFIC CONTROL PLAN T004 FOR ONE LANE - TWO WAY FLAGGING OPERATION</p> | |
| <p>JOB No.: 130-1155-000 DESIGNED BY: 4/10/2018 CHECKED BY: TOS DATE: 4.10.18 WORLD WIDE TO GO</p> | <p>C-TCP-020TL.dwg Sheet 115 of 132</p> |



1. PROVIDE ACCESS TO PROPERTY OWNERS
AT ALL TIMES.


| | | | | |
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Lockwood, Andrews & Newnam, Inc.
A LEED A QUALITY COMPANY


2925 Briarpark Drive, Suite 400
Houston, TX 77042
Tel 713-286-6900
www.lnc-inc.com

DATE _____



EWS
8/14/16

Lockwood, Andrews & Newnam, Inc., Texas Registered Engineers Firm #28



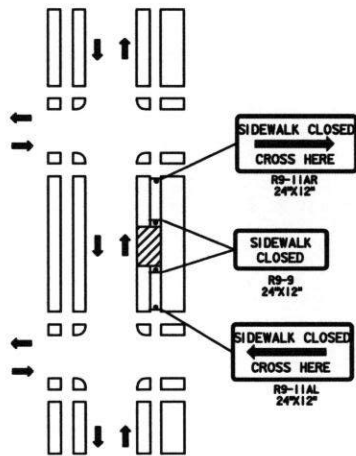
CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

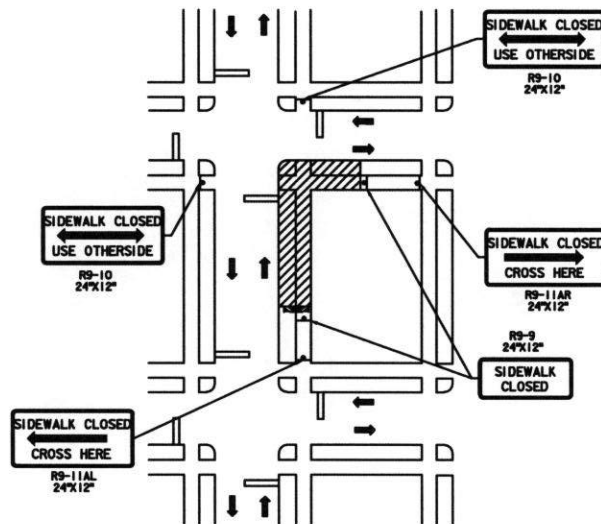
30"/70" SURFACE WATER TRANSMISSION LINE TO INVERSTONE WATER PLANT

**TRAFFIC CONTROL PLAN
FINAL DETAIL FOR
TRENCHING CONSTRUCTION**

| | | |
|--|--|--|
| JOB NO. DRAWN BY CHECKED BY DESIGNED BY CROSS SECTION NOTES | 130-11983-C-01 4/15/2016 JLW JLW JLW JLW JLW | <div style="font-size: 2em; font-weight: bold; float: left; margin-right: 10px;">C-TCP-030TL.dwg</div> <div style="clear: both;"></div> <div style="text-align: right; font-size: 1.5em;">sheet 116 of 132</div> |
|--|--|--|



SIDEWALK DETOUR

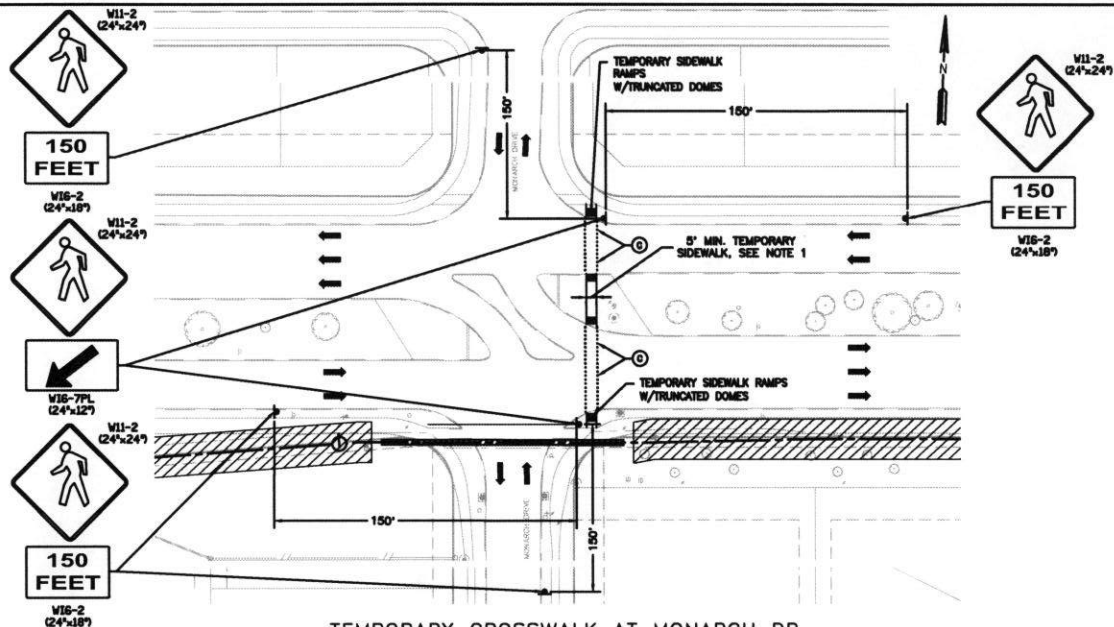


CROSSWALK CLOSURES AND PEDESTRIAN DETOURS

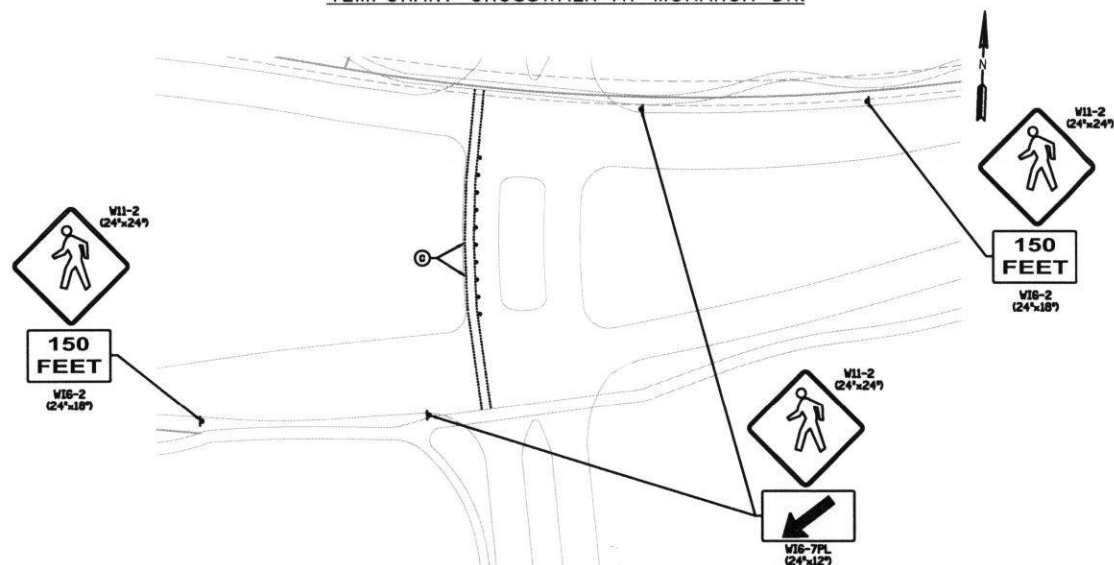
LEGEND

- WORK ZONE
- TYPE III BARRICADE W/ TYPE A FLASHING WARNING LIGHT
- DRUMS
- EXISTING STRIPING
- TEMP GROUND MOUNTED SIGNS
- DIRECTION OF TRAFFIC
- LOW PROFILE CONC TRAFFIC BARRIER
- PEDESTRIAN SAFETY FENCE
- REFLECTIVE MARKER TYPE-I

| | |
|--|-------------------------------------|
| Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY 2925 Briarpark Drive, Suite 400 Houston, TX 77042 Tel 713-266-6900 www.lan-inc.com | |
| | |
| CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT | |
| CONSTRUCTION PLANS FOR: 307 th SURFACE WATER TREATMENT LINE TO RIVERSTONE WATER PLANT | |
| TRAFFIC CONTROL PLAN TYPICAL DETAILS FOR PEDESTRIAN CROSSINGS | |
| JOB No.: 1135-1184-0000 DRAWN BY: 4/15/2016 CHECKED BY: TJS DESIGNED BY: AJS WOULD NOT BE NEEDED | C-TCP-040TL.dwg SHEET 117 of 132 |



TEMPORARY CROSSWALK AT MONARCH DR.



TEMPORARY CROSSWALK AT W. AVALON DR.

LEGEND

- ⊙ REFLECTIVE MARKER TYPE-1
- DRUMS
- ⚑ TEMP GROUND MOUNTED SIGNS
- DIRECTION OF TRAFFIC

NOTES:

1. CONTRACTOR TO REMOVE CONCRETE CURB AND MEDIAN AS DIRECTED BY PROJECT MANAGER TO CONSTRUCT 5' MINIMUM ASPHALT SIDEWALK WITH TRUNCATED DOMES AS SHOWN.
2. CONTRACTOR TO RESTORE CONCRETE CURB AND MEDIAN UPON COMPLETION OF CONSTRUCTION. INCLUDE IN UNIT PRICE FOR TRAFFIC CONTROL.
3. CONTRACTOR TO COORDINATE WITH SCHOOL AND PROVIDE A CROSSING GUARD AS REQUIRED FOR SCHOOL PEDESTRIAN TRAFFIC.

| | |
|---|--|
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| | |
| <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p> | |
| <p>CONSTRUCTION PLANS FOR: 36"/36" SURFACE WATER TRANSMISSION LINE TO RIVERSTONE WATER PLANT</p> | |
| <p>TRAFFIC CONTROL PLAN TYPICAL DETAILS FOR TEMPORARY PEDESTRIAN CROSSWALKS</p> | |
| <p>DATE: 8/14/2018 DESIGNED BY: [Signature] CHECKED BY: [Signature] SCALE: AS SHOWN</p> | <p>C-TCR-05071.dwg SHEET 118 OF 132</p> |

