

11 cc

### REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

On this 23rd day of June, 2015, Commissioners Court came on to be heard and reviewed the accompanying notice of CNS Construction, L.L.C.

Job Location Pitts Road, Richmond, TX 77406

Date 6/8/2015 Bond No. HSIFSU0681111, Permit No. 2015-631 to make use of certain Fort Bend County property subject to, "A Revised 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 the 3rd day of August, 1987, recorded in Volume \_\_\_\_\_ of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Article 1436a, Vernon's Texas Civil Statutes. Upon Motion of Commissioner Meyers, seconded by Commissioner Patterson, 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.

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
 Mail notices to: Permit Administrator  
 Fort Bend County Engineering  
 301 Jackson Street  
 Richmond, Texas 77469  
 281-633-7500
3. This permit expires one (1) year from date of permit if construction has not commenced.

By: [Signature]  
County Engineer

N/A

Presented to Commissioners Court and approved.  
Recorded in Volume 6-23-15 11cc  
Minutes of Commissioners Court

By: \_\_\_\_\_  
Drainage District Engineer/Manager

Clerk of Commissioners Court  
By: [Signature]  
Deputy

**County of Fort Bend**  
Engineering Department

301 Jackson Street  
Richmond, Texas 77469

Johnny Ortega  
Permit Administrator

Phone: (281) 633-7500

**Permit Application Review Form For  
Cable, Conduit, and Pole Line Activity  
In Fort Bend County**

Permit No. 2015-631

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:

a. Name of road, street, and/or drainage ditch affected.

b. Vicinity map showing course of directions

c. Plans and specifications

(2) Bond:

District Attorney, approval when applicable.

Perpetual bond currently posted.

No: \_\_\_\_\_

Amount: \_\_\_\_\_

Performance bond submitted.

No: **HSIFSU0681111**

Amount: **\$5,000.00**

Cashier's Check

No: \_\_\_\_\_

Amount: \_\_\_\_\_

(3) Verbal permission given for emergencies, to start construction before approved in Commissioner's Court.

\_\_\_\_\_  
Precinct Engineer Acknowledgment Date

\_\_\_\_\_  
Precinct Commissioner Acknowledgment Date

(4)  
Drainage District Approval when applicable

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

 CFM  
\_\_\_\_\_  
Johnny Ortega CFM/Permit Administrator

6-23-15  
\_\_\_\_\_  
Date

**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE  
ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROAD**

AUTHORIZED

BOND NO HSIFSU0681111

THE STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

§

THAT WE, CNS Construction, LLC whose address is 5600 Northwest Central Drive, Suite 230, Houston, TX 77092 Texas, hereinafter called the Principal, And International Fidelity Insurance Company, a Corporation existing under and by virtue of the laws of the state of New Jersey and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at One Newark Center, 20<sup>th</sup> Floor, Newark, NJ 07102, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is Steve White and whose address is 10077 Grogan's Mill Road, Suite 260, The Woodlands, TX 77380, hereinafter called the Surety, and held and firmly bound unto, Robert e. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Five Thousand and NO/100 Dollars (\$5,000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 2<sup>nd</sup> day of June, 2015.

CNS Construction, LLC  
PRINCIPAL

BY

International Fidelity Insurance Company  
SURETY

BY Jillian McKenzie, Attorney-In-Fact



# POWER OF ATTORNEY

## INTERNATIONAL FIDELITY INSURANCE COMPANY ALLEGHENY CASUALTY COMPANY

ONE NEWARK CENTER, 20TH FLOOR NEWARK, NEW JERSEY 07102-5207

KNOW ALL MEN BY THESE PRESENTS: That INTERNATIONAL FIDELITY INSURANCE COMPANY, a corporation organized and existing under the laws of the State of New Jersey, and ALLEGHENY CASUALTY COMPANY a corporation organized and existing under the laws of the State of Pennsylvania, having their principal office in the City of Newark, New Jersey, do hereby constitute and appoint

JILLIAN MCKENZIE, ERICA ANNE COX, EDWARD ARENS, MICHELE BONNIN, PHILIP BAKER

The Woodlands, TX.

their true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise, and the execution of such instrument(s) in pursuance of these presents, shall be as binding upon the said INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY, as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by their regularly elected officers at their principal offices.

This Power of Attorney is executed, and may be revoked, pursuant to and by authority of the By-Laws of INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY and is granted under and by authority of the following resolution adopted by the Board of Directors of INTERNATIONAL FIDELITY INSURANCE COMPANY at a meeting duly held on the 20th day of July, 2010 and by the Board of Directors of ALLEGHENY CASUALTY COMPANY at a meeting duly held on the 15th day of August, 2000:

"RESOLVED, that (1) the President, Vice President, Chief Executive Officer or Secretary of the Corporation shall have the power to appoint, and to revoke the appointments of, Attorneys-in-Fact or agents with power and authority as defined or limited in their respective powers of attorney, and to execute on behalf of the Corporation and affix the Corporation's seal thereto, bonds, undertakings, recognizances, contracts of indemnity and other written obligations in the nature thereof or related thereto; and (2) any such Officers of the Corporation may appoint and revoke the appointments of joint-control custodians, agents for acceptance of process, and Attorneys-in-fact with authority to execute waivers and consents on behalf of the Corporation; and (3) the signature of any such Officer of the Corporation and the Corporation's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seals when so used whether heretofore or hereafter, being hereby adopted by the Corporation as the original signature of such officer and the original seal of the Corporation, to be valid and binding upon the Corporation with the same force and effect as though manually affixed."

IN WITNESS WHEREOF, INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY have each executed and attested these presents on this 22nd day of July, 2014.



STATE OF NEW JERSEY  
County of Essex

ROBERT W. MINSTER  
Chief Executive Officer (International Fidelity Insurance Company) and President (Allegheny Casualty Company)



On this 22nd day of July 2014, before me came the individual who executed the preceding instrument, to me personally known, and, being by me duly sworn, said he is the therein described and authorized officer of INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY; that the seals affixed to said instrument are the Corporate Seals of said Companies; that the said Corporate Seals and his signature were duly affixed by order of the Boards of Directors of said Companies.

IN TESTIMONY WHEREOF, I have hereunto set my hand affixed my Official Seal, at the City of Newark, New Jersey the day and year first above written.



A NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires April 16, 2019

### CERTIFICATION

I, the undersigned officer of INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Sections of the By-Laws of said Companies as set forth in said Power of Attorney, with the originals on file in the home office of said companies, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 2nd day of June, 2015

MARIA BRANCO, Assistant Secretary

## IMPORTANT NOTICE

To obtain information or make a complaint:

You may call International Fidelity Insurance Company's toll-free telephone number for information or to make a complaint at:

1-800-333-4167

You may also write to International Fidelity Insurance Company at:

Attn: Claims Department  
One Newark Center, 20<sup>th</sup> Floor  
Newark, NJ 07102

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: (512) 475-1771  
Web: <http://www.tdi.state.tx.us>  
E-mail: [ConsumerProtection@tdi.state.tx.us](mailto:ConsumerProtection@tdi.state.tx.us)

### PREMIUM OR CLAIM DISPUTES:

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

### ATTACH THIS NOTICE TO YOUR BOND:

This notice is for information only and does not become a part or condition of the attached document.

## AVISO IMPORTANTE

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de International Fidelity Insurance Company's para informacion o para someter una queja al:

1-800-333-4167

Usted tambien puede escribir a International Fidelity Insurance Company:

Attn: Claims Department  
One Newark Center, 20<sup>th</sup> Floor  
Newark, NJ 07102

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, 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: (512) 475-1771  
Web: <http://www.tdi.state.tx.us>  
E-mail: [ConsumerProtection@tdi.state.tx.us](mailto: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 el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

### UNA ESTE AVISO A SU FIANZA DE GARANTIA:

Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.

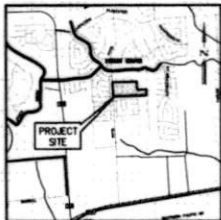
# ARENOSA DEVELOPMENT - PITTS ROAD LTD TERRACE AT PECAN GROVE

## CONSTRUCTION PLANS OF PROPOSED WATER DISTRIBUTION SYSTEM SANITARY COLLECTION SYSTEM STORM DRAINAGE SYSTEM STREET PAVING

MARCH 2015



LOCATION MAP



VICINITY MAP  
KEY MAP FOR BEND COUNTY 2008  
SOURCE: TDM

### SHEET INDEX

NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL CONSTRUCTION NOTES
3.	SANITARY SEWER AND WADON OVERALL
4.	STORM SEWER, PAVING AND TRAFFIC CONTROL OVERALL
5.	DRAINAGE AREA MAP
6.	DRAINAGE CALCULATIONS
7.	GRADING PLAN
8.	STORM WATER POLLUTION PREVENTION PLAN
9.	PLAN AND PROFILE - PECAN TERRACE DRIVE (STA. 1+00 TO END)
10.	PLAN AND PROFILE - PECAN BRANCH DRIVE/ STUART DRIVE (STA. 1+00 TO 8+50)
11.	PLAN AND PROFILE - STUART DRIVE (STA. 8+50 TO END)
12.	PLAN AND PROFILE - WALDORF DRIVE (STA. 1+00 TO END)
13.	PLAN AND PROFILE - PECAN BRANCH DRIVE (STA. 1+00 TO 4+00)
14.	PLAN AND PROFILE - PECAN BRANCH DRIVE (STA. 4+00 TO 11+00)
15.	PLAN AND PROFILE - WADON DRIVE (STA. 1+00 TO END)
16.	PLAN AND PROFILE - ELLIOT LANE (STA. 1+00 TO END)
17.	PLAN AND PROFILE - EX. PITTS ROAD (STA. 1+00 TO 10+00)
18.	PLAN AND PROFILE - EX. PITTS ROAD (STA. 10+00 TO END)
19.	SANITARY SEWER DETAILS
20.	STORM SEWER DETAILS
21.	WATER DETAILS 1
22.	WATER DETAILS 2
23.	PAVING DETAILS 1
24.	PAVING DETAILS 2
25.	STORM WATER POLLUTION PREVENTION PLAN DETAILS
26.	TADOT PEDESTRIAN FACILITIES CURB RUMPS
27.	TADOT PEDESTRIAN FACILITIES GENERAL NOTES & DETECTABLE WARNING
28.	TADOT PEDESTRIAN FACILITIES SIDEWALKS
29.	TADOT PEDESTRIAN FACILITIES INTERSECTION LAYOUTS
30.	TERRACE AT PECAN GROVE FINAL PLAN (SHEET 1 OF 2)
31.	TERRACE AT PECAN GROVE FINAL PLAN (SHEET 2 OF 2)

ONE-CALL NOTIFICATION SYSTEM:  
CALL BEFORE YOU DIG!!!  
(713) 323-4867 (IN HOUSTON)  
(NEW STATEWIDE NUMBER OUTSIDE HOUSTON)  
1-800-545-6005

- NOTES
- CONSTRUCTION WILL BE MONITORED BY A REGISTERED PROFESSIONAL ENGINEER TO ENSURE COMPLIANCE WITH THE CONSTRUCTION PLANS AND SPECIFICATIONS.
  - THESE PLANS HAVE BEEN PREPARED TO MEET OR EXCEED TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND TADOT BENT COUNTY REGULATIONS AS CURRENTLY APPLICABLE.
  - APPROVAL BY THE CITY OF RICHMOND AND BENT COUNTY SEAL WILL BE REQUIRED PRIOR TO CONSTRUCTION AND NOT WITHIN 200 YARDS OF SERVICE.

The information on this plan is intended to be used only for the project and location shown. It is not to be used for any other purpose. For additional information, see the "General Notes" sheet of this plan or call the engineer.

*[Signature]*, P.G. 3-10-2015  
PECAN GROVE MUNICIPAL UTILITY DISTRICT ENGINEER DATE  
SIGNATURE VALID FOR ONE (1) YEAR

APPROVED: CITY OF RICHMOND  
*[Signature]* 3/11/15  
KELLY W. KALLIZA - CITY ENGINEER DATE  
*[Signature]* 3/10/15  
TERRI VELA - CITY MANAGER DATE

FORT BEND COUNTY ENGINEER  
ENGINEER: *[Signature]*  
RICHARD W. STOLLEIS, P.E.  
DATE: 3/27/15  
THESE REGULATIONS ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (5) YEAR FROM DATE OF APPROVAL.  
APPROVED: *[Signature]*  
DEVELOPMENT COORDINATOR  
DATE: 3/27/15



GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...

WATER DISTRIBUTION NOTES

- 1. ALL WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
2. ALL WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
3. ALL WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...

STORM SEWER NOTES

- 1. ALL STORM SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
2. ALL STORM SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
3. ALL STORM SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...

STREET AND PAVING CONSTRUCTION NOTES

- 1. ALL STREETS SHALL BE CONSTRUCTED WITH THE PLANS AND SPECIFICATIONS AND CITY REQUIREMENTS...
2. ALL STREETS SHALL BE CONSTRUCTED WITH THE PLANS AND SPECIFICATIONS AND CITY REQUIREMENTS...
3. ALL STREETS SHALL BE CONSTRUCTED WITH THE PLANS AND SPECIFICATIONS AND CITY REQUIREMENTS...

FIRST BIRD COUNTY GENERAL NOTES

- 1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
3. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...

SANITARY SEWER CONSTRUCTION NOTES

- 1. ALL SANITARY SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
2. ALL SANITARY SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
3. ALL SANITARY SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PITTSBURGH...

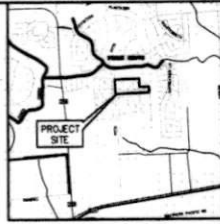
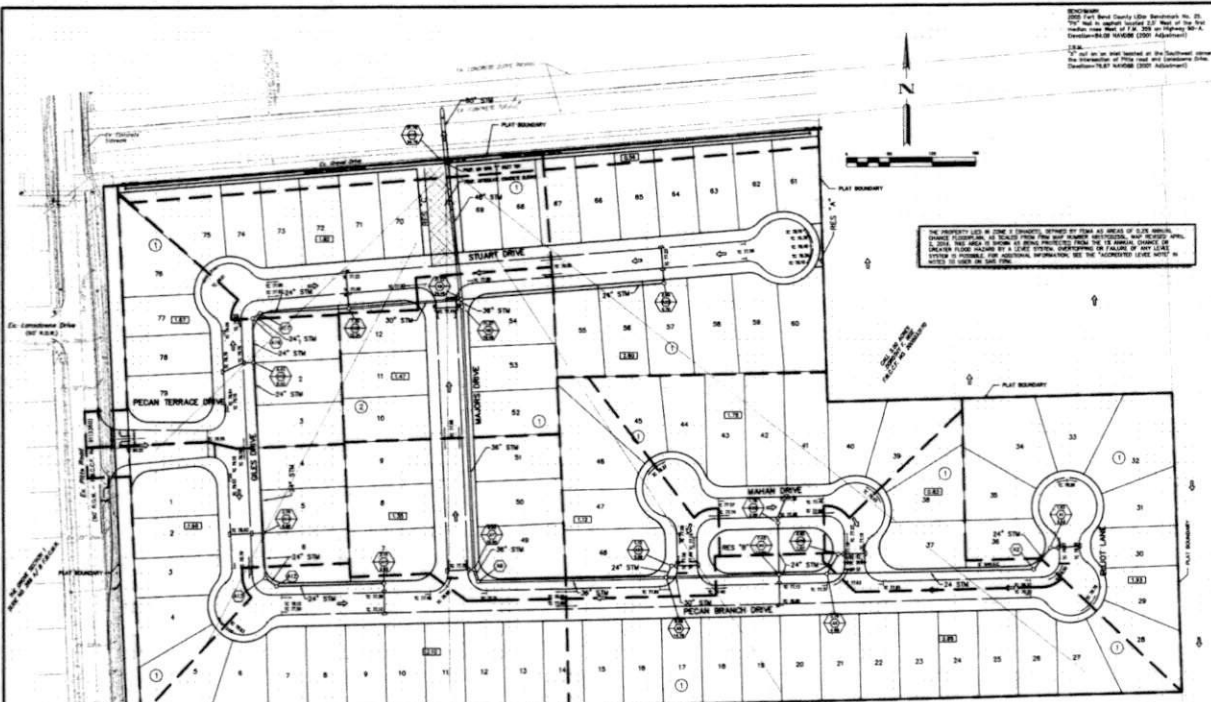
- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PITTSBURGH...

RR&E CIVIL ENGINEERING logo and project information including ARENSA DEVELOPMENT - PITTS ROAD LTD, TERRACE AT PECAN GROVE, and a table for utility line approvals.

Table with columns: NO., DATE, DESCRIPTION, and STATUS. It contains utility line approval information for various lines like 12" WATER, 18" WATER, etc.







- LEGEND**
- PLAT BOUNDARY
  - SOURCE ADDRESS
  - EXISTING STORM SEWER
  - EXISTING STORM MANHOLE
  - EXISTING STORM VALVE & MANHOLE
  - EXISTING STORM FLOW DIRECTION
  - EXISTING STREET FLOW DIRECTION
  - EXISTING CURBLINE

SEE SHEET 6  
FOR DRAINAGE  
CALCULATIONS

**INLET PONDING/EXTREME EVENT FLOODING**

MH	Height (in)	Curb @ Inlet		Curb @ High Point		Ponding	
		TC	Height(in)	TC	Height(in)	Depth above TC @ Inlet	WSE
A1	4	78.20	4	78.13	-0.20	78.00	
A4	6	77.13	6	77.88	0.42	77.55	
A7	6	77.30	4	77.80	0.17	77.47	
A11	6	77.29	6	78.05	0.26	77.55	
A34	4	78.62	4	78.78	-0.17	78.45	
A15	4	78.76	5	79.23	-0.09	78.78	
A18	4	77.23	6	77.83	0.10	77.33	
A19	6	77.19	6	78.05	0.36	77.55	
A20	6	77.48	6	78.05	0.07	77.55	
A21	6	77.90	6	78.05	0.55	77.55	
A8	6	77.41	6	77.83	-0.08	77.33	
A22	4	77.23	4	78.09	0.53	77.76	

- GENERAL NOTES**
1. "UL" INDICATES "UTILITY EXISTENT".
  2. "RL" INDICATES "RAIL LINE EXISTENT".
  3. "SULC" INDICATES "SURFACE WATER EXISTENT".
  4. "SULC" INDICATES "STORM SEWER EXISTENT".
  5. "UL" INDICATES "UTILITY EXISTENT".
  6. "TEMP" INDICATES "TEMPORARY DRAINAGE EXISTENT".
  7. ALL 14 FOOT DRAINAGE MANHOLES SHALL BE 1 FOOT ON EACH SIDE OF A TYPICAL 10' OR UNDER DRAINAGE INDICATED.
  8. ALL MANHOLE LINES ARE 8" UNLESS OTHERWISE INDICATED.

**UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR ONE YEAR ONLY.**

APPROVED: [Signature]  
DATE: 11/23/16

NO DETENTION REQUIRED PER PECAN GROVE ENGINEER

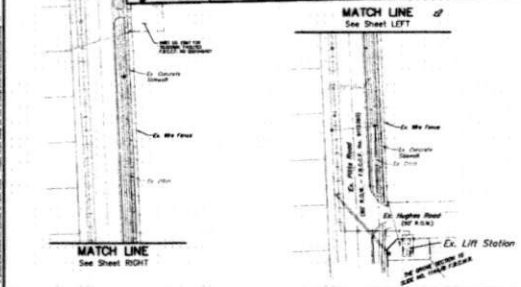
RRE CIVIL ENGINEERING  
10000 RICHMOND ROAD, SUITE 100  
PITTSBURGH, PA 15237  
(724) 462-1111

**ARENSA DEVELOPMENT - PITTS ROAD LTD**

**TERRACE AT PECAN GROVE**

**DRAINAGE AREA MAP**

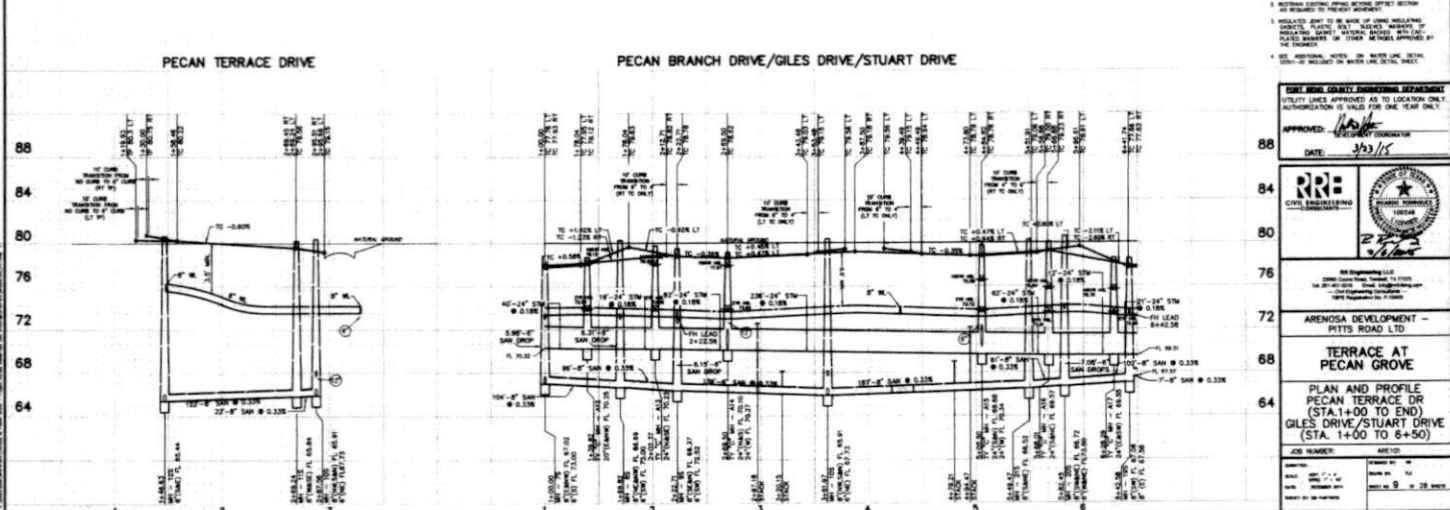
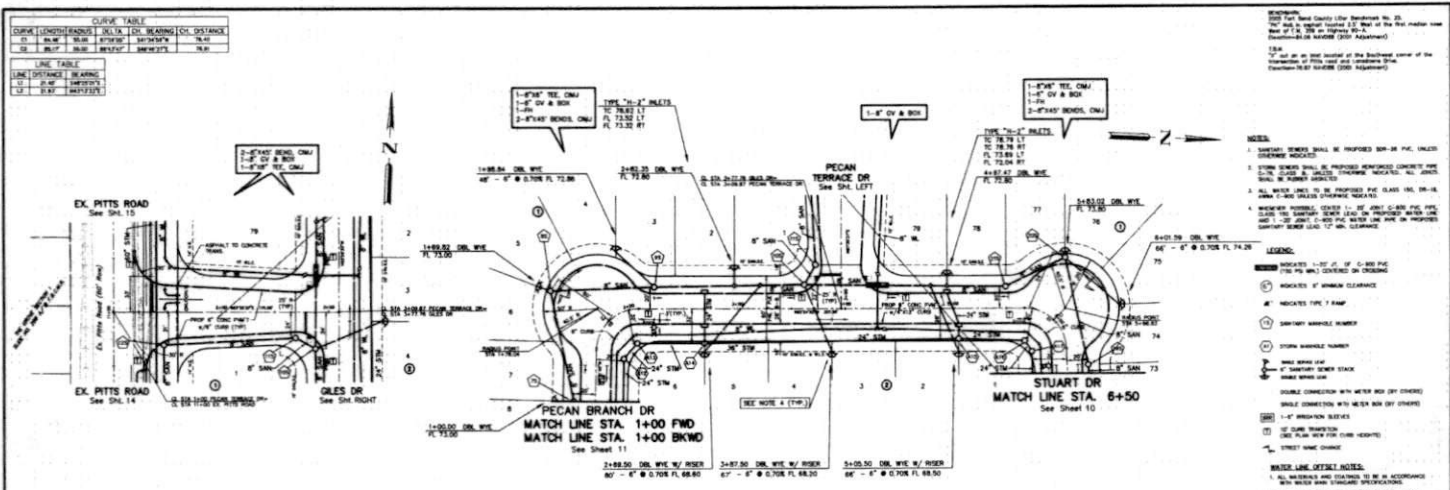
JOB NUMBER:	ARET01
DATE:	11/23/16











**RRR CIVIL ENGINEERING**

**ARENSA DEVELOPMENT - PITTS ROAD LTD**

**TERRACE AT PECAN GROVE**

**PLAN AND PROFILE**  
PECAN TERRACE DR  
(STA. 1+00 TO END)  
GILES DRIVE/STUART DRIVE  
(STA. 1+00 TO 6+50)

**DATE:** 3/23/15

**APPROVED:** [Signature]

**DATE:** 3/23/15

**RRR CIVIL ENGINEERING**

**ARENSA DEVELOPMENT - PITTS ROAD LTD**

**TERRACE AT PECAN GROVE**

**PLAN AND PROFILE**  
PECAN TERRACE DR  
(STA. 1+00 TO END)  
GILES DRIVE/STUART DRIVE  
(STA. 1+00 TO 6+50)

**DATE:** 3/23/15

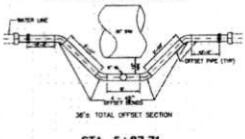
**APPROVED:** [Signature]

**DATE:** 3/23/15

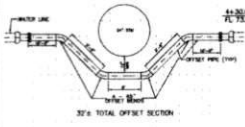




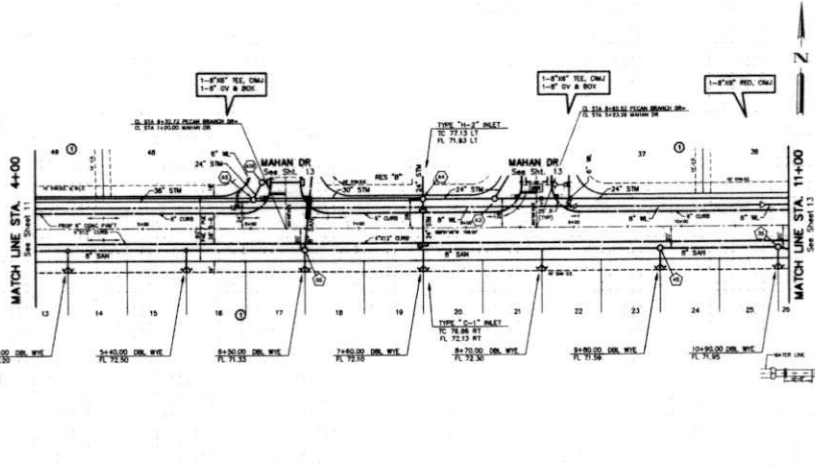
- WATER LINE OFFSET NOTES:**
1. ALL MATERIALS ARE CONSIDERED TO BE IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.
  2. EXISTING EXTERIOR WALLS BEHIND OFFSET SECTION AS REQUIRED TO PREVENT MOVEMENT.
  3. ISOLATED JOINT TO BE MADE OF URANIUM BLENDED CONCRETE, PLACED, FINISHED, AND CURED IN ACCORDANCE WITH MATERIAL MANUFACTURER'S RECOMMENDATIONS. ALL JOINTS TO BE MADE IN OTHER SECTIONS INDICATED BY THE DRAWING.
  4. SEE ADDITIONAL NOTES ON WATER LINE DETAIL SHEET LOCATED IN WATER LINE DETAIL SHEET.



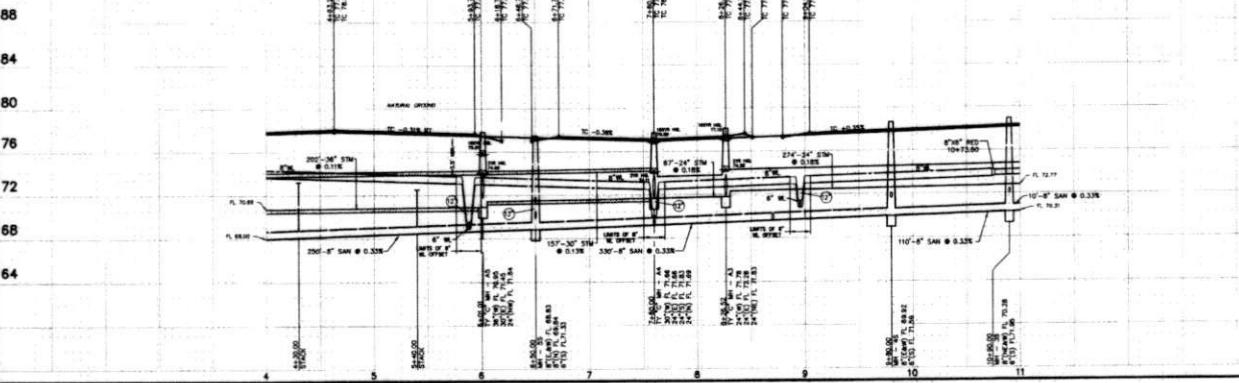
36" TOTAL OFFSET SECTION  
8" RESTRAINED JOINT OFFSET SECTION



36" TOTAL OFFSET SECTION  
8" RESTRAINED JOINT OFFSET SECTION



PECAN BRANCH DRIVE



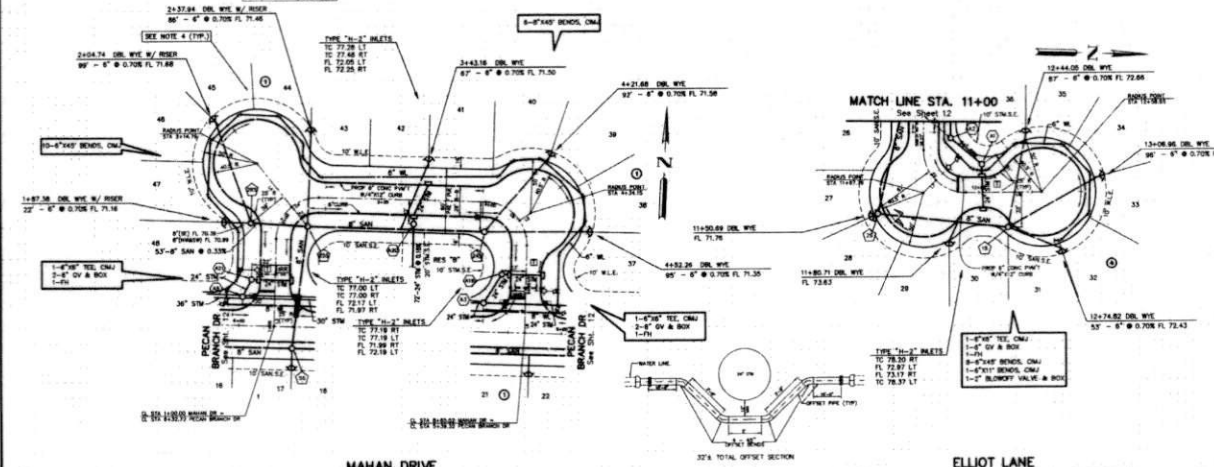
8/20/2015  
 2015  
 1.54  
 1.54  
 1.54

- NOTES:**
1. EXISTING EXTERIOR WALLS BEHIND OFFSET SECTION AS REQUIRED TO PREVENT MOVEMENT.
  2. EXISTING EXTERIOR WALLS BEHIND OFFSET SECTION AS REQUIRED TO PREVENT MOVEMENT.
  3. ALL WATER LINES TO BE PROPOSED PVC CLASS 150, 36\"/>
- LEGEND:**
- INDICATES 1\"/>

EAST BAY COUNTY ENGINEERING DEPARTMENT UTILITY LINES APPROVED AS TO LOCATION ONLY AUTHORIZATION IS VALID FOR ONE YEAR ONLY	
APPROVED: <i>[Signature]</i> DATE: 3/28/15	
ARENSA DEVELOPMENT - PITTS ROAD LTD <b>TERRACE AT PECAN GROVE</b>	
<b>PLAN AND PROFILE PECAN BRANCH DR (STA. 1+00 TO 11+00)</b>	
JOB NUMBER: ARENSA SHEET NO.: 12 OF 28 SHEETS	DATE: 3/28/15

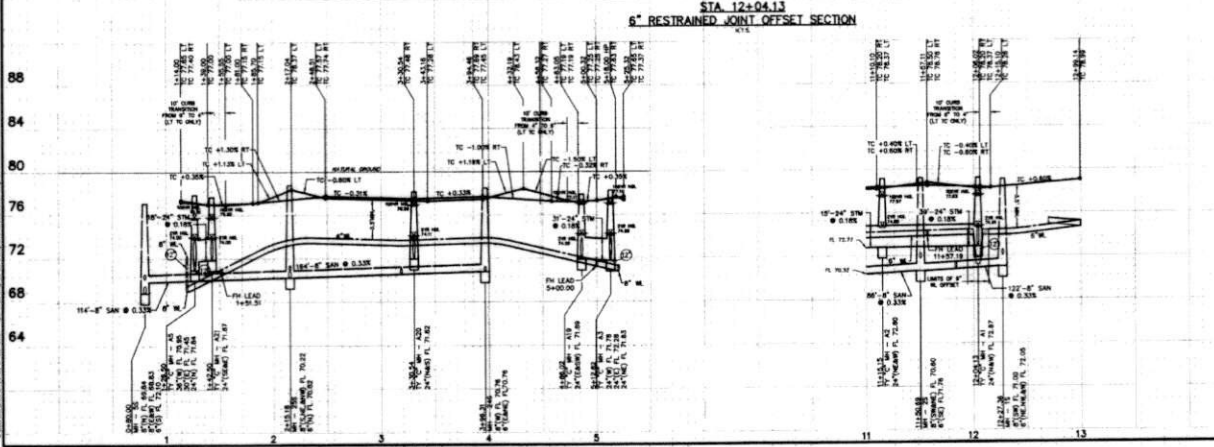
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
1	10.00	100.00	36.00
2	10.00	100.00	36.00
3	10.00	100.00	36.00
4	10.00	100.00	36.00

LINE TABLE			
LINE	DISTANCE	BEARING	CH. BEARING
1	10.00	N 0° 0' 0" E	N 0° 0' 0" E
2	10.00	N 0° 0' 0" E	N 0° 0' 0" E
3	10.00	N 0° 0' 0" E	N 0° 0' 0" E
4	10.00	N 0° 0' 0" E	N 0° 0' 0" E



**NOTES:**  
 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, LATEST EDITION, AS ADOPTED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF SAN DIEGO, CALIFORNIA.  
 2. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, LATEST EDITION, AS ADOPTED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF SAN DIEGO, CALIFORNIA.  
 3. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, LATEST EDITION, AS ADOPTED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF SAN DIEGO, CALIFORNIA.  
 4. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, LATEST EDITION, AS ADOPTED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF SAN DIEGO, CALIFORNIA.

- LEGEND:**
- 1. 12" Ø 0.708 FL 71.48
  - 2. 12" Ø 0.708 FL 71.48
  - 3. 12" Ø 0.708 FL 71.48
  - 4. 12" Ø 0.708 FL 71.48
  - 5. 12" Ø 0.708 FL 71.48
  - 6. 12" Ø 0.708 FL 71.48
  - 7. 12" Ø 0.708 FL 71.48
  - 8. 12" Ø 0.708 FL 71.48
  - 9. 12" Ø 0.708 FL 71.48
  - 10. 12" Ø 0.708 FL 71.48
  - 11. 12" Ø 0.708 FL 71.48
  - 12. 12" Ø 0.708 FL 71.48
  - 13. 12" Ø 0.708 FL 71.48
  - 14. 12" Ø 0.708 FL 71.48
  - 15. 12" Ø 0.708 FL 71.48
  - 16. 12" Ø 0.708 FL 71.48
  - 17. 12" Ø 0.708 FL 71.48
  - 18. 12" Ø 0.708 FL 71.48
  - 19. 12" Ø 0.708 FL 71.48
  - 20. 12" Ø 0.708 FL 71.48
  - 21. 12" Ø 0.708 FL 71.48
  - 22. 12" Ø 0.708 FL 71.48
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  - 28. 12" Ø 0.708 FL 71.48
  - 29. 12" Ø 0.708 FL 71.48
  - 30. 12" Ø 0.708 FL 71.48
  - 31. 12" Ø 0.708 FL 71.48
  - 32. 12" Ø 0.708 FL 71.48
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  - 34. 12" Ø 0.708 FL 71.48
  - 35. 12" Ø 0.708 FL 71.48
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  - 79. 12" Ø 0.708 FL 71.48
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  - 81. 12" Ø 0.708 FL 71.48
  - 82. 12" Ø 0.708 FL 71.48
  - 83. 12" Ø 0.708 FL 71.48
  - 84. 12" Ø 0.708 FL 71.48
  - 85. 12" Ø 0.708 FL 71.48
  - 86. 12" Ø 0.708 FL 71.48
  - 87. 12" Ø 0.708 FL 71.48
  - 88. 12" Ø 0.708 FL 71.48



**STATE OF CALIFORNIA ENGINEERING APPROVAL**

DATE: 12/11/11

**RRR CIVIL ENGINEERS**

APPROVED: [Signature]

DATE: 12/11/11

ARENSA DEVELOPMENT - PITTS ROAD LTD

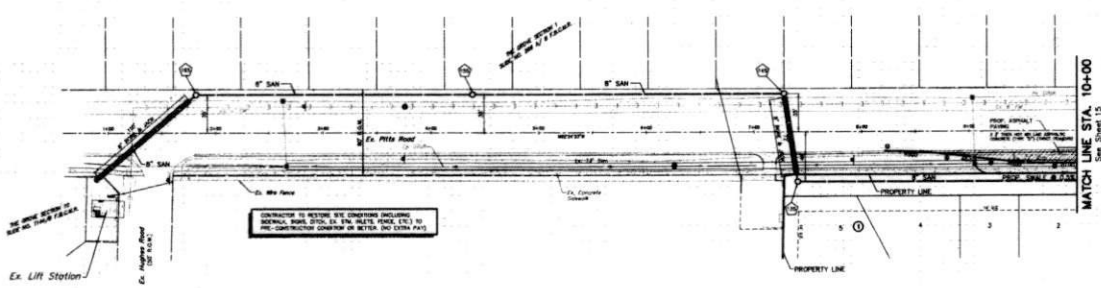
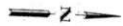
TERRACE AT PECAN GROVE

PLAN AND PROFILE MAHAN DR (STA. 1+00 TO END) ELLIOT LN (STA. 11+00 TO END)

JOB NUMBER: [Blank] PROJECT: [Blank]

DATE: 12/11/11

STATION	OFFSET
0	8+78.00 18.42 FT
1	8+78.75 21.06 FT
2	8+80.00 26.57 FT
3	8+79.84 26.32 FT



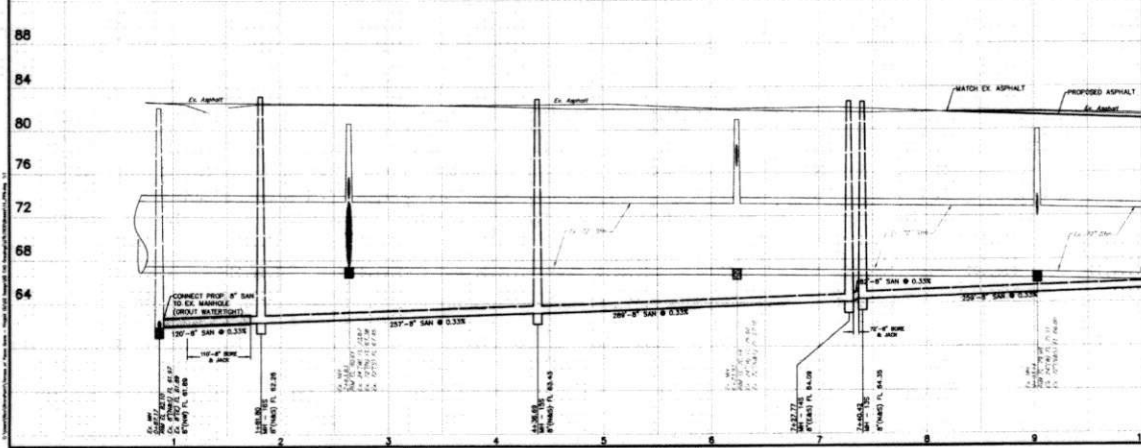
**NOTES:**

- EXISTING MANHOLE SHALL BE PROPOSED 600-PIE PVC UNLESS OTHERWISE INDICATED.
- FROM EXISTING MANHOLE TO PROPOSED CONCRETE CONDUIT THE LINE SHALL BE UNLESS OTHERWISE INDICATED. ALL JOINTS SHALL BE FIBERGLASS JOINTS.
- ALL WATER LINES TO BE PROPOSED PVC CLASS 150 OR 16. FROM C-100 UNLESS OTHERWISE INDICATED.
- WHENEVER POSSIBLE, CONDUIT TO BE JOINT C-100 PVC UNLESS OTHERWISE INDICATED. WHEN LEAD TO PROPOSED MANHOLE AND MANHOLE TO EXISTING C-100 PVC MANHOLE USE PIPE ON PROPOSED EXISTING MANHOLE TO BE CLEARANCE.

**LEGEND:**

- INDICATES 1.5 FT OF 12" C-100 PVC (12" PE MAN) CENTERED ON GROUND
- INDICATES 12" MINIMUM CLEARANCE
- INDICATES WHEELWELL KAMP
- SANITARY MANHOLE NUMBER
- STOP MANHOLE NUMBER
- SANITARY MANHOLE
- SANITARY MANHOLE
- DOUBLE CONNECTION WITH METER BOX BY OTHERS
- SINGLE CONNECTION WITH METER BOX BY OTHERS

Ex. Pitts Road - OFFSITE UTILITIES



88  
84  
80  
76  
72  
68  
64

APPROVED: *[Signature]*  
DATE: 3/21/17

**ARENSOSA DEVELOPMENT - PITTS ROAD LTD**

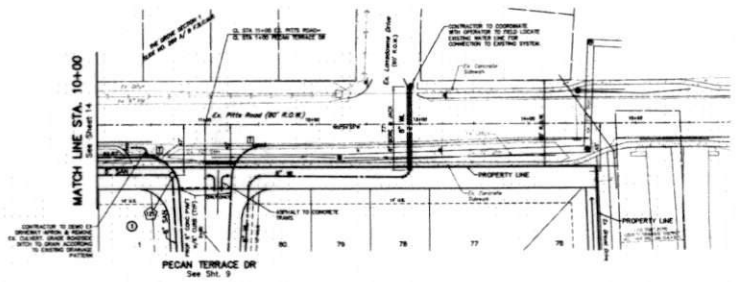
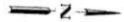
**TERRACE AT PECAN GROVE**

PLAN AND PROFILE  
Ex. Pitts Road  
(STA. 1+00 TO 10+00)

JOB NUMBER: ARENSO  
DATE: 03/21/17  
SCALE: 1" = 10' (PLAN)  
DATE: 03/21/17  
SCALE: 1" = 20' (PROFILE)

TURN LANE TABLE	
STATION	OFFSET
0	847.00
1	847.00
2	847.00
3	847.00
4	847.00
5	847.00
6	847.00
7	847.00
8	847.00
9	847.00
10	847.00

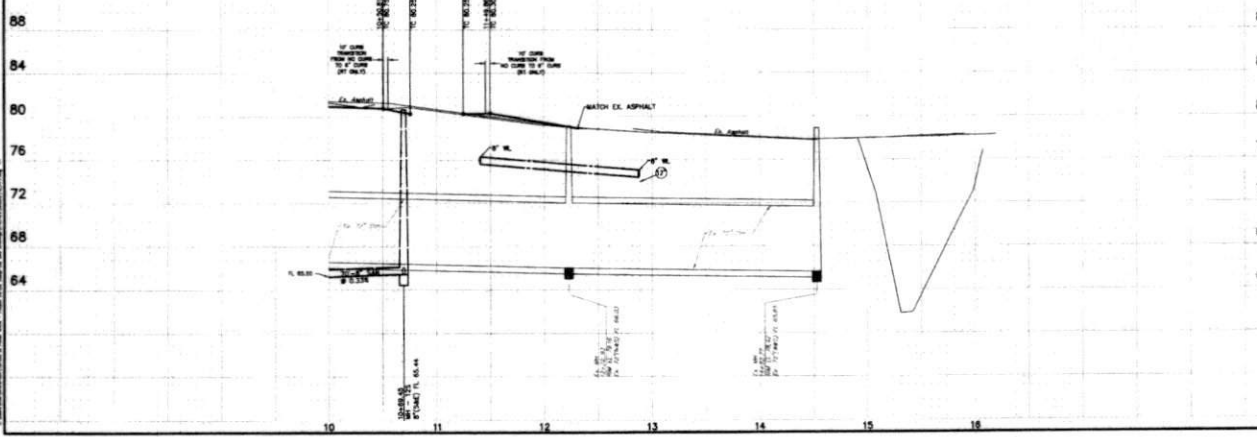
1-8" x 12" TRAV



**NOTES:**  
 1. ALL UTILITIES SHOWN SHALL BE PROPOSED UNLESS OTHERWISE NOTED.  
 2. ALL UTILITIES SHALL BE PROPOSED UNLESS OTHERWISE NOTED.  
 3. ALL UTILITIES SHALL BE PROPOSED UNLESS OTHERWISE NOTED.  
 4. ALL UTILITIES SHALL BE PROPOSED UNLESS OTHERWISE NOTED.

- LEGEND:**
- INDICATES 1-1/2" x 1/2" x 1/2" P.C. (SEE PLAN FOR CENTERLINE ON CURVES)
  - ⊙ INDICATES 4" MINIMUM CLEARANCE
  - ⊙ INDICATES 7" MINIMUM CLEARANCE
  - ⊙ INDICATES 12" MINIMUM CLEARANCE
  - ⊙ INDICATES 18" MINIMUM CLEARANCE
  - ⊙ INDICATES 24" MINIMUM CLEARANCE
  - ⊙ INDICATES 30" MINIMUM CLEARANCE
  - ⊙ INDICATES 36" MINIMUM CLEARANCE
  - ⊙ INDICATES 42" MINIMUM CLEARANCE
  - ⊙ INDICATES 48" MINIMUM CLEARANCE
  - ⊙ INDICATES 54" MINIMUM CLEARANCE
  - ⊙ INDICATES 60" MINIMUM CLEARANCE
  - ⊙ INDICATES 66" MINIMUM CLEARANCE
  - ⊙ INDICATES 72" MINIMUM CLEARANCE
  - ⊙ INDICATES 78" MINIMUM CLEARANCE
  - ⊙ INDICATES 84" MINIMUM CLEARANCE
  - ⊙ INDICATES 90" MINIMUM CLEARANCE
  - ⊙ INDICATES 96" MINIMUM CLEARANCE
  - ⊙ INDICATES 102" MINIMUM CLEARANCE
  - ⊙ INDICATES 108" MINIMUM CLEARANCE
  - ⊙ INDICATES 114" MINIMUM CLEARANCE
  - ⊙ INDICATES 120" MINIMUM CLEARANCE
  - ⊙ INDICATES 126" MINIMUM CLEARANCE
  - ⊙ INDICATES 132" MINIMUM CLEARANCE
  - ⊙ INDICATES 138" MINIMUM CLEARANCE
  - ⊙ INDICATES 144" MINIMUM CLEARANCE
  - ⊙ INDICATES 150" MINIMUM CLEARANCE
  - ⊙ INDICATES 156" MINIMUM CLEARANCE
  - ⊙ INDICATES 162" MINIMUM CLEARANCE
  - ⊙ INDICATES 168" MINIMUM CLEARANCE
  - ⊙ INDICATES 174" MINIMUM CLEARANCE
  - ⊙ INDICATES 180" MINIMUM CLEARANCE
  - ⊙ INDICATES 186" MINIMUM CLEARANCE
  - ⊙ INDICATES 192" MINIMUM CLEARANCE
  - ⊙ INDICATES 198" MINIMUM CLEARANCE
  - ⊙ INDICATES 204" MINIMUM CLEARANCE
  - ⊙ INDICATES 210" MINIMUM CLEARANCE
  - ⊙ INDICATES 216" MINIMUM CLEARANCE
  - ⊙ INDICATES 222" MINIMUM CLEARANCE
  - ⊙ INDICATES 228" MINIMUM CLEARANCE
  - ⊙ INDICATES 234" MINIMUM CLEARANCE
  - ⊙ INDICATES 240" MINIMUM CLEARANCE
  - ⊙ INDICATES 246" MINIMUM CLEARANCE
  - ⊙ INDICATES 252" MINIMUM CLEARANCE
  - ⊙ INDICATES 258" MINIMUM CLEARANCE
  - ⊙ INDICATES 264" MINIMUM CLEARANCE
  - ⊙ INDICATES 270" MINIMUM CLEARANCE
  - ⊙ INDICATES 276" MINIMUM CLEARANCE
  - ⊙ INDICATES 282" MINIMUM CLEARANCE
  - ⊙ INDICATES 288" MINIMUM CLEARANCE
  - ⊙ INDICATES 294" MINIMUM CLEARANCE
  - ⊙ INDICATES 300" MINIMUM CLEARANCE

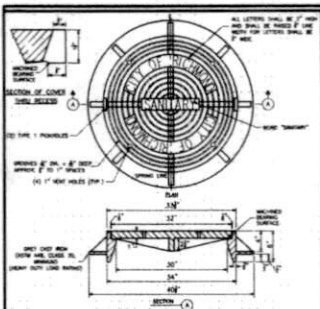
Ex. Pitts Road - OFFSITE UTILITIES



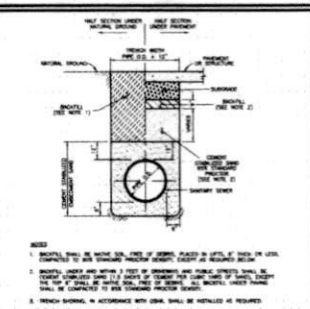
**STATE OF TEXAS ENGINEERING EXAMINER**  
 LICENSE NO. 12345  
 APPROVED: [Signature]  
 DATE: 3/1/10

**ARENSOSA DEVELOPMENT - PITTS ROAD LTD**  
**TERRACE AT PECAN GROVE**  
**PLAN AND PROFILE**  
**Ex. Pitts Road (STA. 10+00 TO END)**

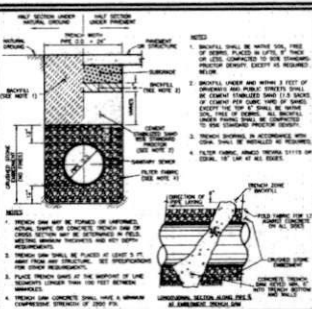
**JOB NUMBER:** ARE/10  
**DATE:** 1/15/10  
**SCALE:** 1" = 10' HORIZ. 1" = 2' VERT.



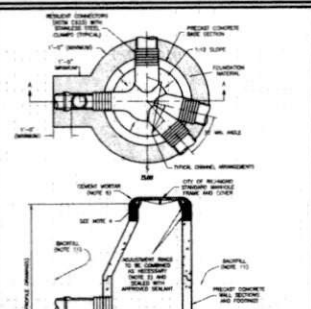
1. MANHOLE FRAME AND COVER



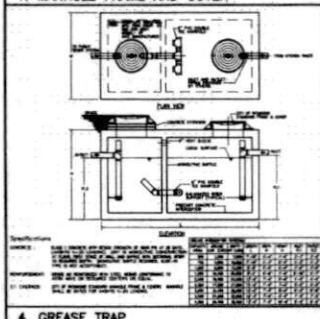
2. SANITARY SEWER BEDDING



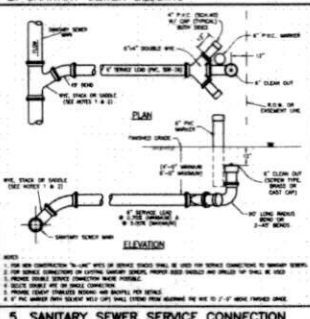
3. SANITARY SEWER BEDDING FOR WET CONDITIONS



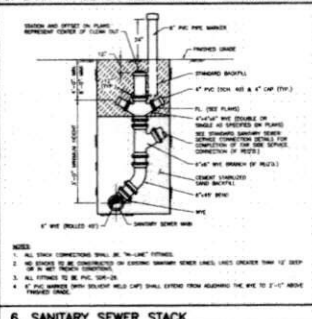
7. SANITARY SEWER MANHOLE



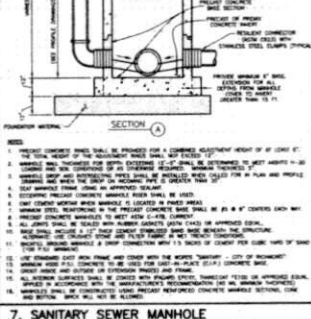
4. GREASE TRAP



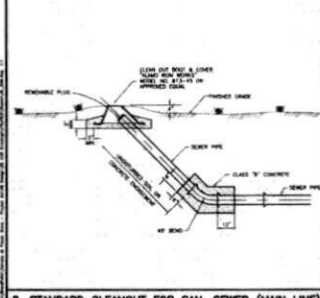
5. SANITARY SEWER SERVICE CONNECTION



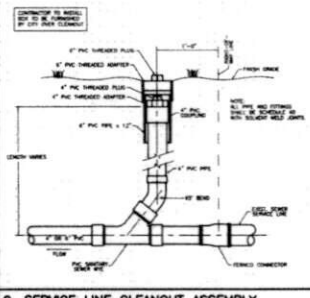
6. SANITARY SEWER STACK



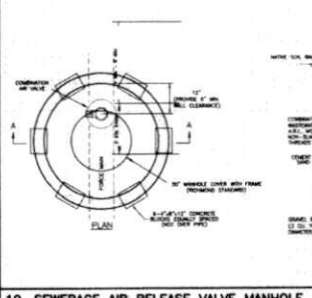
7. SANITARY SEWER MANHOLE



8. STANDARD CLEANOUT FOR SAN. SEWER (MAIN LINE)



9. SERVICE LINE CLEANOUT ASSEMBLY



10. SEWERAGE AIR RELEASE VALVE MANHOLE

NO.	DATE	DESCRIPTION

**THIS SEAL GUARANTEES THE QUALITY OF THE WORKMANSHIP OF THE CONTRACTOR. AUTHORITY IS VALID FOR ONE YEAR ONLY.**

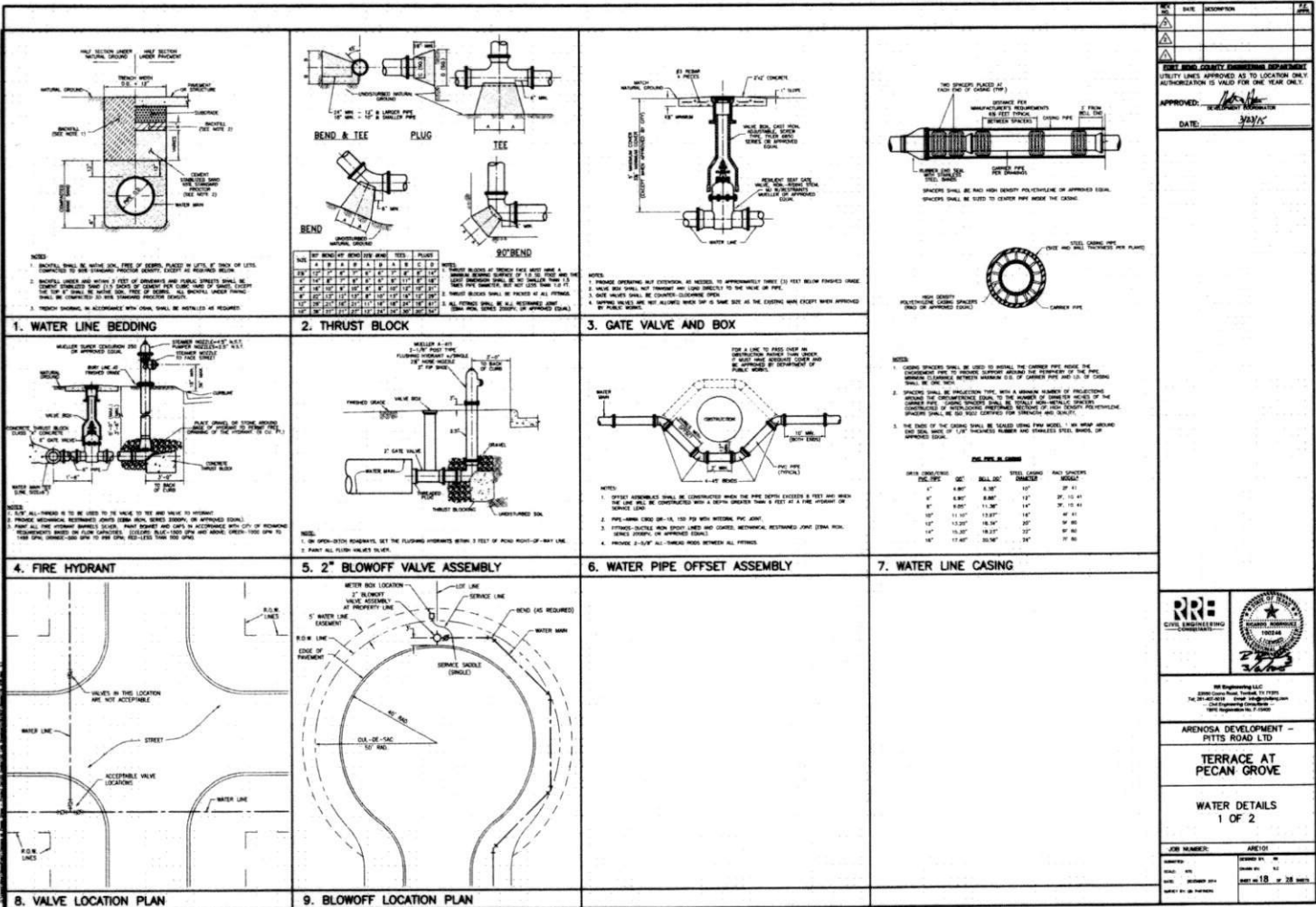
APPROVED: *[Signature]*  
DATE: 3/20/12

**RRR**  
CIVIL ENGINEERING  
INCORPORATED

ARENSA DEVELOPMENT - PITTS ROAD LTD  
TERRACE AT PECAN GROVE  
SANITARY SEWER DETAILS

JOB NUMBER: ARE103  
ISSUED BY: [Signature]  
DATE: 03/20/12  
SCALE: AS SHOWN





DATE: 3/21/15

APPROVED: [Signature]

SECRETARY ENGINEER

DATE: 3/21/15

**RRR CIVIL ENGINEERING**

RRR CIVIL ENGINEERING  
10000 South Tower, TX 75001  
214-480-0000 Fax 214-480-0001  
214-480-0002 Email rrr@rrr.com  
214-480-0003 Email rrr@rrr.com  
214-480-0004 Email rrr@rrr.com

ARENSA DEVELOPMENT - PITTS ROAD LTD

TERRACE AT PECAN GROVE

WATER DETAILS  
1 OF 2

JOB NUMBER: ARE150

DATE: 03/21/15

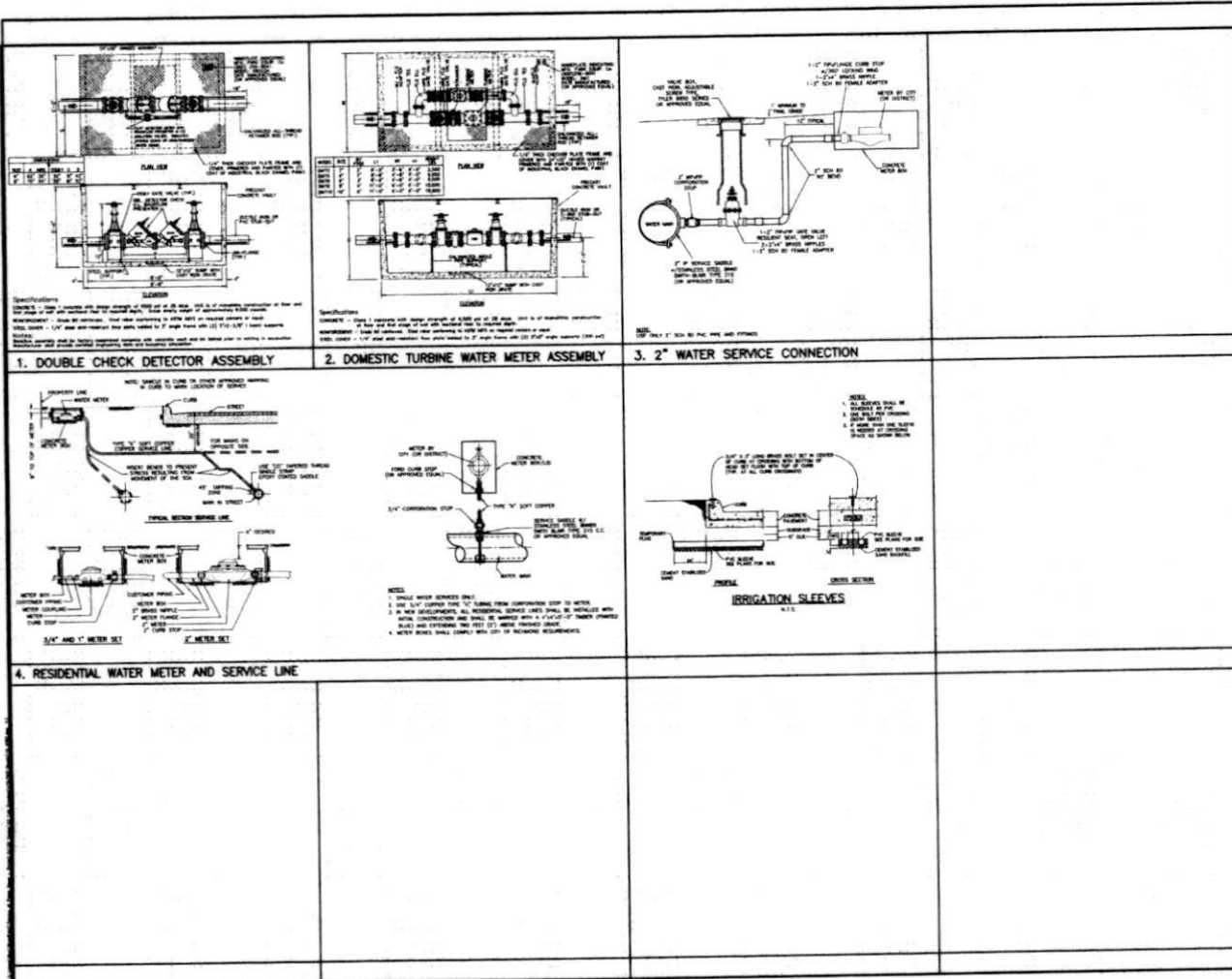
SCALE: 1" = 10'

DATE: 03/21/15

SCALE: 1" = 10'

DATE: 03/21/15

SCALE: 1" = 10'



NO.	DATE	DESCRIPTION	BY	CHKD.

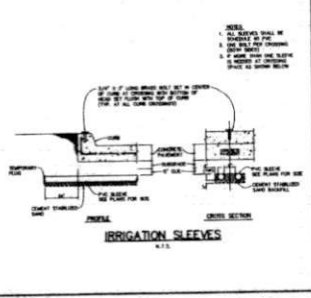
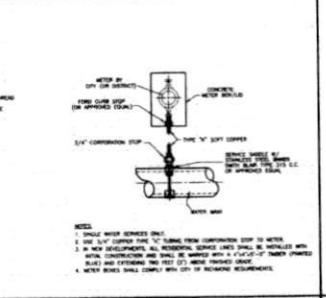
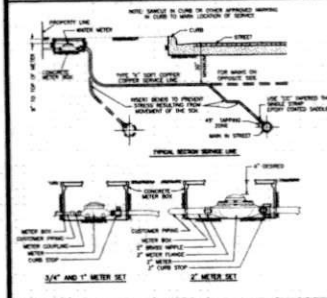
THE STATE ENGINEERING REQUIREMENTS  
 UTILITY LINES APPROVED AS TO LOCATION ONLY.  
 AUTHORIZATION IS VALID FOR ONE YEAR ONLY.

APPROVED: *[Signature]*  
 DATE: *12/14*

1. DOUBLE CHECK DETECTOR ASSEMBLY

2. DOMESTIC TURBINE WATER METER ASSEMBLY

3. 2" WATER SERVICE CONNECTION



4. RESIDENTIAL WATER METER AND SERVICE LINE

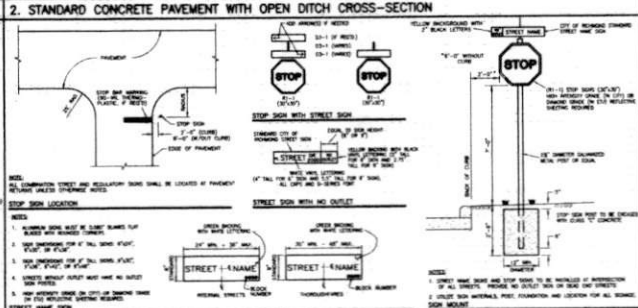
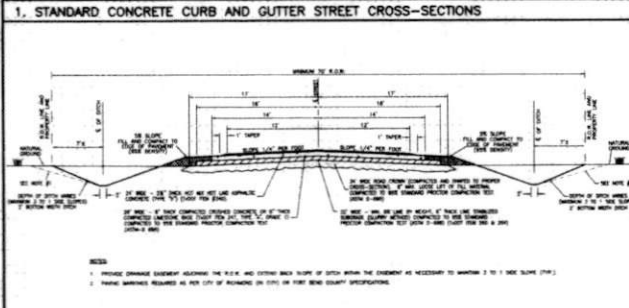
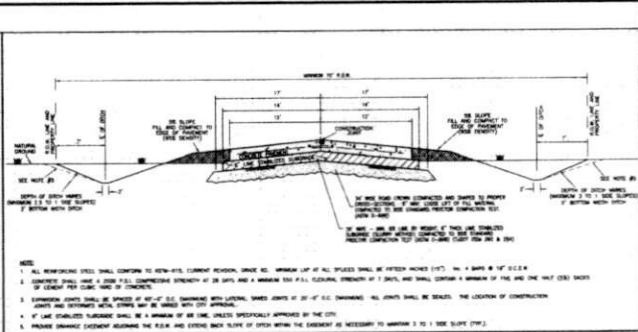
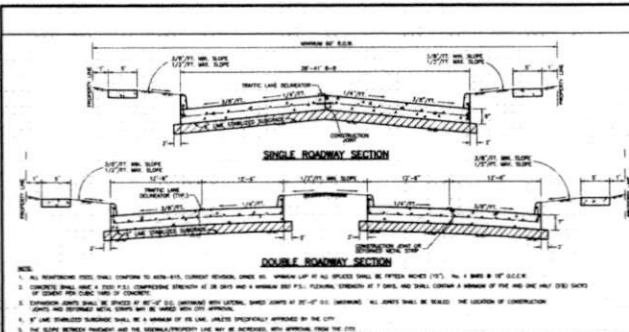
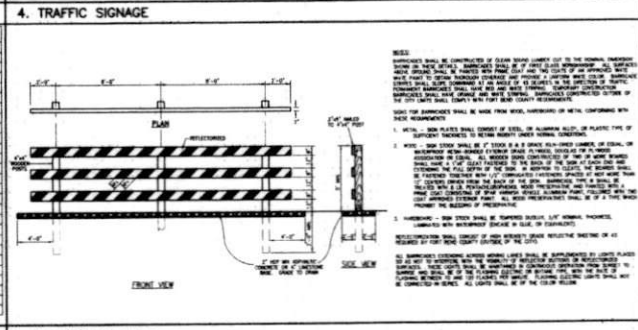
**RR**  
 CIVIL ENGINEERING

ARENOSA DEVELOPMENT -  
 PITTS ROAD LTD  
 TERRACE AT  
 PECAN GROVE

WATER DETAILS 2 OF 2  
 & MISCELLANEOUS DETAILS

JOB NUMBER: ARENOSA  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 DATE: 12/14



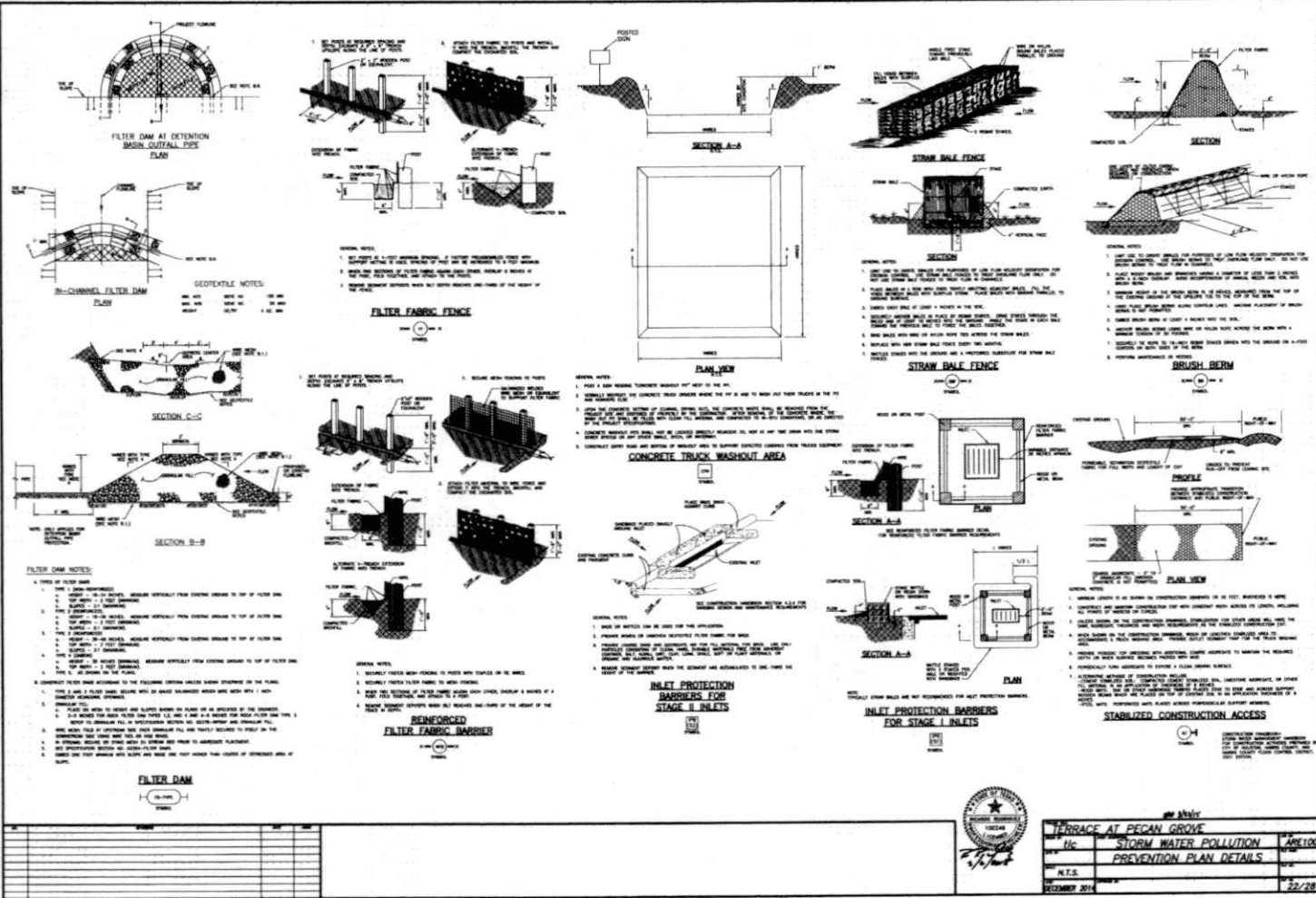
NO.	DATE	DESCRIPTION	BY

EAST HAVEN COUNTY ENGINEERING DEPARTMENT  
 CIVIL ENGINEERING DIVISION  
 AUTHORIZATION IS VALID FOR ONE YEAR ONLY  
 APPROVED: *[Signature]*  
 DATE: 4/23/15

**RR**  
 CIVIL ENGINEERING  
 CONSULTANTS  
 800 Engineering LLC  
 1000 South Main Street, Suite 100  
 East Haven, CT 06424  
 203-326-1100  
 www.rr-engineering.com

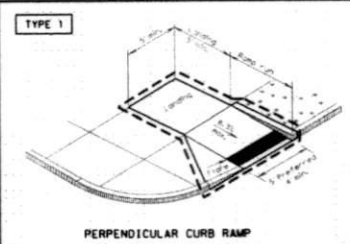
**ARENDA DEVELOPMENT - PITTS ROAD LTD**  
**TERRACE AT PECAN GROVE**  
**PAVING DETAILS**  
**2 OF 2**

JOB NUMBER: ARET01  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 DATE: 2/11/15

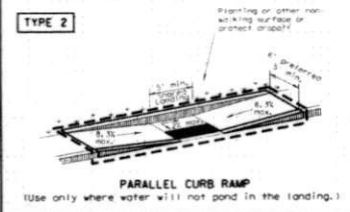


TERRACE AT PECAN GROVE		DATE	12/15/2018
NO.	100	SCALE	AS SHOWN
STORM WATER POLLUTION PREVENTION PLAN DETAILS		DATE	12/15/2018
NO.	100	SCALE	AS SHOWN
REVISIONS		DATE	12/15/2018
REVISIONS		DATE	12/15/2018

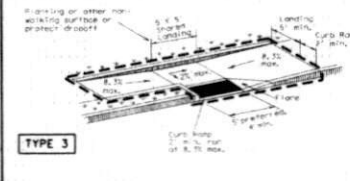
DESIGNER: THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PROFESSION ACT, AS AMENDED BY THE TEXAS ENGINEERING BOARD, AND THE TEXAS BOARD OF ARCHITECTURE, AS AMENDED BY THE TEXAS BOARD OF ARCHITECTURE. THE TEXAS BOARD OF ARCHITECTURE HAS REVIEWED THIS STANDARD AND HAS FOUND IT TO BE IN ACCORDANCE WITH THE TEXAS ENGINEERING PROFESSION ACT, AS AMENDED BY THE TEXAS ENGINEERING BOARD, AND THE TEXAS BOARD OF ARCHITECTURE, AS AMENDED BY THE TEXAS BOARD OF ARCHITECTURE.



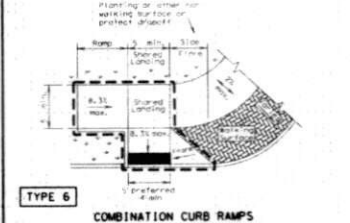
**PERPENDICULAR CURB RAMP**



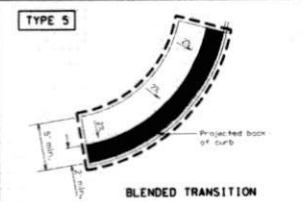
**PARALLEL CURB RAMP**  
(Use only where water will not pond in the landing.)



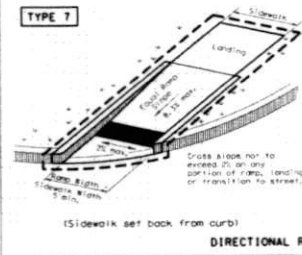
**COMBINATION CURB RAMP**



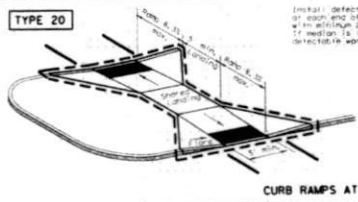
**COMBINATION CURB RAMP**



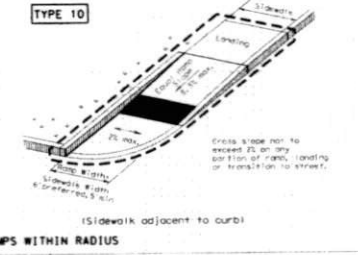
**BLENDED TRANSITION**



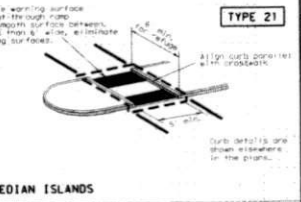
**DIRECTIONAL RAMP WITHIN RADIUS**



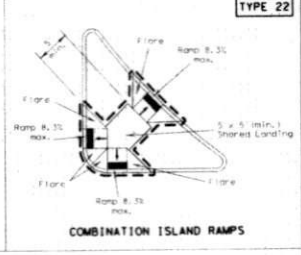
**CURB RAMP AT MEDIAN ISLANDS**



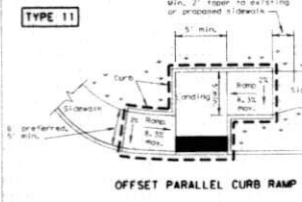
**DIRECTIONAL RAMP WITHIN RADIUS**



**TYPE 21**



**TYPE 22**



**OFFSET PARALLEL CURB RAMP**



**NOTES / LEGEND:**  
 See General Notes on sheet 2 of 4 for more information.  
 P denotes planting or non-walking surface  
 W denotes part of pedestrian circulation path.  
 --- Ramp Limits of Payment  
 ■ Detectable Warning Surface

SHEET 1 OF 4

**TEXAS DEPARTMENT OF TRANSPORTATION**

**DESIGN DIVISION**

**PEDESTRIAN FACILITIES CURB RAMP**

**PED-12A**

DATE: 06/13/2012	TIME: 10:00 AM	BY: J. W. BROWN	CHECKED: J. W. BROWN
PROJECT: TARRANT AT MEAN BRIDGE		SCALE: AS SHOWN	SHEET NO: 13 OF 20

DISCREPANCY: THE TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) HAS REVIEWED THIS SHEET AND FOUND IT TO BE IN CONFORMANCE WITH THE LATEST EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE TEXAS AGENCY FOR ACCESSIBILITY (TAA) STANDARDS. THE TAA STANDARDS ARE THE BASIS FOR THE DESIGN OF THIS SHEET.

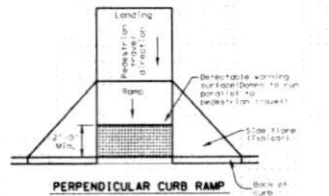
**General Notes**

**Curb Ramps**

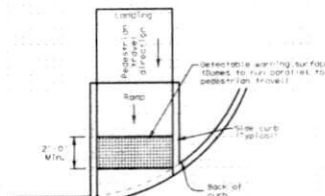
1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5 x 5' passing areas at intervals not to exceed 200' are required.
4. Landings shall be 5' x 5' minimum with a maximum 2% slope in any direction.
5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Seal channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Handrails are not required on curb ramps. Provide curb ramps wherever an accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete of a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether 1" is concrete curb, gutter, or combined curb and gutter.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

**Detectable Warning Material**

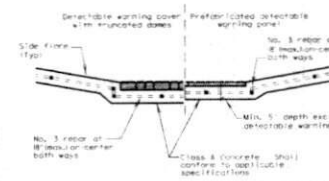
18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
23. Staked areas on sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



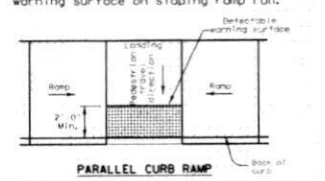
**PERPENDICULAR CURB RAMP**  
Typical placement of detectable warning surface on sloping ramp run.



**DIRECTIONAL CURB RAMP**  
Typical placement of detectable warning surface on sloping ramp run.



**SECTION: CURB RAMP AT DETECTABLE WARNING**



**PARALLEL CURB RAMP**  
Typical placement of detectable warning surface on landing at street edge.

**DETECTABLE WARNINGS**

**Detectable Warning Covers**

24. Furnish detectable warning cover units meeting all requirements of ASTM C-936, C-33, Lay in two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning cover units using a power saw.

**Sidewalks**

26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
28. Street grades and cross slopes shall be as shown elsewhere in the plans.
29. Changes in level greater than 1/4 inch are not permitted.
30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway, where a continuous grade greater than 5% must be provided. Handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
33. Sidewalk details are shown elsewhere in the plans.

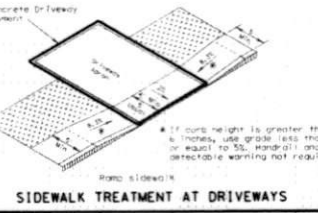
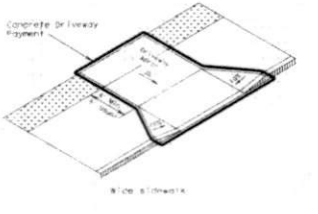
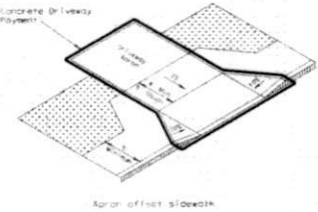
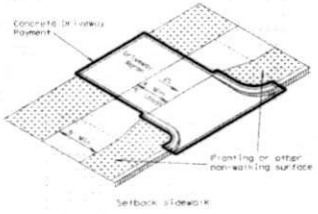


SHEET 2 OF 4

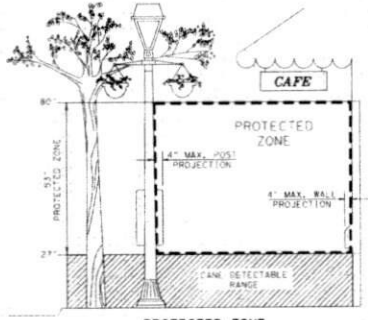

  
**PEDESTRIAN FACILITIES CURB RAMPS**  
**PED-12A**

File: 041215.dgn	Rev: 1/07	Drawn: 1/07	By: JF
Project: 2010	Sheet: 12A	Date: 01/07	Scale: 1/8"=1'-0"
TxDOT		TEXAS DEPARTMENT OF TRANSPORTATION	
19 June 15, 2017		12A OF 33	

DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE "Texas Department of Transportation" AND "American Institute of Architects" STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC WORKS, 1995 EDITION, PART 1, DIVISION 31, SECTION 31.05, AND PART 2, DIVISION 32, SECTION 32.05.

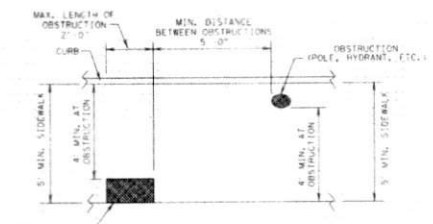


**SIDEWALK TREATMENT AT DRIVEWAYS**



**PROTECTED ZONE**

In pedestrian circulation areas, maximum 4" protection for post or wall required at curbs between 27' and 80' above the surface.



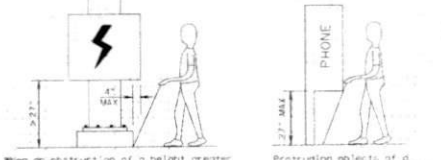
OBSTRUCTION --- CONTROLLER CABINET, MAILBOX, ETC.

**PLAN VIEW  
PLACEMENT OF STREET FIXTURES**

(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)



**CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON**



When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct obstruction curb or foundation at the bottom to provide a maximum 4" overhang.

Protruding objects of a height < 27" are detectable by cane and do not require additional treatment.

**DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"**



SHEET 3 OF 4

Texas Department of Transportation  
Design  
Standard

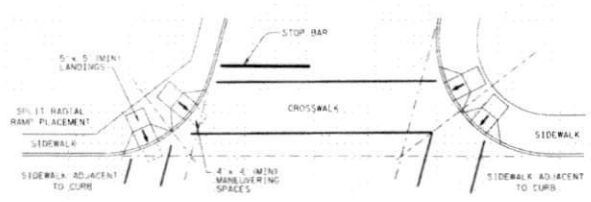
**PEDESTRIAN FACILITIES  
CURB RAMPS**

**PED-12A**

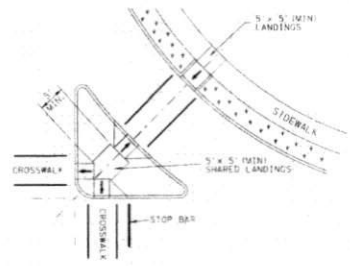
FILE NO. 2007-03-01	REV. 1/2007	DATE	BY	CHKD.	DATE	BY
2007-03-01	001	03/01/07	...	...	...	...
PROJECT TITLE			TERMINAL AT PEWING GROVE			
DATE			06/13/2007			
DRAWN BY			...			
CHECKED BY			...			
APPROVED BY			...			

25 OF 35

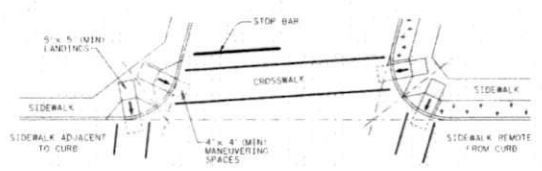
REVISIONS: 1. 11/15/11: Updated to reflect changes in the Texas Department of Transportation's (TxDOT) Standard Specifications for Road and Bridge Construction, 2011 Edition, Section 110, Part 1, Subpart 1.1, and the Texas Department of Transportation's (TxDOT) Standard Specifications for Road and Bridge Construction, 2011 Edition, Section 110, Part 2, Subpart 2.1. 2. 06/15/12: Updated to reflect changes in the Texas Department of Transportation's (TxDOT) Standard Specifications for Road and Bridge Construction, 2011 Edition, Section 110, Part 1, Subpart 1.1, and the Texas Department of Transportation's (TxDOT) Standard Specifications for Road and Bridge Construction, 2011 Edition, Section 110, Part 2, Subpart 2.1.



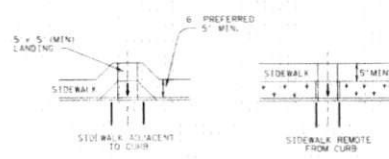
SKewed INTERSECTION WITH "LARGE" RADIUS



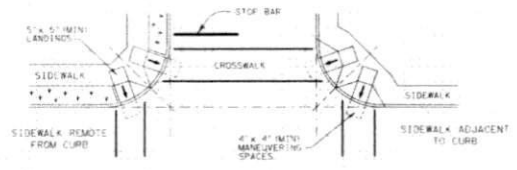
AT INTERSECTION W/FREE RIGHT TURN & ISLAND



SKewed INTERSECTION WITH "SMALL" RADIUS



MID-BLOCK PLACEMENT PERPENDICULAR RAMPs



NORMAL INTERSECTION WITH "SMALL" RADIUS



SHEET 4 OF 4

Texas Department of Transportation		Design Division	
PEDESTRIAN FACILITIES		Standard	
CURB RAMPS			
PED-12A			
DATE: 11/15/11	BY: [signature]	DATE: 11/15/11	BY: [signature]
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TYPICAL CROSSING LAYOUTS

ped 12a/12r

28 OF 38