



**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: 2018-18574

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:

- County Attorney, approval when applicable.
- Perpetual bond currently posted. Bond No: _____ Amount: _____
- Performance bond submitted. Bond No: XXXXXXXXXX Amount: \$5,000.00
- 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. Ay

Permit Administrator

2/20/2018

Date



**REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT**

**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: 2018-18574

Applicant: Crystal Creek Developers LLC/Catalyst Technical Group

Job Location Site: 4100 Harvest Corner Drive, Richmond, TX 77406

Bond No. **Date of Bond:** 2/12/2018 **Amount:** \$5,000.00

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 27th day of February, 2018, Upon Motion of Commissioner _____, seconded by Commissioner _____, 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: 
County Engineer

Date Recorded _____ Comm. Court No. _____

By: N/A
Drainage District Engineer/Manager

Clerk of Commissioners Court

By: _____
Deputy

**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE
LINE ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY
ROAD, COMMERCIAL DRIVEWAY AND MEDIAN OPENINGS OR
MODIFICATIONS (AUTHORIZED)**

BOND NO [REDACTED]

THE STATE OF TEXAS §
COUNTY OF FORT BEND §

KNOW ALL MEN BY THESE PRESENTS:

THAT WE, Crystal Creek Developers LLC whose _____
_____, hereinafter called the Principal, and Merchants Bonding Company (Mutual), a
Corporation existing under and by virtue of the laws of the state of Iowa and authorized to do an indemnifying
business in the state of Texas, and whose principal office is located at 6700 Westown Parkway, West Des Moines, IA 50266,
whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought within said state is
Keenan Lehmann and whose address is 9500 Arboretum Boulevard, Suite 100, Austin, TX 78759
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 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 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;

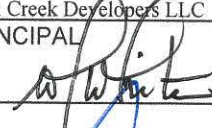
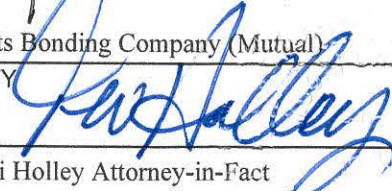
AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable,
conduit and/or pole line activity, commercial driveway and median openings or modifications;

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 12th day of February, 2018.

Crystal Creek Developers LLC
PRINCIPAL

BY
Merchants Bonding Company (Mutual)
SURETY

BY Teri Holley Attorney-in-Fact

MERCHANTS
BONDING COMPANY™
POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Teri Holley

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) 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.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

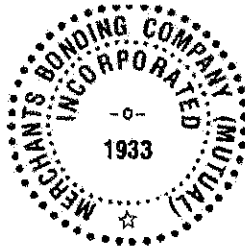
"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 12th day of February, 2018.



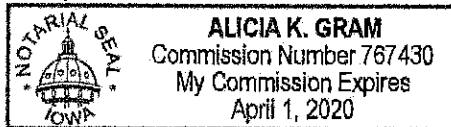
MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By

Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this this 12th day of February, 2018, before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.



Alicia K. Gram
Notary Public

(Expiration of notary's commission does not invalidate this instrument)

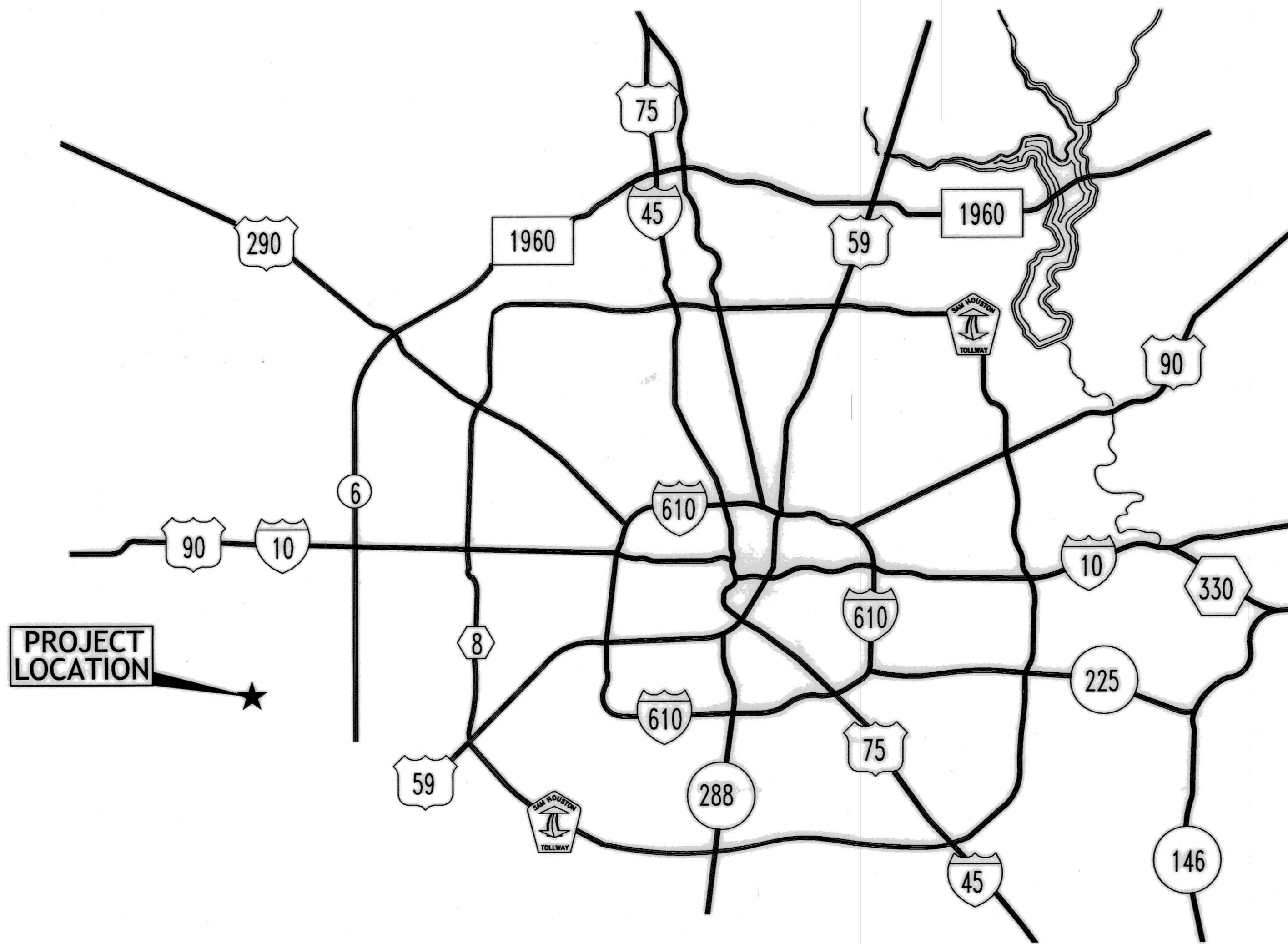
I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 12th day of February, 2018.



William Warner Jr.
Secretary

DRAINAGE & GRADING PLANS FOR "HARVEST GREEN MONTESSORI" LOCATED @ HARVEST CORNER DR RICHMOND, TEXAS



INDEX OF DRAWINGS	CODE	SHT #
COVER SHEET AND INDEX	C001	1
SITE DIMENSION & LAYOUT PLAN	C002	2
SITE GRADING PLAN	C003	3
SITE DRAINAGE PLAN	C004	4
DRAINAGE CALCULATIONS	C004b	5
SITE UTILITY PLAN	C005	6
STORM WATER POLLUTION PREVENTION PLAN	C006	7
SWPP DETAILS	C007	8
CONSTRUCTION DETAILS-I	C008	9
CONSTRUCTION DETAILS -II	C009	10
CONSTRUCTION DETAILS -III	C010	11
CONSTRUCTION NOTES	C011	12
DUMPSTER & FENCE DETAIL	C012	13
FIRE LANE PLAN	F001	14
LANDSCAPE PLAN	L1.0	15
TRAFFIC CONTROL PLAN	T1.0	16

EXHIBITS:
SURVEY
PRELIMINARY PLAT
CPC 101

OWNER INFO:
OWNER: SSPL, L.L.C.
Ph: 832-236-6147

FORT BEND COUNTY ENGINEER

ENGINEER: *Rid D. Stangle, P.E.*
for Richard W. Stollefs, P.E.

DATE: 1/3/18

THESE SIGNATURE ARE VOID IF CONSTRUCTION HAS NOT COMPLETED IN (1) YEAR FROM DATE OF APPROVAL.

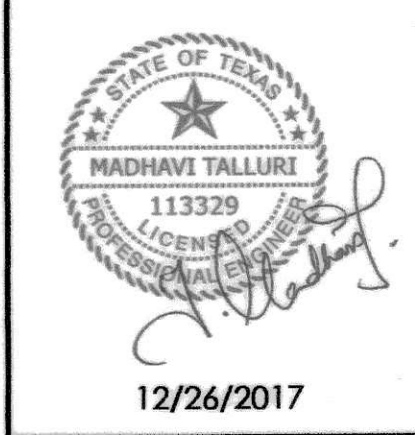
APPROVED: *[Signature]*
DEVELOPMENT COORDINATOR

DATE: 1/3/18

440 COBBA DR,
Suite 1503
Katy, TX 77494
PH: 832 913 1888
www.teasgroup.com
TBE FIRM # 15775



S.NO	DATE	REVISIONS



SEAL

COVER SHEET
HARVEST GREEN MONTESSORI
@
4100 HARVEST CORNER DR.
RICHMOND, TX - 77406

DRAFTED BY: R.R
PROJECT NO #: 17-002
FILE LOCATION: W:\NGI\2017\17002\CIVIL\C-1

SCALE: -
SHEET: **C001**
DATE: 12/26/2017
PAGE # 1 OF 16

LEGAL DESCRIPTION

BEING A TRACT CONTAINING 2.04 ACRES OF LAND IN THE WILLIAM MORTON ONE AND ONE-HALF LEAGUE GRANT, ABSTRACT NO. 62, FORT BEND COUNTY, TEXAS, SAID 2.04 ACRES BEING A PORTION OF THAT CERTAIN CALLED 883.159 ACRE TRACT OF LAND (TRACT II) RECORDED UNDER F.B.C.C.F. NO. 2014037769, SAID 2.04 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES & BOUNDS.

PARKING CALCULATIONS

PROPOSED LAND USE:
DAYCARE

PREVIOUS LAND USE:
COMMERCIAL - VACANT

GROSS FLOOR AREA OF THE PROPOSED DEVELOPMENT:
PROPOSING 1 STORY DAYCARE

NO. OF PARKING SPACES REQUIRED FOR THE PROP. DEVELOPMENT PER FORTBEND COUNTY REQUIREMENTS

1.0 SPACES FOR EVERY EMPLOYEE
1.0*(12) = 12 SPACES
1.0 SPACE FOR EVERY 5 CHILDREN (DROP OFF FACILITY)
1.0*(227)/5 = 46 SPACES

NUMBER OF PARKING SPACES REQUIRED ONSITE:
58 SPACES TOTAL

NUMBER OF PROPOSED PARKING SPACES PROPOSED ONSITE:
67 SPACES TOTAL (58 REGULAR, 4 ADA ACCESSIBLE, 1 ELECTRIC VEHICLE & 4 LOW EMISSION VEHICLE.

BICYCLE PARKING CALCULATIONS

1% OF BUILDING OCCUPANTS BICYCLE PARKING SPACES REQUIRED FOR THE PROP. DEVELOPMENT

1% * (277) / 100 = 3 SPACES

NUMBER OF PROPOSED BICYCLE PARKING SPACES PROPOSED ONSITE:
6 SPACES TOTAL

LOW EMISSION VEHICLE PARKING CALCULATIONS

LOW EMISSION VEHICLE PARKING SPACES REQUIRED 5% OF TOTAL PARKING SPACES.

5% * (69) / 100 = 4 SPACES

NUMBER OF PROPOSED LOW EMISSION VEHICLE PARKING SPACES PROPOSED ONSITE:
4 SPACES TOTAL

MINIMUM SLAB ELEVATION ANALYSIS

MINIMUM F.F.E IS HIGHEST OF THE FOLLOWING:

18" ABOVE THE LOWEST SIGNIFICANT NATURAL GROUND CONTOUR
MIN. F.F.E = 1.5 (18") + 89.62
F.F.E REQUIRED = 1.5 + 89.62 = 91.12

MIN. 18" ABOVE THE NEAREST 100-YEAR FLOOD PLAIN.
MIN. F.F.E = 1.5 (18") + 86.13
F.F.E REQUIRED = 1.5 + 86.13 = 87.63

MIN. 12" ABOVE THE MAXIMUM PONDING LEVEL IN PARKING LOT.
MIN. F.F.E = 1.0 (12") + 86.50
F.F.E REQUIRED = 1.0 + 86.50 = 87.50

MINIMUM F.F.E PROPOSED = 91.25

DEVELOPMENT AREA

TOTAL ACREAGE = 2.04 ACRES
PROPOSED DEVELOPMENT = 2.04 ACRES
TYPE OF DEVELOPMENT = COMMERCIAL (DAY CARE)

CONTRACTOR NOTES

ALL ONSITE UNDERGROUND PIPING TO BE INSPECTED BY THE MUD OPERATOR AND ENGINEER PRIOR TO COVERING FROM POINT OF CONNECTION TO WITHIN 10- FEET OF BUILDING.

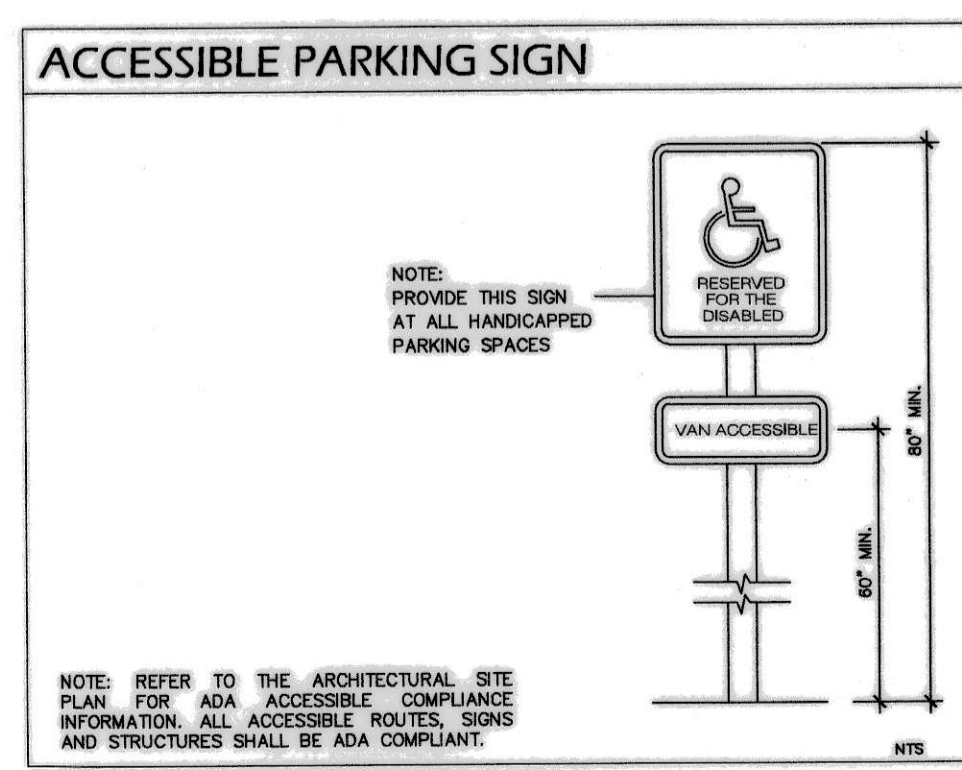
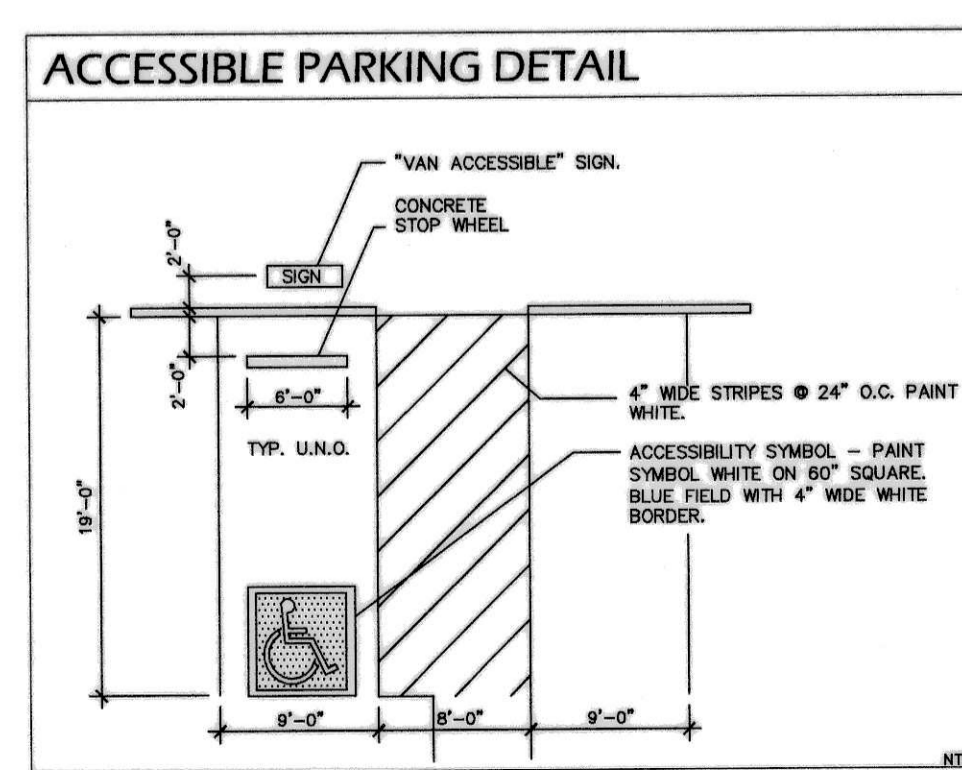
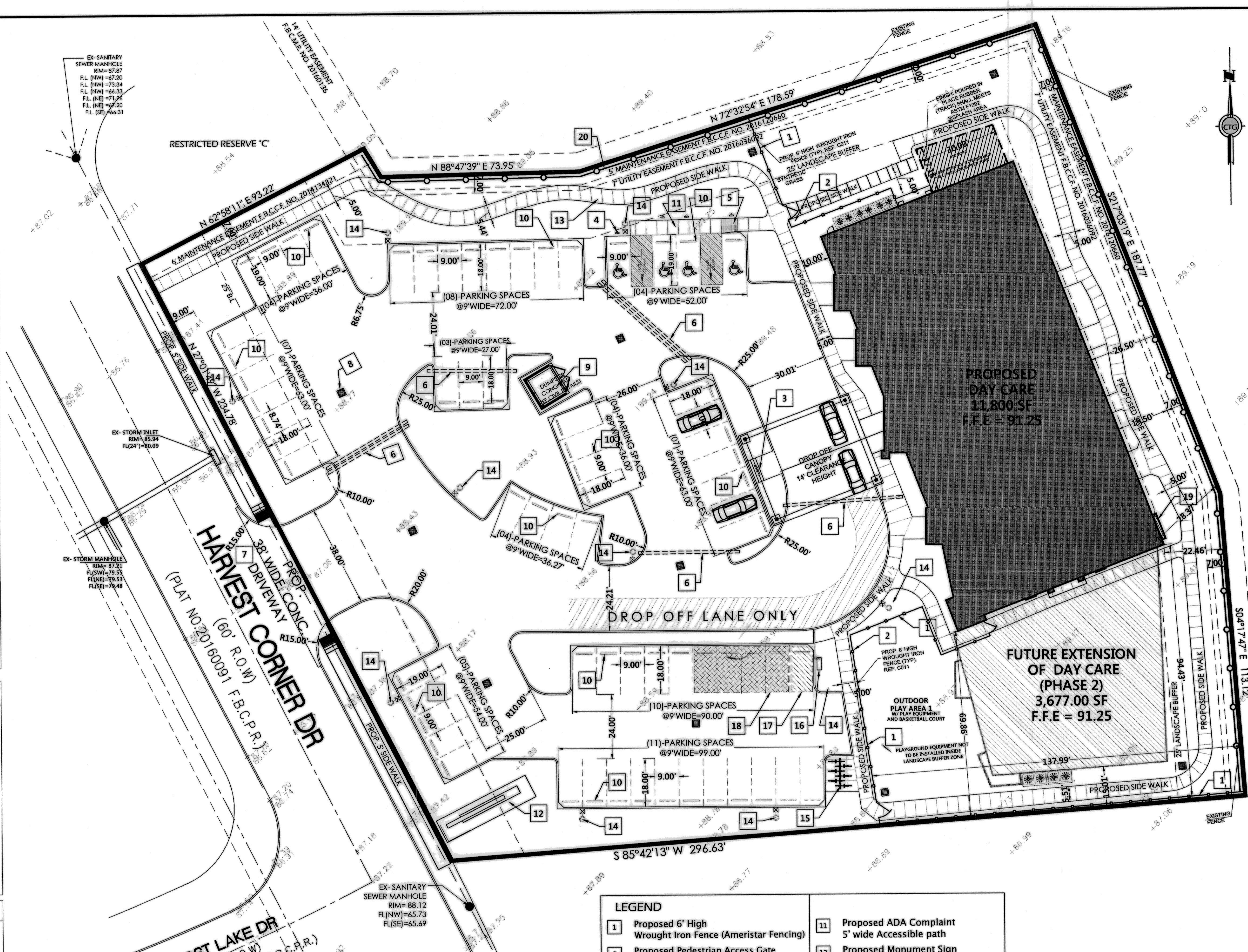
MUD OPERATOR WILL TEST BACKFLOWS

ABER FENCE

TO BE INSTALL BY TIM THIBODEAU ABER FENCE CONTRACTOR.
12239 MOSIELEE STREET HOUSTON TX. 77086 (281)931-1600

NOTE:

SSPL, LLC., IS THE OWNER OF THE DAY CARE AND THE FUTURE BUILDING PAD.



- LEGEND**
- 1 Proposed 6' High Wrought Iron Fence (Ameristar Fencing)
 - 2 Proposed Pedestrian Access Gate in Fence
 - 3 Proposed Steps
 - 4 Proposed Handicap Accessible parking space Sign
 - 5 Proposed ADA Compliant 6\"/>

APPROVED: *Maxi D.*
Development Coordinator

DATE: 1/2/18

440 COBRA DR.
Suite 1503
Katy, TX 77494
PH: 832.913.1888
WWW.BASCTECH.COM
TBE FIRM # 15775

REVISIONS

S.NO	DATE	REVISIONS

STATE OF TEXAS
MIDHAYI TALLURE
113329
100809

12/26/2017

SEAL

SITE DIMENSION & LAYOUT PLAN
HARVEST GREEN MONTESSORI
@
4100 HARVEST CORNER DR.
RICHMOND, TEXAS - 77406

DRAFTED BY: R.R
PROJECT NO #: 17-002
FILE LOCATION: W:\CGI\2015\15001\CVTL\G-1

SCALE: 1"=20'
SHEET: **C002**
DATE: 12/26/2017
PAGE # 2 OF 16

FLOOD PLAIN INFORMATION

ACCORDING TO THE FLOOD INSURANCE RATE MAP FOR FORT BEND COUNTY, DATED APRIL 02, 2014, MAP NO. 48157 C0140L, THIS TRACT IS NOT IN 100 YR FLOOD ZONE. THIS PROPERTY LIES IN ZONE X

DEVELOPMENT AREA

TOTAL ACREAGE = 2.04 ACRES
 PROPOSED DEVELOPMENT = 2.04 ACRES
 TYPE OF DEVELOPMENT = COMMERCIAL (DAY CARE)

ROOF DRAIN NOTE

CONTRACTOR TO PROVIDE CONCRETE SPLASH BLOCK FOR EACH ROOF DRAIN NOT CONNECTED DIRECTLY TO STORM SEWER PIPING

CONTRACTOR NOTE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE JOB SITE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES AND/OR UNUSUAL CONDITIONS NOT SHOWN OR ANTICIPATED TO THE OWNERS REPRESENTATIVE PRIOR TO FINALIZING BIDS AND COMMENCEMENT OF ANY CONSTRUCTION.

ALL WORK SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS AND DRAWINGS. CONTRACTOR SHALL COMPLY CONTRACTOR WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL ORDINANCES AND REGULATIONS.

THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THE JOB SITE CONDITIONS. OMISSION OF SPECIFIC DETAILS, DATE OR DRAWINGS SHALL NOT RELIEVE CONTRACTOR OF ANY RESPONSIBILITIES FOR A COMPLETE WORKING PROJECT AND SYSTEMS. THE CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE CONSTRUCTION REQUIREMENTS AND DETAILS BEFORE SUBMITTING HIS BID, AS NO ALLOWANCES WILL BE ALLOWED BECAUSE OF THE CONTRACTOR'S UNFAMILIARITY WITH THE JOB SITE CONDITIONS AND PROJECT REQUIREMENTS.

ANY AND ALL STRUCTURAL FILL MATERIAL ONSITE MUST BE COMPACTED IN 8" LIFTS, TO 95% STANDARD PROCTOR DENSITY TEST.

DRAINAGE NOTE

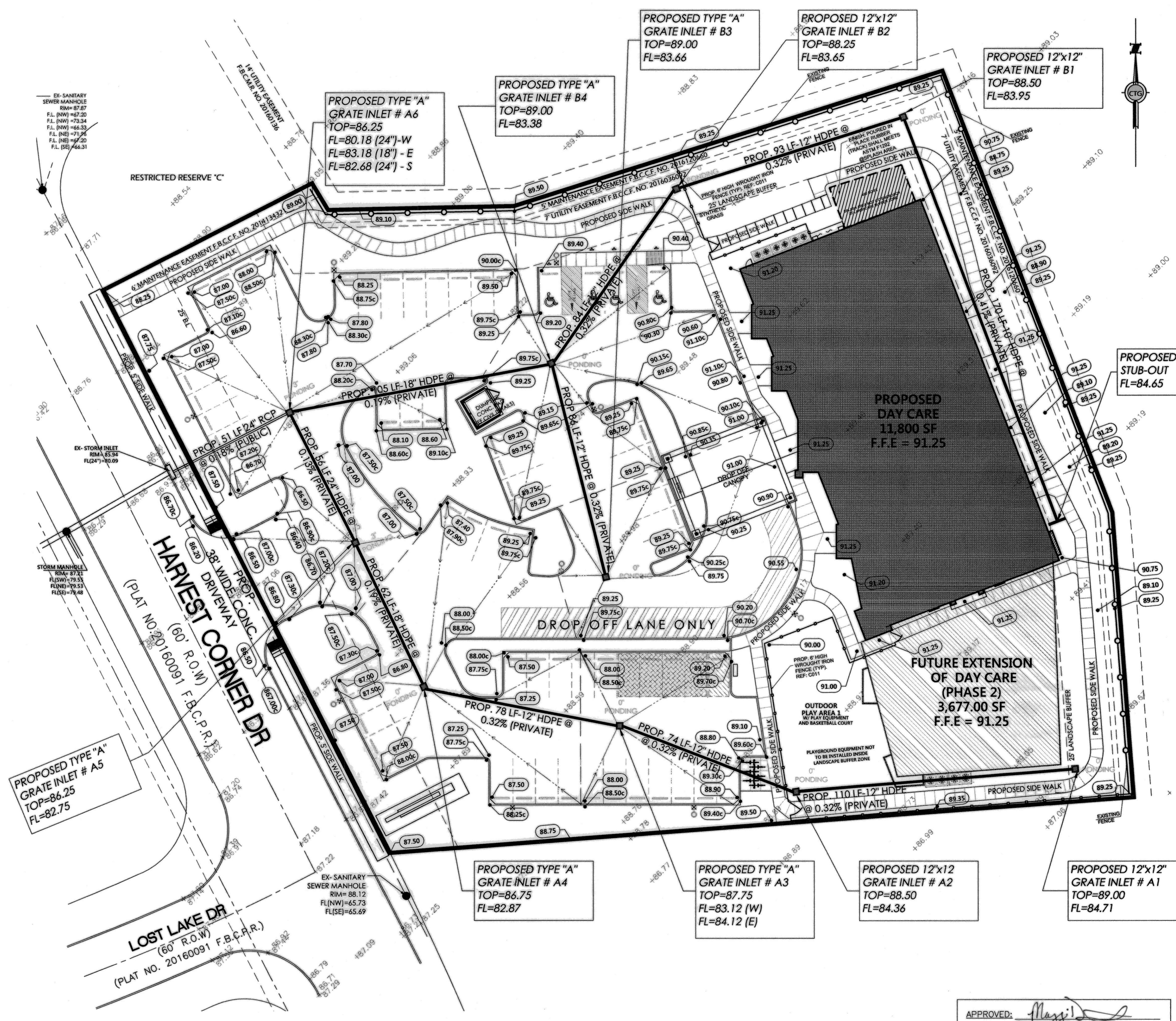
WATER SURFACE ELEVATION = 86.50'
 OVERFLOW CHANNEL IS THE PROPOSED DRIVEWAY

LEGEND

- 89.06 EXISTING ELEVATION
- 87.50 PROPOSED ELEVATION
- 87.50c PROPOSED ELEVATION TOP OF CURB
- SWALE LINES
- PROPOSED TYPE "A" GRATE INLET # 6 TOP=87.25 FL=152.08 INLET TYPE & FLOW ELEV.
- HIGH POINT
- PROPOSED GRATE INLET

GENERAL NOTES

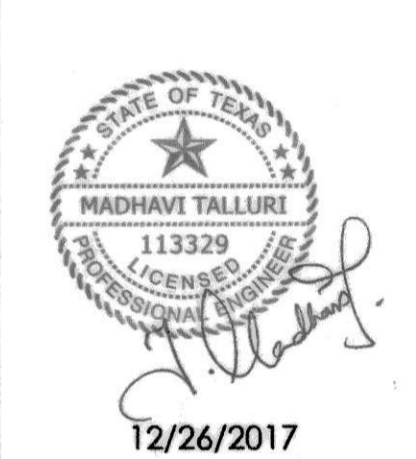
- NO FILL ON ADJACENT PROPERTY



440 CORIA DR.
 Suite 1503
 Katy, TX 77494
 PH: 832-913-1888
 www.tecgroup.com
 TYPE FIRM # 15175



S.NO	DATE	REVISIONS



SEAL

SITE GRADING PLAN
HARVEST GREEN MONTESSORI
 4100 HARVEST CORNER DR.
 RICHMOND, TEXAS - 77406

DRAFTED BY:	R.R
PROJECT NO #:	17-002
FILE LOCATION:	W:\VGI\2017\17002\CIVIL\C-3

APPROVED: *Maxi*
 Development Coordinator
 DATE: 1/3/18

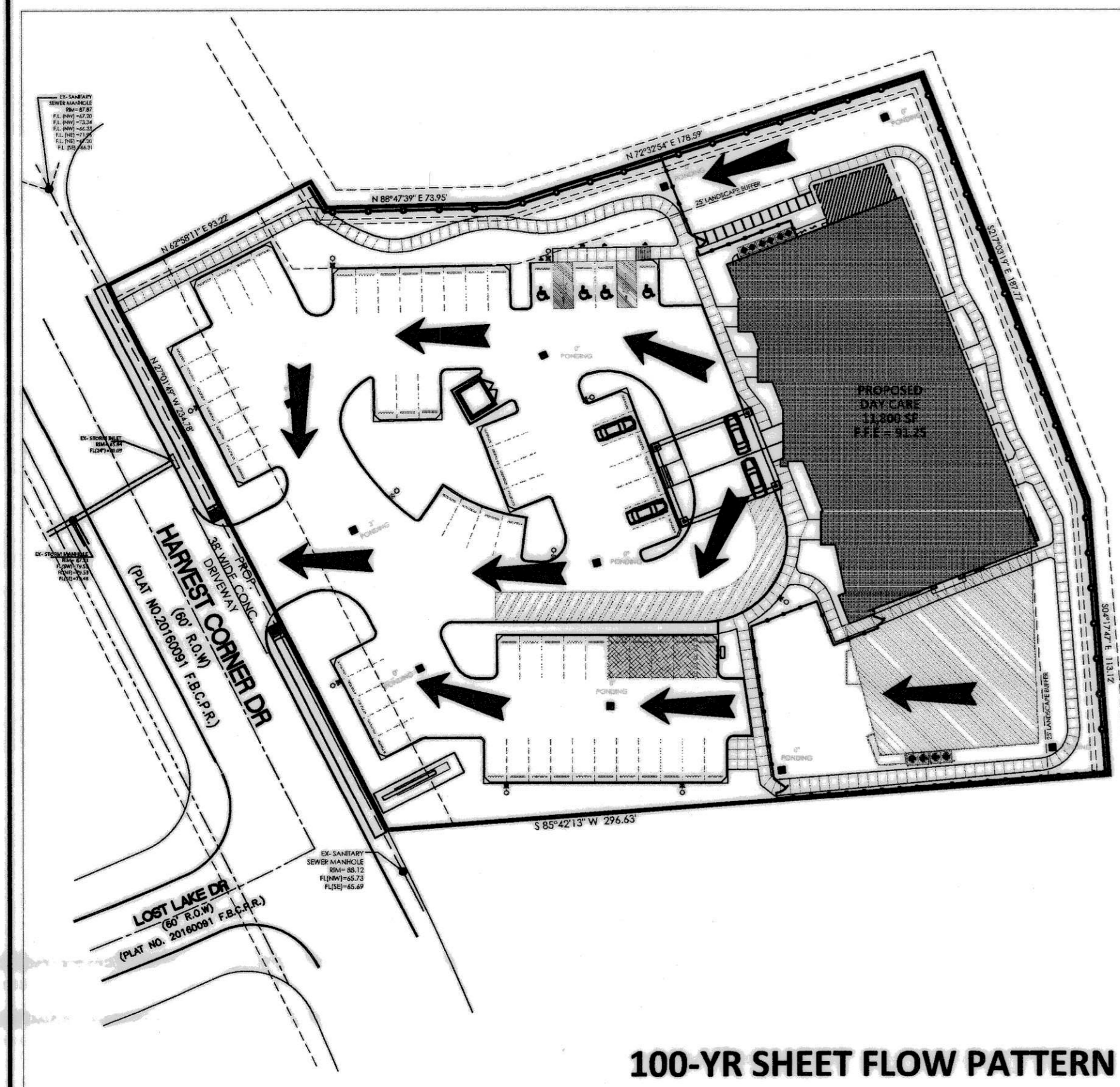
SCALE:	1"=20'
SHEET:	C003
DATE:	12/26/2017
PAGE #	3 OF 16

LEGEND

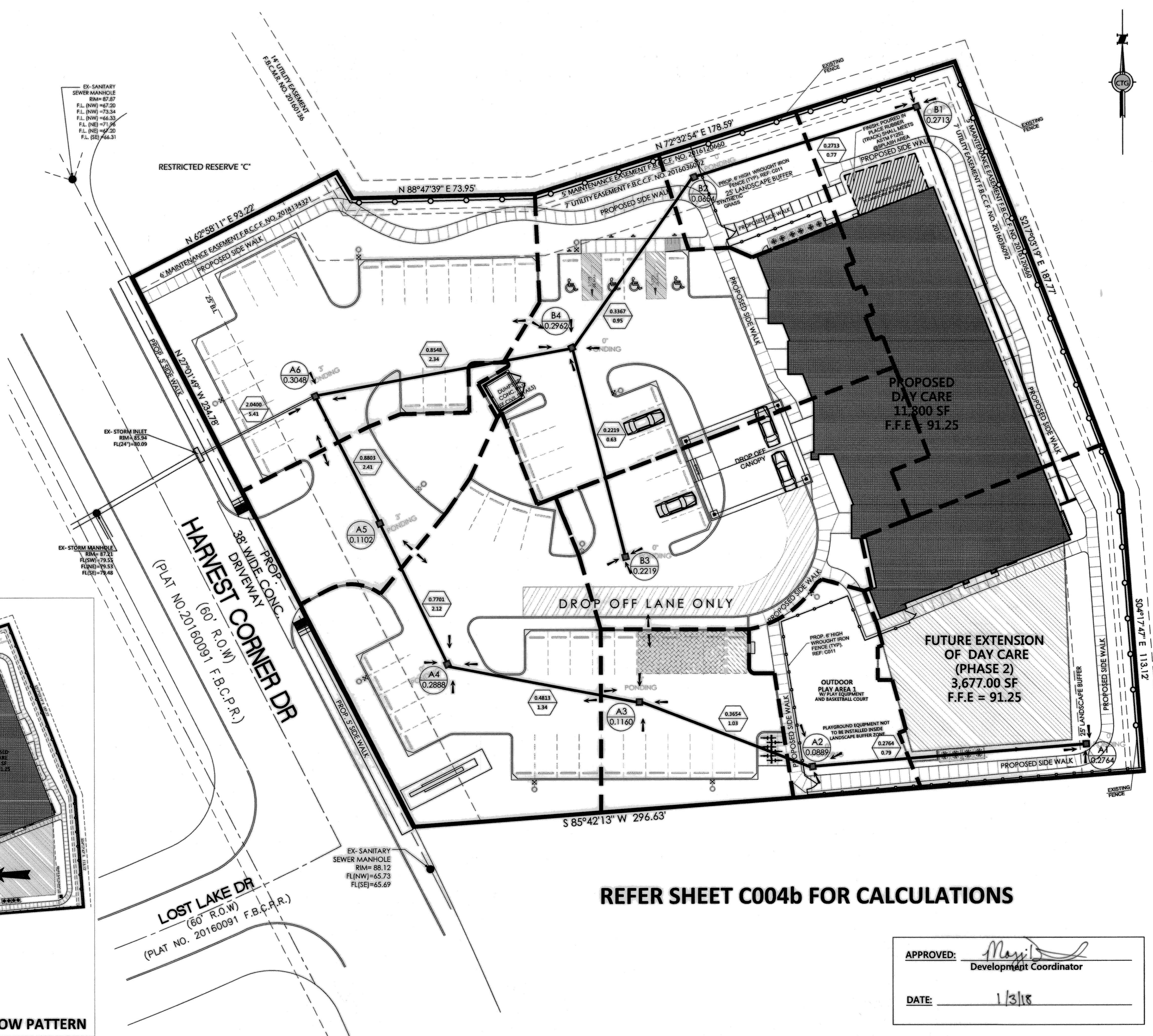
- DRAINAGE PIPE (24" OR MORE)
- DRAINAGE PIPE (18" OR LESS)
- PROPOSED DRAINAGE AREA LINE
- DRAINAGE FLOW
- AREA #
- AREA (AC)
- CUMULATIVE AREA (AC)
- 2-YR CUMULATIVE FLOW, CFS

DRAINAGE NOTE

WATER SURFACE ELEVATION = 86.50'
OVERFLOW CHANNEL IS THE PROPOSED DRIVEWAY (REFER SHEET C003)



100-YR SHEET FLOW PATTERN



REFER SHEET C004b FOR CALCULATIONS

APPROVED: *Majid*
Development Coordinator

DATE: 1/3/18

440 COBBA DR,
Suite 1503
Katy, TX 77494
PH: 832.913.1888
www.trendgroup.com
TBE FIRM # 15175

S.NO	DATE	REVISIONS

12/26/2017

SEAL

DRAINAGE AREA MAP

HARVEST GREEN MONTESSORI

@
4100 HARVEST CORNER DR.
RICHMOND, TEXAS - 77406

DRAFTED BY: R.R	PROJECT NO #: 17-002	FILE LOCATION: W:\NGI\2017\17002\CIVIL\C-4a
SCALE: 1"=20'		
SHEET: C004a		
DATE: 12/26/2017		
PAGE # 4 OF 16		

INTENSITY 'I' = b/(d+TC) ^e		b =	75.01	DEVELOPED 2-YR										2-Year Tailwater @ Outfall = 83.59 Ft											
		d =	16.2																						
		e =	0.8315																						
DRAINAGE AREAS		ACRES	ACRES	TC	TC	I	I	C	CA	SUM	Q	Q	PIPE SIZE	PIPE AREA	SLOPE	"n"	VELOCITY	PIPE MAX	REACH	S _f	HEAD LOSS	H.G.L.	FLOWLINE		
		(INDIV)	(CUM)	(INLET)	(SYSTEM)	(IN/HR)	(SYSTEM)			CA	(INLET)	(SYSTEM)	(Inch)	'A' (Sq-Ft)	%	VALUE	'V' (fps)	'Q'	'L' (Feet)		H _f		U/S (FT)	D/S (FT)	FALL (FT)
A1	A2	0.2764	0.2764	22.97	22.97	3.55	3.55	0.8	0.22	0.2212	0.79	0.79	12	0.79	0.32%	0.011	3.03	2.38	110.00	0.00035	0.04	83.81	84.71	84.36	0.35
A2	A3	0.0889	0.3654	21.53	23.38	3.67	3.52	0.8	0.07	0.2923	0.26	1.03	12	0.79	0.32%	0.011	3.03	2.38	74.00	0.00060	0.04	83.77	84.36	84.12	0.24
A3	A4	0.1160	0.4813	21.84	23.79	3.64	3.49	0.8	0.09	0.3851	0.34	1.34	12	0.79	0.32%	0.011	3.03	2.38	78.00	0.00103	0.08	83.72	83.12	82.87	0.25
A4	A5	0.2888	0.7701	23.04	24.55	3.55	3.44	0.8	0.23	0.6161	0.82	2.12	18	1.77	0.19%	0.011	3.06	5.41	62.00	0.00029	0.02	83.64	82.87	82.75	0.12
A5	A6	0.1102	0.8803	21.78	24.78	3.65	3.42	0.8	0.09	0.7043	0.32	2.41	24	3.14	0.13%	0.011	3.07	9.64	56.00	0.00008	0.00	83.62	82.75	82.68	0.07
B1	B2	0.2713	0.2713	22.95	22.95	3.55	3.55	0.8	0.22	0.2171	0.77	0.77	12	0.79	0.32%	0.011	3.03	2.38	93.00	0.00034	0.03	83.73	83.95	83.65	0.30
B2	B4	0.0654	0.3367	21.19	23.26	3.69	3.53	0.8	0.05	0.2694	0.19	0.95	12	0.79	0.32%	0.011	3.03	2.38	84.00	0.00052	0.04	83.70	83.65	83.38	0.27
B3	B4	0.2219	0.2219	22.67	22.67	3.58	3.58	0.8	0.18	0.1775	0.63	0.63	12	0.79	0.32%	0.011	3.03	2.38	86.00	0.00023	0.02	83.68	83.66	83.38	0.28
B4	A6	0.2962	0.8548	23.07	24.73	3.55	3.43	0.8	0.24	0.6838	0.84	2.34	18	1.77	0.19%	0.011	3.06	5.41	105.00	0.00036	0.04	83.66	83.38	83.18	0.20
A6	OUTLET	0.3048	2.0400	23.11	26.34	3.54	3.32	0.8	0.24	1.6320	0.86	5.41	24	3.14	0.18%	0.013	3.61	11.34	51.00	0.00058	0.03	83.62	80.18	80.09	0.09

INTENSITY 'I' = b/(d+TC) ^e		b =	115.9	DEVELOPED 25-YR										100-Year Tailwater @ Outfall = 86.27 Ft													
		d =	21.2																								
		e =	0.7808																								
DRAINAGE AREAS		ACRES	ACRES	TC	TC	I	I	C	C _f	C _f C	CA	SUM	Q	Q	PIPE SIZE	PIPE AREA	SLOPE	"n"	VELOCITY	PIPE MAX	REACH	S _f	HEAD LOSS	H.G.L.	FLOWLINE		
		(INDIV)	(CUM)	(INLET)	(SYSTEM)	(IN/HR)	(SYSTEM)				CA	(INLET)	(SYSTEM)	(Inch)	'A' (Sq-Ft)	%	VALUE	'V' (fps)	'Q'	'L' (Feet)		H _f		U/S (FT)	D/S (FT)	FALL (FT)	
A1	A2	0.2764	0.2764	22.97	22.97	6.02	6.02	0.8	1.1	0.88	0.24	0.2433	1.46	1.46	12	0.79	0.32%	0.011	3.03	2.38	110.00	0.00122	0.13	87.03	84.71	84.36	0.35
A2	A3	0.0889	0.3654	21.53	23.38	6.18	5.98	0.8	1.1	0.88	0.08	0.3215	0.48	1.92	12	0.79	0.32%	0.011	3.03	2.38	74.00	0.00210	0.16	86.89	84.36	84.12	0.24
A3	A4	0.1160	0.4813	21.84	23.79	6.14	5.93	0.8	1.1	0.88	0.10	0.4236	0.63	2.51	12	0.79	0.32%	0.011	3.03	2.38	78.00	0.00360	0.28	86.74	83.12	82.87	0.25
A4	A5	0.2888	0.7701	23.04	24.55	6.01	5.86	0.8	1.1	0.88	0.25	0.6777	1.53	3.97	18	1.77	0.19%	0.011	3.06	5.41	62.00	0.00103	0.06	86.45	82.87	82.75	0.12
A5	A6	0.1102	0.8803	21.78	24.78	6.15	5.83	0.8	1.1	0.88	0.10	0.7747	0.60	4.52	24	3.14	0.13%	0.011	3.07	9.64	56.00	0.00029	0.02	86.39	82.75	82.68	0.07
B1	B2	0.2713	0.2713	22.95	22.95	6.02	6.02	0.8	1.1	0.88	0.24	0.2388	1.44	1.44	12	0.79	0.32%	0.011	3.03	2.38	93.00	0.00118	0.11	86.77	83.95	83.65	0.30
B2	B4	0.0654	0.3367	21.19	23.26	6.22	5.99	0.8	1.1	0.88	0.06	0.2963	0.36	1.77	12	0.79	0.32%	0.011	3.03	2.38	84.00	0.00179	0.15	86.66	83.65	83.38	0.27
B3	B4	0.2219	0.2219	22.67	22.67	6.05	6.05	0.8	1.1	0.88	0.20	0.1952	1.18	1.18	12	0.79	0.32%	0.011	3.03	2.38	86.00	0.00080	0.07	86.58	83.66	83.38	0.28
B4	A6	0.2962	0.8548	23.07	24.73	6.01	5.84	0.8	1.1	0.88	0.26	0.7522	1.57	4.39	18	1.77	0.19%	0.011	3.06	5.41	105.00	0.00126	0.13	86.51	83.38	83.18	0.20
A6	OUTLET	0.3048	2.0400	23.11	26.34	6.00	5.68	0.8	1.1	0.88	0.27	1.7952	1.61	10.20	24	3.14	0.18%	0.013	3.61	11.34	51.00	0.00205	0.10	86.37	80.18	80.09	0.09

INTENSITY 'I' = b/(d+TC) ^e		b =	125.4	DEVELOPED 100-YR										100-Year Tailwater @ Outfall = 86.27 Ft													
		d =	21.8																								
		e =	0.75																								
DRAINAGE AREAS		ACRES	ACRES	TC	TC	I	I	C	C _f	C _f C	CA	SUM	Q	Q	PIPE SIZE	PIPE AREA	SLOPE	"n"	VELOCITY	PIPE MAX	REACH	S _f	HEAD LOSS	H.G.L.	FLOWLINE		
		(INDIV)	(CUM)	(INLET)	(SYSTEM)	(IN/HR)	(SYSTEM)				CA	(INLET)	(SYSTEM)	(Inch)	'A' (Sq-Ft)	%	VALUE	'V' (fps)	'Q'	'L' (Feet)		H _f		U/S (FT)	D/S (FT)	FALL (FT)	
A1	A2	0.2764	0.2764	22.97	22.97	7.24	7.24	0.8	1.25	1	0.28	0.2764	2.00	2.00	12	0.79	0.32%	0.011	3.03	2.38	110.00	0.00229	0.25	87.69	84.71	84.36	0.35
A2	A3	0.0889	0.3654	21.53	23.38	7.43	7.20	0.8	1.25	1	0.09	0.3654	0.66	2.63	12	0.79	0.32%	0.011	3.03	2.38	74.00	0.00394	0.29	87.43	84.36	84.12	0.24
A3	A4	0.1160	0.4813	21.84	23.79	7.39	7.15	0.8	1.25	1	0.12	0.4813	0.86	3.44	12	0.79	0.32%	0.011	3.03	2.38	78.00	0.00674	0.53	87.14	83.12	82.87	0.25
A4	A5	0.2888	0.7701	23.04	24.55	7.24	7.06	0.8	1.25	1	0.29	0.7701	2.09	5.44	18	1.77	0.19%	0.011	3.06	5.41	62.00	0.00193	0.12	86.62	82.87	82.75	0.12
A5	A6	0.1102	0.8803	21.78	24.78	7.39	7.03	0.8	1.25	1	0.11	0.8803	0.81	6.19	24	3.14	0.13%	0.011	3.07	9.64	56.00	0.00054	0.03	86.50	82.75	82.68	0.07
B1	B2	0.2713	0.2713	22.95	22.95	7.25	7.25	0.8	1.25	1	0.27	0.2713	1.97	1.97	12	0.79	0.32%	0.011	3.03	2.38	93.00	0.00220	0.20	87.20	83.95	83.65	0.30
B2	B4	0.0654	0.3367	21.19	23.26	7.47	7.21	0.8	1.25	1	0.07	0.3367	0.49	2.43	12	0.79	0.32%	0.011	3.03	2.38	84.00	0.00336	0.28	87.00	83.65	83.38	0.27
B3	B4	0.2219	0.2219	22.67	22.67	7.28	7.28	0.8	1.25	1	0.22	0.2219	1.62	1.62	12	0.79	0.32%	0.011	3.03	2.38	86.00	0.00149	0.13	86.84	83.66	83.38	0.28
B4	A6	0.2962	0.8548	23.07	24.73	7.23	7.04	0.8	1.25	1	0.30	0.8548	2.14	6.02	18	1.77	0.19%	0.011	3.06	5.41	105.00	0.00237	0.25	86.71	83.38	83.18	0.20
A6	OUTLET	0.3048	2.0400	23.11	26.34	7.23	6.86	0.8	1.25	1	0.30	2.0400	2.20	14.00	24	3.14	0.18%	0.013	3.61	11.34	51.00	0.00385	0.20	86.47	80.18	80.09	0.09

440 COBIA DR.
Suite 1503
Katy, TX 77494
PH: 832 913 1888
www.harscoind.com
TBC FRM # 15175



REVISIONS	DATE	S.NO



12/26/2017

SEAL

DRAINAGE CALCULATIONS
HARVEST GREEN MONTESSORI
4100 HARVEST CORNER DR.
RICHMOND, TEXAS - 77406

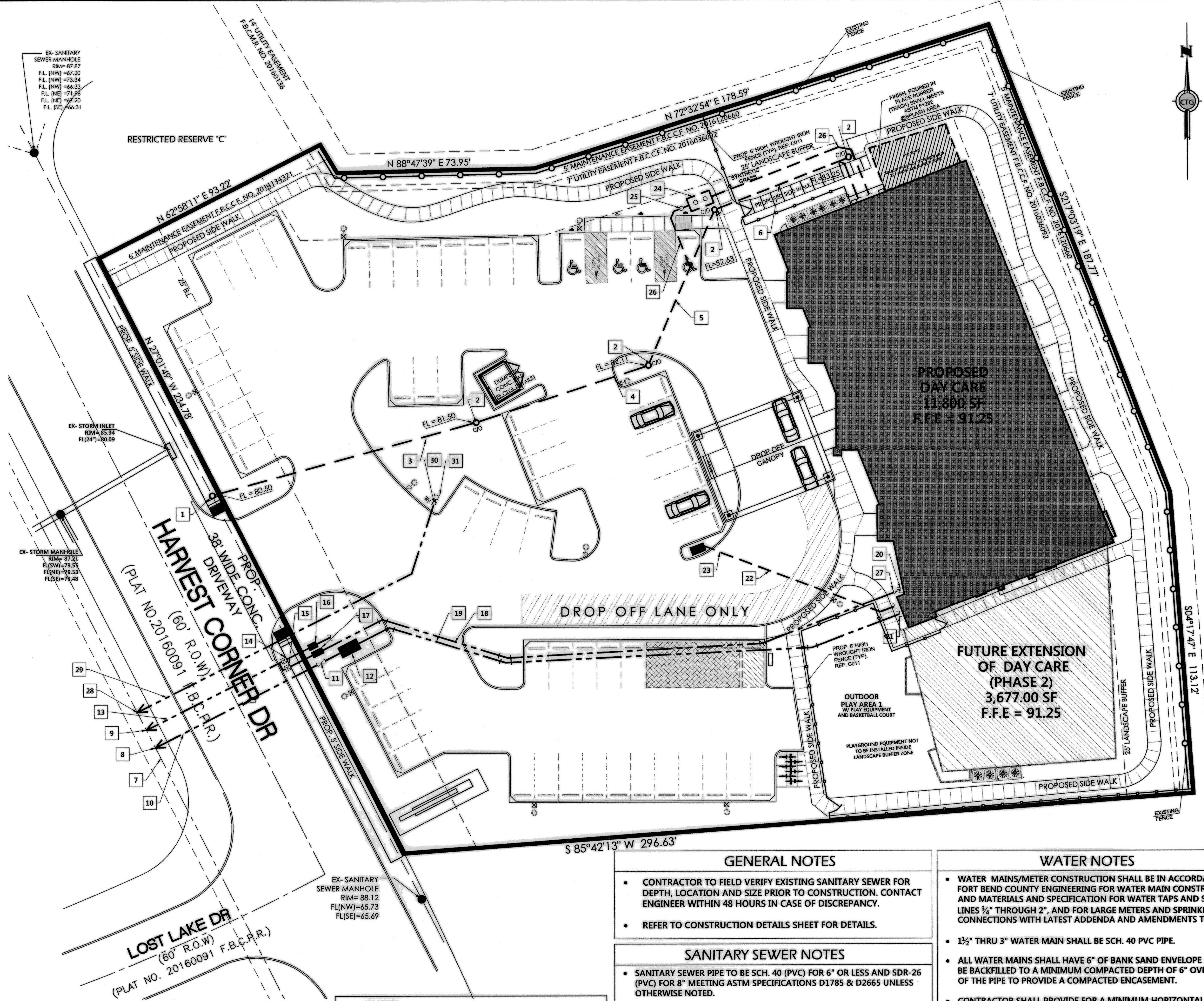
DRAFTED BY: R.R
PROJECT NO #: 17-002
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APPROVED: *Maxi*
Development Coordinator
DATE: 1/3/18

SCALE: -
SHEET: C004b
DATE: 12/26/2017
PAGE #: 5 OF 16

LEGEND

- 1 PROPOSED SANITARY SEW. MANHOLE ON EXISTING 10" SAN. SEW LINE
10" FL(NW, SE) = 66.03 (EXISTING)
6" FL (NE) = 80.50 WITH DROP (PROP.)
- 2 PROPOSED SANITARY SEWER CLEANOUT
- 3 PROPOSED 100 LF 6" SCH-40 (PVC) @ 1.0%
- 4 PROPOSED 66 LF 6" SCH-40 (PVC) @ 1.0%
- 5 PROPOSED 52 LF 6" SCH-40 (PVC) @ 1.0%
- 6 PROPOSED 62 LF 6" SCH-40 (PVC) @ 1.0%
- 7 EXISTING 12" WATER LINE
- 8 PROPOSED 12"x6" TS&V W/ BOX (FOR FIRE LINE)
- 9 PROPOSED 12"x2" TS&V W/ BOX (FOR DOMESTIC & IRRIGATION WATER)
- 10 PROPOSED 78LF 6" C-900 FIRE LINE
- 11 PROPOSED 6" GATE VALVE (FOR FIRE LINE)
- 12 PROPOSED DOUBLE DETECTOR BACKFLOW PREVENTOR (FOR FIRE LINE)
- 13 PROPOSED 69 LF 2" SCH-40 (PVC) (FOR DOMESTIC & IRRIGATION WATER)
- 14 PROPOSED 1" IRRIGATION WATER METER
- 15 PROPOSED 2" DOMESTIC WATER METER
- 16 PROPOSED 1" RPZ BACKFLOW PREVENTOR (FOR IRRIGATION WATER)
- 17 PROPOSED 2" RPZ BACKFLOW PREVENTOR (FOR DOMESTIC WATER)
- 18 PROPOSED 215 LF SCH-40 (PVC) 2" DOMESTIC WATER LINE
- 19 PROPOSED 233 LF C-900 6" FIRE LINE
- 20 REFER TO PLUMBING PLANS FOR CONTINUATION
- 21 REFER TO SPRINKLER FOR CONTINUATION
- 22 PROP 85 LF 6" C-900 FIRE LINE FROM RISER
- 23 PROPOSED FDC
- 24 PROPOSED GREASE TRAP. (750 GAL)
- 25 PROPOSED SAMPLE WELL
- 26 PROPOSED 100 LF 4" SCH-40 (PVC) @ 2.0%
- 27 PROPOSED 2" RECESSED MAIN SHUT-OFF VALVE (FOR DOMESTIC WATER)
- 28 PROPOSED 12"x6" TS&V W/ BOX (FOR FIRE HYDRANT)
- 29 PROPOSED 142 LF 6" C-900 FIRE LINE
- 30 PROPOSED 6" GATE VALVE
- 31 PROPOSED FIRE HYDRANT



NOTE
METER AND TAP TO BE INSTALLED BY FBCMUD 134D OPERATOR

APPROVED: *Maxida*
Development Coordinator

DATE: 1/3/18

LEGEND

	EXISTING WATER LINE		PROPOSED WATER LINE
	EXISTING FIRE HYDRANT		EXISTING SANITARY SEWER AND MANHOLE
	EXISTING WATER VALVE		PROPOSED SANITARY SEWER
	PROPOSED FIRE HYDRANT		PROPOSED SANITARY MANHOLE
	PROPOSED WATER VALVE		PROPOSED SANITARY CLEANOUT (MAX. 75' SPACING)

GENERAL NOTES

- CONTRACTOR TO FIELD VERIFY EXISTING SANITARY SEWER FOR DEPTH, LOCATION AND SIZE PRIOR TO CONSTRUCTION. CONTACT ENGINEER WITHIN 48 HOURS IN CASE OF DISCREPANCY.
- REFER TO CONSTRUCTION DETAILS SHEET FOR DETAILS.

SANITARY SEWER NOTES

- SANITARY SEWER PIPE TO BE SCH. 40 (PVC) FOR 6" OR LESS AND SDR-26 (PVC) FOR 8" MEETING ASTM SPECIFICATIONS D1785 & D2665 UNLESS OTHERWISE NOTED.
- ALL SEWERS SHALL HAVE CLASS A BEDDING IN ACCORDANCE FORT BEND COUNTY ENGINEERING.
- ALL SANITARY SEWERS CROSSING ABOVE OR BELOW WATERLINES WITH 6 INCHES TO 9 FEET CLEARANCE SHALL HAVE A 20" JOINT OF 150 PSI AWWA C-900 SDR-18 P.V.C. SANITARY SEWER PIPE CENTERED ON WATERLINE, EXCEPT WHERE DUCTILE IRON PIPE IS USED.
- SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3"-6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM MANHOLE RIM.
- PRIVATE SANITARY SEWERS ARE TO BE PRIVATELY OWNED, OPERATED AND MAINTAINED BY SERVICED PROPERTY OWNER.

WATER NOTES

- WATER MAINS/METER CONSTRUCTION SHALL BE IN ACCORDANCE WITH FORT BEND COUNTY ENGINEERING FOR WATER MAIN CONSTRUCTION AND MATERIALS AND SPECIFICATION FOR WATER TAPS AND SERVICE LINES 3/4" THROUGH 2", AND FOR LARGE METERS AND SPRINKLER CONNECTIONS WITH LATEST ADDENDA AND AMENDMENTS THERETO.
- 1 1/2" THRU 3" WATER MAIN SHALL BE SCH. 40 PVC PIPE.
- ALL WATER MAINS SHALL HAVE 6" OF BANK SAND ENVELOPE AND SHALL BE BACKFILLED TO A MINIMUM COMPACTED DEPTH OF 6" OVER THE TOP OF THE PIPE TO PROVIDE A COMPACTED ENCASMENT.
- CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF 9' (NINE FEET) BETWEEN OUTSIDE OF WATERLINES AND OUTSIDE EDGE OF SANITARY SEWER MANHOLES OR LINES.
- CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE SPECIFIED IN SPECIFICATION FOR WATER MAIN CONSTRUCTION AND MATERIALS WITH LATEST ADDENDA AND AMENDMENTS THERETO.
- ALL WATERLINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651
- BACKFLOW PREVENTION DEVICE MUST BE INSTALLED ON IRRIGATION WATER METER. CONTRACTOR SHALL INSTALL DEVICE APPROVED FOR USE BY FORT BEND COUNTY ENGINEERING

440 COBBL DR,
Suite 1903
Katy, TX 77494
PH: 832 913 1888
www.reasgroup.com
TYPE PERM # 15775

REVISIONS

S.NO	DATE	REVISIONS

STATE OF TEXAS
MADHAVI TALLURI
113329
PROFESSIONAL ENGINEER
12/26/2017

SEAL

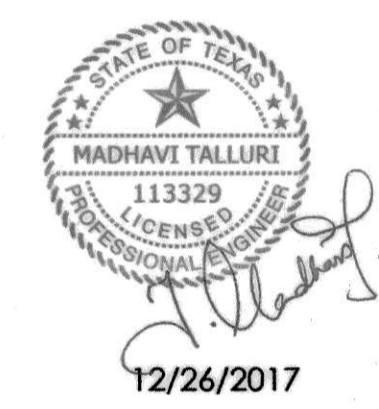
SITE UTILITY PLAN
HARVEST GREEN MONTESSORI
@
4100 HARVEST CORNER DR.
RICHMOND, TEXAS - 77406

DRAFTED BY: R.R
PROJECT NO #: 17-002
FILE LOCATION: W:\NGI\2017\17002\CIVIL\C-5

SCALE: 1"=20'
SHEET: C005
DATE: 12/26/2017
PAGE # 6 OF 16



REVISIONS	DATE	S.NO

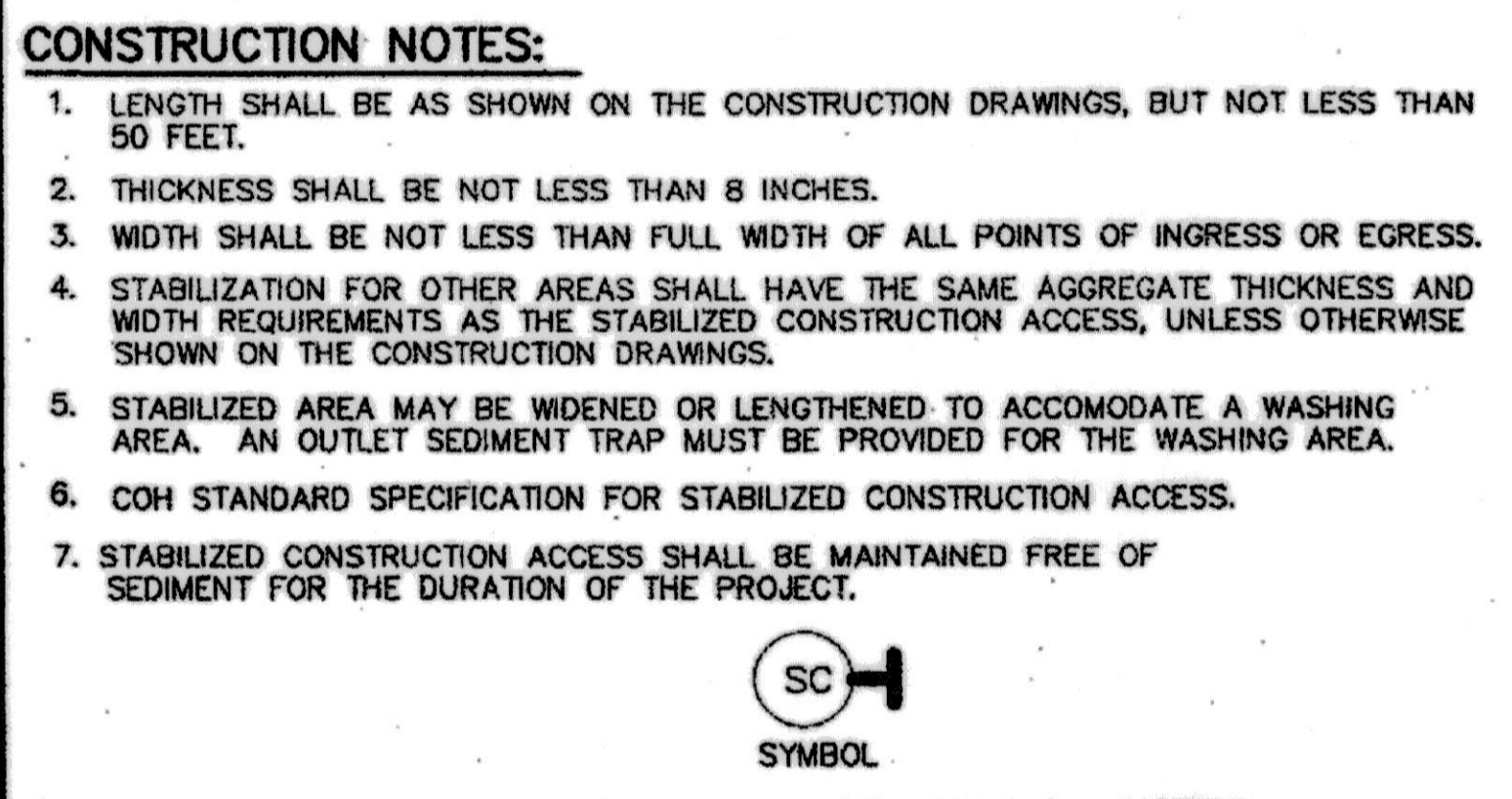
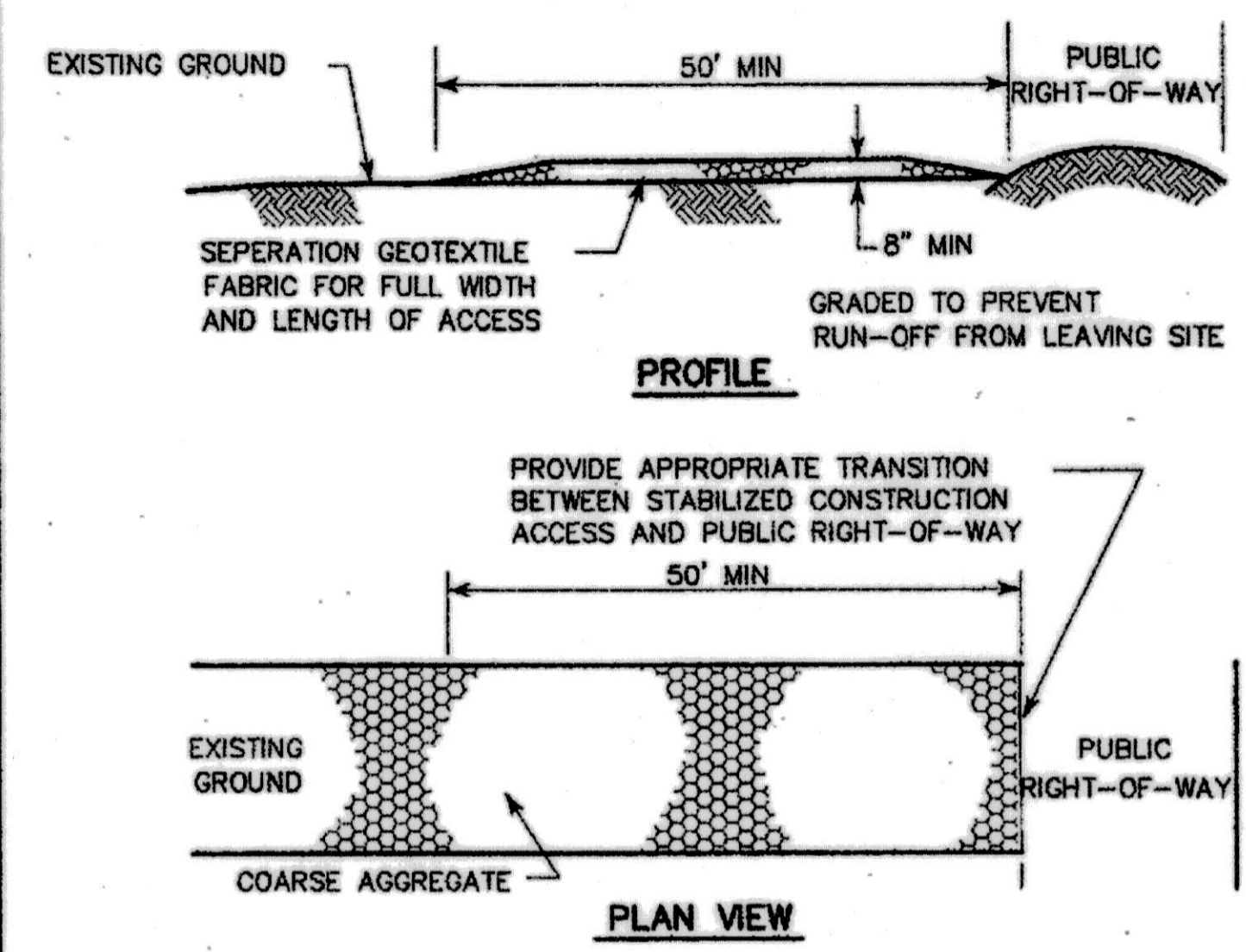
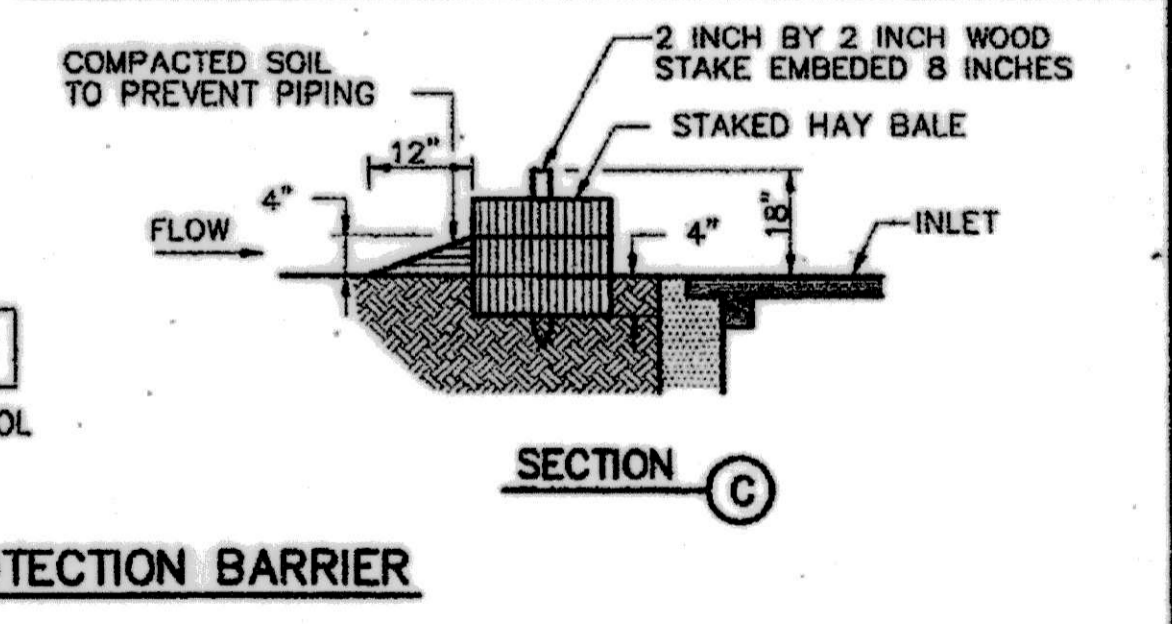
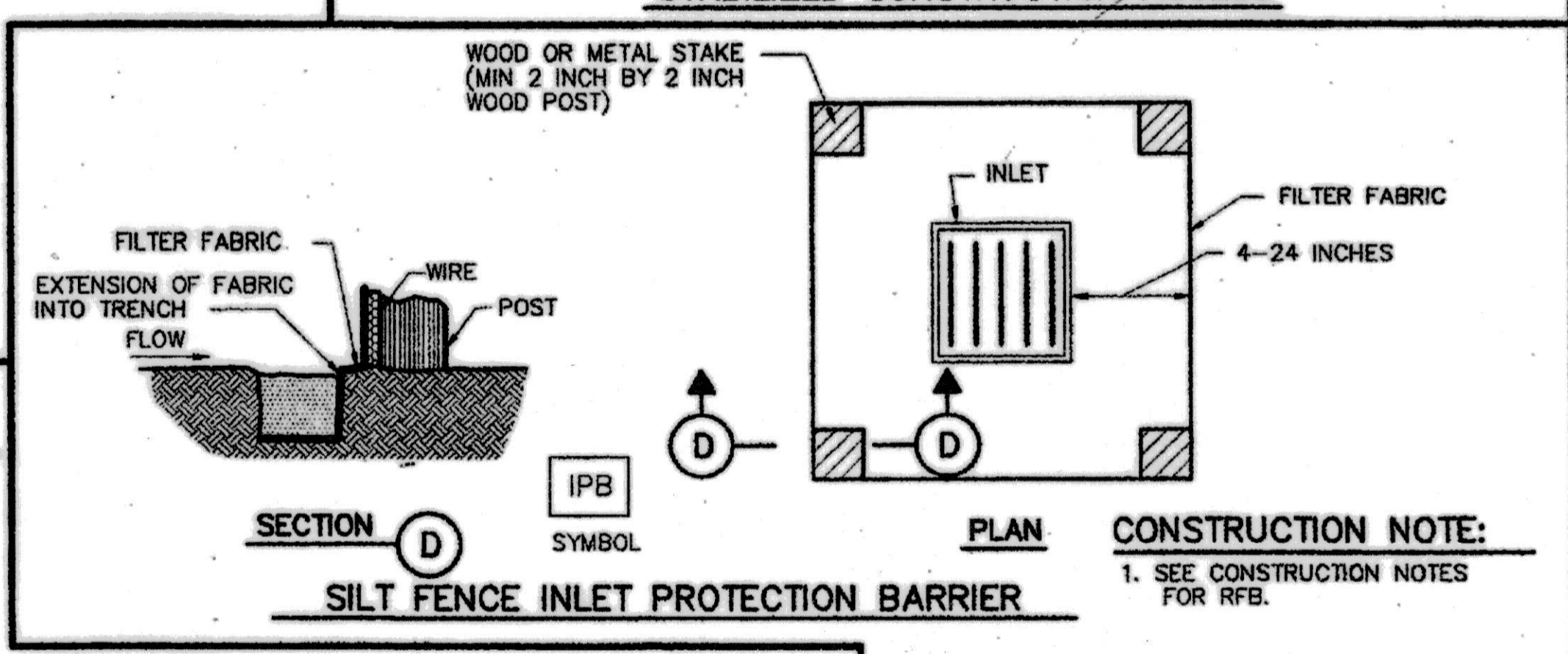
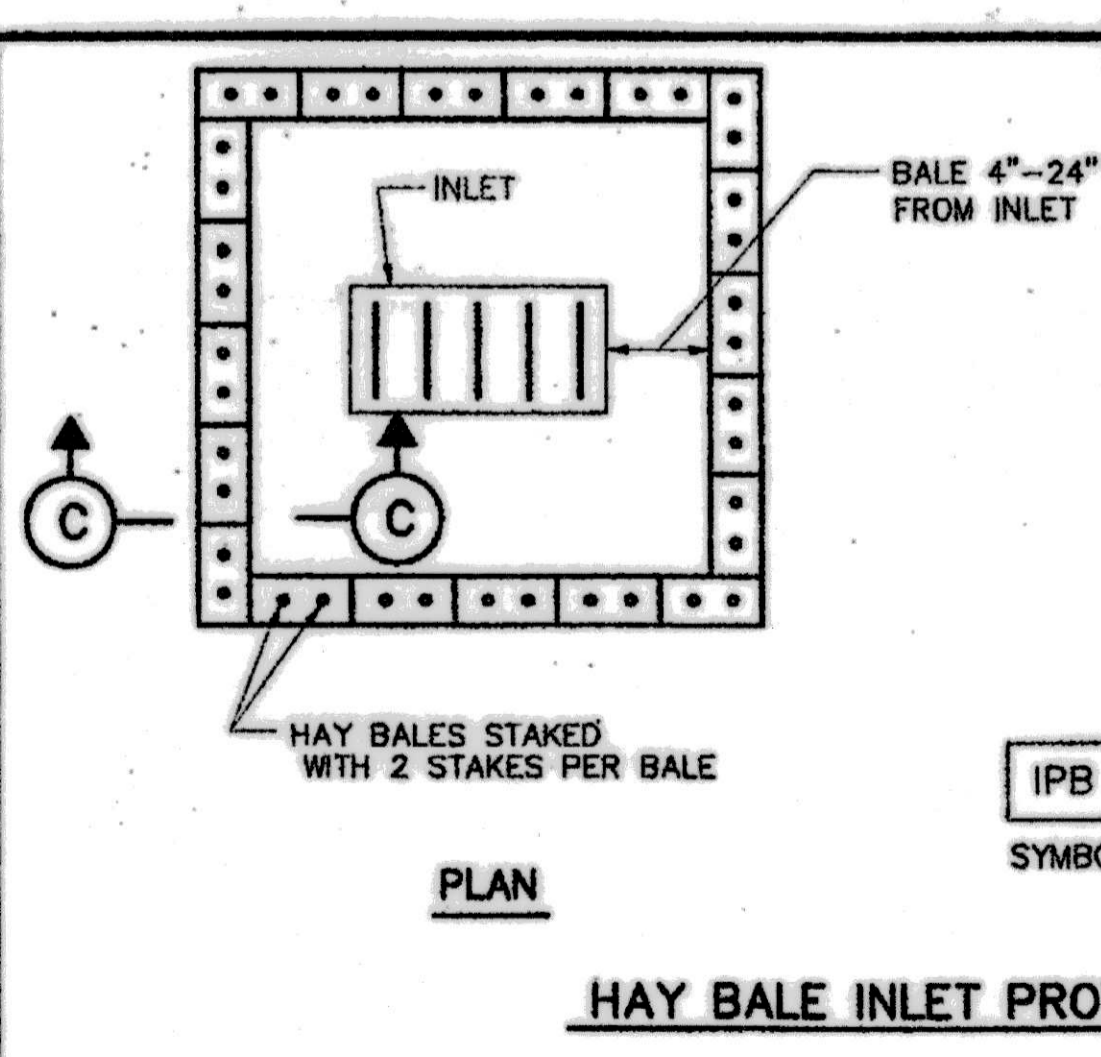
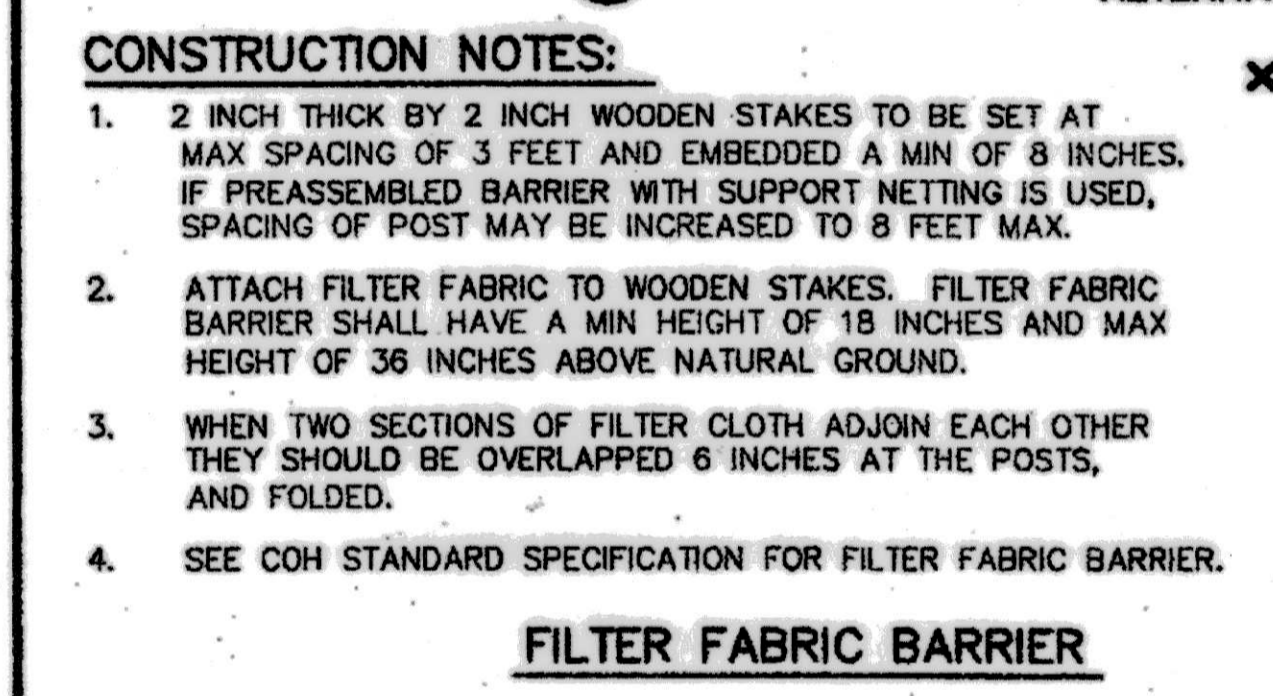
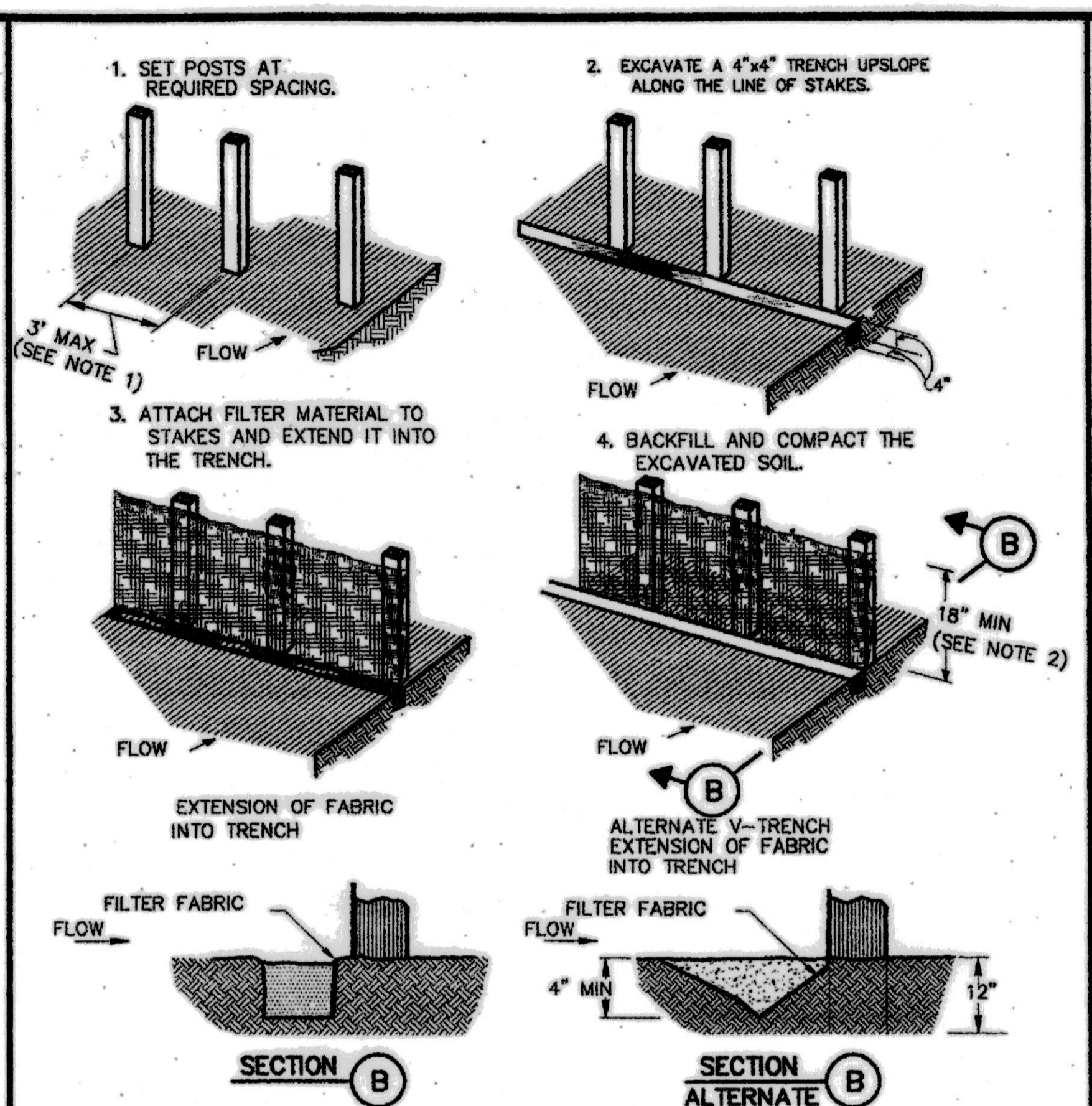
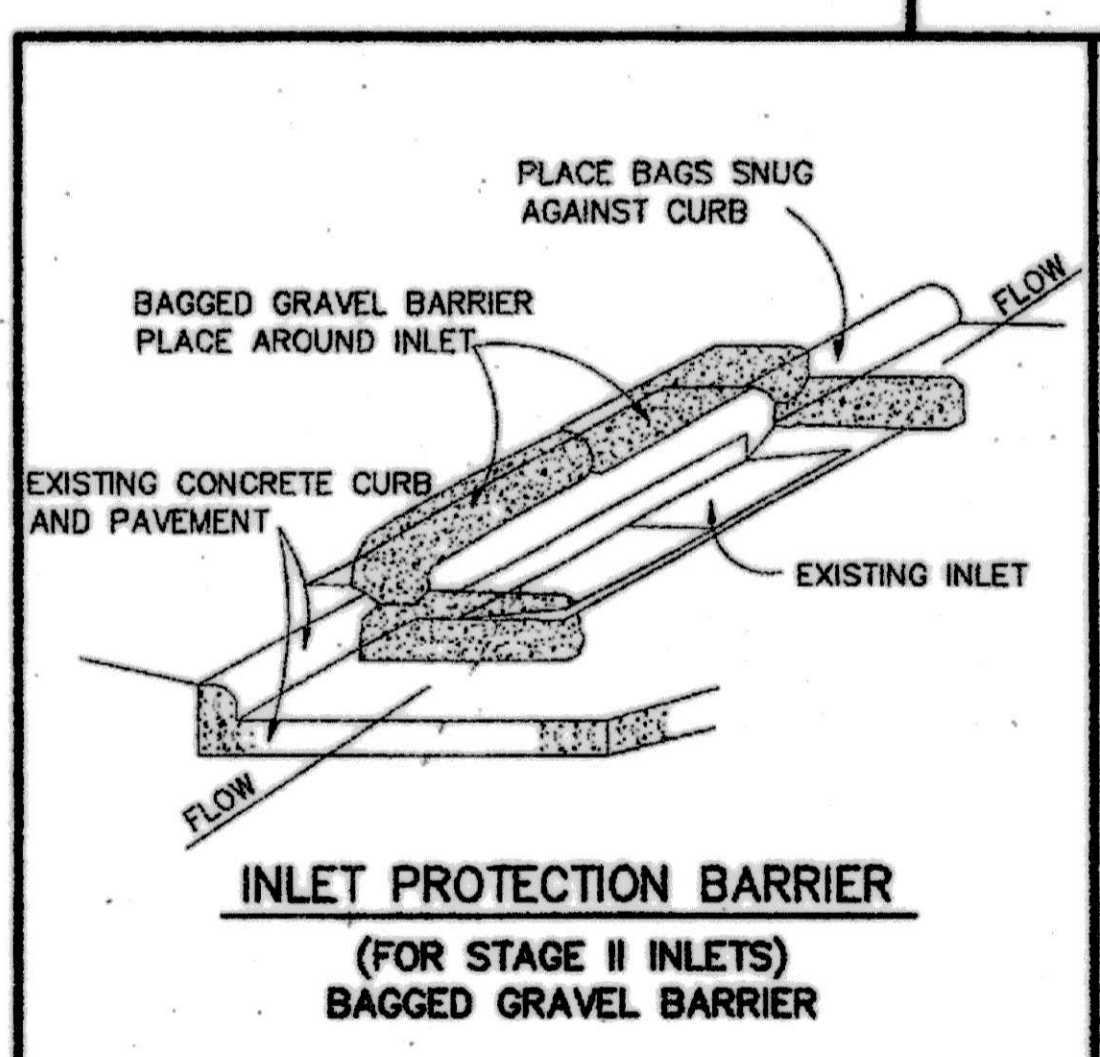
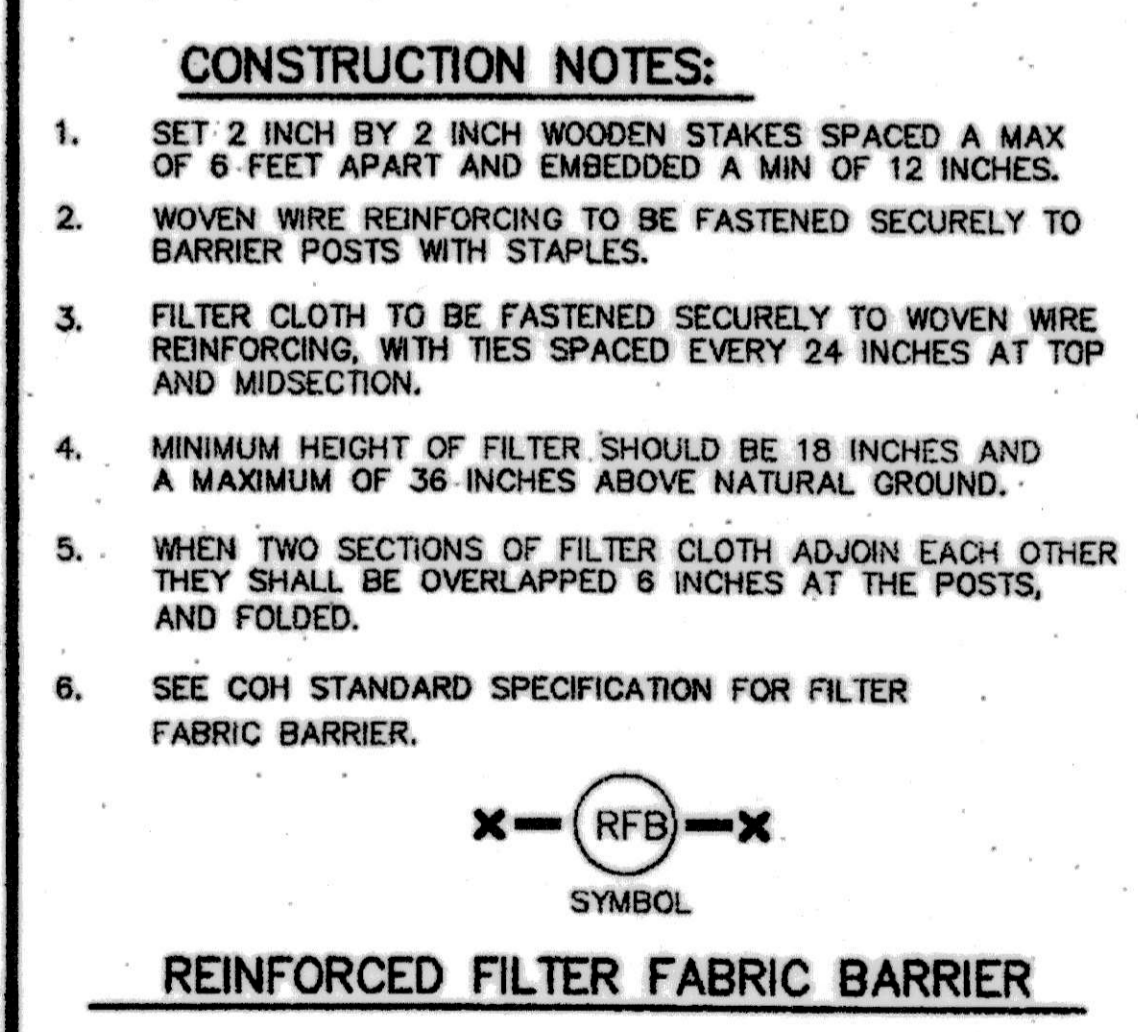
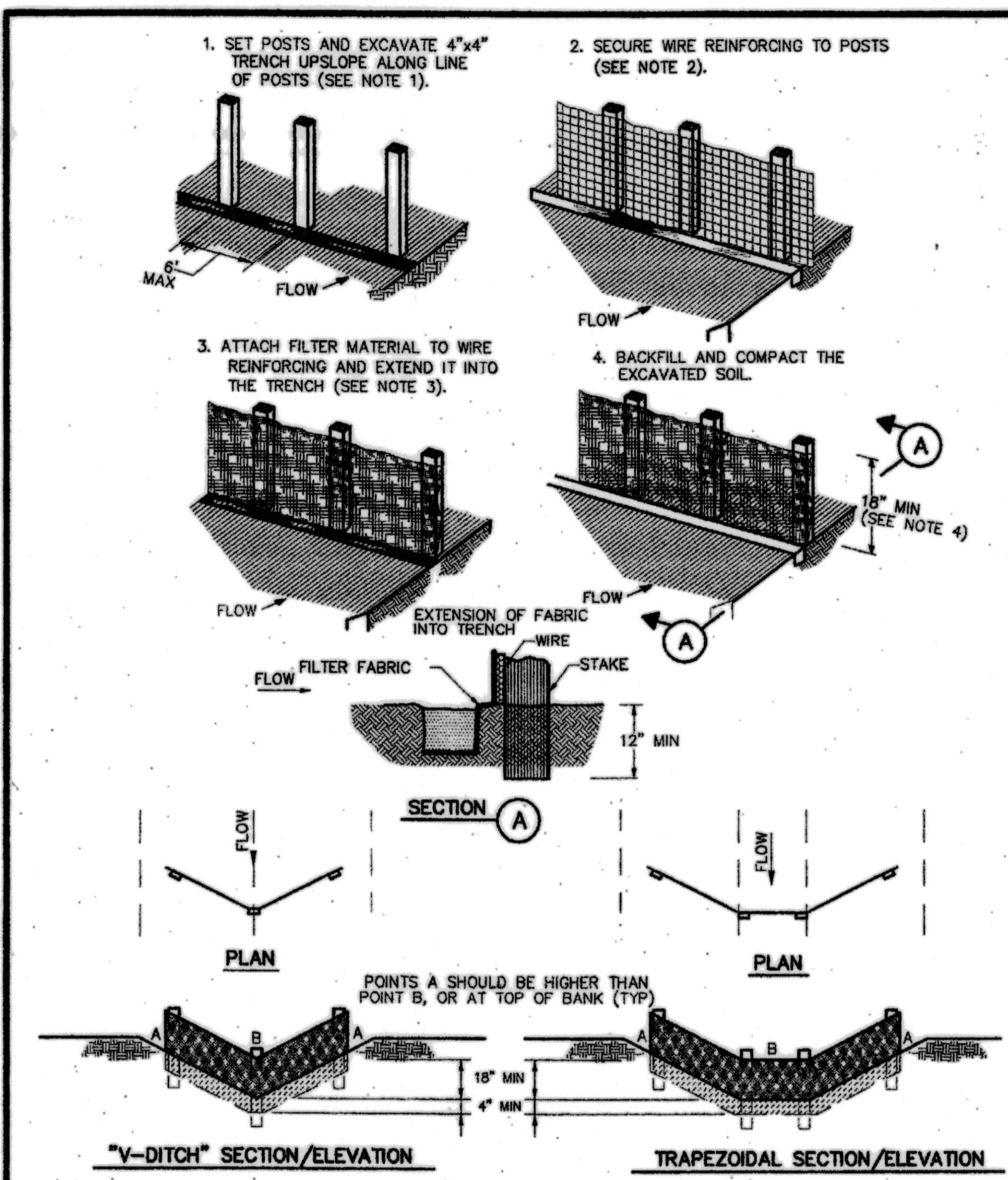


SEAL

POLLUTION PREVENTION DETAILS
HARVEST GREEN MONTESSORI
@
4100 HARVEST CORNER DR.
RICHMOND, TEXAS - 77406

DRAFTED BY:	R.R
PROJECT NO #:	17-002
FILE LOCATION:	W:\NGI\2017\17002\CIVIL\C7

SCALE:	-
SHEET:	C007
DATE:	12/26/2017
PAGE #	8 OF 16



CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STORM WATER POLLUTION PREVENTION PLAN DETAILS
(NOT TO SCALE)

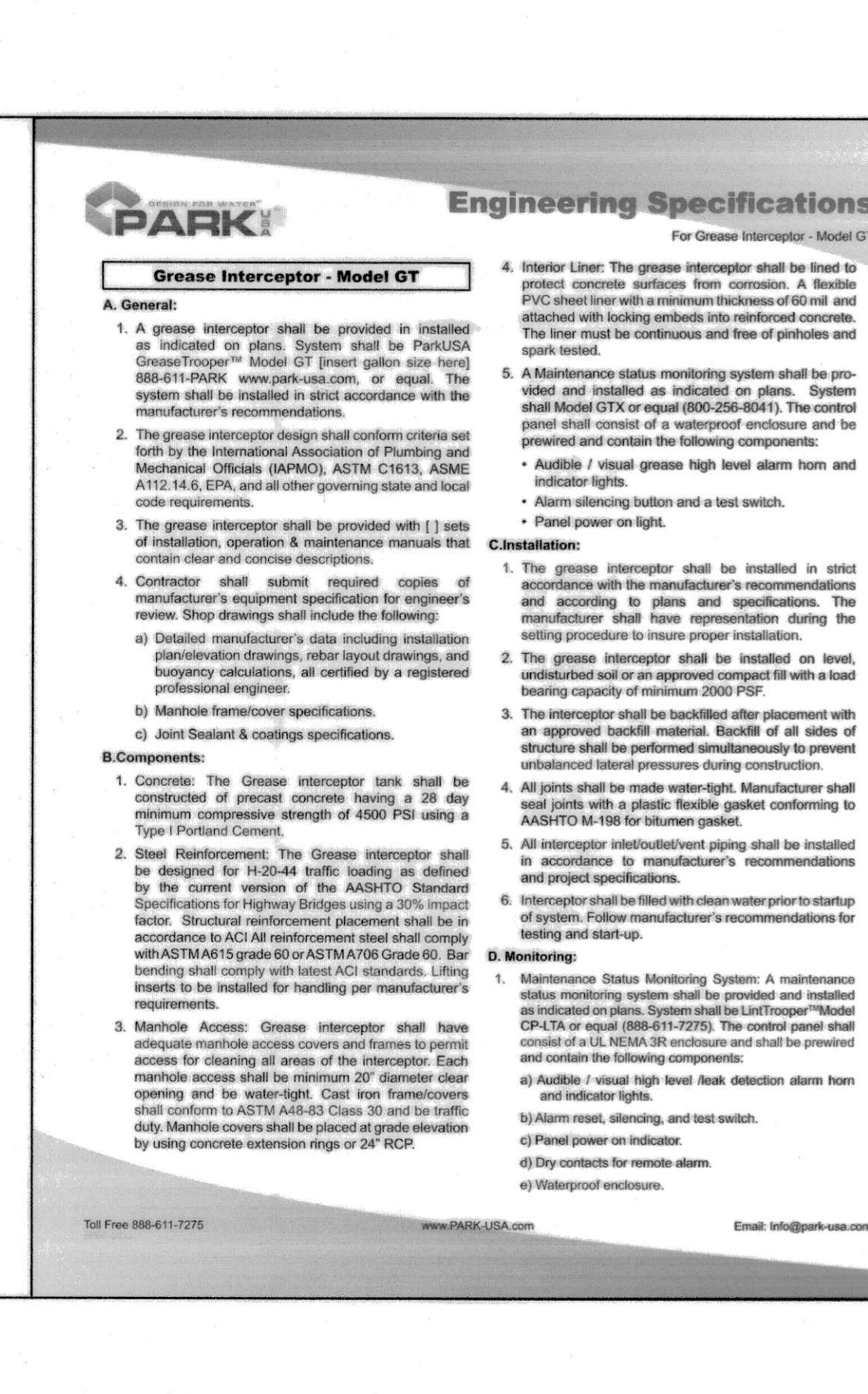
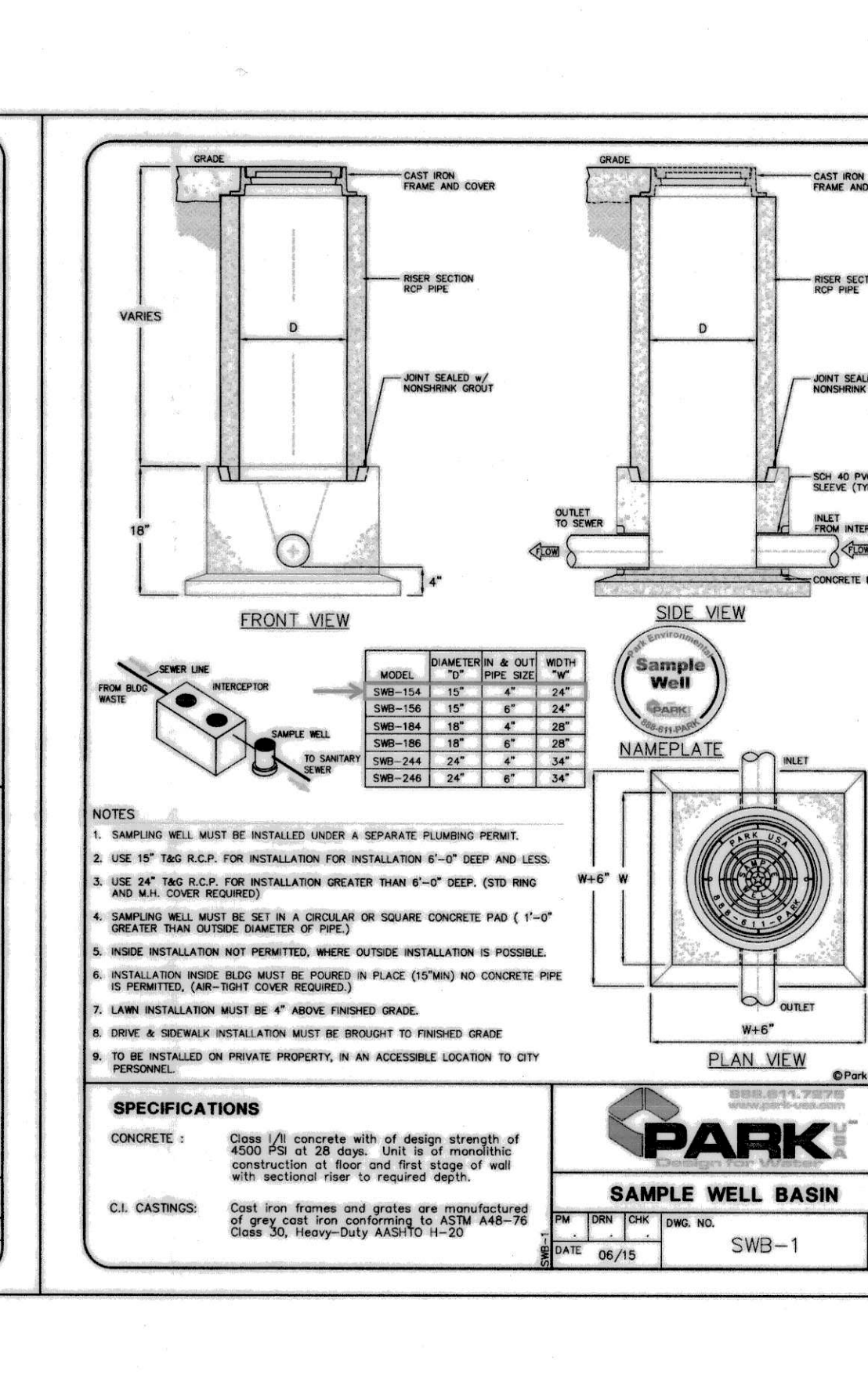
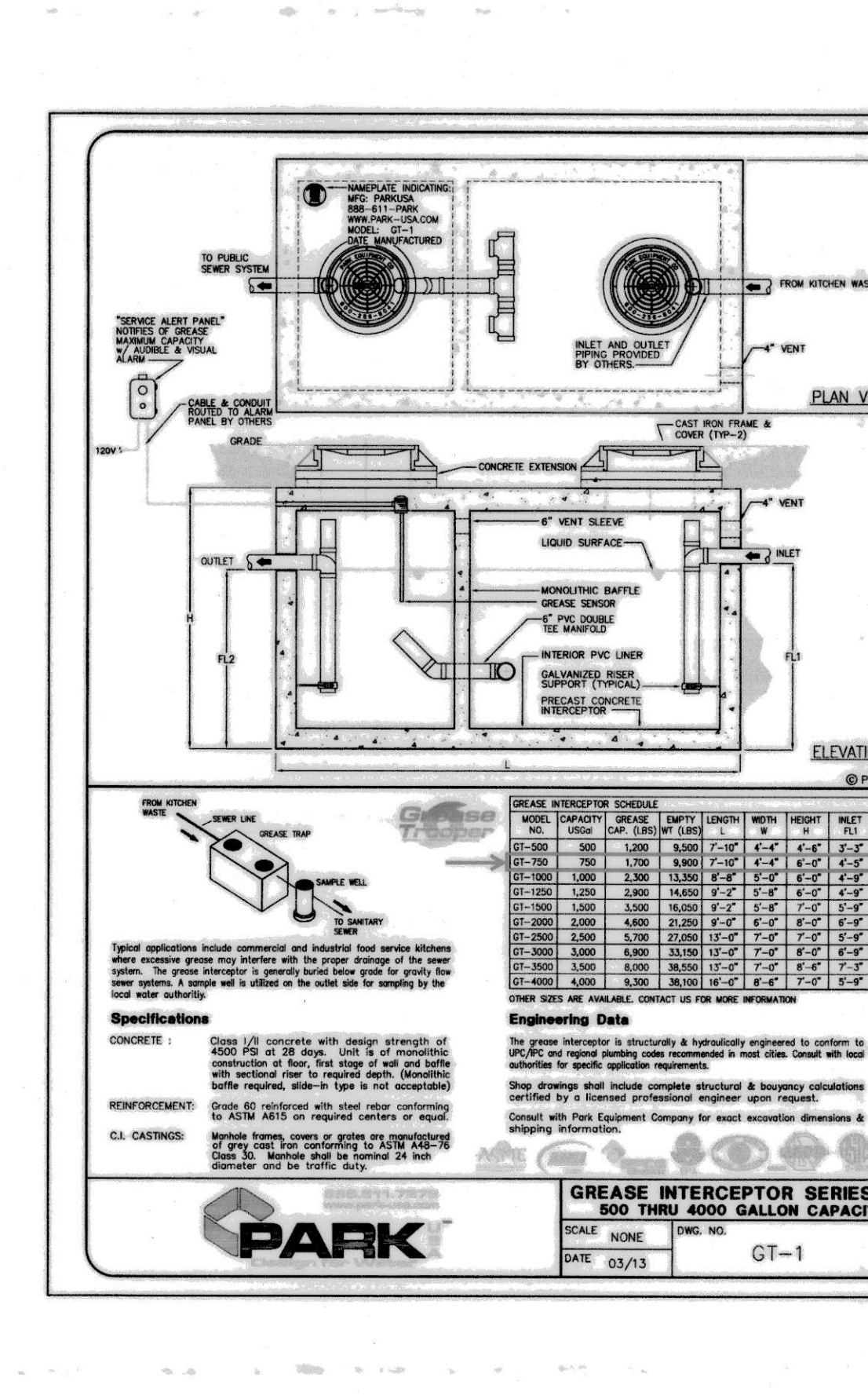
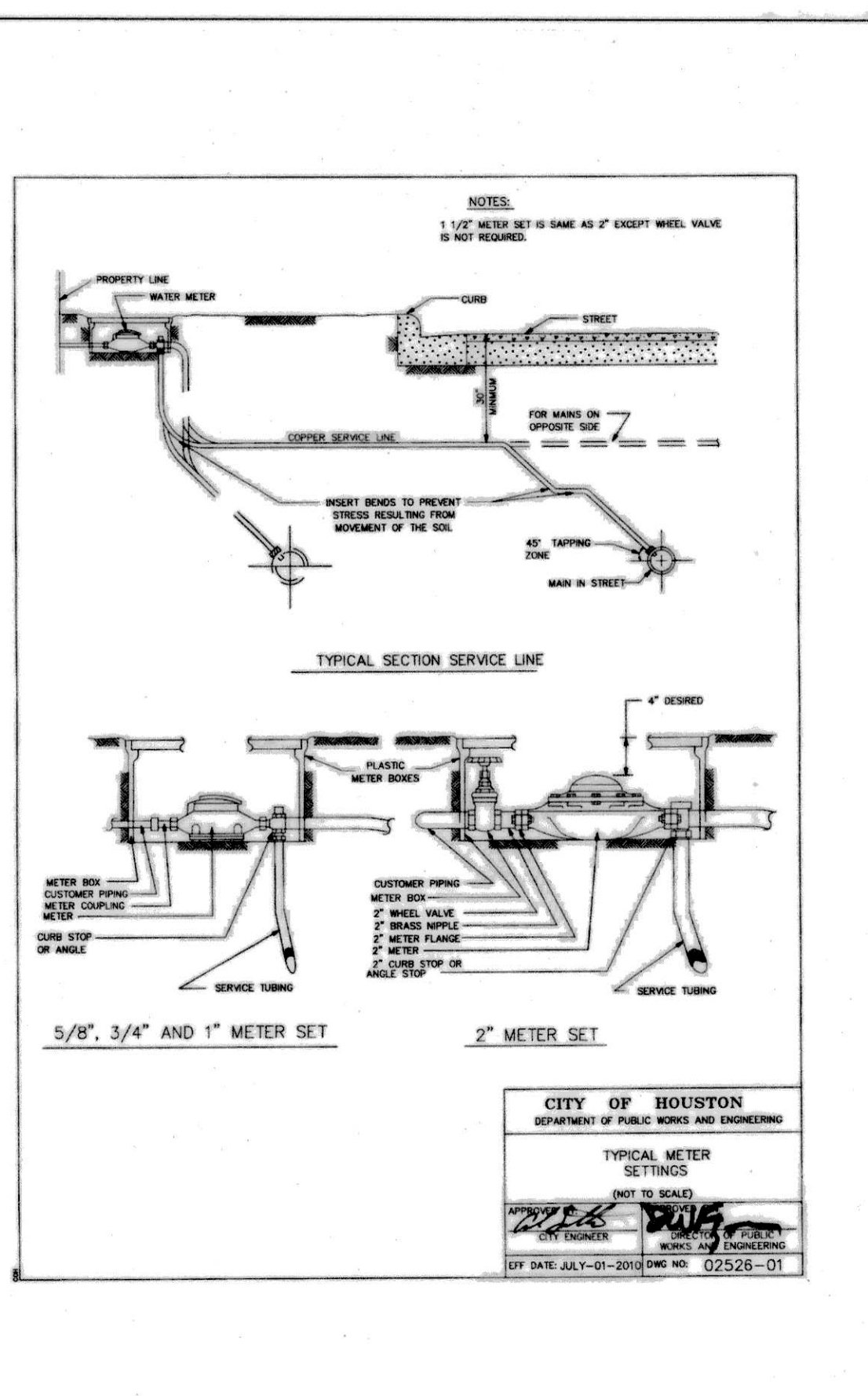
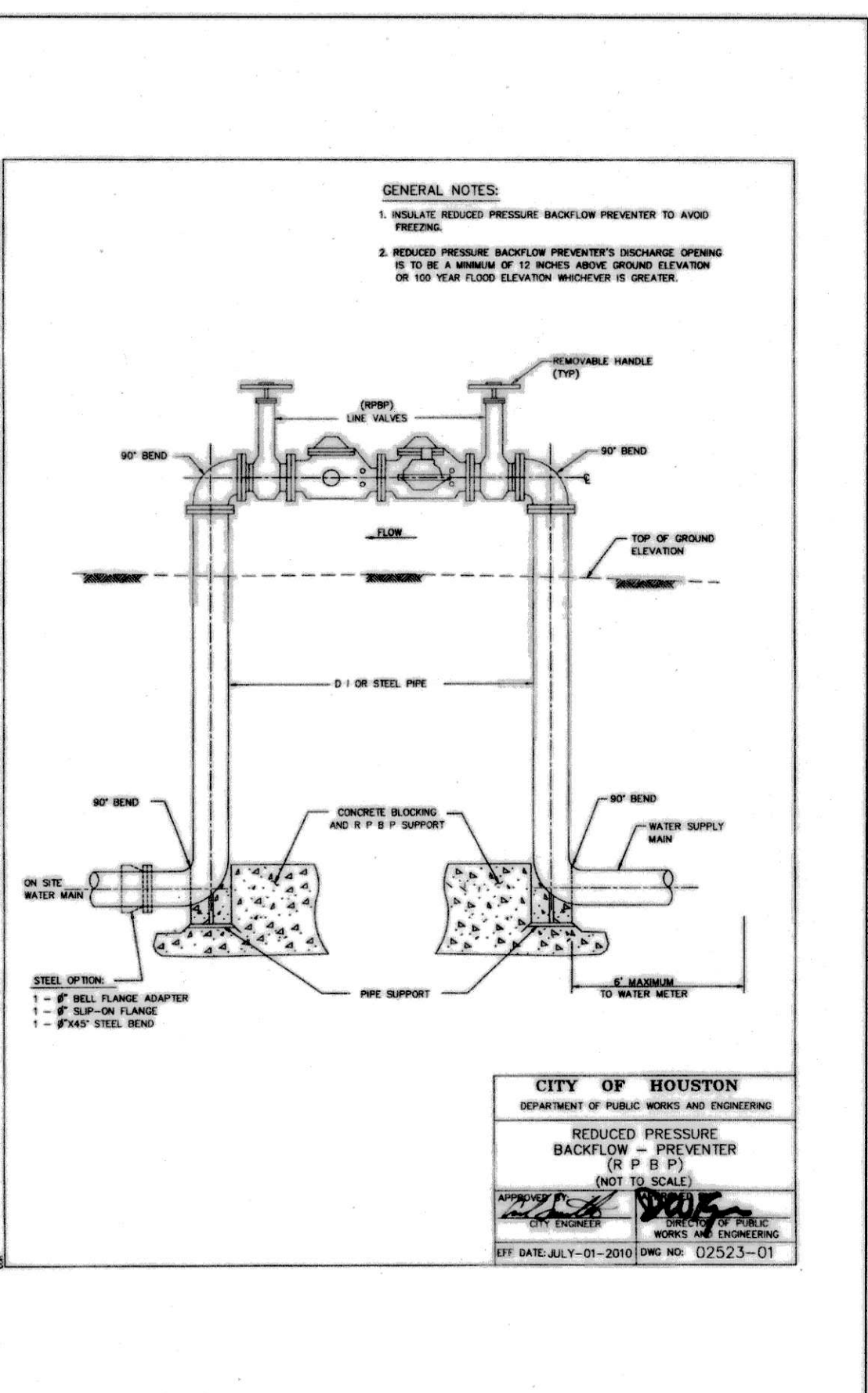
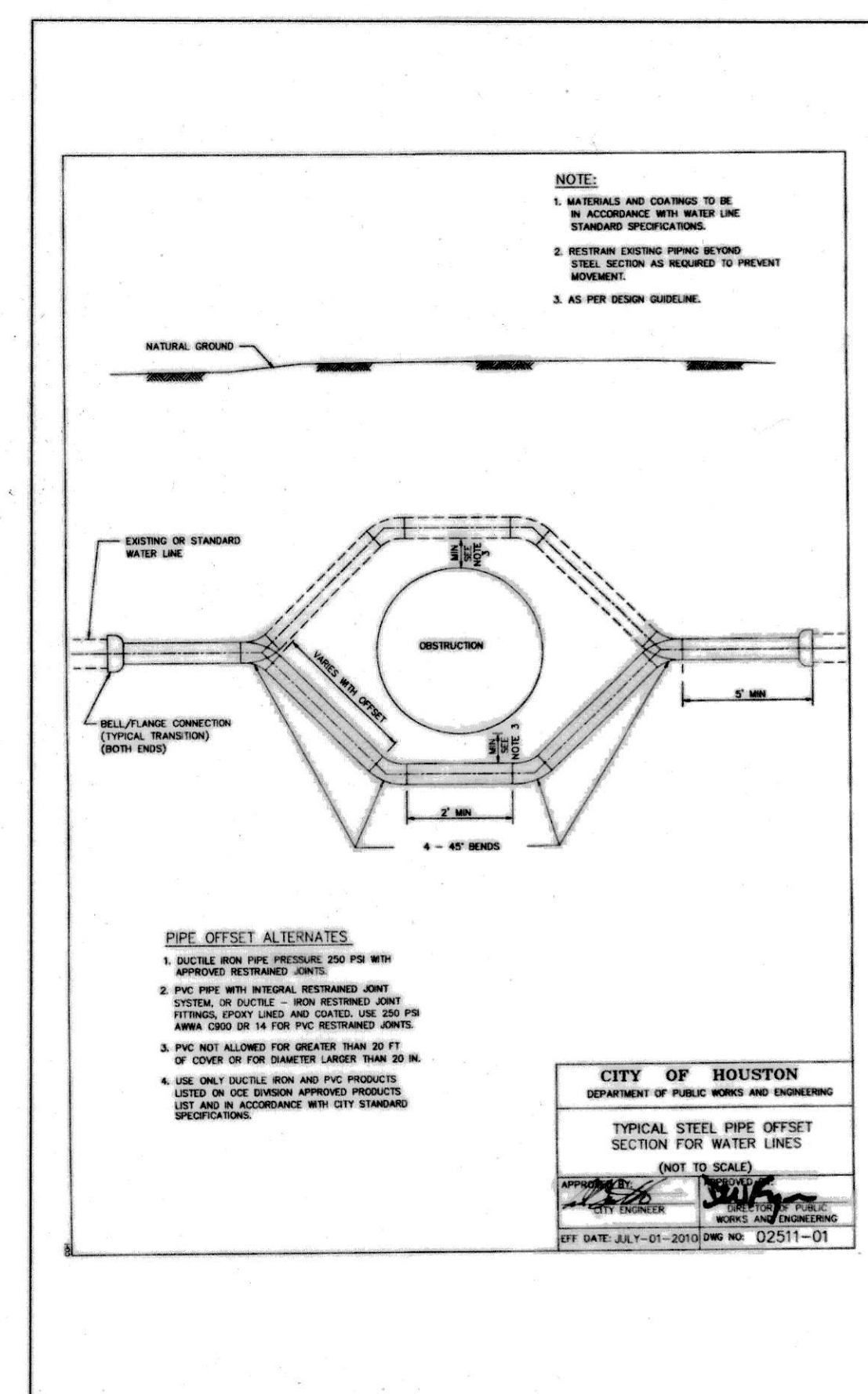
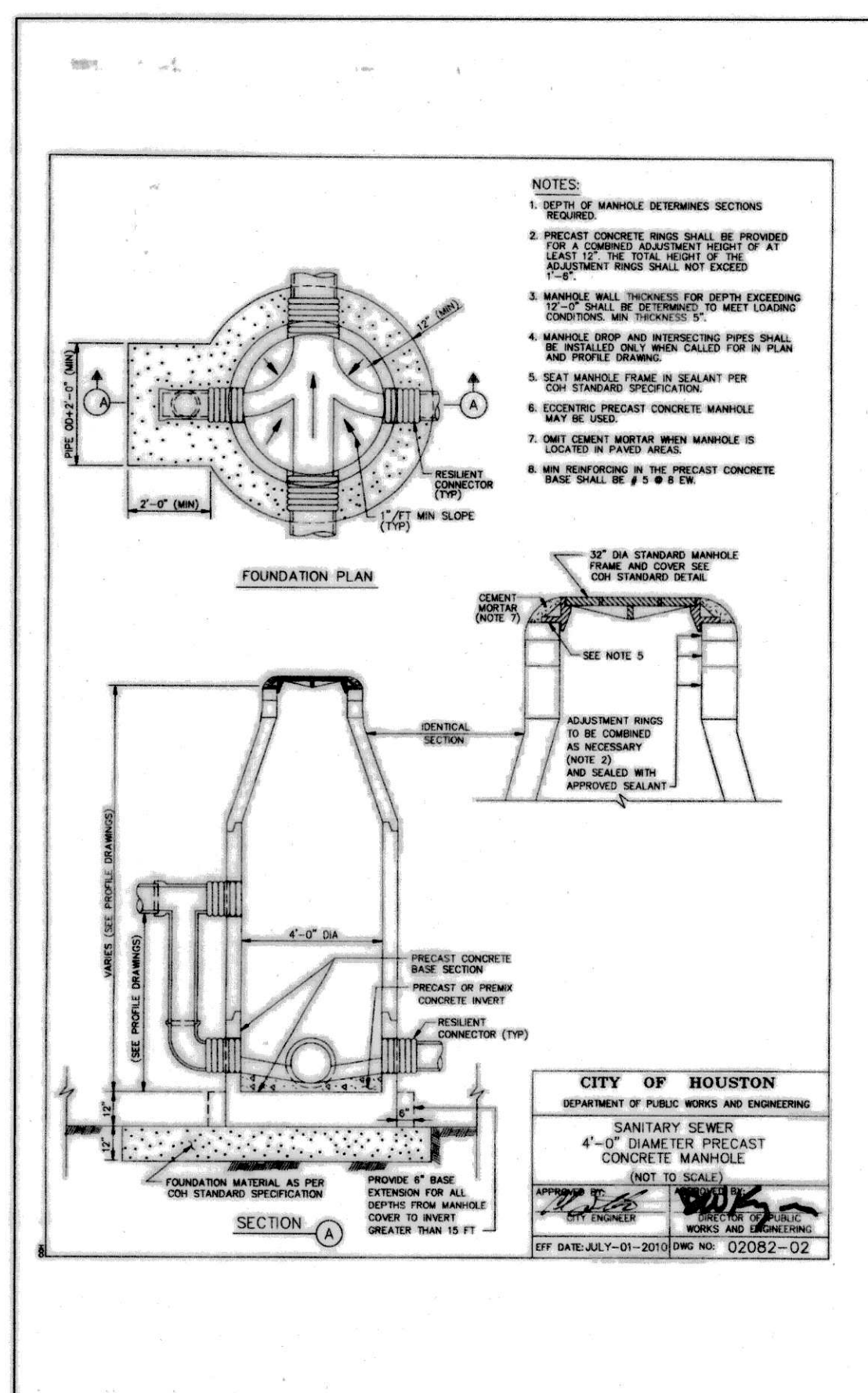
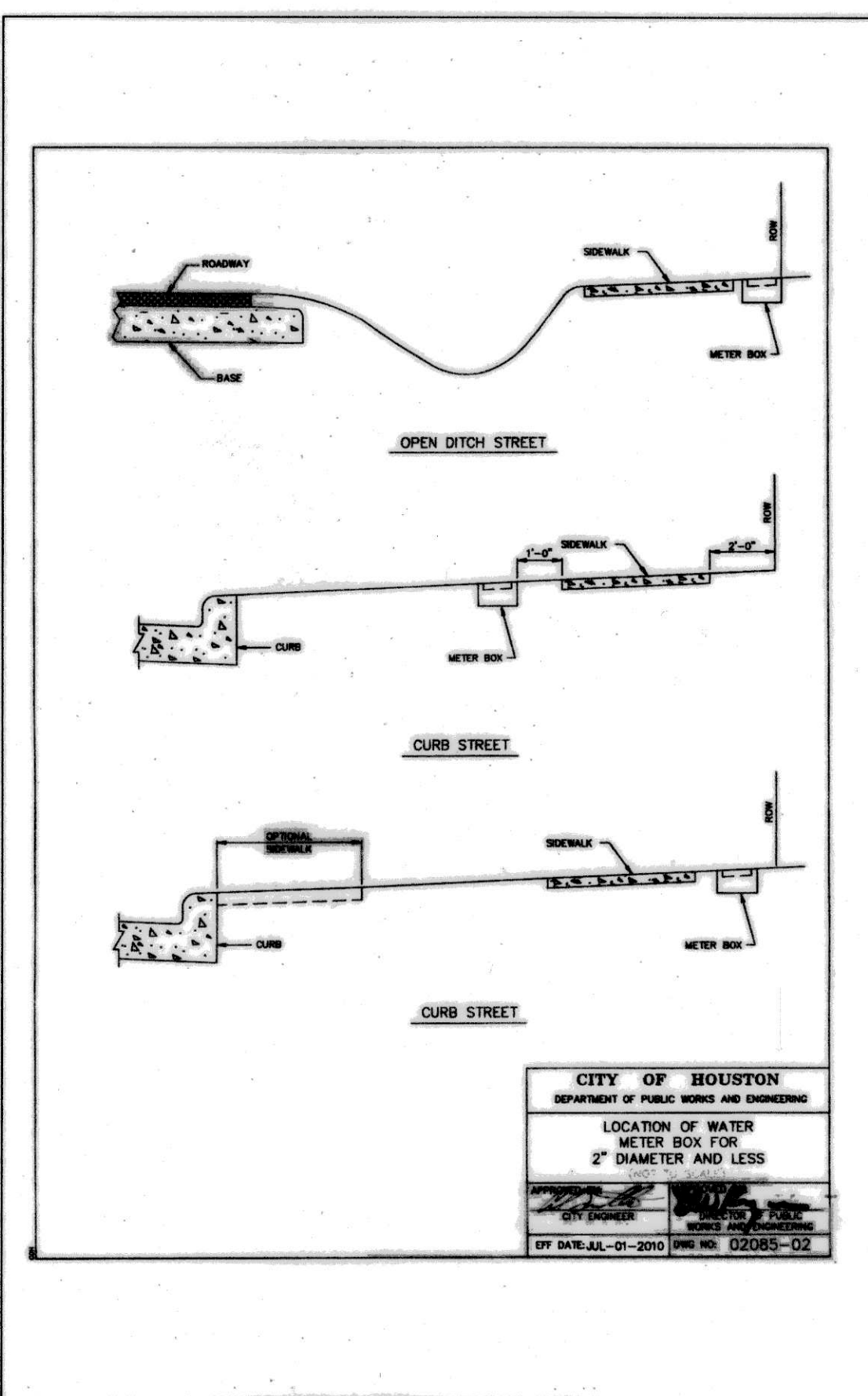
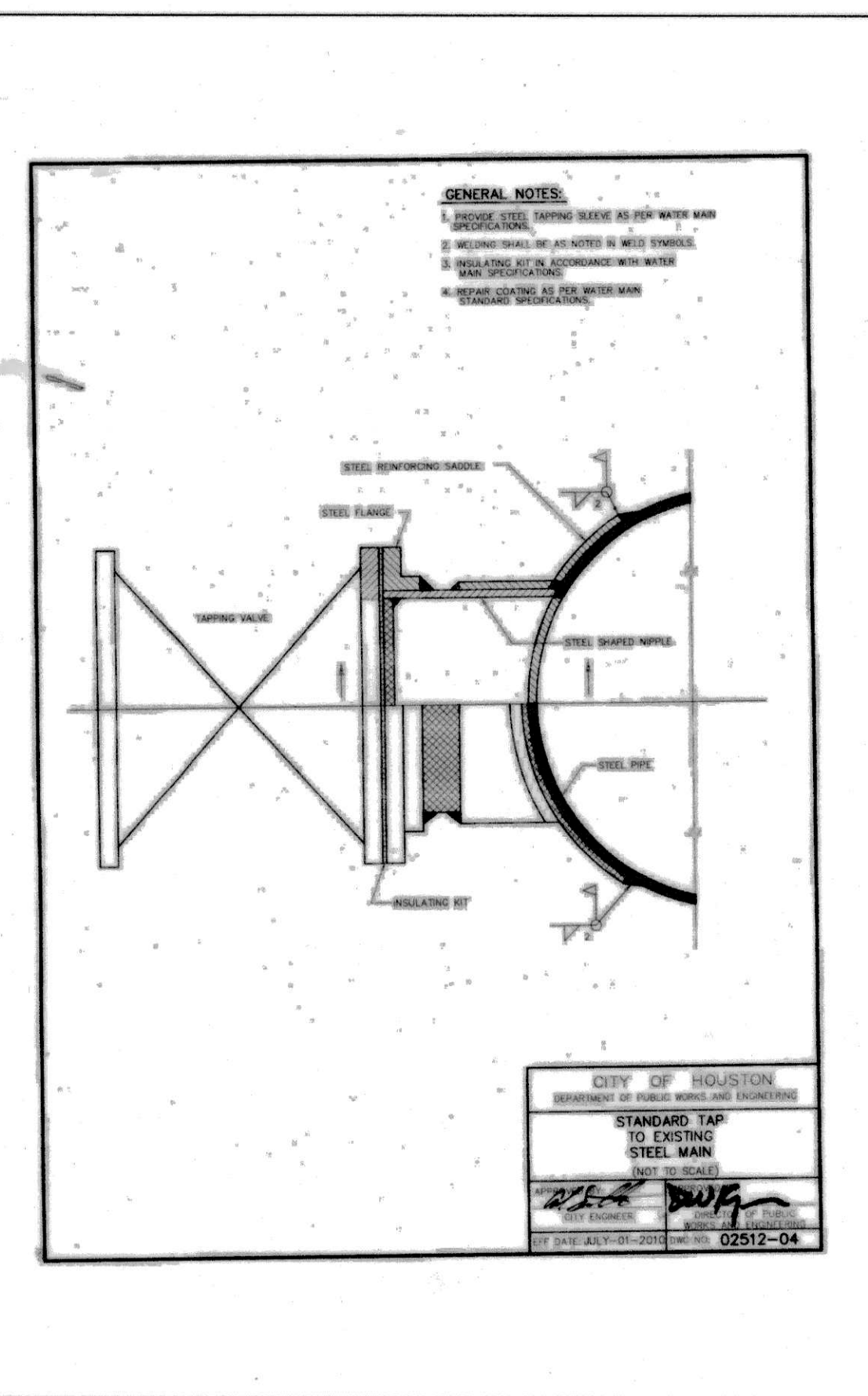
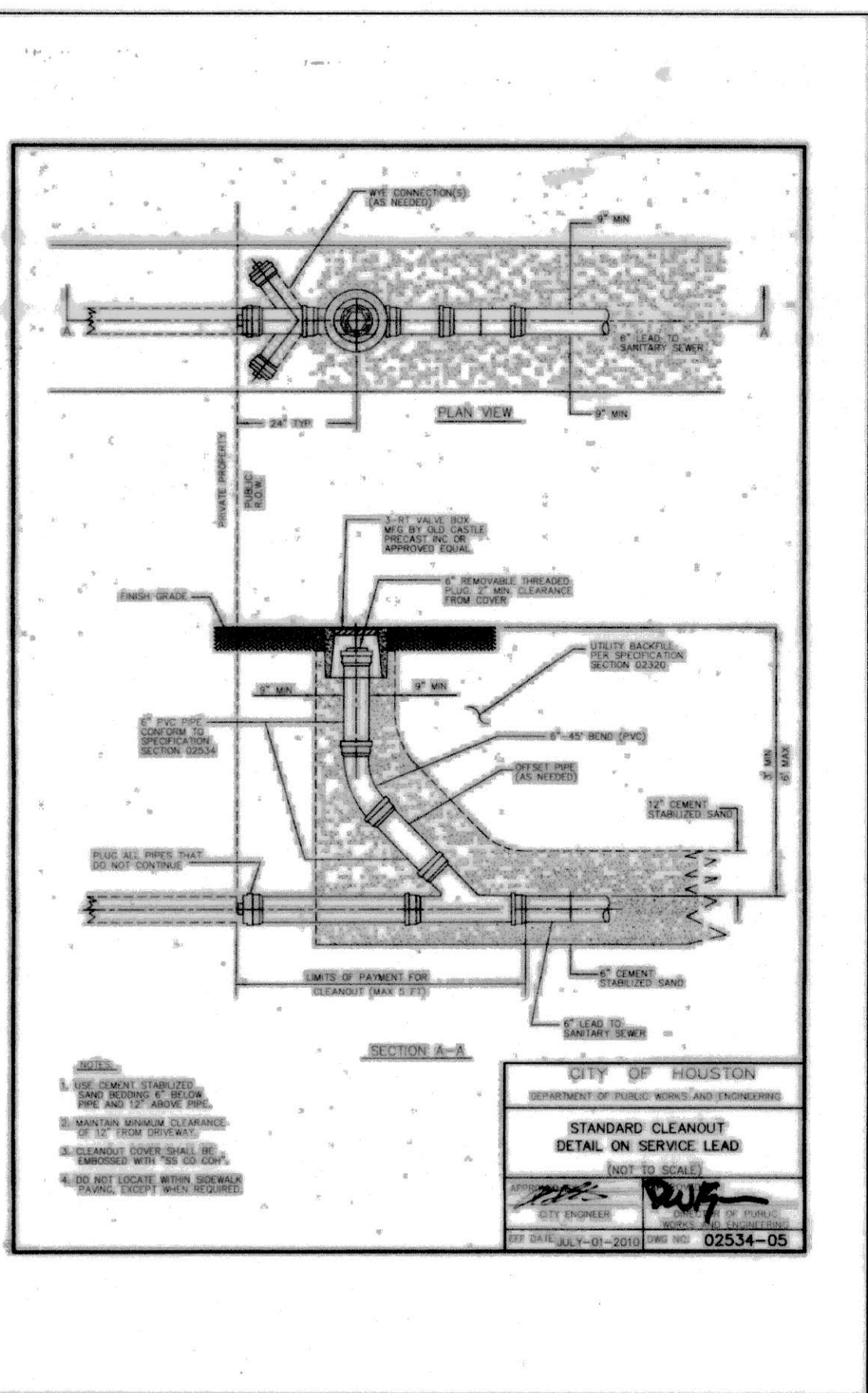
APPROVED: *[Signature]*
CITY ENGINEER

APPROVED: *[Signature]*
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: JULY-01-2010 DWG NO: 01571-01

APPROVED: *[Signature]*
Development Coordinator

DATE: 1/2/18



440 COBIA DR.
 Suite 1503
 Katy, TX 77494
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 www.texasgrease.com
 TPEE FRM # 1575

REVISIONS

S.NO	DATE	REVISIONS

12/26/2017

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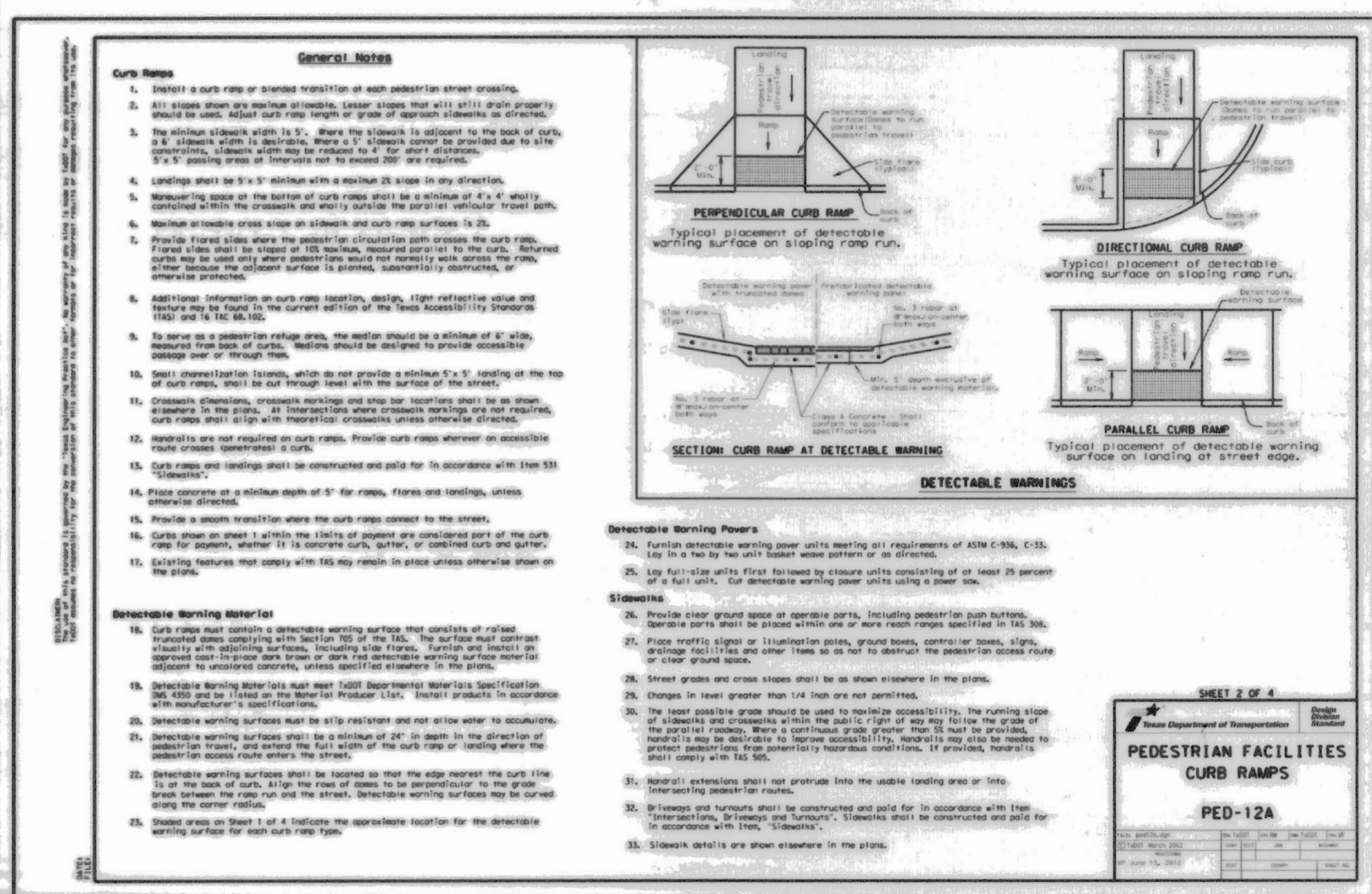
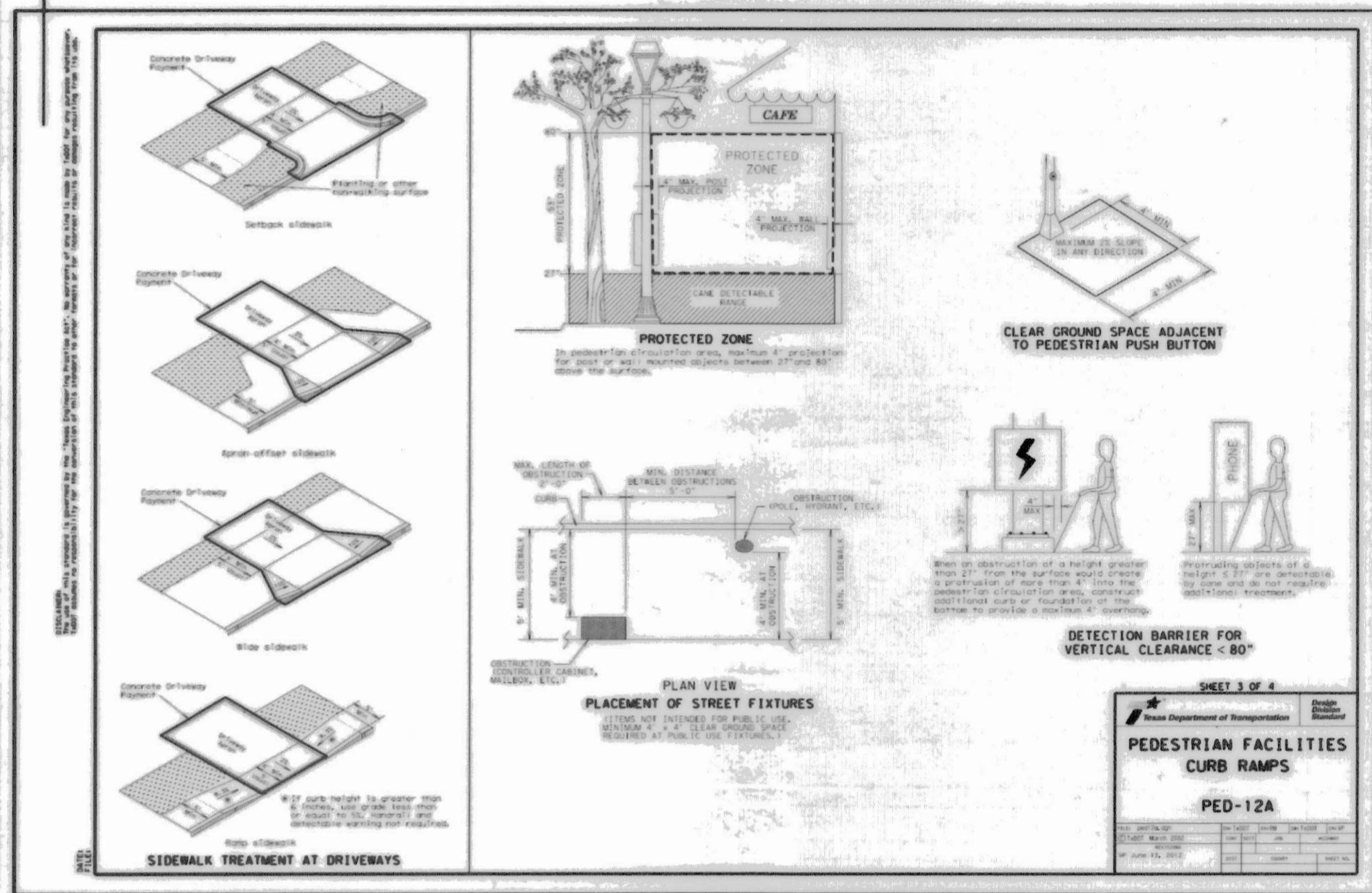
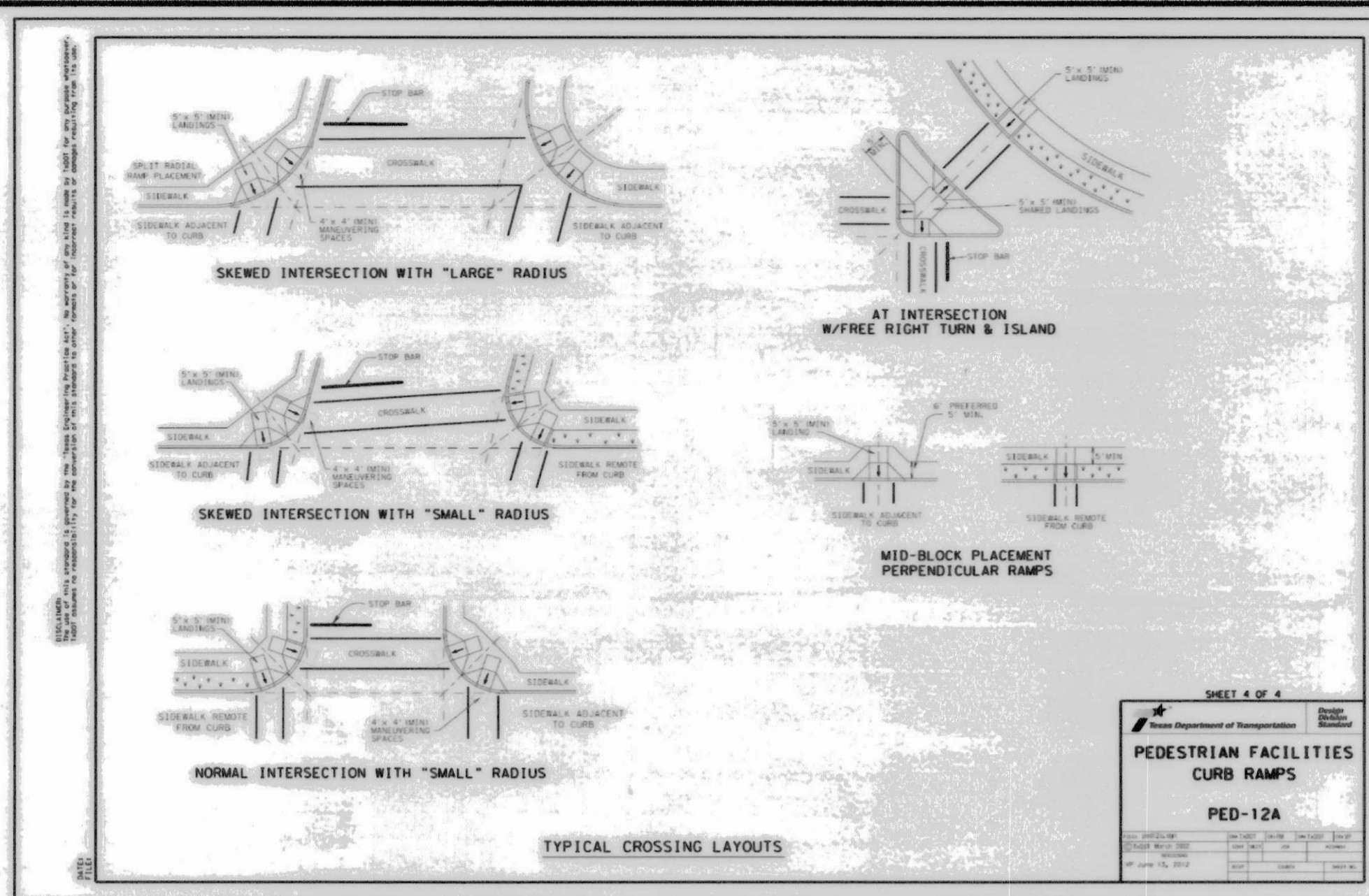
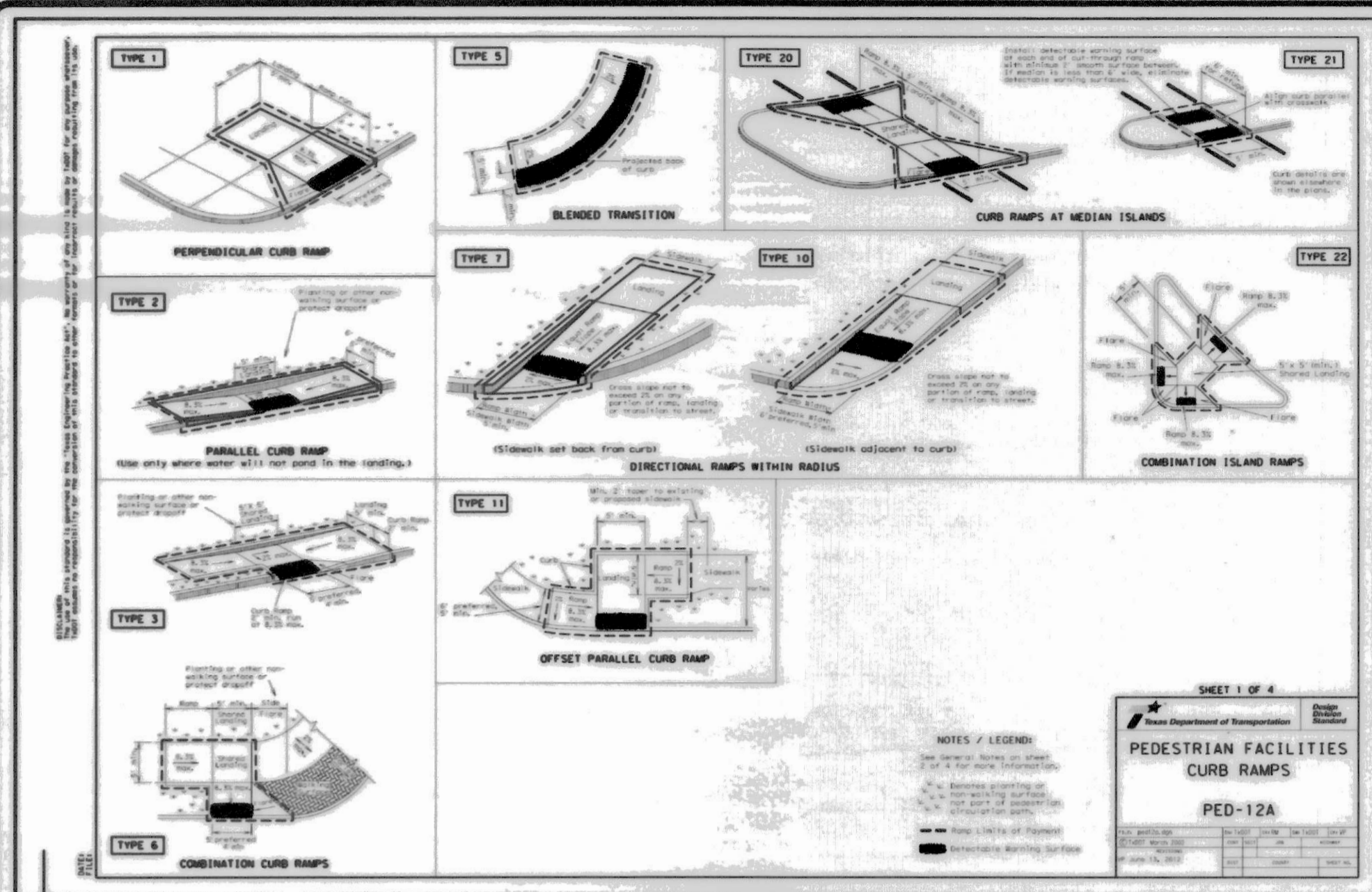
HARVEST GREEN MONTESSORI
 CONSTRUCTION DETAILS - II
 @
 HARVEST CORNER DR., RICHMOND, TX

DRAFTED BY: R.R
 PROJECT NO #: 17-002
 FILE LOCATION: W:\NG\2015\15001\CI\VL\CI-1

SCALE: AS NOTED
 SHEET: C009
 DATE: 12/26/2017
 PAGE # 10 OF 16

APPROVED: [Signature]
 Development Coordinator

DATE: 1/3/18



Fort Bend County Engineering
FORT BEND COUNTY, TEXAS

Richard W. Skolles, P.E.
County Engineer

Fort Bend County
Construction - General Notes

- Fort Bend County must be invited to the Pre-Construction Meeting.
- Contractor shall notify Fort Bend County Engineering Department 48 hours prior to commencing construction and 48 hour notice to any construction activity within the limits of the paving at Construction@fortbendcountytx.gov.
- Contractor is responsible for obtaining all permits required from Fort Bend County prior to commencing construction of any improvements within County road right of ways.
- All Paving Improvements shall be constructed in accordance with Fort Bend County Rules, Regulations and Requirements relating to the Approval and Acceptance of Improvements in Subdivisions as currently amended.
- All road widths, curb radii and curb alignment shown indicates back of curb.
- A continuous longitudinal reinforcing bar shall be used in the curbs.
- All concrete pavement shall be 5 1/2 sack cement with a minimum compressive strength of 3500 psi at 28 days. Transverse expansion joints shall be installed at each curb return and at a maximum spacing of 60 feet.
- All weather access to all existing streets and driveways shall be maintained at all times.
- 4"x 12" reinforced concrete curb shall be placed in front of single family lots only. All other areas shall be 6" reinforced concrete curb.
- At all intersection locations, Type 7 ramps shall be placed in accordance with TxDOT Ped-12a standard detail sheet. A.D.A. - Handicap Ramps shall be installed with street paving at all intersections and comply with current A.D.A. regulations.
- Curb Headers are required at curb connections to Handicap Ramps, with no construction joint within 5' of ramps.
- All intersections utilizing Traffic Control measures shall have A.D.A. wheel chair ramps installed.
- Guidelines are set forth in the Texas "Manual on Uniform Traffic Control Devices", as currently amended, shall be observed. The Contractor shall be responsible for providing adequate flagmen, signing, striping and warning devices, etc., during construction - both day and night.
- All R1-1 stop signs shall be 30"x30" with diamond grade sheeting per Texas manual on uniform traffic control devices.
- Street name signage shall be on a 9" high sign flat blade w/reflective green background. Street names shall be upper and lowercase lettering with uppercase letters of 6" minimum and lowercase letters of 4.5" minimum. The letters shall be reflective white. Street name signs shall be mounted on stop sign post.
- A Blue Double Reflectorized button shall be placed at all Fire Hydrant locations. The Button shall be placed 12 inches off of the centerline of the street on the same side as the hydrant.

NOTE: Fort Bend County notes supersede any conflicting notes.

Inspection: The Project and all parts thereof shall be subject to inspection from time to time by inspectors designated by Fort Bend County. No such inspections shall relieve the Contractor of any of its obligations hereunder. Neither failure to inspect nor failure to discover or reject any of the work as not in accordance with the drawings and specifications, requirements and specifications of Fort Bend County or any provision of this Project shall be construed to imply an acceptance of such work or to relieve the Contractor of any of its obligations hereunder.

301 Jackson St., Suite 401, Richmond, TX 77469
Phone 281-633-7500

Construction/Forms/FBC - Construction, General Notes, REVISED 2015 11-18.dwg

440 COBRA DR.
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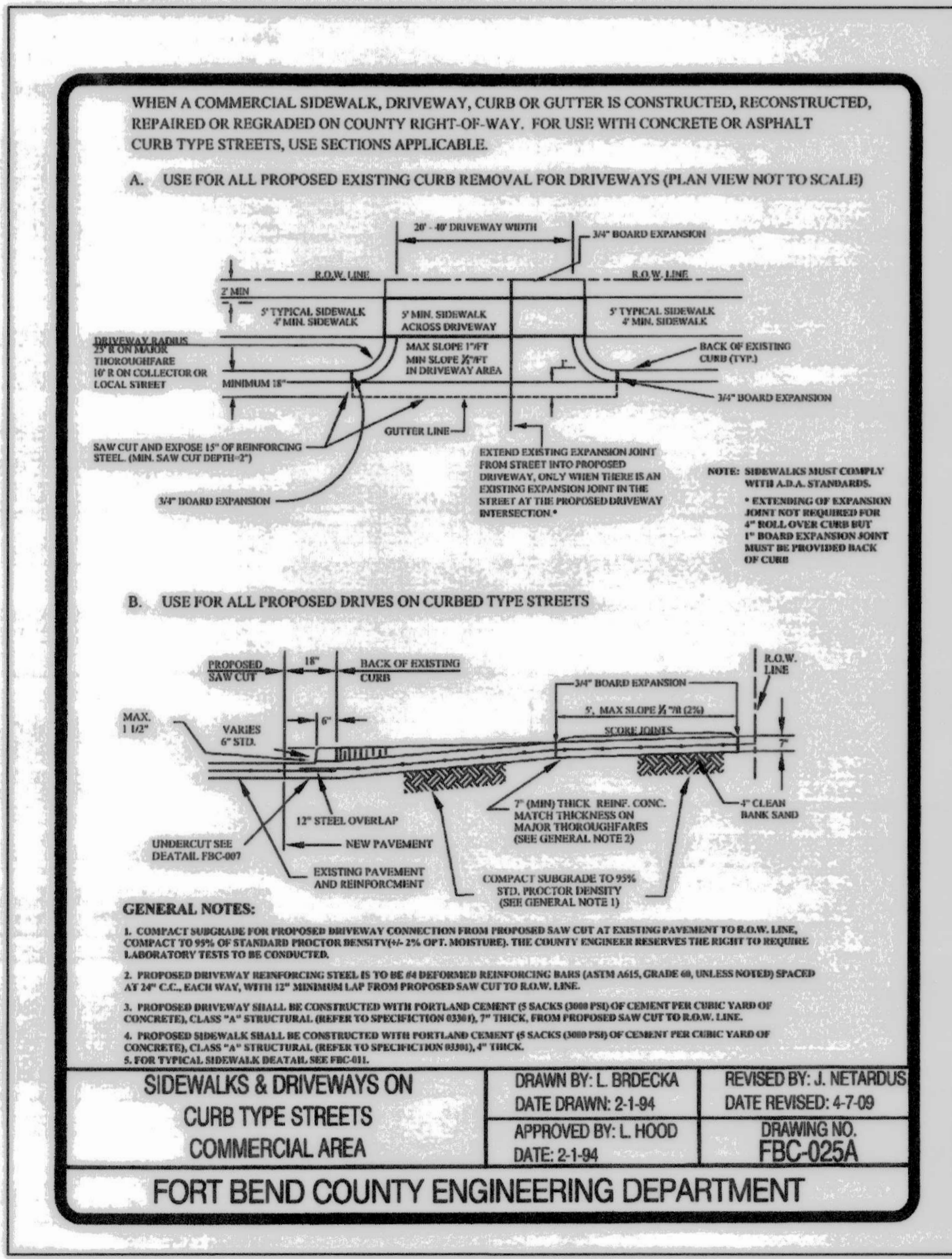
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12/26/2017

SEAL

HARVEST GREEN MONTESSORI
CONSTRUCTION DETAILS - III
@
HARVEST CORNER DR, RICHMOND, TX



- GENERAL NOTES FOR SIDEWALKS AND DRIVEWAYS**
- SAW CUT EXISTING CURB AT EACH END AND KNOCK OUT CURB FROM BEGINNING TO END OF PROPOSED DRIVEWAY.
 - SAW CUT EXISTING PAVEMENT A MINIMUM OF 18" INCHES AWAY FROM BACK OF CURB (GUTTER LINE) AND BREAK OUT TO EXPOSE EXISTING REINFORCEMENT STEEL.
 - COMPACT SUBGRADE FOR PROPOSED DRIVEWAY CONNECTION FROM PROPOSED SAW CUT AT EXISTING PAVEMENT TO RIGHT-OF-WAY LINE, COMPACT TO 95% OF STANDARD PROCTOR DENSITY (4-7-25 OPT. MOISTURE). THE COUNTY ENGINEER RESERVES THE RIGHT TO REQUIRE LABORATORY TESTS TO BE CONDUCTED.
 - PLACE AND COMPACT 4" CLEAN BANK SAND.
 - MAINTAIN GUTTER LINE WITH FACE OF EXISTING CURB.
 - PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE TIED TO EXISTING ROADWAY REINFORCING STEEL WITH A MINIMUM LAP OF 12 INCHES.
 - PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE #4 DEFORMED REINFORCING BARS (ASTM A615 - GRADE 60, UNLESS NOTED) SPACED AT 24 INCHES C.C. EACH WAY, WITH 12 INCHES MINIMUM LAP (6" x 6" W6 x W6 AS ALTERNATE) FROM PROPOSED SAW CUT TO RIGHT-OF-WAY LINE.
 - PROPOSED DRIVEWAY, CURB, GUTTER LINE, AND GRADE SHALL MATCH EXISTING STREET.
 - PROPOSED DRIVEWAY SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE, CLASS "A" STRUCTURAL (REFER TO SPECIFICATION 03301), 7 INCHES THICK, FROM PROPOSED SAW CUT TO RIGHT-OF-WAY LINE (PROPERTY LINE).
 - PROPOSED SIDEWALK SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE, CLASS "A" STRUCTURAL (REFER TO SPECIFICATION 03301), 4 INCHES THICK AND 4 FEET MINIMUM WIDTH. SEE DRAWING NO. FBC 24A FOR ADDITIONAL INFORMATION AND DETAILS.
- CONSTRUCTION NOTES FOR SIDEWALKS & DRIVEWAYS WITH CURB TYPE STREETS COMMERCIAL AREA**
- DRAWN BY: L. BRDECKA
DATE DRAWN: 2-1-94
APPROVED BY: L. HOOD
DATE: 2-1-94
- REVISED BY: J. NETARDUS
DATE REVISED: 4-7-09
DRAWING NO. FBC-025A
- FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: *Max*
Development Coordinator

DATE: 1/3/18

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GENERAL CONSTRUCTION NOTES:

- CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING PUBLISHED BY THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING.
- UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/800-245-4545 AND LONE STAR ONE CALL AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
- CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AT 713-863-1450 FOR INSPECTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
- CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
- CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED UP DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE ORIGINAL TRACINGS, LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS", AND RETURNING SAME TO THE CITY ENGINEER.

SANITARY SEWER NOTES:

- ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON "STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC" AND ALL CURRENT AMENDMENTS THERETO AND BE SUBJECT TO A STANDARD EXHIBITION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 317, "DESIGN CRITERIA FOR SEWERAGE SYSTEMS" SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE MORE STRINGENT.
- ALL MANHOLES ARE TO BE PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02082-01, 02082-02, 02082N-02, 02082-03, AND 02082N-03 UNLESS OTHERWISE NOTED. USE 2010 VERSION AS APPLICABLE.
- SANITARY SEWER MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF HOUSTON STANDARD DETAILS DRAWING NO. 02317-08 UNLESS OTHERWISE NOTED.
- SANITARY SEWER PIPE 6" AND SMALLER SHALL BE SCHEDULED 40 PVC, SANITARY SEWER PIPE 8" AND LARGER SHALL BE SDR-26 PVC.
- ALL SDR-26 PVC PIPE SHALL MEET ASTM SPECIFICATION D3034 AND USE "FULL BODIED" SDR-26 PVC FITTINGS WITH ADAPTERS AND SHALL HAVE A CELL CLASSIFICATION OF 12364-8 AS DEFINED IN ASTM D-1784 AND SHALL HAVE DIP SIZE OD AND RUBBER GASKET BELL-AND-SPIGOT TYPE JOINT ENDS, UNLESS OTHERWISE NOTED.
- AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.
- ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02317-01, 02317-02, OR 02317-03 AS APPLICABLE, WITH 1 1/2 SACK CEMENT/1 CY STABILIZED SAND BACKFILL UP TO THE BOTTOM OF THE PAVEMENT SUBGRADE. 100 PSI PERFORMANCE RESULTS ARE STILL REQUIRED.
- ALL SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES AND 9 FEET SHALL HAVE A MINIMUM OF ONE (1) JOINT OF 150 PSI DUCTILE IRON OR (GREEN) C900 PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE. WHEN WATER LINE IS BELOW SANITARY SEWER PROVIDE MINIMUM 2 FOOT SEPARATION.
- CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 9 FEET BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES.
- SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER TO DRAIN AWAY FROM MANHOLE RIM.
- IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBER 02317-02 (2002).
- DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID MANDREL. IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED AS PER TAC 317.2 LATEST AMENDMENT AND WITHOUT MECHANICAL PULLING DEVICES. NO BALL-TYPE MANDREL IS ALLOWED.
- INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 317.2 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.
 - A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2) FEET.
 - B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNL-8-4-90 OR OTHER APPROPRIATE PROCEDURES. FOR SECTIONS OF PIPE LESS THAN 36" (INCH) AVERAGE INSIDE DIAMETER, THE MINIMUM ALLOWABLE TIME FOR PRESSURE DROP FROM 3.5 P.S.I.G. TO 2.5 P.S.I.G. SHALL BE AS FOLLOWS:
 - 6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398'
 - 8" 454 SECONDS OR 1.120(L) FOR TEST LENGTHS GREATER THAN 298'
 - 10" 567 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 237'
 - 15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159'
 - 18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133'
 WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.
- "SAN. S. E." INDICATES "SANITARY SEWER EASEMENT"
- FOR SANITARY MANHOLE (MH) RIMS SET INSIDE OF OR @ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSH WITH AN ADJUTING PAVED SURFACE. THE VALCULIN, NEENAH OR EQUAL) HEAVY DUTY BOLTED SOLID MH COVER SHALL BE PROPERLY (AND SECURELY) ATTACHED AND SEALED TO ITS COMPATIBLE GASKETED FRAME BY USING BOTH A NEOPRENE GASKET AND (AT LEAST) 4 COUNTER-SUNK HEX-HEAD COARSE THREADED 1/2"-13 UNC STAINLESS STEEL BOLTS. THE HEAVY DUTY FRAME MH COVER SHALL BE SOLID (NO AIR HOLES). SAID FRAME SHALL BE BOTH EMBEDDED INTO THE MHS TOP ALSO SECURELY ANCHORED TO THE UNDERLYING MH STRUCTURE WITH EITHER SECURELY ATTACHED EMBEDDED ANCHOR BOLTS OR THE CONCRETE MHS EXPOSED REBARS WELDED TO THE FRAME OR OTHER EQUALLY SECURED METHODS TO PREVENT MH COVER/FRAME BLOW-OFFS/EJECTIONS.

STREET, BRIDGE AND RIGHT-OF-WAY

- DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING" UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS. THE DESIGN IS CONSISTENT WITH THE MINIMUM STANDARDS ESTABLISHED IN THE "INFRASTRUCTURE DESIGN MANUAL" REFERENCED AT http://documents.publicworks.houstonlx.gov/document-center/col_view/88-engineering-and-construction/90-design-manuals/364-city-of-houston-infrastructure-design-manual.html
- FILL AREAS ON PLANS SHALL BE FILLED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND EACH COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY PRIOR TO INSTALLATION OF WATER LINE AND FILL AREA SHALL BE SEEDED AND FERTILIZED WITHIN 10 WORKING DAYS.
- UTILITY CONTRACTOR SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON-CURBED INLETS WHICH WILL REMAIN IN PLACE AFTER UNDERGROUND CONTRACT IS COMPLETE.
- CONTRACTOR SHALL PROVIDE SILT BARRIER FENCE ON ALL STAGE 1 CURB INLETS.
- EXISTING PAVEMENTS, CURBS, DRIVEWAYS, AND SIDEWALKS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF HOUSTON STANDARDS, WITH LATEST ADDENDA AND AMENDMENTS THERETO.
- CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY UPON COMPLETION OF JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO SATISFACTION OF THE OWNING AUTHORITY.
- EXPOSED 15" OF REINFORCING STEEL AT PROPOSED SAWED JOINT IF NO REINFORCING STEEL EXISTS. USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BARS 24" LONG 24" C-C DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB WITH "PO ROCC" OR EQUAL.
- CONTRACTOR TO TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG AREAS OF EXCAVATION.
- CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AND STATE OF TEXAS LAWS CONCERNING EXCAVATION, TRENCHING AND SHORING AS SPECIFIED IN CITY OF HOUSTON ORDINANCE #87-1457.
- WHEEL CHAIR RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOUSTON STANDARDS AT ALL INTERSECTIONS WHERE SIDEWALKS EXIST AND THE EXISTING CURB OR SIDEWALK IS DAMAGED OR REMOVED DURING CONSTRUCTION.
- WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING" UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS. THE DESIGN SHOULD BE CONSISTENT WITH THE MINIMUM STANDARD ESTABLISHED IN THE "DESIGN MANUAL FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING".
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES TO EXISTING WATER, WASTEWATER, STORM SEWER AND TRAFFIC SIGNAL CONDUITS. ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPT. OF PUBLIC WORKS AND ENGINEERING "STANDARD CONSTRUCTION SPECIFICATIONS" WITH LATEST ADDENDA AND AMENDMENTS THERETO, AT NO COST TO THE CITY OF HOUSTON.
- PRIOR TO STREET CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AT (PHONE) 832-394-9078 OR 832-395-4424(FAX) AND COMPLY WITH ALL REQUIREMENTS FOR THE ISSUANCE OF NECESSARY PERMITS/WORK ORDERS FOR STREET CONSTRUCTION.
- DOUBLE REFLECTORIZED BLUE TRAFFIC MARKERS SHALL BE PLACED 4-INCHES OFFSET OF THE CENTERLINE OF ALL PIRE HYDRANT LOCATIONS BY THE PAVING CONTRACTOR. HYDRANTS LOCATED AT INTERSECTIONS SHALL HAVE A BUTTON PLACED ON EACH STREET.

STORM SEWER NOTES:

- ADJUST MANHOLE COVERS TO GRADE CONFIRMING TO REQUIREMENTS OF SECTION 02086.
- PRIOR TO STORM SEWER CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AT (713)535-7579 OR (713)535-7582 AND COMPLY WITH ALL REQUIREMENTS FOR THE ISSUANCE OF THE NECESSARY PERMITS/WORK ORDERS.
- STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (C-76, CLASS III), AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07 (OCT. 2002) AS APPLICABLE UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL STORM SEWER CONSTRUCTED IN SIDE LOT EASEMENT SHALL BE R.C.P. (C-76, CLASS III) AND SHALL BE BEDDED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07 AS APPLICABLE.
- ALL SEWERS UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE(1) FOOT BACK OF ALL PROPOSED OR FUTURE PAVEMENT CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO WITHIN ONE FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH RESPECTIVELY.
- ALL TRENCH BACKFILLS SHALL BE IN 8' LIFTS, WITH TEST TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM D-698/AASHTO T99).
- CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
- ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24-INCH AND LARGER R.C.P. (C-76, CLASS III).
- ALL PROPOSED STUB-OUTS FROM MANHOLES AND INLETS ARE TO BE PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
- ADJUST MANHOLE COVERS TO GRADE CONFIRMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
- ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.
- ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.

GENERAL NOTES

- NO ATTEMPT WAS MADE TO PERFORM A BOUNDARY SURVEY. BOUNDARY LINES HAVE BEEN SHOWN FOR ILLUSTRATION PURPOSES ONLY.
- STREETS, DRIVEWAYS, SIDEWALKS, PAVING, WATER LINES, WASTEWATER COLLECTION SYSTEMS, AND DRAINAGE SYSTEMS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" DATED OCTOBER 2002, AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES STORM DRAINAGE AND STREET PAVING" DATED OCTOBER 2002 UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS. THE DESIGN IS CONSISTENT WITH THE MINIMUM STANDARDS ESTABLISHED IN THE "DESIGN MANUAL FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING" DATED OCTOBER 2002

GENERAL CONSTRUCTION NOTES FOR STORM WATER POLLUTION PREVENTION PLAN

- CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND/OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.
- DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT THE EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCONTROLLED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEEPED BACK INTO EXCAVATED AREA.
- CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY TO REMOVE ANY EXCESS MUD, SILT OR ROCK TRACKED FROM THE EXCAVATED AREA.
- CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT. ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
- CONTRACTOR SHALL INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.
 - 5.1. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED
 - 5.2. AREA USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION
 - 5.3. STRUCTURAL CONTROL MEASURES
 - 5.4. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
- CONTRACTOR IS TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND / OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

GENERAL NOTES FOR DEVELOPER SPONSORED WATER MAIN PROJECTS (INSIDE HOUSTON CITY LIMITS)

- THIS PROJECT SHALL BE BUILT BY MEANS OF AUGER EXCEPT WHERE NOTED ON THE DRAWINGS. THE CONTRACTOR WILL DETERMINE THE LOCATIONS OF BORE PITS IN THE FIELD, SUBJECT TO THE CITY ENGINEER'S APPROVAL.
- PRIOR TO WATER MAIN ADJUSTMENTS, THE INSTALLATION OF WATER METERS AND LEADS OR UNMETERED SPRINKLER LINES, THE CONTRACTOR SHALL CONTACT WATER TAPS AND METERS SECTION AT 713-535-7675.
- PRIOR TO WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AT (713)837-7024 AND COMPLY WITH ALL REQUIREMENTS NECESSARY FOR THE ISSUANCE OF A WORK ORDER FOR THE WATER MAIN CONSTRUCTION.

CENTER POINT ENERGY: CAUTION: UNDERGROUND GAS FACILITIES

- LOCATION OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE INC. WHERE APPLICABLE ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN AN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713)223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN & SERVICE LINES FIELD LOCATED.
- WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 967-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
 - WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
 - WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
 - FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3552 OR (713) 207-4200.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS/HER FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES
- WATER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORK AND ENGINEERING STANDARD SPECIFICATIONS WITH LATEST ADDENDA AND AMENDMENTS.
 - ALL UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN AT THE APPROXIMATE LOCATIONS BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL FIELD DETERMINE THE EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION. HE SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED DURING THE CONSTRUCTION OF THE ABOVE UTILITIES.
 - FAILURE TO EXACTLY LOCATE AND MAINTAIN THESE UNDERGROUND UTILITIES. CONTRACTOR SHALL PROVIDE ADEQUATE CONCRETE THRUST BLOCKING TO WITHSTAND PRESSURE TEST AS SPECIFIED IN CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS & ENGINEERING SPECIFICATIONS. PRIOR TO THE WATER MAIN INSTALLATION OF WATER METERS AND LEADS OR UNMETERED SPRINKLER LINE, THE CONTRACTOR SHALL CONTACT WATER TAPS METERS AT (713)535-7675.
 - CONTRACTOR SHALL CONTACT CITY OF HOUSTON, PUBLIC WORKS AND ENGINEERING CONSTRUCTION INFRASTRUCTURE FOR INSPECTION AT LEAST 48 WORKING HOURS PRIOR TO COMMENSING WATER MAIN CONSTRUCTION AFTER WORK ORDER HAS BEEN ISSUED.

WARNING: OVERHEAD ELECTRICAL LINES

- OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE BUT YOU SHOULD LOCATE THEM PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY.
- ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX(6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
 - OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
- PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS ARE LEGALLY RESPONSIBLE FOR SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED CALL CENTER POINT ENERGY AT (713)-207-2222.

ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY

NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY IS GIVEN, IF YOU NEED TO USE CENTERPOINT ENERGY PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713)207-6248 OR (713)207-2222.

SWPPP CONSTRUCTION NOTES:

- CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND/OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.
- DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEEPED BACK INTO THE EXCAVATED AREA.

- CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK TRACKED FROM THE EXCAVATED AREA.
- CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT. ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
- CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.
 - DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
 - AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
 - STRUCTURAL CONTROL MEASURES.
 - LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
- CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING. LL (713)837-7280 FOR AN APPLICATION.

AT&T TEXAS/SWBTF FACILITIES:

- THE LOCATIONS OF AT&T TEXAS/SWBTF FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBTF FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBTF FACILITIES.
- WHEN AT&T TEXAS/SWBTF FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
- THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBTF UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.
- PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)567-4552 OR E-MAIL HIM AT RL2759@ATT.COM, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR OUR AT&T TEXAS/SWBTF FACILITIES.

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING TRAFFIC NOTES

- CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS M.U.T.C.D., MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
 - NO LANE SHALL BE CLOSED DURING THE HOURS OF 7:00 AM TO 9:00 AM, AND 4:00 PM TO 6:00 PM MONDAY THRU FRIDAY.
 - 2A. NO WORK ON RESIDENTIAL STREETS FROM 7:00 PM TO 7:00 AM SEVEN DAYS A WEEK
 - 3. CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
 - 4. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS, AND OPEN LANES FOR NORMAL TRAFFIC FLOW.
 - 5. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) IS/ARE REQUIRED TO DIRECT TRAFFIC WHEN LANES
 - 6. IN THE EVENT WHEN NO "TRAFFIC CONTROL PLANS" EXIST AS A PART OF CONTRACT DRAWINGS, CONTRACTOR MAY PREPARE PLANS AND SUBMIT TO PLAN REVIEW SECTION FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION.
- * THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLARS AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME A PART OF THE CONTRACT DRAWINGS.
- APPROVED COPIES OF TRAFFIC CONTROL PLANS AND LANE CLOSURE PERMITS SHALL BE AVAILABLE FOR INSPECTION AT JOB SITE AT ALL TIMES. CONTRACTOR MUST SECURE LANE/SIDEWALK CLOSURE PERMITS FROM CITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN BUSINESS DAYS PRIOR TO THE DATE FOR WHICH THE CLOSURE IS SOUGHT. NOTE THAT THE WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED. CALL (713)837-7280 FOR AN APPLICATION.

THIS APPROVAL IS FOR CONSTRUCTION UTILIZING AUGER / BORE AND JACK METHOD ONLY. FOR ANY REASONS, IF OPEN CUT METHOD IS REQUIRED, APPROPRIATE PAVEMENT RESTORATION TYPICAL SHEET SHALL BE SUBMITTED FOR REVIEW AT LEAST 48 HOURS IN ADVANCE BEFORE STARTING CONSTRUCTION. THESE RESTORATIONS TYPICAL SHALL BE DRAWN ON MYLAR, SEALED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

440 COBURN DR.
SUITE 1303
Katy, TX 77494
PH: 832.913.1888
www.hgsgrp.com
TYPE FIRM # 15715



REVISIONS	DATE	E-NO

12/26/2017

SEAL

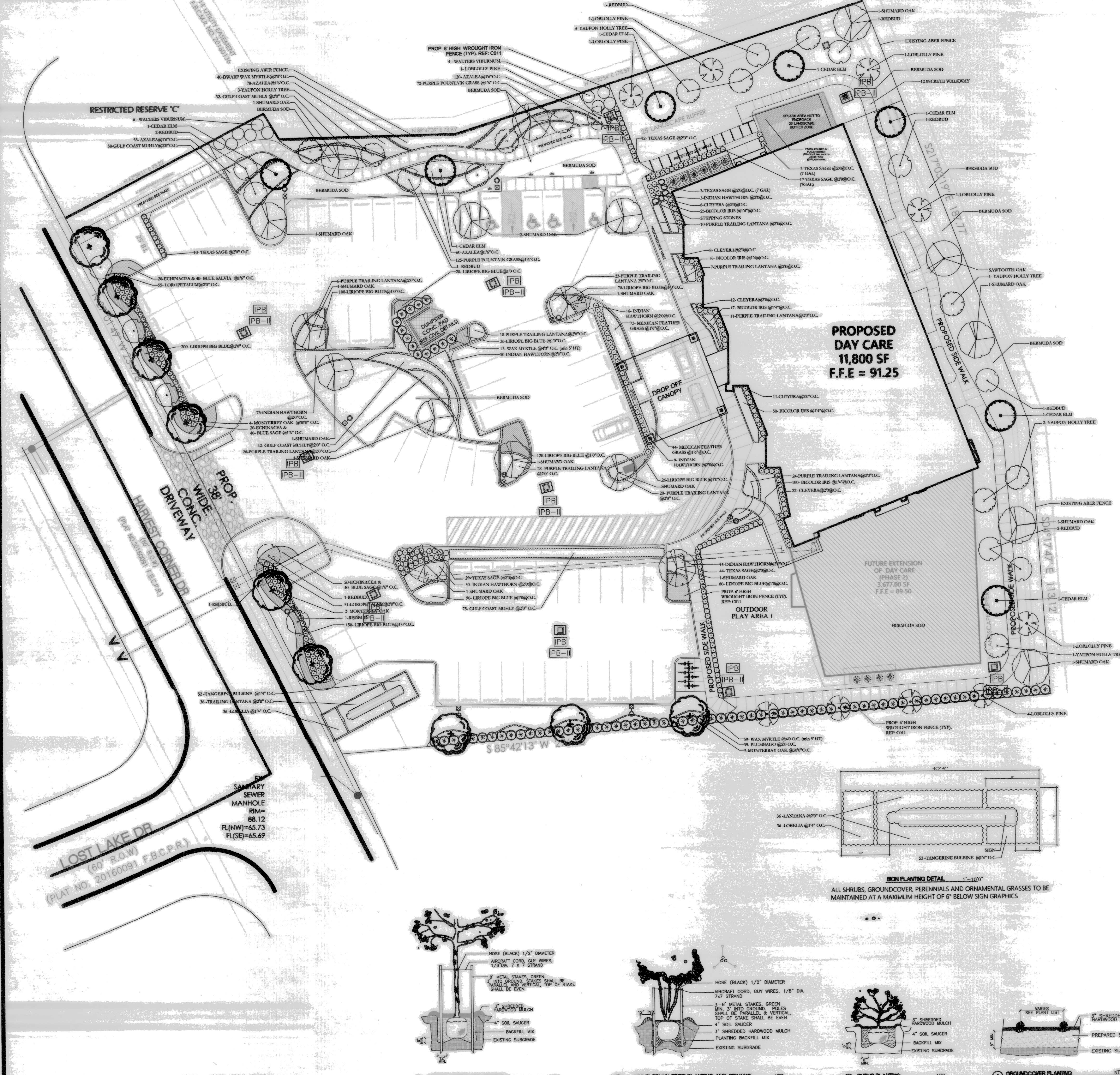
HARVEST GREEN MONTESSORI CONSTRUCTION NOTES

HARVEST CORNER DR, RICHMOND, TX

DRAFTED BY: R.R
PROJECT NO #: 17-002
FILE LOCATION: W:\VGI\2015\15001\CVTIL\1-C-1

SCALE: AS NOTED
SHEET: C011
DATE: 12/26/2017
PAGE #: 12 OF 16

APPROVED: *Madhavi Talluri*
Development Coordinator
DATE: 1/3/18



PLANT LIST - ORNAMENTAL & LARGE TREES

QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
9	QUERCUS POLYMORPHA	MONTEREY OAK	45 GAL.	MATCHED; 11' HT. CAL. 2.5"-3"; 5' SPREAD
17	QUERCUS SHUMARDII	SHUMARD OAK	45 GAL.	MATCHED; 11' HT. CAL. 2.5"-3"; 5' SPREAD
7	ULMUS CRASSIFLORA	CEDAR ELM	15 GAL.	MATCHED; 7' HT. CAL. 1.5"; 3' SPREAD
1	QUERCUS ACUTISSIMA	SAWTOOTH OAK	15 GAL.	MATCHED; = 4-4.5" CAL.
10	PINUS TAEDA	LOBLOLLY PINE	15 GAL.	MATCHED; 5' HT. CAL. 1.5"; 3' SPREAD
17	CERIS CANADENSIS	REDBUD	15 GAL.	1 1/2" CAL.; 5'-6" HT. 3'-4" SPREAD
11	ILEX DEODIA	YAUPOH HOLLY TREE	15 GAL.	1 1/2" CAL.; 5'-6" HT. 3'-4" SPREAD
10	VIBURNUM OBOVATUM	WALTERS VIBURNUM	15 GAL.	5' HT. 2 1/2"-3" SPREAD; FULL POT

PLANT LIST - SHRUBS

QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
106	LOROPETALUM CHINESE	LOROPETALUM	3 GAL.	24" O.C. 20"-24" HT.; 20"-22" WIDE. ROOTED TO CONTAINER
47	CLEYERA JAPONICA	CLEYERA	3 GAL.	24" O.C. 20"-24" HT.; 20"-22" WIDE. ROOTED TO CONTAINER
95	LEUCOPHYLLUM FRUTESCENS	TEXAS SAGE (CENIZO)	3 GAL.	24" O.C. 20"-24" HT.; 20"-22" WIDE. ROOTED TO CONTAINER
23	LEUCOPHYLLUM FRUTESCENS	TEXAS SAGE (CENIZO)	7 GAL.	24" O.C. 36" HT.; 26" WIDE. ROOTED TO CONTAINER (NEAR AC UNITS)
197	RAPHIOLEPIS INDICA CLARA	INDIAN HAWTHORN	3 GAL.	24" O.C. 12"-18" HT.; 12-18" WIDE. ROOTED TO CONTAINER
72	MYRICA CERIFERA	WAX MYRTLE	15 GAL.	4'-0" O.C.; 5' HT.; 3'-3.5' WIDE. FULL PLANTS; ROOTED TO CONTAINER
40	MYRICA PUSILLA	DWARF WAX MYRTLE	3 GAL.	24" O.C. 20"-24" HT.; 20"-22" WIDE. ROOTED TO CONTAINER
305	AZALEA INDICA	AZALEA	3 GAL.	18" O.C. 18"-20" HT.; 18"-20" WIDE. ROOTED TO CONTAINER

PLANT LIST - ORNAMENTAL GRASSES/ PERENNIALS/GROUNDCOVER

QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
208	DIETES BICOLOR	BICOLOR IRIS	1 GAL.	16" O.C. 10-12" HT.; 12-15" WIDE; TRIANGULAR SPACING; FULL POT
207	MUHLENBERGIA CAPILLARIS	GULF COAST MUHLY	1 GAL.	24" O.C. 30" HT.; 24"-26" WIDE; TRIANGULAR SPACING; FULL POT
197	PENNISETUM SETACEUM RUBRUM	PURPLE FOUNTAIN GRASS	1 GAL.	18" O.C. TRIANGULAR SPACING; FULL POT
117	NASSELLA TENUISSIMA	MEXICAN FEATHER GRASS	1 GAL.	18" O.C. 24" HT.; 15-18" WIDE; TRIANGULAR SPACING; FULL POT
856	LIRIOPE MUSCARI 'BIG BLUE'	LIRIOPE BIG BLUE	1 GAL.	12" O.C.; 12" WIDE; 12-18" WIDE; TRIANGULAR SPACING; FULL POT
129	LANTANA MONTEVIDENSIS	PURPLE TRAILING LANTANA	1 GAL.	24" O.C.; 12" HT.; 24" WIDE; TRIANGULAR SPACING; FULL POT
35	PLUMBAGO AURICULATA 'IMPERIAL BLUE'	BLUE PLUMBAGO	1 GAL.	24" O.C.; 12" HT.; 12-15" WIDE; TRIANGULAR SPACING; FULL POT
80	SALVIA FARNACEA	BLUE SAGE	1 GAL.	18" O.C. 16-18" HT.; 14-16" WIDE; TRIANGULAR SPACING; FULL POT
40	ECHINEACEA	CONEFLOWER	1 GAL.	16" O.C. 16-18" HT.; 14-16" WIDE; TRIANGULAR SPACING; FULL POT
52	BULBINE FRUTESCENS	TANGERINE BULBINE	1 GAL.	16" O.C. 12" HT.; 12" WIDE; TRIANGULAR SPACING; FULL POT
36	LOBELIA CHINENSIS	CREeping LOBELIA	1 GAL.	16" O.C. 6-8" HT.; 10-12" WIDE; TRIANGULAR SPACING; FULL POT

NOTE: SOLID SOD DISTURBED AREAS TO TIFWAY 419 BERMLUDA SOD (CYNODON TRANSVAALENSIS BURTT DAVY x CYNODON DACTYLON)
ALL SHRUBS, GROUNDCOVER, PERENNIALS AND ORNAMENTAL GRASSES TO BE MAINTAINED AT A MAXIMUM HEIGHT OF 6' BELOW SIGN GRAPHICS
MULCH ALL PLANTING BEDS WITH NATURAL BROWN HARDWOOD MULCH

Planting Notes

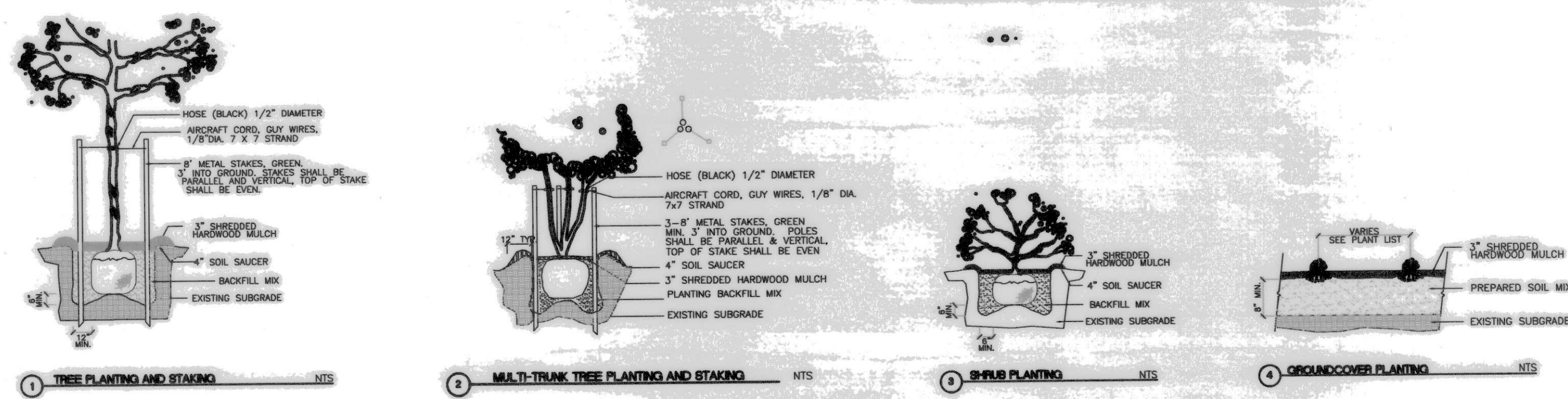
- Contractor shall provide all labor and materials necessary to complete the work shown on the plans.
- All proposed landscaping is to be installed as per local city ordinances and codes. notify the owner's representative and landscape architect of any discrepancies prior to construction.
- All plant material shall comply with plant size per container as stated by the american association of nurseryman.
- Plants are subject to inspection and approval by the landscape architect. plants required for the site may be inspected and tagged at growing site before delivery.
- Planting mix to be complete mix by living earth technology.
- Groundcover bed preparation shall be 2 inches of planting mix tilled 8" into bed areas.
- Shrubs & trees shall be pocket planted. excavate planting hole 1 1/2 times the width and height of the root ball. backfill with 1/3 planting mix, 1/3 native soil and 1/3 sandy loam.
- Grading shall provide positive drainage away from building & other structures. fine grade for positive drainage to prevent ponding.
- Quantities provided in the plant list are for general use only. contractor is responsible for verification of all plant quantities.
- Contractor is responsible for quality of workmanship, superintendence, and scheduling of work.
- Contractor is responsible for removal of trash and job safety conditions.
- Contractor to provide 1 year warranty on all plant materials.

STREET TREE CALCULATION:

LENGTH OF PROPERTY ALONG HARVEST CORNER DRIVE	250.75'
STREET TREES NEEDED	250.75/40 = 6.26
STREET TREES NEEDED	6 TREES

NOTE: *SOLID SOD DISTURBED AREAS TO BERMLUDA SOD

APPROVED: *[Signature]*
Development Coordinator
DATE: 1/3/18



SIGN PLANTING DETAIL 1'-10"
ALL SHRUBS, GROUNDCOVER, PERENNIALS AND ORNAMENTAL GRASSES TO BE MAINTAINED AT A MAXIMUM HEIGHT OF 6' BELOW SIGN GRAPHICS

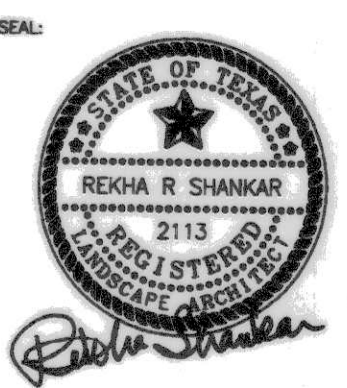
No. DATE REVISIONS

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PROJECT TITLE

**PROPOSED
MONTESSORI DAYCARE
LOCATED AT
4100 HARVEST CORNER DR
FORT BEND COUNTY, TX 77406**

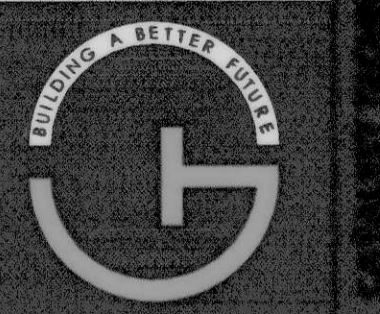
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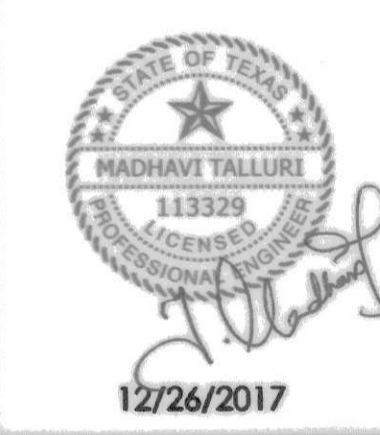
DATE: 12/05/17
GENERAL NOTES:

CTG Project Number: 16-036
Drawn By: RRS
Checked By: RRS
Scale:
File Path:
SHEET TITLE:

LANDSCAPE PLAN
SHEET NUMBER:



S.NO	DATE	REVISIONS



12/26/2017
SEAL

TRAFFIC CONTROL PLAN
HARVEST GREEN MONTESSORI
@
4100 HARVEST CORNER DR.
RICHMOND, TEXAS - 77406

DRAFTED BY:	R.R
PROJECT NO #:	17-002
FILE LOCATION:	W:\NGI\2015\15001\CIVIL\C-1

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PAGE #	16 OF 16

ROADWAY	POSTED SPEED	TAPER LENGTH	SPACING CHANNELIZING DEVICES		SIGN SPACING	BUFFER SPACE
			TAPER	TANGENT		
HARVEST CORNER DR	30 MPH	180'	30'	60'	120'	90'
LOST LAKE DR	30 MPH	180'	30'	60'	120'	90'

LEGEND

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed	Formula	Minimum Desirable Taper Lengths "L"			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

GENERAL NOTES

- Flags attached to signs where shown are OPTIONAL.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol are OPTIONAL.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- Contractor shall provide and install traffic control devices in conformance with part VI of Texas Manual on Uniform Traffic Control Devices (TMUTCD - Latest edition with revisions) during construction.
- No lanes shall be blocked during construction.
- If project is within 400 feet from a signalized intersection, the Contractor shall contact Harris County Engineering Department, Traffic Signal Maintenance at (713) 881-3210 five (5) days prior to the start of construction.

APPROVED: *Manish*
Development Coordinator
DATE: 1/3/18

