February 16, 2022

Mr. Walter Reeves
Director of Development Services
City of Angleton
121 S. Velasco
Angleton, TX 77515

Re: On-Going Services
Public Improvements Acceptance of Bayou Bend Subdivision
Angleton, Texas
HDR Job No. 10283980

Dear Mr. Reeves:

HDR Engineering, Inc. (HDR) is in receipt of the request for Public Acceptance of the Bayou Bend Subdivision public improvements in accordance with the Angleton Land Development Code (LDC) Sec. 23-98 – Public Improvements Acceptance. The following are exceptions noted in review of the Public Acceptance Process Criteria:

1. A Final Inspection walkthrough was performed on January 4, 2022 to review and verify the public improvements were constructed per the approved plat and plans. A Final Inspection report was generated for items to be completed and or corrected. Completion and correction of the items noted were provided.
2. A pdf set of As-Built (Record Drawing) plans dated January 11, 2022 by the Engineer of Record have been received by the City. As a condition of the Final Acceptance, an electronic set of the As-Built plans shall be submitted in a GIS compatible format.
3. A letter dated January 6, 2022 from the Angleton Drainage District was provided to the City regarding the outfall structure into Brushy Bayou. The outfall was found to be in compliance and expectations as noted in the letter. The structure shall be reviewed at the end of the one-year maintenance period to review for any deficiencies or erosion at the outfall and any corrections required shall be made at that time.
4. Testing reports as noted by LDC Sec. 23-98 have been received. No additional action is required for these items.
5. As a condition of Final Acceptance, a maintenance bond shall be filed with the City in accordance to the LDC Sec. 23-98.
6. As a condition of Final Acceptance, the Developer shall provide proof that there are no outstanding judgements or liens against the improvements within the public rights-of-way or against property on which easements contain public improvements.
7. As a condition of Final Acceptance, for the portion of public sidewalks constructed, the Developer shall provide the TDLR certification of compliance with Texas Accessibility Standards per LDC Sec. 23-14. A.5 Sidewalks and Accessibility.

hdrinc.com 4828 Loop Central Drive, Suite 800, Houston, TX 77081-2220
T (713) 622-9264 F (713) 622-9265
Texas Registered Engineering Firm F-754

HDR takes no objection for the request of Final Acceptance for Public Improvements for the Bayou Bend Subdivision with the exceptions noted. Please note that HDR has only reviewed the improvements for consistency with the Final Plat and Construction Plans and the general conformance of public improvements to the City requirements. It is noted that this does not release the Developer of any liability resulting from non-conformance of these items.

If you have any questions, please feel free to contact us at our office (713)-622-9264.

Sincerely,

HDR Engineering, Inc.

Javier Vasquez, P.E., CFM
City Engineer Representative

cc: Files (10283980)

ANGLETON DRAINAGE DISTRICT

A Political Subdivision of the State of Texas
P.O. Box 2469, Angleton, Texas 77516-2469
Phone: (979) 849-2414 Fax: (979) 848-8160

January 6, 2022

Mr. Walter Reeves
Director of Development Services
City of Angleton
121 S. Velasco
Angleton, TX 77515

Re: Bayou Bend Estates, Angleton, Texas
Detention Outfall Structure into Brushy Bayou

Dear Mr. Reeves:

Our engineer, Douglas B. Roesler, P.E., inspected the constructed outfall structure into Brushy bayou and found it to be in compliance with our expectations. We are aware theat the work will remain under a one-year warrant from the time of City's final acceptance. We will review the structure again at the end of one year. Any deficiencies or erosion associated with the outfall will corrected at that time.

Please contact me if you have any questions concerning this acceptance letter.

Sincerely,

David B. Spoor, Chairman
Angleton Drainage District Board of Supervisoors

Copy: John Peterson, P.E.
John.Peterson@hdrinc.com

PLANS FOR CONSTRUCTION OF

PAVING, DRAINAGE AND UTILITIES ON

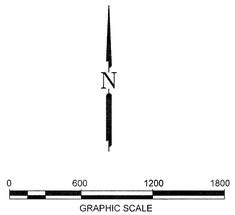
BAYOU BEND ESTATES

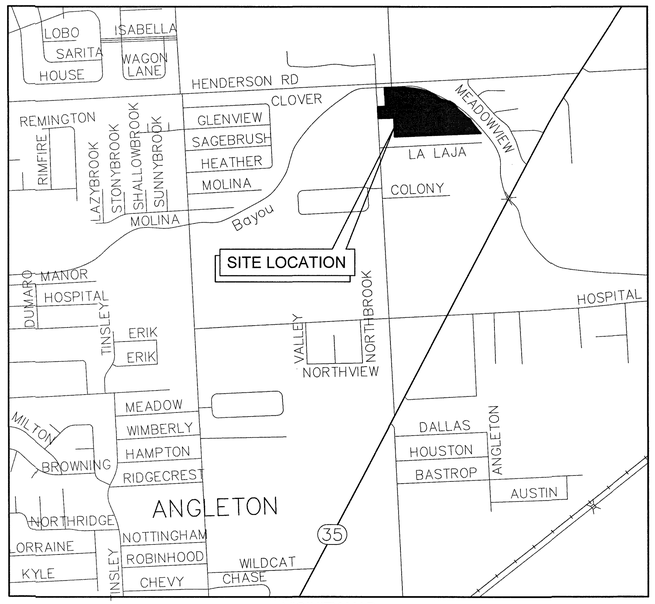
FOR THE

CITY OF ANGLETON

BRAZORIA COUNTY

B&L JOB No. 13454





VICINITY MAP

CITY OF ANGLETON

MAYOR
JASON PEREZ

CITY MANAGER
CHRIS WHITTAKER

CITY COUNCIL
MIKEY SVOBODA
CECIL BOOTH
JOHN WRIGHT
TRAVIS TOWNSEND
MARK GONGORA

"Release of this application does not constitute a verification of all data, information and calculations supplied by the applicant. The engineer of record is solely responsible for the completeness, accuracy and adequacy of their submittal, whether or not the application is reviewed for Code compliance by the City Engineer."

"All responsibility for the adequacy of these plans remains with the Engineer who prepared them. In approving these plans, the City of Angleton must rely on the adequacy of the work of the Design Engineer."

INDEX OF DRAWINGS

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

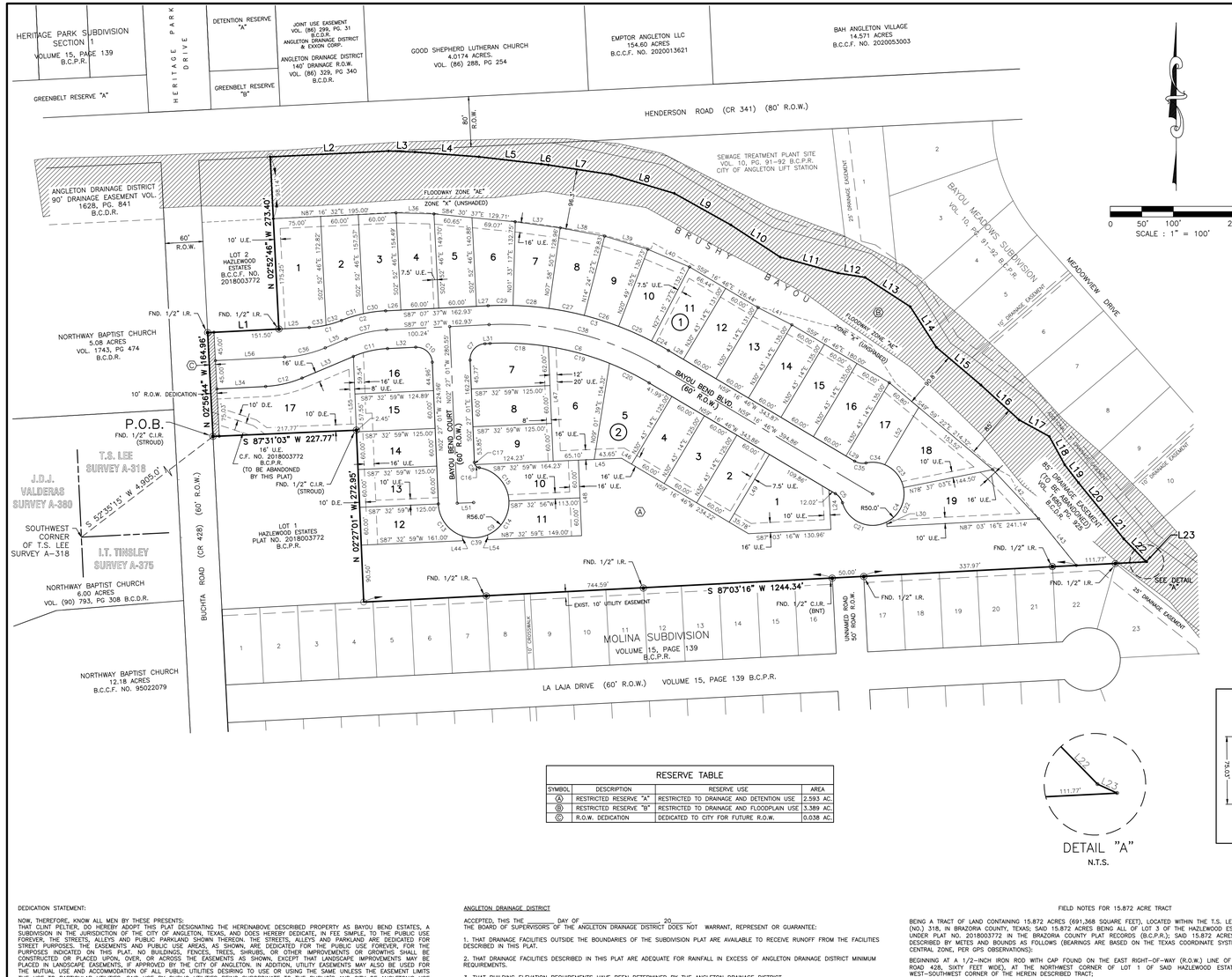
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

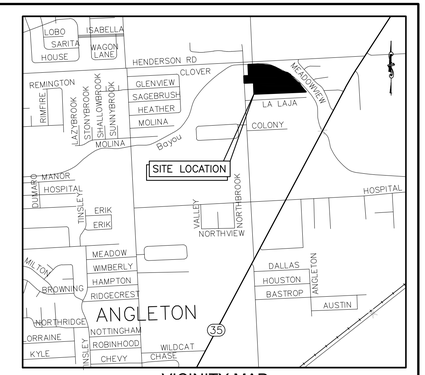
TITLE SHEET

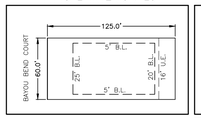
PROJECT NO. 13454

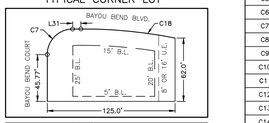
1

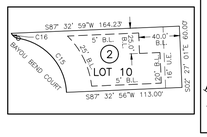
13454-SHEET SET.DWG

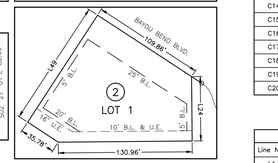


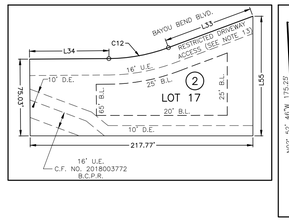


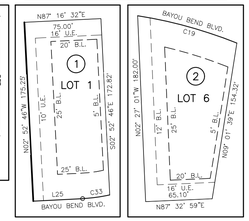


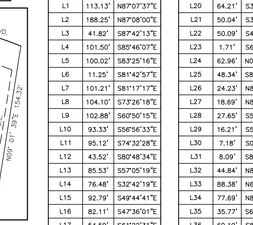












DETAIL "A"

N.T.S.

RESERVE TABLE

SYMBOL	DESCRIPTION	RESERVE USE	AREA
Ⓐ	RESTRICTED RESERVE "A"	RESTRICTED TO DRAINAGE AND DETENTION USE	2.593 AC.
Ⓑ	RESTRICTED RESERVE "B"	RESTRICTED TO DRAINAGE AND FLOODPLAIN USE	3.389 AC.
Ⓒ	R.O.W. DEDICATION	DEDICATED TO CITY FOR FUTURE R.O.W.	0.038 AC.

NOTES:

1. ALL BEARINGS AND DISTANCES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD-83, U.S. SURVEY FEET.
2. FLOOD ZONE STATEMENT: ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP FOR BRAZORIA COUNTY, MAP NUMBER 48039C0435K, EFFECTIVE DECEMBER 30, 2020, THE PROPERTY SURVEYED LIES PARTIALLY IN FLOODWAY OF ZONE "AE" (SPECIAL FLOOD HAZARDS WITH BASE FLOOD ELEVATION DETERMINED) AND ZONE "X" (AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN).
3. REFERENCE BENCHMARK:
   NGS MONUMENT R1182 (PID AW1171):A BRASS DISK STAMPED R1182 SET ON CONCRETE CURB OF BRIDGE ON THE NORTH SIDE OF COUNTY ROAD 171, APPROXIMATELY 275 FEET SOUTHWEST OF INTERSECTION WITH CR 428.
   ELEVATION = 26.3 FEET NAVD88
4. THE POSSIBLE EXISTENCE OF UNDERGROUND FACILITIES OR SUBSURFACE CONDITIONS OTHER THAN THOSE SHOWN MAY AFFECT THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHOWN HEREON.
5. NOTICE: SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF THE UNIFIED DEVELOPMENT CODE OF THE CITY OF ANGLETON AND STATE PLATTING STATUTES AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
6. NOTICE: PLAT APPROVAL SHALL NOT BE DEEMED TO OR PRESUMED TO GIVE AUTHORITY TO VIOLATE, NULLIFY, VOID, OR CANCEL ANY PROVISIONS OF LOCAL, STATE, OR FEDERAL LAWS, ORDINANCES, OR CODES.
7. NOTICE: THE APPLICANT IS RESPONSIBLE FOR SECURING ANY FEDERAL PERMITS THAT MAY BE NECESSARY AS THE RESULT OF PROPOSED DEVELOPMENT ACTIVITY. THE CITY OF ANGLETON IS NOT RESPONSIBLE FOR DETERMINING THE NEED FOR, OR ENSURING COMPLIANCE WITH ANY FEDERAL PERMIT.
8. NOTICE: APPROVAL OF THIS PLAT DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD OR REGISTERED PUBLIC LAND SURVEYOR IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY THE CITY ENGINEER.
9. NOTICE: ALL RESPONSIBILITY FOR THE ADEQUACY OF THIS PLAT REMAINS WITH THE ENGINEER OR SURVEYOR WHO PREPARED THEM. IN APPROVING THESE PLANS, THE CITY OF ANGLETON MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER AND/OR SURVEYOR OF RECORD.
10. THE PROPERTY OWNER'S ASSOCIATION WILL BE RESPONSIBLE FOR MAINTENANCE OF THE DETENTION RESERVE AND DRAINAGE EASEMENTS, PER LDC SEC. 23-19 RESERVATION. THE 3.389 ACRE DRAINAGE RESERVE WILL BE MAINTAINED BY THE ANGLETON DRAINAGE DISTRICT.
11. BLOCK 2, LOTS 12-15, AND 17 SHALL NOT BUILD FENCES ACROSS THE DRAINAGE EASEMENT.
12. SIDEWALKS SHALL BE REQUIRED IN ALL LOCATIONS THAT ADJOIN PUBLIC STREETS ON BOTH SIDES OF THE STREET, PER LDC SEC. 23.14 SIDEWALKS AND ACCESSIBILITY.
13. BLOCK 2, LOT 17 SHALL HAVE ACCESS LIMITED TO THE 88.38' WIDE BOUNDARY ON THE NORTH EAST CORNER OF THE PROPERTY.
14. ALL REAR BUILDING LINES SHALL BE 20 FEET FROM PROPERTY LINE. SIDE BUILDING LINES SHALL BE 5 FEET FOR INTERIOR SIDE LOTS, 15 FEET FOR CORNER LOTS ADJACENT TO THE RIGHT-OF-WAY, AND 25 FEET FOR KEY CORNER LOTS. THE FRONT OF THE BUILDING LINE SHALL BE 25 FEET.

VICINITY MAP

N.T.S.

CURVE TABLE					
Curve No.	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	52.48'	160.00'	18°47'37"	N77°43'49"E	52.25'
C2	72.16'	220.00'	18°47'37"	S77°43'49"W	71.84'
C3	299.03'	509.32'	33°38'24"	N76°04'35"W	294.76'
C4	231.84'	50.00'	265°40'01"	N30°43'14"E	73.33'
C5	18.69'	25.00'	42°50'03"	N37°51'47"W	18.26'
C6	263.84'	450.00'	33°35'37"	N76°04'35"W	260.08'
C7	39.09'	25.00'	89°34'38"	S42°20'18"W	35.22'
C8	12.32'	9.00'	78°27'47"	S41°40'55"E	11.38'
C9	252.62'	56.00'	258°27'47"	S48°19'05"W	86.75'
C10	39.45'	25.00'	90°25'22"	N47°39'42"W	35.49'
C11	55.96'	160.00'	20°02'19"	S77°06'28"W	55.67'
C12	59.46'	170.00'	20°02'19"	N77°06'28"E	59.15'
C13	67.69'	56.00'	69°15'22"	S36°53'51"E	63.64'
C14	67.69'	56.00'	69°15'29"	N31°59'45"E	63.65'
C15	76.51'	56.00'	78°16'46"	N41°46'25"W	70.70'
C16	8.70'	8.64'	57°44'21"	N52°54'30"W	8.34'
C17	3.62'	7.87'	26°23'48"	N14°49'05"W	3.59'
C18	92.68'	450.00'	11°48'04"	S86°58'21"E	92.52'
C19	100.84'	450.00'	12°50'20"	S74°39'09"E	100.63'
C20	70.32'	450.00'	8°57'13"	S63°45'23"E	70.25'

CURVE TABLE					
Curve No.	Length	Radius	Delta	Chord Bearing	Chord Distance
C21	87.33'	50.00'	100°04'40"	S66°29'06"E	76.65'
C22	65.33'	50.00'	74°51'31"	N26°02'49"E	60.78'
C23	49.03'	50.00'	56°10'44"	N39°28'19"W	47.08'
C24	30.82'	510.00'	3°27'46"	N61°00'40"W	30.82'
C25	57.20'	510.00'	6°25'33"	N65°57'19"W	57.17'
C26	57.20'	510.00'	6°25'33"	N72°22'51"W	57.17'
C27	57.20'	510.00'	6°25'33"	N78°48'24"W	57.17'
C28	57.20'	510.00'	6°25'33"	N85°13'56"W	57.17'
C29	39.41'	510.00'	4°25'40"	S89°20'27"W	39.40'
C30	35.93'	220.00'	9°21'26"	S82°26'54"W	35.89'
C31	36.23'	220.00'	9°26'11"	S73°03'05"W	36.19'
C32	25.70'	160.00'	9°12'12"	S72°56'06"W	25.67'
C33	26.78'	160.00'	9°35'25"	S82°19'54"W	26.75'
C34	30.15'	50.00'	34°33'10"	S84°50'14"E	29.70'
C35	18.69'	25.00'	42°50'00"	S80°41'47"E	18.26'
C36	66.45'	190.00'	20°02'18"	S77°06'27"W	66.11'
C37	66.45'	190.00'	20°02'19"	S77°06'28"W	66.11'
C38	281.43'	480.00'	33°35'37"	N76°04'35"W	277.42'
C39	40.90'	56.00'	41°50'59"	S87°32'59"W	40.00'

LINE TABLE		
Line No.	Length	Direction
L1	113.13'	N87°07'37"E
L2	188.25'	N87°08'00"E
L3	41.82'	S87°42'13"E
L4	101.50'	S85°46'07"E
L5	100.02'	S83°25'16"E
L6	11.25'	S81°42'57"E
L7	101.21'	S81°17'17"E
L8	104.10'	S73°26'18"E
L9	102.88'	S60°50'15"E
L10	93.33'	S56°56'33"E
L11	95.12'	S74°32'28"E
L12	43.52'	S80°48'34"E
L13	85.53'	S57°05'19"E
L14	76.48'	S32°42'19"E
L15	92.79'	S49°44'41"E
L16	82.11'	S47°36'01"E
L17	54.59'	S61°22'31"E
L18	51.19'	S28°29'14"E
L19	35.87'	S37°40'52"E

LINE TABLE		
Line No.	Length	Direction
L20	64.21'	S39°06'31"E
L21	50.04'	S38°35'33"E
L22	50.09'	S44°18'40"E
L23	1.71'	S65°31'25"E
L24	62.96'	N02°56'44"W
L25	48.34'	S87°07'37"W
L26	24.23'	N87°07'37"E
L27	18.69'	N87°07'37"E
L28	27.65'	S59°16'46"E
L29	16.21'	S59°16'46"E
L30	7.18'	S02°56'44"E
L31	8.09'	S87°07'37"W
L32	44.84'	N87°07'37"E
L33	88.38'	N67°05'18"E
L34	77.69'	N87°07'37"E
L35	35.77'	S67°05'18"W
L36	60.19'	S88°18'36"E
L37	71.93'	S82°12'42"E
L38	71.68'	S79°30'25"E

LINE TABLE		
Line No.	Length	Direction
L39	71.78'	S73°05'57"E
L40	71.92'	S67°05'56"E
L41	60.13'	S63°05'37"E
L42	106.65'	S43°04'46"E
L43	95.23'	S38°57'31"E
L44	7.52'	S02°27'01"E
L45	68.75'	N87°32'59"E
L46	18.44'	S59°16'46"E
L47	182.00'	N02°27'01"W
L48	120.00'	S02°27'01"E
L49	125.00'	N30°43'14"E
L51	26.00'	S87°32'59"W
L52	105.71'	S30°43'14"W
L54	7.52'	S02°27'01"E
L55	117.09'	S02°20'17"E
L56	110.05'	S87°07'37"W

LEGEND

A.E. = AERIAL EASEMENT
B.C.C.F. = BRAZORIA COUNTY CLERK'S FILE
B.C.D.R. = BRAZORIA COUNTY DEED RECORDS
B.C.P.R. = BRAZORIA COUNTY PLAT RECORDS
O.R.B.C. = OFFICIAL RECORDS BRAZORIA COUNTY
B.L. = BUILDING LINE
BM = BENCHMARK
C.I.R. = CAPPED IRON ROD
D.E. = DRAINAGE EASEMENT
E.E. = ELECTRIC EASEMENT
FND = FOUND
I.R. = IRON ROD
I.P. = IRON PIPE
MH = MANHOLE
No. = NUMBER
P.O.B. = POINT OF BEGINNING
R.O.W. = RIGHT-OF-WAY
S.F. = SQUARE FEET
S.S.E. = SANITARY SEWER EASEMENT
STM.S.E. = STORM SEWER EASEMENT
U.E. = UTILITY EASEMENT
VOL., Pg. = VOLUME, PAGE
W.L.E. = WATER LINE EASEMENT
◉ = FOUND IMPLEMENT AS NOTED
○ = SET 5/8" C.I.R. "BAKER & LAWSON"
▨ = FLOODWAY IN ZONE "AE" (UNLESS OTHERWISE NOTED)

DEDICATION STATEMENT:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:
THAT CLINT PELTIER, DO HEREBY ADOPT THIS PLAT DESIGNATING THE HEREINABOVE DESCRIBED PROPERTY AS BAYOU BEND ESTATES, A SUBDIVISION IN THE JURISDICTION OF THE CITY OF ANGLETON, TEXAS, AND DOES HEREBY DEDICATE, IN FEE SIMPLE, TO THE PUBLIC USE FOREVER, THE STREETS, ALLEYS AND PUBLIC PARKLAND SHOWN THEREON. THE STREETS, ALLEYS AND PARKLAND ARE DEDICATED FOR STREET PURPOSES. THE EASEMENTS AND PUBLIC USE AREAS, AS SHOWN, ARE DEDICATED FOR THE PUBLIC USE FOREVER, FOR THE PURPOSES INDICATED ON THIS PLAT. NO BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS SHALL BE CONSTRUCTED OR PLACED UPON, OVER, OR ACROSS THE EASEMENTS AS SHOWN, EXCEPT THAT LANDSCAPE IMPROVEMENTS MAY BE PLACED IN LANDSCAPE EASEMENTS, IF APPROVED BY THE CITY OF ANGLETON. IN ADDITION, UTILITY EASEMENTS MAY ALSO BE USED FOR THE MUTUAL USE AND ACCOMMODATION OF ALL PUBLIC UTILITIES DESIRING TO USE OR USING THE SAME UNLESS THE EASEMENT LIMITS THE USE TO PARTICULAR UTILITIES, SAID USE BY PUBLIC UTILITIES BEING SUBORDINATE TO THE PUBLIC'S AND CITY OF ANGLETON'S USE THEREOF. THE CITY OF ANGLETON AND PUBLIC UTILITY ENTITIES SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PARTS OF ANY BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH MAY IN ANY WAY ENDANGER OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE, OR EFFICIENCY OF THEIR RESPECTIVE SYSTEMS IN SAID EASEMENTS. THE CITY OF ANGLETON AND PUBLIC UTILITY ENTITIES SHALL AT ALL TIMES HAVE THE FULL RIGHT OF INGRESS AND EGRESS TO OR FROM THEIR RESPECTIVE EASEMENTS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING, READING METERS, AND ADDING TO OR REMOVING ALL OR PARTS OF THEIR RESPECTIVE SYSTEMS WITHOUT THE NECESSITY AT ANY TIME OF PROCURING PERMISSION FROM ANYONE.

THIS PLAT IS HEREBY ADOPTED BY THE OWNERS AND APPROVED BY THE CITY OF ANGLETON (CALLED "CITY") SUBJECT TO THE FOLLOWING CONDITIONS WHICH SHALL BE BINDING UPON THE OWNERS, THEIR HEIRS, GRANTEES AND SUCCESSORS: THE PORTION OF BLOCKS 1 AND 2, AS SHOWN ON THE PLAT IS CALLED "DRAINAGE AND DETENTION EASEMENT." THE DRAINAGE AND DETENTION EASEMENT WITHIN THE LIMITS OF THIS ADDITION, WILL REMAIN OPEN AT ALL TIMES AND WILL BE MAINTAINED IN A SAFE AND SANITARY CONDITION BY THE OWNERS OF THE LOT OR LOTS THAT ARE TRAVERSED BY OR ADJACENT TO THE DRAINAGE AND DETENTION EASEMENT. THE CITY WILL NOT BE RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF SAID EASEMENT OR FOR ANY DAMAGE TO PRIVATE PROPERTY OR PERSON THAT RESULTS FROM CONDITIONS IN THE EASEMENT, OR FOR THE CONTROL OF EROSION. NO OBSTRUCTION TO THE NATURAL FLOW OF STORMWATER RUN-OFF SHALL BE PERMITTED BY CONSTRUCTION OF ANY TYPE OF BUILDING, FENCE, OR ANY OTHER STRUCTURE WITHIN THE DRAINAGE AND DETENTION EASEMENT AS HEREIN ABOVE DEFINED, UNLESS APPROVED BY THE CITY ENGINEER. PROVIDED, HOWEVER, IT IS UNDERSTOOD THAT IN THE EVENT IT BECOMES NECESSARY FOR THE CITY TO ERECT OR CONSIDER ERECTING ANY TYPE OF DRAINAGE STRUCTURE IN ORDER TO IMPROVE THE STORM DRAINAGE THAT MAY BE OCCASIONED BY THE CITY SHALL HAVE THE RIGHT TO ENTER UPON THE DRAINAGE AND DETENTION EASEMENT AT ANY POINT, OR POINTS, TO INVESTIGATE, SURVEY OR TO ERECT, CONSTRUCT AND MAINTAIN ANY DRAINAGE FACILITY DEEMED NECESSARY FOR DRAINAGE PURPOSES. EACH PROPERTY OWNER SHALL KEEP THE DRAINAGE AND DETENTION EASEMENT CLEAN AND FREE OF DEBRIS, SILT, AND ANY SUBSTANCE WHICH WOULD RESULT IN UNSANITARY CONDITIONS OR OBSTRUCT THE FLOW OF WATER, AND THE CITY SHALL HAVE THE RIGHT OF INGRESS AND EGRESS FOR THE PURPOSE OF INSPECTION AND SUPERVISION OF MAINTENANCE WORK BY THE PROPERTY OWNER TO ALLEVIATE ANY UNDESIRABLE CONDITIONS WHICH MAY OCCUR. THE NATURAL DRAINAGE THROUGH THE DRAINAGE AND DETENTION EASEMENT IS SUBJECT TO STORM WATER OVERFLOW AND NATURAL BANK EROSION TO AN EXTENT WHICH CANNOT BE DEFINITELY DEFINED. THE CITY SHALL NOT BE HELD LIABLE FOR ANY DAMAGES OF ANY NATURE RESULTING FROM THE OCCURRENCE OF THESE NATURAL PHENOMENA, OR RESULTING FROM THE FAILURE OF ANY STRUCTURE, OR STRUCTURES, WITHIN THE EASEMENT.

OWNER'S ACKNOWLEDGEMENT:

STATE OF TEXAS §
COUNTY OF BRAZORIA §

THE OWNER OF LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

____
CLINT PELTIER

____
DULY AUTHORIZED AGENT

STATE OF TEXAS §
COUNTY OF BRAZORIA §

BEFORE ME, THE UNDERSIGNED, PERSONALLY APPEARED CLINT PELTIER KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND, IN THE CAPACITY, THEREIN STATED. GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ___ DAY OF __________, _____.

____
NOTARY PUBLIC
STATE OF TEXAS

ANGLETON DRAINAGE DISTRICT

ACCEPTED, THIS THE ________ DAY OF ______________________, 20______.
THE BOARD OF SUPERVISORS OF THE ANGLETON DRAINAGE DISTRICT DOES NOT WARRANT, REPRESENT OR GUARANTEE:

1. THAT DRAINAGE FACILITIES OUTSIDE THE BOUNDARIES OF THE SUBDIVISION PLAT ARE AVAILABLE TO RECEIVE RUNOFF FROM THE FACILITIES DESCRIBED IN THIS PLAT.
2. THAT DRAINAGE FACILITIES DESCRIBED IN THIS PLAT ARE ADEQUATE FOR RAINFALL IN EXCESS OF ANGLETON DRAINAGE DISTRICT MINIMUM REQUIREMENTS.
3. THAT BUILDING ELEVATION REQUIREMENTS HAVE BEEN DETERMINED BY THE ANGLETON DRAINAGE DISTRICT.
4. THAT THE DISTRICT ASSUMES ANY RESPONSIBILITY FOR CONSTRUCTION, OPERATION OR MAINTENANCE OF SUBDIVISION DRAINAGE FACILITIES.

THE DISTRICT'S REVIEW IS BASED SOLELY ON THE DOCUMENTATION SUBMITTED FOR REVIEW, AND ON THE RELIANCE ON THE REPORT SUBMITTED BY THE TEXAS REGISTERED PROFESSIONAL ENGINEER.

THE DISTRICT'S REVIEW IS NOT INTENDED NOR WILL SERVE AS A SUBSTITUTION OF THE OVERALL RESPONSIBILITY AND/OR DECISION MAKING POWER OF THE PARTY SUBMITTING THE PLAT OR PLAN HEREIN, THEIR OR ITS PRINCIPALS OR AGENTS.

________________________ CHAIRMAN ________________________ MEMBER

____
MEMBER

PLANNING AND ZONING COMMISSION AND CITY COUNCIL:

APPROVED THIS ________ DAY OF ________, 20____, BY THE PLANNING AND ZONING COMMISSION, CITY OF ANGLETON, TEXAS.

____
BILL GARWOOD, CHAIRMAN, PLANNING AND ZONING COMMISSION

____
FRANCES AGUILAR, CITY SECRETARY

APPROVED THIS _________ DAY OF ________, 20___, BY THE CITY COUNCIL, CITY OF ANGLETON, TEXAS.

____
JASON PEREZ, MAYOR

____
FRANCES AGUILAR, CITY SECRETARY

STATE OF TEXAS §
COUNTY OF BRAZORIA §

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THE ____ DAY OF ______________, 20___, BY

FRANCES AGUILAR, CITY SECRETARY, CITY OF ANGLETON, ON BEHALF OF THE CITY.

____
NOTARY PUBLIC
STATE OF TEXAS

FIELD NOTES FOR 15.872 ACRE TRACT

BEING A TRACT OF LAND CONTAINING 15.872 ACRES (691,368 SQUARE FEET), LOCATED WITHIN THE T.S. LEE SURVEY, ABSTRACT NUMBER (NO.) 318, IN BRAZORIA COUNTY, TEXAS; SAID 15.872 ACRES BEING ALL OF LOT 3 OF THE HAZLEWOOD ESTATES SUBDIVISION RECORDED UNDER PLAT NO. 2018003772 IN THE BRAZORIA COUNTY PLAT RECORDS (B.C.P.R.); SAID 15.872 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS (BEARINGS ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, (NAD83) SOUTH CENTRAL ZONE, PER GPS OBSERVATIONS):

BEGINNING AT A 1/2-INCH IRON ROD WITH CAP FOUND ON THE EAST RIGHT-OF-WAY (R.O.W.) LINE OF BUCHTA ROAD (AKA COUNTY ROAD 428, SIXTY FEET WIDE), AT THE NORTHWEST CORNER OF LOT 1 OF SAID HAZLEWOOD ESTATES SUBDIVISION, BEING THE WEST-SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE EAST R.O.W. LINE OF SAID BUCHTA ROAD, NORTH 02 DEGREES 56 MINUTES 44 SECONDS WEST, A DISTANCE OF 164.96 FEET TO A 1/2-INCH IRON ROD FOUND AT THE SOUTHWEST CORNER OF LOT 2 OF SAID HAZLEWOOD ESTATES SUBDIVISION, FOR THE WEST-NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE SOUTH LINE OF SAID LOT 2, NORTH 87 DEGREES 07 MINUTES 37 SECONDS EAST, A DISTANCE OF 113.13 FEET TO A 1/2-INCH IRON ROD FOUND AT THE SOUTHEAST CORNER OF SAID LOT 2, FOR AN INTERIOR CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE EAST LINE OF SAID LOT 2, NORTH 02 DEGREES 52 MINUTES 46 SECONDS WEST, A DISTANCE OF 273.40 FEET TO A 5/8-INCH IRON ROD WITH CAP STAMPED "BAKER & LAWSON" SET ON THE SOUTH LINE OF HENDERSON ROAD (AKA COUNTY ROAD 341, EIGHTY FEET WIDE), AT THE NORTHEAST CORNER OF SAID LOT 2, FOR THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE SOUTH LINE OF SAID HENDERSON ROAD, NORTH 87 DEGREES 08 MINUTES 00 SECONDS EAST, A DISTANCE OF 188.25 FEET TO A POINT IN THE BRUSHY BAYOU, AT THE NORTHEAST CORNER OF A DRAINAGE EASEMENT DEDICATED TO ANGLETON DRAINAGE DISTRICT IN VOL. 1680, PAGE 925 B.C.D.R., FOR THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE NORTH LINE OF SAID DRAINAGE EASEMENT THE FOLLOWING TWENTY-ONE (21) COURSES:

1. SOUTH 87 DEGREES 42 MINUTES 13 SECONDS EAST, A DISTANCE OF 41.82 FEET TO AN ANGLE POINT;
2. SOUTH 85 DEGREES 46 MINUTES 07 SECONDS EAST, A DISTANCE OF 101.50 FEET TO AN ANGLE POINT;
3. SOUTH 83 DEGREES 25 MINUTES 16 SECONDS EAST, A DISTANCE OF 100.02 FEET TO AN ANGLE POINT;
4. SOUTH 81 DEGREES 42 MINUTES 57 SECONDS EAST, A DISTANCE OF 11.25 FEET TO AN ANGLE POINT;
5. SOUTH 81 DEGREES 17 MINUTES 17 SECONDS EAST, A DISTANCE OF 101.21 FEET TO AN ANGLE POINT;
6. SOUTH 73 DEGREES 26 MINUTES 18 SECONDS EAST, A DISTANCE OF 104.10 FEET TO AN ANGLE POINT;
7. SOUTH 60 DEGREES 50 MINUTES 15 SECONDS EAST, A DISTANCE OF 102.88 FEET TO AN ANGLE POINT;
8. SOUTH 56 DEGREES 56 MINUTES 33 SECONDS EAST, A DISTANCE OF 93.33 FEET TO AN ANGLE POINT;
9. SOUTH 74 DEGREES 32 MINUTES 28 SECONDS EAST, A DISTANCE OF 95.12 FEET TO AN ANGLE POINT;
10. SOUTH 80 DEGREES 48 MINUTES 34 SECONDS EAST, A DISTANCE OF 43.52 FEET TO AN ANGLE POINT;
11. SOUTH 57 DEGREES 05 MINUTES 19 SECONDS EAST, A DISTANCE OF 85.53 FEET TO AN ANGLE POINT;
12. SOUTH 32 DEGREES 42 MINUTES 19 SECONDS EAST, A DISTANCE OF 76.48 FEET TO AN ANGLE POINT;
13. SOUTH 49 DEGREES 44 MINUTES 41 SECONDS EAST, A DISTANCE OF 92.79 FEET TO AN ANGLE POINT;
14. SOUTH 47 DEGREES 36 MINUTES 01 SECONDS EAST, A DISTANCE OF 82.11 FEET TO AN ANGLE POINT;
15. SOUTH 61 DEGREES 22 MINUTES 31 SECONDS EAST, A DISTANCE OF 54.59 FEET TO AN ANGLE POINT;
16. SOUTH 28 DEGREES 29 MINUTES 14 SECONDS EAST, A DISTANCE OF 51.19 FEET TO AN ANGLE POINT;
17. SOUTH 37 DEGREES 40 MINUTES 52 SECONDS EAST, A DISTANCE OF 35.87 FEET TO AN ANGLE POINT;
18. SOUTH 39 DEGREES 06 MINUTES 31 SECONDS EAST, A DISTANCE OF 64.21 FEET TO AN ANGLE POINT;
19. SOUTH 38 DEGREES 35 MINUTES 33 SECONDS EAST, A DISTANCE OF 50.04 FEET TO AN ANGLE POINT;
20. SOUTH 44 DEGREES 18 MINUTES 40 SECONDS EAST, A DISTANCE OF 50.09 FEET TO AN ANGLE POINT;
21. SOUTH 65 DEGREES 31 MINUTES 25 SECONDS EAST, A DISTANCE OF 1.71 FEET TO A POINT FOR THE SOUTHEAST CORNER OF SAID DRAINAGE EASEMENT AND THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE SOUTH LINE OF SAID DRAINAGE EASEMENT AND THE NORTH LINE OF MOLINA SUBDIVISION, RECORDED UNDER VOL. 15, PAGE 139 OF THE B.C.P.R., SOUTH 87 DEGREES 03 MINUTES 16 SECONDS WEST, A DISTANCE OF 1,244.34 FEET TO A 5/8-INCH IRON ROD WITH CAP STAMPED "BAKER & LAWSON" SET AT THE SOUTHEAST CORNER OF SAID LOT 1, FOR THE SOUTH-SOUTHEAST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE EAST LINE OF SAID LOT 1, NORTH 02 DEGREES 27 MINUTES 01 SECONDS WEST, A DISTANCE OF 272.95 FEET TO A 1/2-INCH IRON ROD FOUND AT THE NORTHEAST CORNER OF SAID LOT 1, FOR AN INTERIOR CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE NORTH LINE OF SAID LOT 1, SOUTH 87 DEGREES 31 MINUTES 03 SECONDS WEST, A DISTANCE OF 227.77 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED TRACT.

KNOW ALL MEN BY THESE PRESENTS:
THAT I, MIGUELANGEL SAUCEDA, DO HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN PROVIDED IN THIS PLAT. TO THE BEST OF MY KNOWLEDGE, THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE ANGLETON LDC, EXCEPT FOR ANY VARIANCES THAT WERE EXPRESSLY GRANTED BY THE CITY COUNCIL.

SIGNED: ____
MIGUELANGEL A SAUCEDA DATE
PROFESSIONAL ENGINEER
TEXAS REGISTRATION NO. 121992

MIGUELANGEL A SAUCEDA
121992

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND, THAT THIS PLAT CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF THE SURVEY AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS STANDARDS AND SPECIFICATIONS.

SIGNED: ____
LUTHER J. DAILY DATE
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6150

LUTHER J. DALY
6150

OWNER:
CLINT PELTIER,
CLINT PELTIER CUSTOM HOMES
733 TX-28 SPUR
DANBURY TEXAS 77534
979-481-4840
clintpeltiercustomhomes@gmail.com

REVISED: 01/14/22

FINAL REPLAT
BAYOU BEND ESTATES
A 15.872 ACRE, 36-LOT, 2 BLOCKS, 2 RESERVE SUBDIVISION,

ALL OF LOT 3 OF HAZLEWOOD ESTATES SUBDIVISION
PLAT No. 2018003772 B.C.P.R.
IN THE T.S. LEE SURVEY, ABSTRACT No. 318
IN BRAZORIA COUNTY, TEXAS

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS

4005 Technology Drive, Suite 1530
Angleton, TX 77515
OFFICE: (979) 849-6681
TBPLS No. 10052500
REG. NO. F-825

PROJECT NO.: 13454	SCALE: 1" = 100'	DRAWN BY: MAS/BT
DRAWING NO.: 13454 PLAT	DATE: 01/14/2022	CHECKED BY: LD

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL NOTIFY THE "UNDERGROUND UTILITY COORDINATING COMMITTEE" TELEPHONE NO. (979) 849-4364 AND THE CITY OF ANGLETON TELEPHONE NO. (979) 849-4364 48 HOURS BEFORE STARTING WORK IN STREET RIGHT-OF-WAYS OR EASEMENTS.
2. ALL EXISTING UNDERGROUND UTILITIES ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM INFORMATION AVAILABLE, CONTRACTOR HAS SOLE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL EXISTING FACILITIES SHOWN ON DRAWINGS. CONTRACTOR SHALL COORDINATE ALL CONFLICTS WITH THE APPROPRIATE GOVERNING AGENCY. NO SEPARATE PAY.
3. CONTRACTOR SHALL PROVIDE A TRENCH SAFETY SYSTEM TO MEET, AS A MINIMUM, THE REQUIREMENTS OF OSHA SAFETY AND HEALTH REGULATION, PART 1926, SUBPART P AS PUBLISHED IN THE FEDERAL REGISTER, VOLUME 54, NO. 209, DATED OCTOBER 31, 1989.
4. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD MOST RECENT EDITION AS REVISED) DURING CONSTRUCTION.
5. CONTRACTOR SHALL COVER OPEN EXCAVATIONS IN PUBLIC STREETS WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS.
6. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
7. EXISTING PAVEMENTS, CURBS, SIDEWALKS, CULVERTS AND DRIVEWAYS (ADJACENT TO THE WORK) DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO EQUAL OR BETTER THAN THEIR ORIGINAL CONDITION AT CONTRACTOR EXPENSE.
8. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK. CONTRACTOR SHALL TAKE NECESSARY ACTIONS TO PROTECT THE EXISTING SURFACES OUTSIDE THE WORK AREA FROM THE EQUIPMENT USED. ALL TRACKED MACHINERY (STREET PADS INCLUDED) SHALL NOT BE OPERATED DIRECTLY ATOP THE PAVEMENT WITHOUT APPROPRIATE PADDING AND PROTECTION OF THE SURFACES. ANY MARRED OR DISTRESSED AREAS SHALL BE REMOVED AND RESTORED WITH NEW MATERIALS TO THE SATISFACTION OF THE ENGINEER. ANY EXISTING DISTRESSED AREAS SHALL BE MADE KNOWN TO THE ENGINEER PRIOR TO OPERATIONS IN THE WORK AREA.
9. ALIGNMENT, CENTERLINE CURVE DATA AND STATIONING TO BE VERIFIED BY ON-THE-GROUND SURVEY FROM APPROVED SUBDIVISION PLAT (OR APPROVED PLOT FOR OFF SITE EASEMENTS), AND ELEVATIONS OF ALL CONNECTIONS TO EXISTING FACILITIES TO BE CONFIRMED PRIOR TO WORK START. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
10. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.
11. CONTRACTOR SHALL ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK.
12. ALL UTILITY TRENCHES TO BE BACK FILLED TO 90 PERCENT (90%) STANDARD PROCTOR DENSITY UNLESS OTHERWISE NOTED.
13. ALL SURVEY, LAYOUT, MEASUREMENT, AND GRADE STAKE WORK SHALL BE PERFORMED BY BAKER & LAWSON, INC. AS PART OF THE WORK UNDER THIS CONTACT.
14. BAKER & LAWSON, INC. WILL PROVIDE EXPERIENCED INSTRUMENT PERSONNEL, COMPETENT ASSISTANTS, AND SUCH INSTRUMENTS, TOOLS, STAKES, AND OTHER MATERIALS REQUIRED TO COMPLETE THE SURVEY, LAYOUT AND MEASUREMENT WORK.
15. CONSTRUCTION DEBRIS AND OTHER UNCLASSIFIED UNSUITABLE EXCESS MATERIAL SHALL BE HAULED TO A STATE APPROVED DISPOSAL SITE OR AS DIRECTED BY THE ENGINEER. AN EXISTING LANDFILL APPROXIMATELY 10 MILES FROM THE PROJECT SITE IS THE NEAREST STATE APPROVED FEE FACILITY. ALL REFUSE MATERIALS (BROKEN CONCRETE, TREES, ASPHALT, ETC.) SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.
16. PLAN QUANTITIES WILL BE USED FOR FINAL PAYMENT UNLESS DESIGN CHANGES ARE MADE DURING CONSTRUCTION.

CONSTRUCTION NOTES FOR PAVING & DRAINAGE

1. GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM CONTROL DEVICES SHALL BE OBSERVED.
2. FILL SHALL BE PLACED IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% OF OPTIMUM DENSITY AS DETERMINED USING TESTING METHOD ASTM D698.
3. CONTRACTOR RESPONSIBLE FOR MAINTAINING BARRICADES TO PREVENT TRAFFIC FROM USING NEW PAVEMENT UNTIL PROJECT IS COMPLETED AND ACCEPTED BY PROPER AUTHORITY OR AS AUTHORIZED BY ENGINEER.
4. B-B INDICATES ROAD WIDTH TO BACK OF CURB. CURB RADII ARE TO BACK OF CURB. T.C. INDICATES TOP OF CURB ELEVATIONS (BASED ON 4" CURB UNLESS OTHERWISE NOTED) T.P. INDICATES TOP OF PAVEMENT ELEVATION.
5. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT MAXIMUM SPACING OF 40-FOOT INTERVALS (SAWCUTS @ 20'(2 1/2"DEEP), LONGITUDINAL JOINTS SHALL BE AT MAXIMUM OF 14-FOOT SPACING. WOOD JOINT SHALL BE SOUND HEART REDWOOD.
6. 6-INCH CONCRETE PAVEMENT TO BE 5.5 SACK MIX MIN. (3,500 PSI) REINFORCING STEEL TO CONFORM TO ASTM A-615, GRADE 60. PROVIDE MINIMUM 18-INCH LAPS. (36 BAR DIA)
7. SAW CUT TO EXPOSE EXISTING LONGITUDINAL STEEL REQUIRED TO CREATE A MINIMUM TWELVE-INCH (12") OVERLAP OF PROPOSED AND EXISTING LONGITUDINAL REINFORCING STEEL WHEN MAKING A CONNECTION TO EXISTING CONCRETE PAVEMENT. WHERE SPACING OF EXISTING LONGITUDINAL STEEL DIFFERS FROM PROPOSED STEEL SPACING, NOTIFY THE ENGINEER.
8. USE PLASTIC CHAIRS TO SUPPORT REINFORCEMENT AT 24-INCH SPACING EACH WAY.
9. SUBGRADE TO BE STABILIZED 2-FOOT BACK OF PROPOSED CURB OR EDGE OF PAVEMENT. EXCESS LIME STABILIZED SOIL SHALL BE UTILIZED IN THE PREPARATION OF SUBGRADE FOR DRIVEWAYS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED CONCRETE PAY ITEMS. SUBGRADE PREPARATION FOR DRIVEWAYS AND PAVING SHALL INCLUDE PROOF ROLLING. SOFT AREAS TO BE EXCAVATED AND RECOMPACTED TO ADJACENT SOIL DENSITY.
10. USE CONTINUOUS LONGITUDINAL REINFORCING BAR IN CURB.
11. BACK FILL AND BEDDING FOR HEADWALL STRUCTURES, TYPE "C" INLETS, R.C.P. LEADS, SANITARY SEWER LEADS, AND STORM SEWERS SHALL BE WITH 1.5 SACK CEMENT. STABILIZED SAND SHALL BE COMPACTED TO A DENSITY OF AT LEAST 90% OF DENSITY DETERMINED BY STANDARD MOISTURE-DENSITY RELATION (ASTM D-698) AT OPTIMUM MOISTURE AND SHALL BE PLACED AND FINISHED WITHIN 3 HRS. OF MIXING. TEMPORARY TRAVEL WAY SURFACE SHALL BE WITH CEMENT STABILIZED LIMESTONE. PAYMENT FOR THESE ITEMS SHALL BE SUBSIDIARY TO THE VARIOUS STRUCTURAL BID ITEMS. VERIFICATION OF CEMENT STABILIZED SAND MIXTURE SHALL BE FURNISHED UPON REQUEST OF ENGINEER.
12. THE SUBGRADE SHALL BE BROUGHT TO THE REQUIRED GRADE BY THE USE OF GRADE STAKES (BLUE TOPS AND AT 50 FT MAX SPACING O.C.) AND APPROVED BY THE ENGINEER BEFORE LIME IS APPLIED.
13. RATE OF APPLICATION FOR LIME SHALL BE SEVEN PERCENT (7%) OF THE DRY WEIGHT OF SOIL (QUALITY BASE ON 100 #/ C.F.) OR THIRTY ONE AND ONE HALF (31.5) POUNDS PER SQUARE YARD FOR SIX (6) INCH STABILIZED SUBGRADE. LIME STABILIZED SUBGRADE SHALL NOT BE MIXED MORE THAN ONE INCH IN EXCESS OF THE REQUIRED DEPTH. WATER SHALL BE ADDED TO THE LIME STABILIZED SUBGRADE AND SHALL BE BROUGHT TO THE OPTIMUM MOISTURE CONTENT DURING THE FIRST MIXING OPERATIONS. LIME STABILIZED SHALL BE KEPT MOIST AND LEFT TO CURE FOR TWO CURING DAYS BEFORE FINAL MIXING CAN BEGIN. AFTER FINAL MIXING IS COMPLETED AND BEFORE SOIL DENSITY TESTS ARE TAKEN. LIME STABILIZED SUBGRADE SHALL BE BROUGHT TO THE REQUIRED GRADE BY THE USE OF GRADE STAKES (BLUE TOPS) AND APPROVED BY THE ENGINEER. DENSITY SHALL BE NINETY-FIVE PERCENT (95%) OF THE STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE. TESTED AND COMPLETED SECTIONS SHALL BE KEPT MOIST CURED ON A DAILY BASIS WITH WATER TRUCKS OR SUBSTANTIAL SUPPLY HOSES FOR THE ENTIRE PERIOD THE SURFACE REMAINS UNCOVERED WITH ADDITIONAL COURSES. AFTER FINAL TESTING AND APPROVAL IS COMPLETE, TRACK EQUIPMENT, SCRAPERS AND OTHER HEAVY EQUIPMENT WILL NOT BE PERMITTED ON THE COMPLETED LIME STABILIZED AREA. LIGHT MOTOR GRADERS, RUBBER TIRED TRACTORS, WATER TRUCKS AND ROLLERS USED IN THE FINISHING OPERATIONS WILL BE PERMITTED WITH THE APPROVAL OF THE ENGINEER. CONCRETE AND LOADED HAUL TRUCKS ARE STRICTLY PROHIBITED ON COMPLETED AREAS UNLESS THE TRAVELED AREA REGARDLESS OF CONDITION IS REMIXED COMPACTED AND TESTED FOR APPROVAL A SECOND TIME.
14. FORMS SHALL BE EITHER WOOD OR STEEL, OF GOOD QUALITY, FREE OF WARP AND SUFFICIENTLY STAKED TO AVOID SHIFTING WHEN LOAD IS APPLIED. ALL REDWOOD EXPANSION BOARDS SHALL BE STAKED WITH 1X2 REDWOOD STAKES AND ALLOWED TO REMAIN WITHIN THE POUR. METAL STAKES ARE APPROVED FOR USE TO STAKE METAL KEYWAYS.
15. REINFORCING SHALL BE SECURELY TIED AT ALL INTERSECTIONS AND SPLICES. ALL DOWELS SHALL BE SECURELY TIED. REINFORCEMENT SHALL BE CLEAN AND FREE OF RUST AT TIME OF USE. PLASTIC CHAIR OF THE CORRECT HEIGHT SHALL BE USED. SPACING SHALL BE SUFFICIENT TO SUPPORT REINFORCEMENT.
16. PRIOR TO CONCRETE PLACEMENT, CONTRACTOR SHALL PRESENT A CERTIFIED COPY OF TOP OF FORM GRADES TO THE ENGINEER FOR REVIEW AND APPROVAL. ELEVATIONS OF FORMS SHALL BE RECORDED AT 10' INTERVALS. ADJUSTMENTS TO FORMS SHALL BE COMPLETE 4 HRS. PRIOR TO CONCRETE PLACEMENT.
17. CONCRETE FOR STREET PAVEMENTS SHALL BE "CLASS A" CONCRETE, SHALL NOT HAVE LESS THAN FIVE AND ONE HALF (5 1/2) SACKS OF CEMENT PER CUBIC YARD, AND SHALL NOT HAVE MORE THAN SIX AND ONE HALF (6 1/2) GALLONS OF WATER PER SACK OF CEMENT. SLUMP SHALL NOT EXCEED FIVE (5) INCHES AND SHALL DEVELOP A MODULUS OF RUPTURE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3500) P.S.I. AT TWENTY EIGHT (28) DAYS. CONCRETE SHALL BE PLACED IN SUCH A MANNER AS TO REQUIRE AS LITTLE HANDLING POSSIBLE. USE OF AN APPROVED VIBRATING SCREED WILL BE REQUIRED. AT INTERSECTIONS AND SMALL AREAS WHERE A VIBRATORY SCREED CAN NOT BE USED, A HAND VIBRATOR OR "JITTERBUG" SHALL BE USED. USE OF A TEN FOOT (10') CONCRETE PAVEMENT STRAIGHT EDGE WILL ALSO BE REQUIRED. ALL EXPOSED JOINTS SHALL BE EDGED AS NOTED ON DETAILS. SURFACE SHALL BE TYPICALLY A BELT FINISH OR BROOM FINISH (COARSE, MEDIUM OR LIGHT) AS REQUIRED BY THE APPLICATION AND DIRECTED BY THE ENGINEER.
18. FLY ASH SHALL MAKE UP FROM 20-25% BY VOLUME OF THE SPECIFIED CEMENT VOLUME AND SHALL CONFORM TO ASTM C 618, CLASS C.
19. CURING COMPOUND SHALL BE TYPE II WITH WHITE PIGMENT. APPLIED AT THE UNDILUTED RATE OF ONE GALLON PER TWO HUNDRED (200) SQUARE FEET.
20. EXPANSION JOINTS SHALL BE BLAST CLEANED, WIRE BRUSHED, BLOWN OR FLAME DRIED SEALED WITH AN APPROVED LIST RUBBERIZED HOT LAID ASPHALT JOINT AND CRACK SEALANT OR A TWO (2) COMPONENT POLYMERIC SELF LEVELING COLD APPLIED SEALANT.
21. CONTRACTOR WILL NOT PERMIT TRAFFIC ON NEW CONCRETE PAVEMENT UNTIL BOTH A MINIMUM OF SEVEN (7) CURING DAYS AND MODULUS OF RUPTURE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3500) P.S.I. TAKES PLACE OR AS APPROVED BY THE ENGINEER/PUBLIC WORKS DEPARTMENT.
22. CONCRETE FOR CURB SHALL BE A 3000 P.S.I. PERFORMANCE STRENGTH CONCRETE WITH A MINIMUM FIVE (5) SACK CEMENT PER CUBIC YARD CONTENT. CURB CONCRETE MIX MAY BE A SMALL AGGREGATE BATCH DESIGN.
23. A CONCRETE MIX DESIGN OF CONCRETE PLUS FLY ASH MAY BE SUBSTITUTED IN LIEU OF THE STANDARD CONCRETE BATCH DESIGN. THE FLY ASH SHALL CONFORM TO THE REQUIREMENTS OF TXDOT MATERIAL SPECIFICATION D-9-8900, AND SHALL NOT EXCEED 25% BY ABSOLUTE VOLUME OF THE SPECIFIED CEMENT CONTENT. THE MODULUS OF RUPTURE STRENGTHS MINIMUMS AND DEVELOPMENT PERIOD OF THE STANDARD CONCRETE MIX DESIGN SHALL REMAIN IN EFFECT AND SHALL BE VERIFIED BY A CONCRETE BATCH MIX DESIGN PREPARED AND TESTED BY A GEOTECHNICAL LAB AND SUBMITTED FOR REVIEW AND APPROVAL BY THE CITY ENGINEERING/PUBLIC WORKS DEPARTMENT PRIOR TO PAVING OPERATIONS.
24. ALL PAVEMENT SAW CUT REQUIRED IN THE PLANS SHALL BE CONSIDERED SUBSIDIARY TO THE PAVING REMOVAL PAY ITEM REQUIRING IT.
25. BLOCK SOD SHALL BE PLACED 16" (ONE BLOCK WIDTH) WIDE ALONG THE EDGE OF ALL NEWLY CONSTRUCTED CURBS AND TO DRIVEWAY REPLACEMENT LIMITS. SILT FENCING MAY BE PLACED DIRECTLY BEHIND CURBS IN LIEU OF SOD.
26. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANALYZING WEATHER CONDITIONS AND TO SUSPEND OPERATIONS DURING PERIODS WHEN ADVERSE WEATHER CONDITIONS APPEAR LIKELY. NO CONCRETE SHALL BE PLACED WHEN THE TEMPERATURE IS 35°F AND RISING. HOWEVER, NO CONCRETE SHALL BE PLACED WHEN THE CONCRETE TEMPERATURE IS ABOVE 100°F. THE CONTRACTOR SHALL KEEP SUFFICIENT LENGTH OF COVERING MATERIAL ON THE JOB SITE TO PLACE OVER AND PROTECT THE SURFACE OF "FRESH" CONCRETE DURING PERIODS OF UNPREDICTED RAINS.

WASTEWATER CONSTRUCTION NOTES

1. CONTRACTOR SHALL PROVIDE RECORD OF LOCATION OF ALL STACKS, STUBS, LEADS, ETC. TO CITY OF ANGLETON.
2. SEPARATION DISTANCES FOR ALL SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR DESIGN CONSERVATION COMMISSION RULES AND REGULATIONS FOR DESIGN CRITERIA FOR SEWAGE SYSTEMS "SECTION 317.20," LATEST PRINTING.
3. MAINTAIN 12-INCH MINIMUM VERTICAL CLEARANCE AT CROSSINGS BETWEEN SANITARY SEWERS AND CULVERTS, UNLESS OTHERWISE NOTED.
4. WHERE SANITARY SEWER LINE CROSSES A WATER LINE WITH LESS THAN 9-FEET BUT MORE THAN 6-INCHES VERTICAL SEPARATION, PROVIDE ONE MINIMUM 18-FOOT JOINT OF PRESSURE RATED P.V.C. SANITARY SEWER (ASTM D2241, CLASS 150, SDR 26) CENTERED ON WATER LINE. INCLUDE COST OF WATER LINE CROSSING IN UNIT PRICE BID PER LINEAR FOOT FOR SANITARY SEWER IN APPROPRIATE SIZES.
5. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY UNSUITABLE TRENCH CONDITIONS.
6. SANITARY SEWER LEADS UNDER OR WITHIN 1' OF EXISTING OR FUTURE PAVEMENT SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND UP TO WITHIN 1' OF TOP OF PAVING SUBGRADE. CEMENT STABILIZED SAND BACK FILL FOR LEADS SHALL BE INCLUDED IN THE BID UNIT PRICE FOR LEADS. SANITARY SEWER LEADS LESS THAN 2 FT BELOW PAVING TO BE INSTALLED AFTER LIME STABILIZATION IS COMPLETE. SANITARY SEWER LEADS TO BE BEDDED AND BACKFILLED TO TOP OF SUBGRADE WITH COMPACTED CEMENT STABILIZED SAND.
7. LOW PRESSURE AIR TEST SHALL BE CONDUCTED PER TNRCC TAC 317.2. HOLDING TIMES SHALL BE AS ESTABLISHED BY TNRCC. CONTRACTOR TO PROVIDE TEST PLUGS AND RISERS. NO SEPARATE PAY.
8. CONTRACTOR TO OPEN CUT ALL SANITARY SEWER CONSTRUCTION UNLESS NOTE OTHER WISE, SEWER SERVICES TO BE INSTALLED FULL WIDTH OF ROADWAY.-NO HALF STREET INSTALLATIONS.
9. CONTRACTOR SHALL AT ALL TIMES PROVIDE MAXIMUM UNINTERRUPTED SERVICE AND SHALL AVAIL OF ANY ROUTING METHOD AND EQUIPMENT TO ACCOMPLISH THIS.
10. ALL SINGLE AND DOUBLE SERVICE LEAD SHALL BE A MINIMUM SIX INCH (6") UNLESS OTHERWISE DIRECTED BY THE ENGINEER/PUBLIC WORKS AND/OR FIELD ADJUSTED BY THE UTILITY DEPARTMENT IN THE FUTURE.

WATER CONSTRUCTION NOTES

1. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE AS SPECIFIED IN CONTRACT DOCUMENTS. THRUST BLOCKING SHALL BE CLASS "B" CONCRETE 2500 P.S.I. AND SHALL BE SUBSIDIARY TO THE BID ITEM PERTINENT TO ITS USE. ALL CEMENT STABILIZED SAND BACKFILL SHALL BE 1.5 SK/CY CEMENT CONTENT. ALL M.J. D.I. FITTINGS WILL HAVE M.J. RESTRAINTS (STARGRIP OR EQUAL) WRAP FITTINGS & RESTRAINTS WITH 10 MIL POLY.
2. SEPARATION DISTANCES OF ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR DESIGN CRITERIA FOR SEWAGE SYSTEMS," SECTION 317.20, LATEST PRINTING.
3. ALL 4" THROUGH 12" WATER MAINS TO BE P.V.C. PIPE, AWWA C-900, CLASS 150, SDR 18, MEETING THE REQUIREMENTS OF ANSI/NSF 61 UNLESS OTHERWISE NOTED.
4. WATER LINES UNDER OR WITHIN 1 FEET OF NEW OR EXISTING PAVEMENTS (STREETS AND DRIVEWAYS) SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND AS SPECIFIED IN THE CONSTRUCTION DETAIL. TYPICAL BEDDING AND BACKFILL TO BE 6" MECHANCIALLY COMPACTED BANK SAND. PROVIDE UNIFORM GRADE FOR BEDDING TO PROVIDE FULL BEDDING OF WATER LINE.
5. PROVIDE A MINIMUM SIX-INCHES (6") OF CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
6. 4-INCH THROUGH 12-INCH LINES TO HAVE A MINIMUM OF 4'-0" COVER BELOW TOP OF CURB. UNLESS OTHERWISE NOTED, VARY FLOW LINE UNIFORMLY FROM DEPTH SHOWN ON PLANS.
7. CENTERLINE OF FIRE HYDRANT TO BE LOCATED AT 3' FROM BACK OF CURB WITH CENTERLINE OF STEAMER NOZZLE 22 INCHES ABOVE FINISHED GRADE. TURN STEAMER OUTLET TO FACE STREET. PROVIDE 4" X 16" X 16" PRECAST CONC PAD BLOCK UNDER FIRE HYDRANT. INSTALL 2 C.F. PEA GRAVEL AROUND WEEP HOLES OF FIRE HYDRANT
8. WHERE WATER LINE CROSSES SANITARY SEWER LINE OR LEAD WITH LESS THAN NINE FEET (9') VERTICAL SEPARATION, PROVIDE ONE MINIMUM 18-FOOT STEEL CASING OVER THE WATER LINE CENTERED ON SANITARY MAIN. BID STEEL CASINGS AS A SEPARATE LINE LINE PER CROSSING.
9. THE CONTRACTOR AT ALL TIMES PROVIDE MAXIMUM UNINTERRUPTED FLOW TO ALL SERVICES AND MAINS AND SHALL AVAIL OF ANY ROUTING METHOD AND EQUIPMENT TO ACCOMPLISH THIS.

CENTERPOINT ENERGY / ENTEX NOTES

CAUTION: UNDERGROUND GAS FACILITIES

LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE NOT USUALLY SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (979) 849-4364 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

* WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (800) 752-8036 OR (713) 659-2111 (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 (800) 659-2111 OR (713) 659-2111.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-5769.

WARNING: OVERHEAD ELECTRICAL FACILITIES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT 713-207-2222.

SBC NOTES

THE LOCATIONS OF SOUTHWESTERN BELL TELEPHONE CO. UTILITIES 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 HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

TEXAS NEW MEXICO POWER NOTES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH AND SAFETY CODE FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL TEXAS NEW MEXICO POWER AT (979) 345-5667.

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE ANGLETON CONSTRUCTION MANUAL (ACM) AND LAND DEVELOPMENT CODE, HEREAFTER REFERRED TO THE ACM AND THE LDC.
2. APPROVAL OF THESE CONSTRUCTION PLANS DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, ADEQUACY, AND COMPLIANCE OF THE SUBMITTED PLANS.
3. ALL RESPONSIBILITY FOR DESIGN RESTS ON ENGINEER WHO PREPARED THEM, IN APPROVING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY AND ACCURACY OF THE DESIGN ENGINEER.
4. DESIGNS SHALL BE IN COMPLETE COMPLIANCE WITH THE LDC AND THE ACM. ANY WAIVER, DEVIATION, VARIANCE, OR EXCEPTION FROM ANY SPECIFIC REQUIREMENT(S) OF THE LDC OR ACM THAT WERE NOT EXPRESSLY REQUESTED WHEN PLANS ARE SUBMITTED, SHALL NOT BE CONSTRUED TO HAVE BEEN GRANTED IF PLANS ARE APPROVED. IT IS THE RESPONSIBILITY OF THE ENGINEER TO MAKE SUCH A WAIVER PROACTIVELY WHEN PLANS ARE SUBMITTED.
5. A MINIMUM OF TWO EXISTING BENCHMARKS SHOULD BE SHOWN ON THE PLANS. IN ADDITION, TWO PERMANENT BENCHMARKS PER SUBDIVISION SHALL BE INSTALLED IN EACH NEW SUBDIVISION TO INCLUDE DESCRIPTION, LOCATION, AND ELEVATION AND TIE TO CITY STANDARDS.
6. CAST BRONZE SURVEY MARKERS SHALL BE PLACED IN CONCRETE IN PERMANENT, ACCESSIBLE LOCATIONS AT THE TIME OF CONSTRUCTION. THE LOCATIONS OF THE MARKERS SHALL BE INDICATED ON THE CONSTRUCTION PLANS. A MINIMUM OF ONE MARKER SHALL BE PLACED FOR EACH 20 ACRES OF THE PROJECT.
7. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVENE A PRE-CONSTRUCTION CONFERENCE WITH THE CITY, THE DEVELOPER'S CONSULTING ENGINEER, CONTRACTOR, AND ANY OTHER AFFECTED PARTIES. THE CITY SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE TIME OF THE CONFERENCE AND 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
8. THE CONTRACTOR SHALL PROVIDE THE CITY A MINIMUM OF 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
9. BARRICADES, BUILT TO CITY SPECIFICATIONS, SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY.
10. IF BLASTING IS PLANNED, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF ANY BLASTING.
11. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.
12. THE LOCATION OF ANY WATER OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE PUBLIC WORKS DEPARTMENT.
13. USE ONE CALL UTILITY SYSTEM: DIAL 1-800-344-8377, 48 HOURS BEFORE YOU DIG.
14. ALL STORM SEWER PIPES TO BE CLASS III RCP UNLESS NOTED OTHERWISE. SPECIAL NOTES FOR PLANS, WHEN APPLICABLE.
15. CONSTRUCTED STREET SECTIONS SHALL SHOW THE FOLLOWING:
    a. PROVIDE STREET NAMES, WIDTH OF R.O.W., OR OTHER METHODS TO IDENTIFY PROPOSED DESIGN OF DIFFERENT PAVEMENT THICKNESS. IN WRITING OR GRAPHICALLY, DESCRIBE THE STREET SECTION(S) TO BE CONSTRUCTED.
    b. MANHOLE FRAMES, COVERS, AND WATER VALVE COVERS WILL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY A QUALIFIED CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
    c. CROWNS OF INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED. INLETS ON THE INTERSECTING STREET SHALL NOT BE CONSTRUCTED WITHIN 40 FEET OF THE VALLEY GUTTER, UNLESS OTHERWISE NOTED.
    d. PRIOR TO FINAL ACCEPTANCE OF A STREET OUTSIDE THE CITY LIMITS, STREET NAME SIGNS CONFORMING TO COUNTY STANDARDS SHALL BE INSTALLED BY DEVELOPER.
    e. SIDEWALK REQUIREMENTS (GIVE STREET NAME AND LOCATION OF REQUIRED SIDEWALK, I.E., NORTH, SOUTH, EAST, OR WEST SIDE).
    f. A CURB LAY DOWN WHERE REQUIRED WHEN ALL POINTS OF SIDEWALKS INTERSECTS CURBS.
    g. INSIDE THE CITY LIMITS, SIDEWALKS SHALL BE COMPLETED PRIOR TO ACCEPTANCE OF ANY DRIVEWAY APPROACHES AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY. WHEN OUTSIDE THE CITY LIMITS, A LETTER OF CREDIT MAY BE POSTED OR OTHER SUITABLE FINANCIAL ARRANGEMENTS MAY BE MADE TO ENSURE CONSTRUCTION OF THE SIDEWALKS. IN EITHER CASE, SIDEWALKS ADJACENT TO "COMMON AREAS", PARKWAYS, OR OTHER LOCATIONS ON WHICH NO BUILDING CONSTRUCTION WILL TAKE PLACE, MUST BE CONSTRUCTED PRIOR TO FINAL ACCEPTANCE OF THE SUBDIVISION.
    h. A LICENSE AGREEMENT FOR LANDSCAPING MAINTENANCE AND IRRIGATION IN STREET R.O.W, SHALL BE EXECUTED BY THE DEVELOPER IN PARTY WITH THE CITY PRIOR TO FINAL ACCEPTANCE.
17. CALL THE CITY 48 HOURS PRIOR TO BEGINNING ANY WORK AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY AND ALL AFFECTED UTILITY PROVIDERS, THE GENERAL CONTRACTOR, THE DEVELOPER AND THE DEVELOPER'S ENGINEER.

CONSTRUCTION SEQUENCING

CALL THE CITY 48 HOURS PRIOR TO BEGINNING ANY WORK AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY AND ALL AFFECTED UTILITY PROVIDERS, THE GENERAL CONTRACTOR, THE DEVELOPER AND THE DEVELOPER'S ENGINEER.

OBTAIN A DEVELOPMENT PERMIT FROM THE CITY.

PROVIDE THE CITY WITH EVIDENCE ALL TCEQ LICENSES AND REQUIREMENTS ARE UP TO DATE.

INSTALL TEMPORARY EROSION CONTROLS AND TREE PROTECTION FENCING PRIOR TO ANY CLEARING AND GRUBBING. NOTIFY THE CITY WHEN INSTALLED.

ROUGH-CUT ALL REQUIRED OR NECESSARY PONDS. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF ANY EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A LOW-LEVEL OUTLET AND AN EMERGENCY OVERFLOW MEETING THE REQUIREMENTS OF THE LDC. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL FINAL RESTORATION IS ACHIEVED.

DELIVER APPROVED ROUGH-CUT SHEETS TO THE CITY ENGINEER PRIOR TO CLEARING AND GRUBBING.

ROUGH GRADE STREETS. NO DEVELOPMENT OF EMBANKMENT WILL BE PERMITTED AT THIS TIME.

INSTALL ALL UTILITIES TO BE LOCATED UNDER THE PROPOSED PAVEMENT OR WITHIN THE ROAD RIGHT-OF-WAY.

DELIVER STORM SEWER CUT SHEETS TO THE CITY ENGINEER.

BEGIN INSTALLATION OF STORM SEWER LINES. UPON COMPLETION, RESTORE AS MUCH DISTURBED AREAS AS POSSIBLE, PARTICULARLY CHANNELS AND LARGE OPEN AREAS.

DELIVER FINAL GRADE CUT SHEETS TO THE CITY ENGINEER.

RE-GRADE STREETS TO SUB-GRADE.

ENSURE THAT UNDERGROUND UTILITY CROSSINGS ARE COMPLETED. LAY 1ST/ COURSE BASE MATERIAL ON STREETS.

INSTALL CURB AND GUTTER

LAY FINAL BASE COURSE ON ALL STREETS.

PLACE CONCRETE.

COMPLETE FINAL GRADING AND RESTORATION OF DETENTION, SEDIMENTATION/FILTRATION PONDS.

COMPLETE PERMANENT EROSION CONTROL AND RESTORATION OF SITE VEGETATION.

REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.

COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED.

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

B&L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST, ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

MIGUELANGEL A SAUCEDA
121992

The seal appearing on
this document was
authorized by
Miguel Sauceda
P.E. 121992
Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

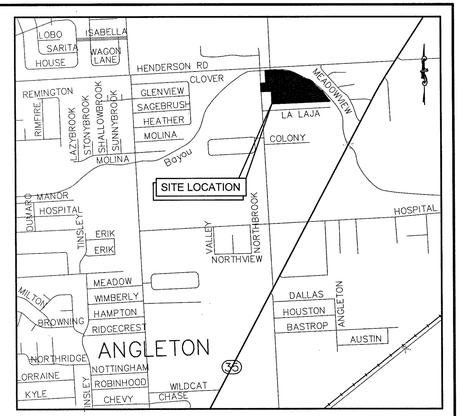
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

CONSTRUCTION NOTES

PROJECT NO. 13454

2



VICINITY MAP

FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48539C0435K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES PARTIALLY IN ZONE "AE" BASE FLOOD ELEVATION OF 22.0 FT, AREAS WITHIN THE 1% ANNUAL CHANCE FLOOD. THE ZONE "AE" AREA LIES FULLY WITHIN THE TOP BANK (EL. =26.5'±) OF BRUSHY BAYOU.

THE SHOWN BFE BOUNDARY WAS PROVIDED BY THE FEMA GIS FLOOD MAP CENTER AND MAY NOT ACCURATELY REFLECT SITE TOPOGRAPHY.

PROJECT BENCHMARK:
NGS MONUMENT R1182 (PID AW1171)
A BRASS DISK STAMPED R1182, ON THE NORTH LINE OF CR 171, ON THE CURB OF A BRIDGE, APPROXIMATELY 275 SOUTHWEST OF INTERSECTION WITH CR 428.
ELEVATION = 26.31 FEET NGVD29

SITE BENCHMARK:
HERITAGE PARK TBM-A CHISELED SQUARE ON CURB INLET ON THE SOUTH SIDE OF BAYOU BEND BLVD, WEST OF CULVERT, AND 215 FEET EAST OF BUCHTA ROAD. ELEVATION = 26.08 NGVD1929

TBM-B CHISELED SQUARE ON CURB INLET ON SOUTH SIDE OF BAYOU BEND BOULEVARD, AND 135 FEET EAST OF BUCHTA ROAD. ELEVATION = 26.61 NGVD1929

TBM-C CHISELED SQUARE ON CURB INLET ON SOUTH SIDE OF BAYOU BEND BOULEVARD, AT THROAT OF CUL-DE-SAC. ELEVATION = 26.82 NGVD1929

ALL COORDINATES SHOWN HEREON ARE IN GRID, BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, (NAD83) SOUTH CENTRAL ZONE, PER GPS OBSERVATIONS.

SYMBOLS

- = FND IMPLEMENT AS NOTED
- = SET 5/8" IRON ROD
- = BENCHMARK
- = GAS VALVE
- = GAS METER
- = IRRIGATION CONTROL
- = WATER VALVE
- = WATER METER
- = FIRE HYDRANT
- = GUY WIRE
- = POWER POLE
- = SIGNAL POLE
- = LIGHT POLE
- = LIGHT BOLLARD
- = BOLLARD
- = MONITOR WELL
- = CLEANOUT
- = SIGN
- = TELE PEDESTAL
- = TREE
- = MANHOLE
- = INLET

LEGEND:

- EXISTING OVERFLOW PATH
- EXISTING NATURAL GROUND ELEV.

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

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ENGINEERS • PLANNERS • SURVEYORS
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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992
Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 60'
PROFILE:
HORIZONTAL:
VERTICAL:

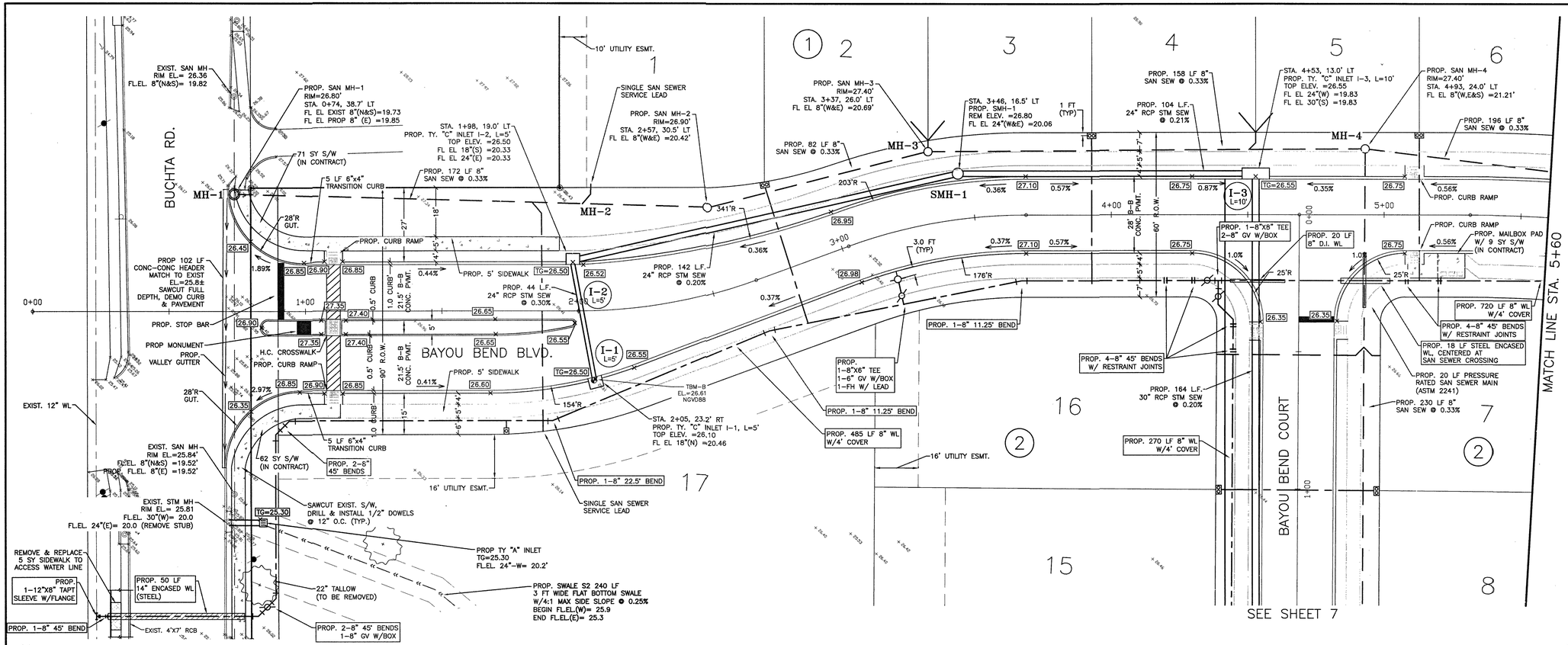
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

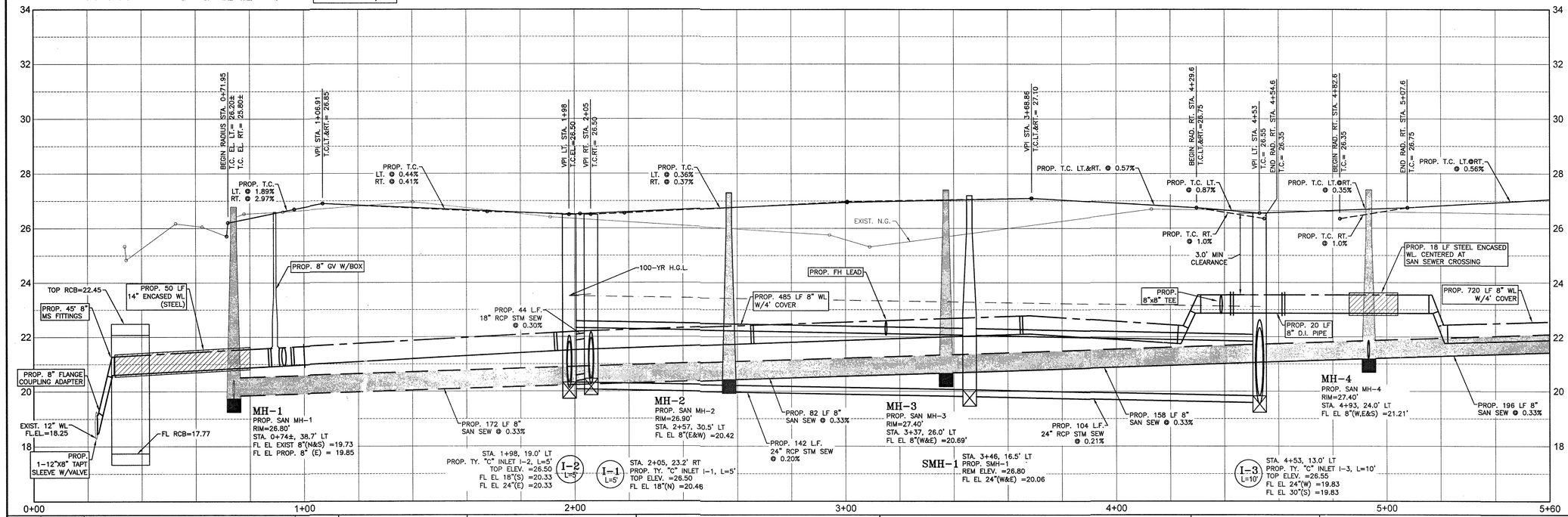
EXISTING CONDITIONS

PROJECT NO. 13454

3

13454-SHEET SET.DWG





SYMBOLS LEGEND

- SINGLE WATER METER
- DOUBLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- REDUCER
- STORM SEWER MANHOLE (SMH-1)
- SANITARY SEWER MANHOLE (MH-1)
- TOP BANK
- STORM SEWER LINE (REINFORCED CONCRETE PIPE, ASTM C76)
- SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900, CLASS 150, DR18)

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

B&L BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST, ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS MIGUELANGEL A SAUCEDA 121992 REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992
Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

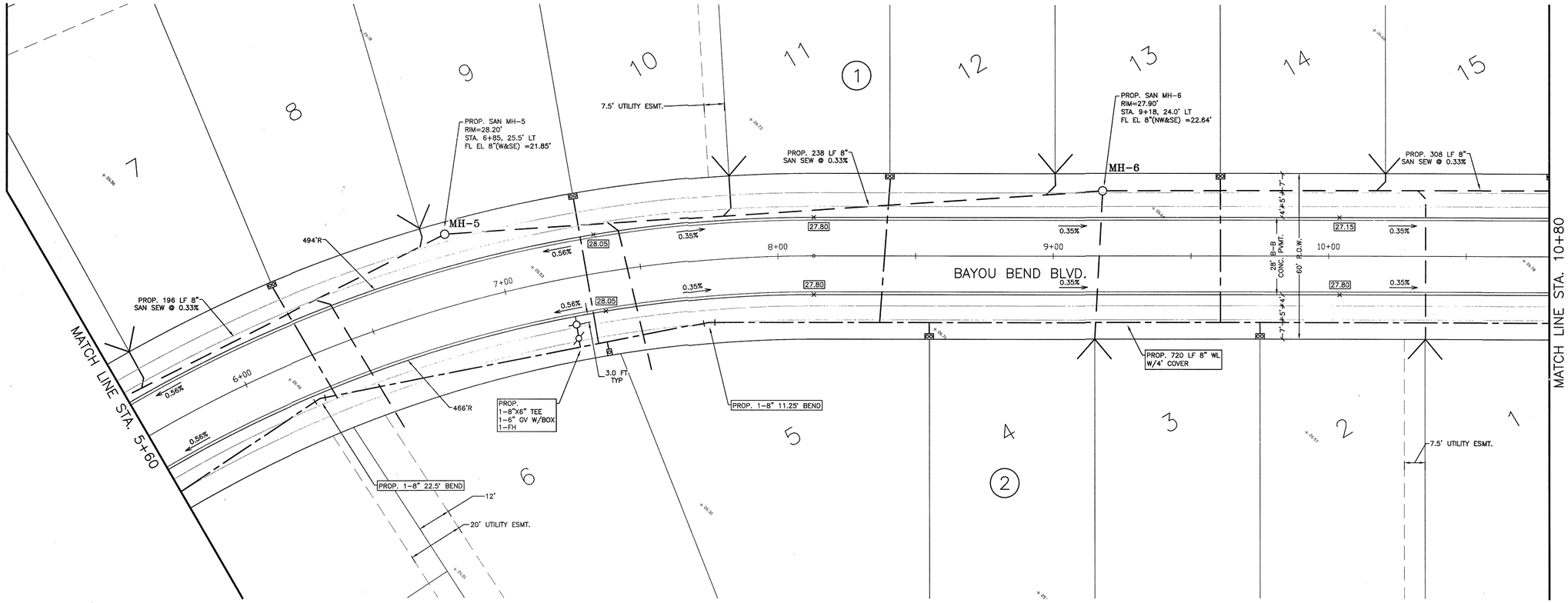
PLAN: 1" = 20'
PROFILE:
HORIZONTAL: 1" = 2'
VERTICAL: 1" = 20'

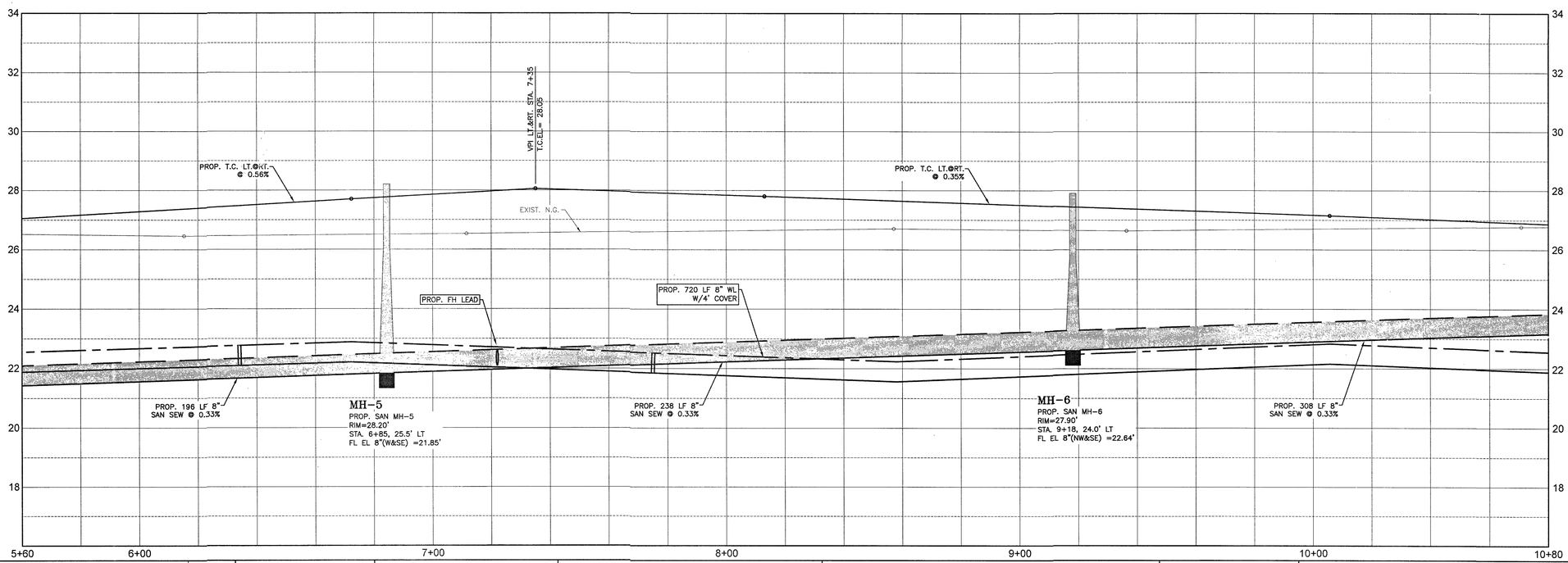
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES AND DETENTION

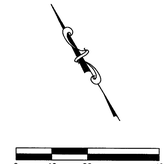
PLAN & PROFILE
BAYOU BEND BOULEVARD
STA. 0+00 TO 5+60

PROJECT NO. 13454

13454-SHEET SET.DWG







SYMBOLS LEGEND

- SINGLE WATER METER
- DOUBLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- REDUCER
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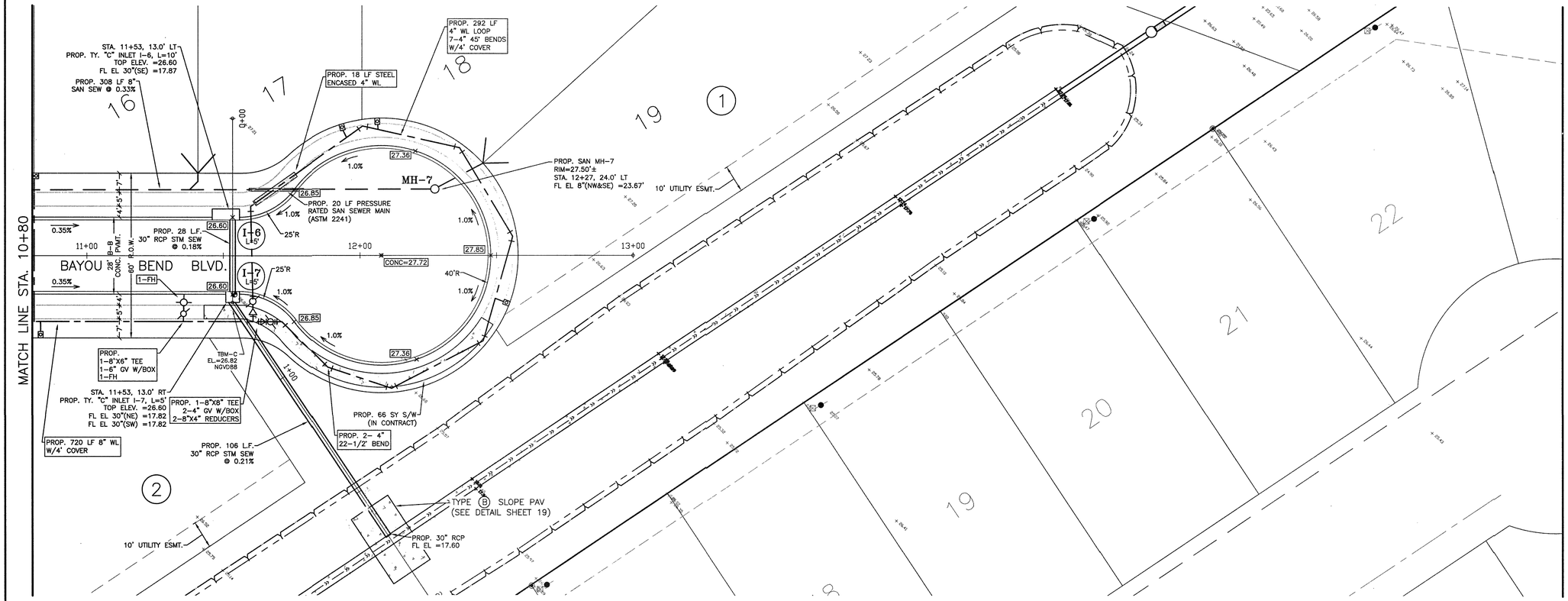
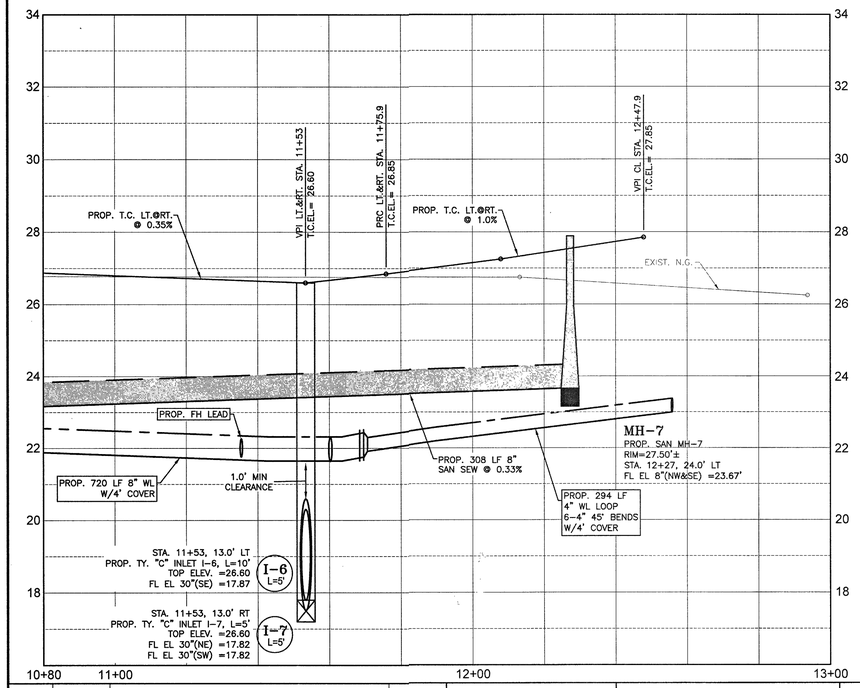
PLAN & PROFILE
BAYOU BEND BOULEVARD
STA. 5+60 TO 10+80

PROJECT NO. 13454

13454-SHEET SET.DWG





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1	10.4.21	MOVE REDUCER. DIM WL LOOP.	

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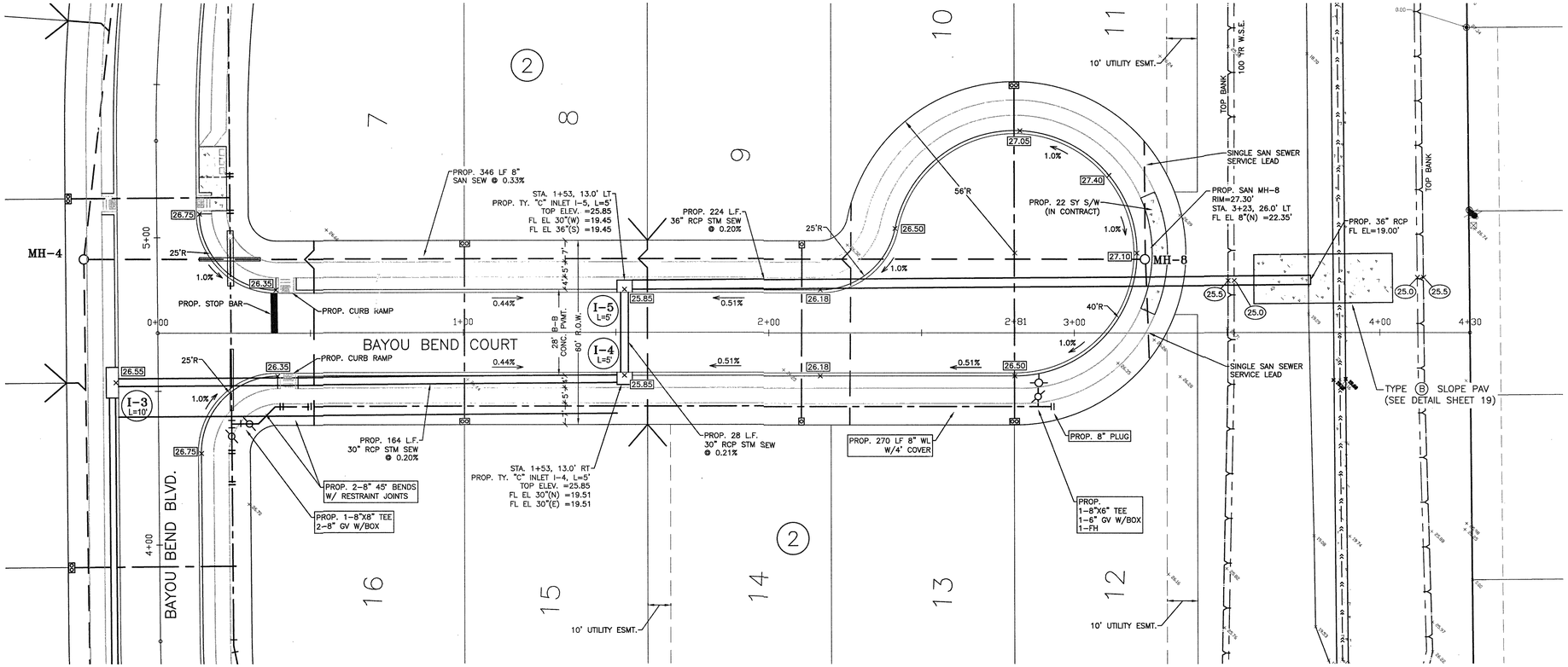
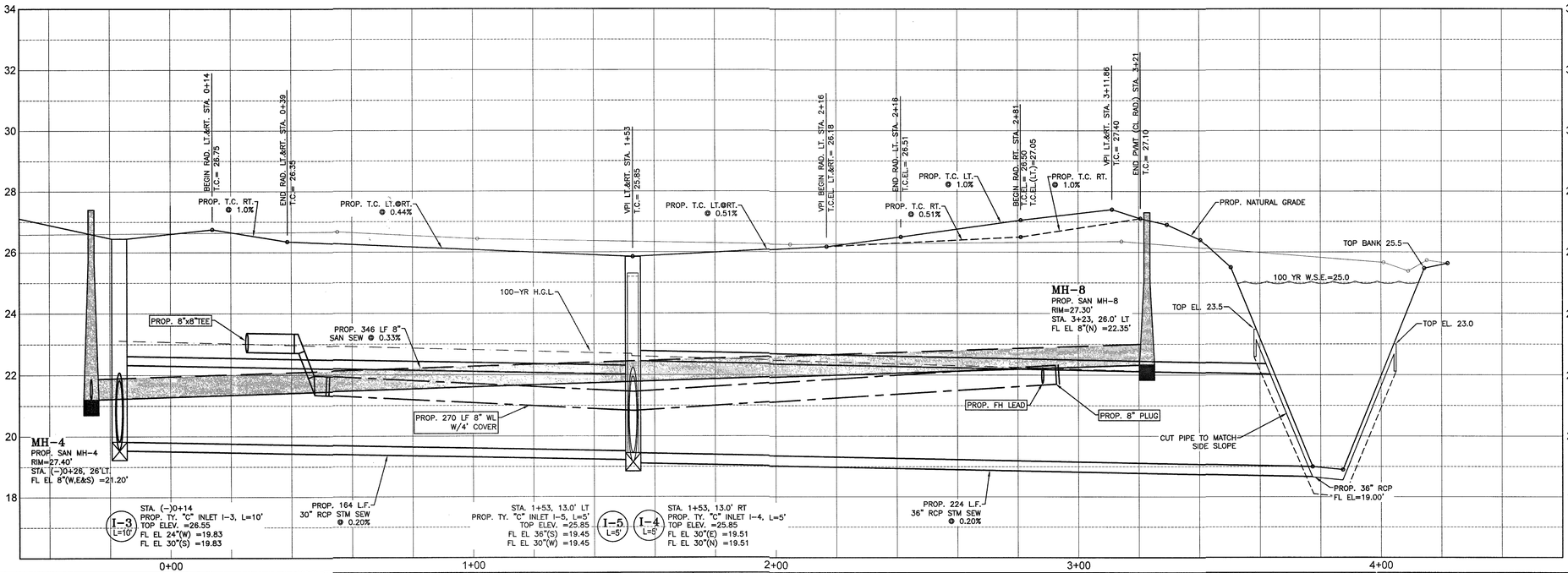
PLAN & PROFILE
BAYOU BEND BOULEVARD
STA. 10+80 TO 13+00

PROJECT NO. 13454

13454-SHEET SET.DWG





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PLANS FOR
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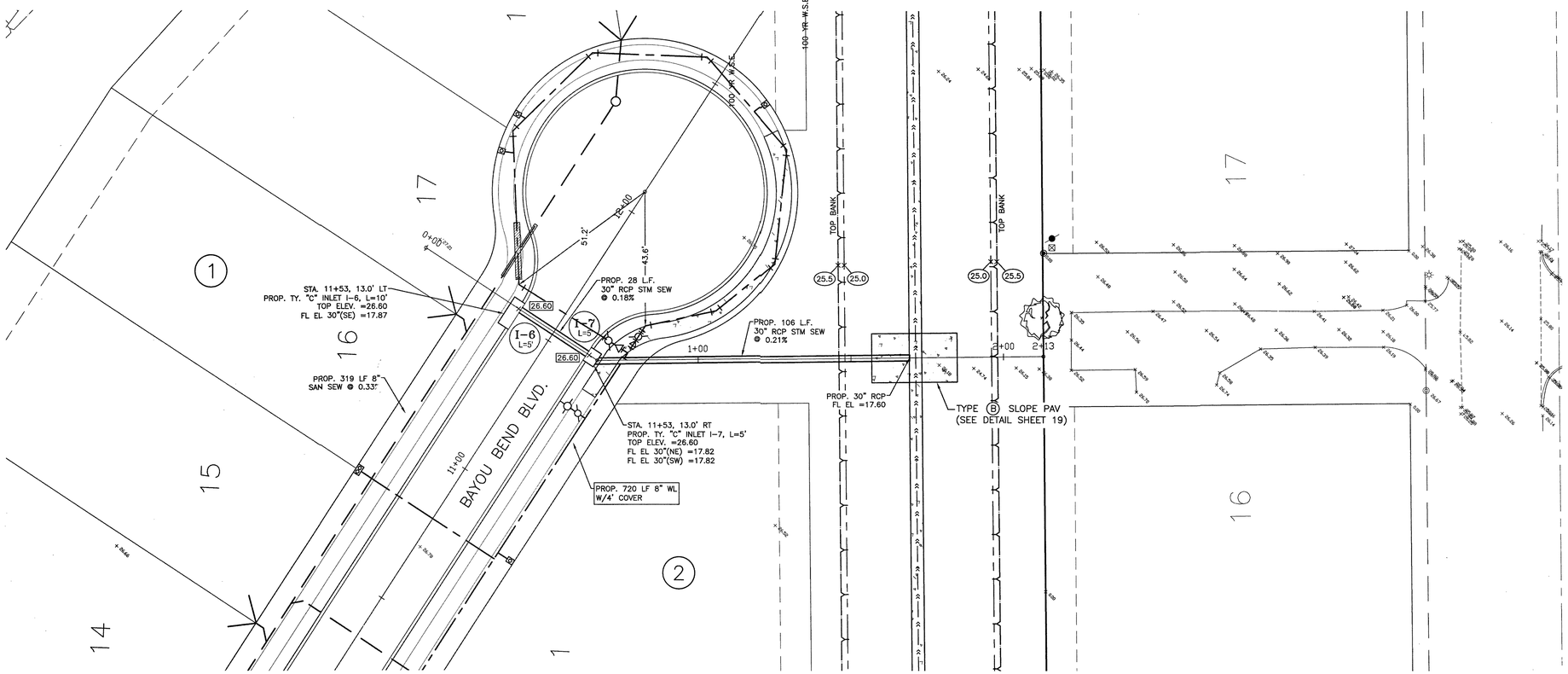
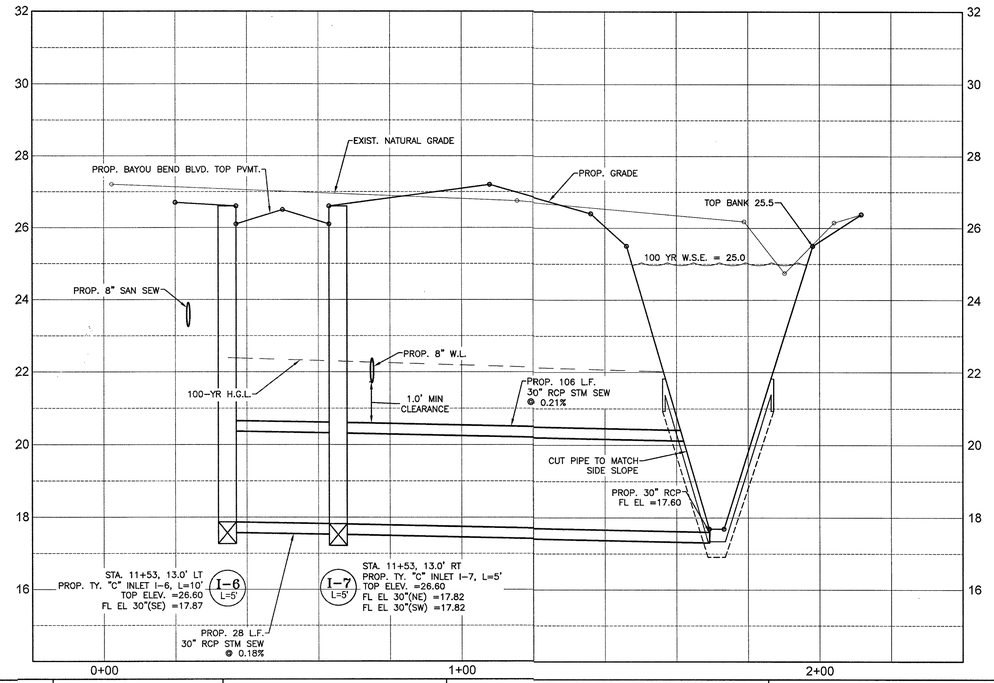
AND DETENTION

PLAN & PROFILE
BAYOU BEND COURT
STA. 0+00 TO 2+81

PROJECT NO. 13454

13454-SHEET SET.DWG





0 10 20 40

SCALE : 1" = 20'

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BAYOU BEND ESTATES
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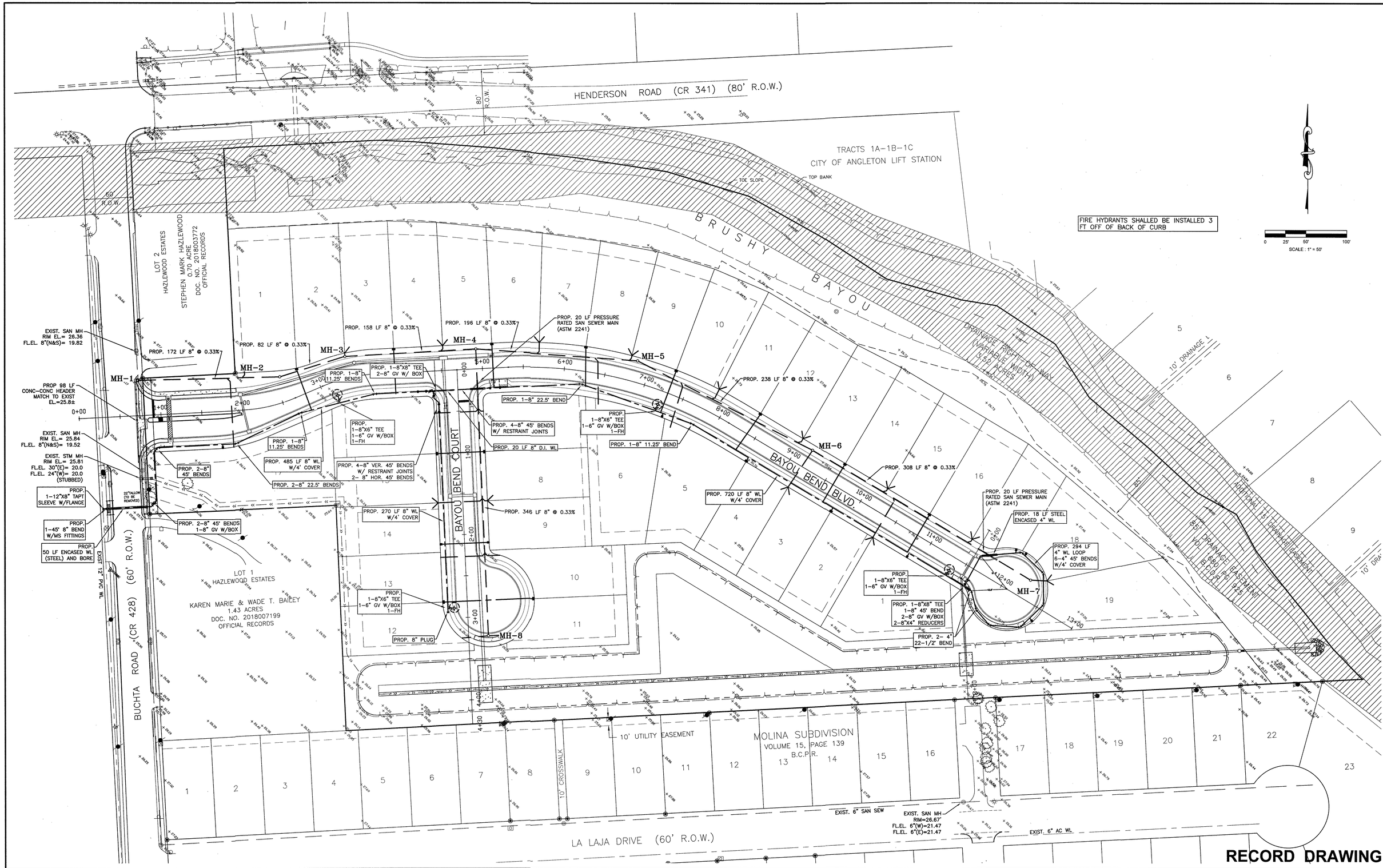
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
OUTFALL 1

PROJECT NO. 13454

7A

13454-SHEET SET.DWG



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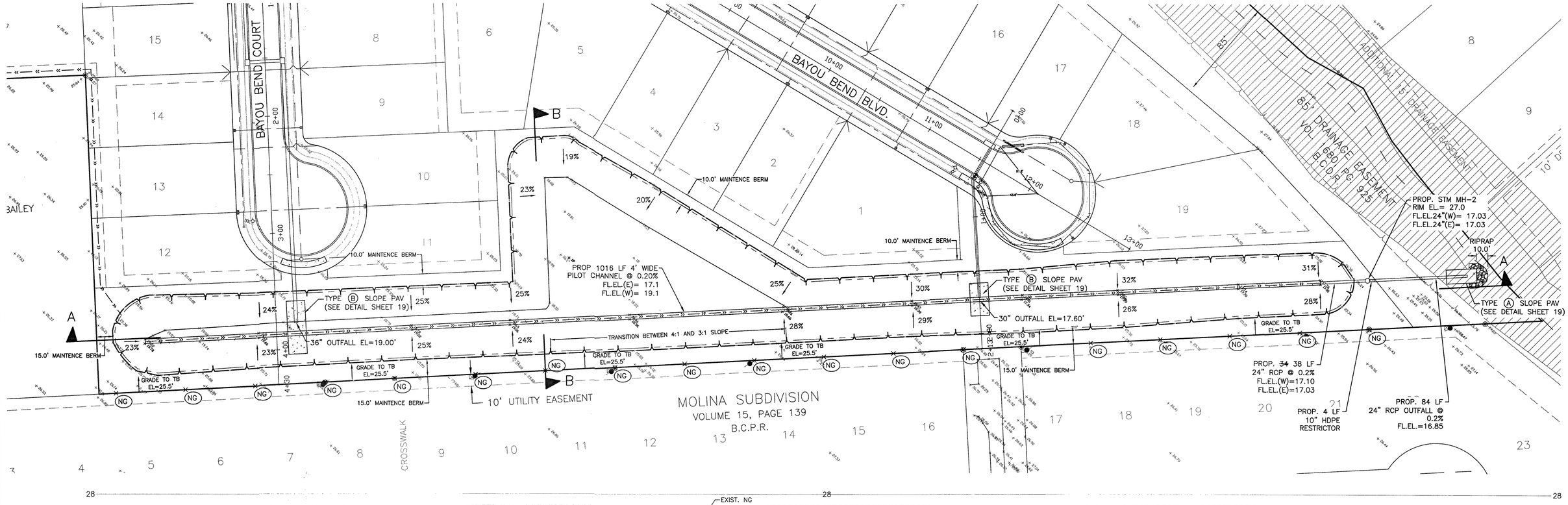
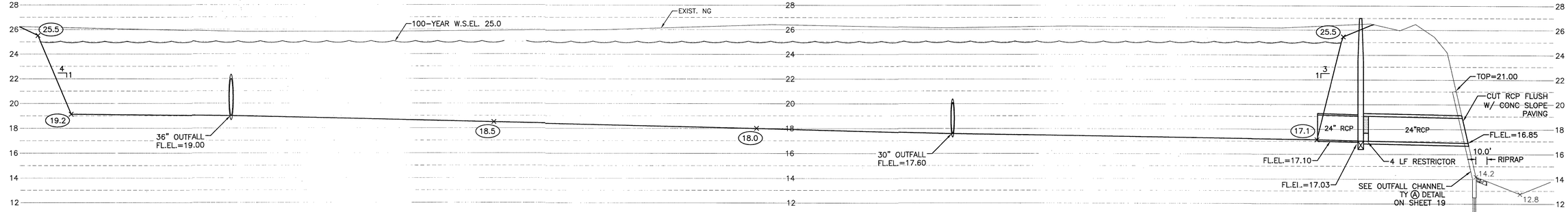
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

UTILITY PLAN

PROJECT NO. 13454

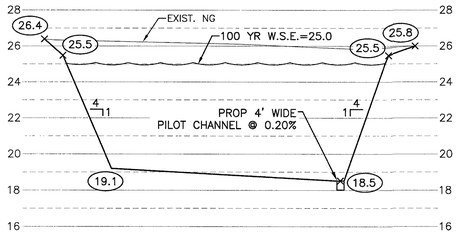
13454-SHEET SET.DWG





SECTION A–A

1"=40' HORIZ.
1" = 4' VERT.



SECTION B–B

1"=40' HORIZ.
1" = 4' VERT.

POND INFORMATION

TOP BANK ELEV. = 25.5
AREA @ 100-YEAR WSEL = 25.0 = 76,200 SF
AVERAGE BOTTOM ELEV. = 18.6
AVERAGE BOTTOM AREA = 18,400
WATER DEPTH = 6.4 FT
AVERAGE AREA = 47,300 SF
VOLUME = 47,300 SF X 6.4 FT = 302,720 CF
= 6.95 AC-FT

DETENTION CALCULATIONS

PRE-DEVELOPMENT FLOW RATE CALCULATION (100-YEAR STORM)

TC = 15.0 MIN. + 350 LF GRASS @ 0.5 FPS
+ 840 LF DITCH @ 1.5 FPS
1,400 = 6.583 IN/HR
Q_{100} = 0.80 CFS/AC x 15.0 ACRES = 12.0 CFS
MAXIMUM ALLOWABLE OUTFALL RATE IN 0.80 CFS PER ACRE ACCORDING TO BRAZORIA COUNTY MASTER DRAINAGE STUDY.

PROPOSED CONDITION (100-YEAR STORM)

Q = CIA x 1.25 PK
A = 15.0 ACRES
C = 0.55
TC = 15 MIN. + 100 LF GRASS @ 0.5 FPS
+ 750 LF STM SEW @ 3.0 FPS
+ 890 LF POND @ 1.5 FPS = 32.3 MIN.
I = 6.289 IN/HR
Q = 0.55 x 6.289 x 15.0 > 1.25 = 64.857 CFS
DETENTION = 6.774 AC-FT = 295,075 CF

RECORD DRAWING

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BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DETENTION POND
LAYOUT AND CROSS
SECTIONS

PROJECT NO. 13454

13454-SHEET SET.DWG

DRAINAGE ANALYSIS FOR SWALE

DRAINAGE HYDRAULIC CALCULATIONS FOR THE 5-YEAR STORM EVENT

D.A. NO.	RUN	AREA (AC)	C	Tc (MIN)	I 5-YR (in/hr)	CUMM AREA (AC)	WEIGHTED C	Q 5-YR (CFS)
DA-S1	S1 TO POND	0.61	0.55	10	6.456	0.61	0.55	2.17
DA-S2	S2 TO I-4	0.52	0.55	10	6.456	0.52	0.55	1.85

DRAINAGE HYDRAULIC CALCULATIONS FOR THE 100-YEAR STORM EVENT

D.A. NO.	RUN	AREA (AC)	C	Tc (MIN)	I 100-YR (in/hr)	CUMM AREA (AC)	WEIGHTED C	Q 100-YR (CFS)
DA-S1	S1 TO POND	0.61	0.55	10	9.369	0.61	0.55	3.14
DA-S2	S2 TO I-4	0.52	0.55	10	9.369	0.52	0.55	2.68

DITCH CAPACITY

ID	NG ELEV FT	PROP FL FT	DITCH DEPTH (D) FT	DITCH BOTTOM (W) FT	SIDE SLOPE	CROSS SEC AREA (A) SF	WET PERIMETER (P) FT	HYDRAULIC RADIUS (R)'	ROUGHNESS COEFFICIE	SLOPE (S) FT/FT	CAPACITY (Q) CFS	REQUIRED CAPACITY (Q) CFS
S1	26.2	25.4	0.8	0	4	2.56	6.4	0.40	0.025	0.0025	4.1	3.14
S2	26.2	25.3	0.9	0	4	3.24	7.2	0.45	0.025	0.001	3.6	2.68

AREA= 4*D^2 + W*D   Q=1.49/N*R^(2/3)*S^(1/2)*A

P = 8*D + W (APPROXIMATE)

ORIFICE EQUATION	
Q = Cd*A*(2*G*H)^0.5	
Where:	
Cd =	0.8
G =	32.2
H =	7.5
Q =	12
A =	0.68
USE 10" Dia.= 0.54 SF FOR RESTRICTOR	

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BAYOU BEND ESTATES
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PLANS FOR
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DRAINAGE AREA MAP AND STORM SEWER LAYOUT

PROJECT NO. 13454

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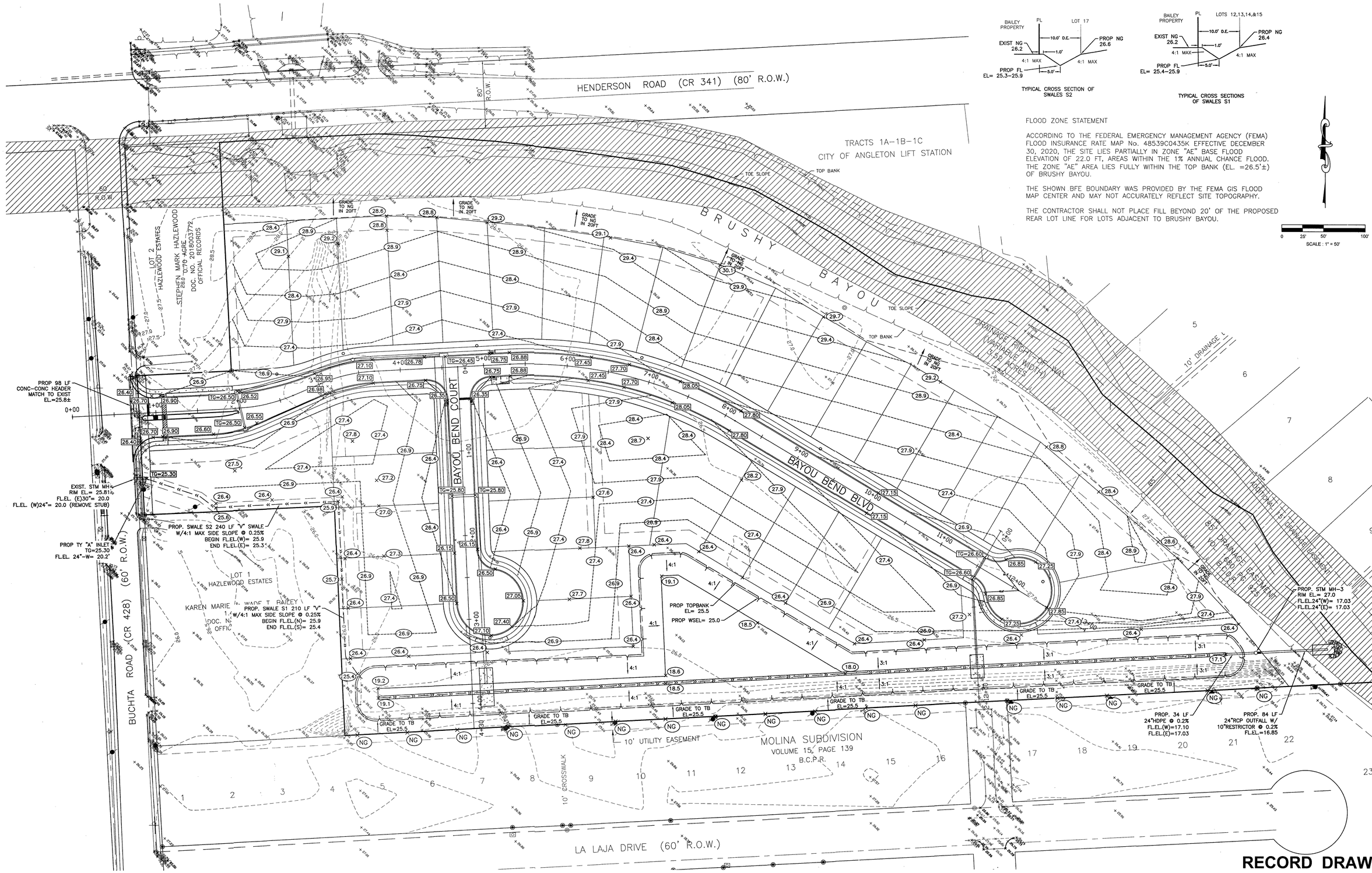

TYPICAL CROSS SECTION OF SWALES S2

TYPICAL CROSS SECTIONS OF SWALES S1

FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48539C0435K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES PARTIALLY IN ZONE "AE" BASE FLOOD ELEVATION OF 22.0 FT, AREAS WITHIN THE 1% ANNUAL CHANCE FLOOD. THE ZONE "AE" AREA LIES FULLY WITHIN THE TOP BANK (EL. =26.5'±) OF BRUSHY BAYOU.

THE SHOWN BFE BOUNDARY WAS PROVIDED BY THE FEMA GIS FLOOD MAP CENTER AND MAY NOT ACCURATELY REFLECT SITE TOPOGRAPHY.

THE CONTRACTOR SHALL NOT PLACE FILL BEYOND 20' OF THE PROPOSED REAR LOT LINE FOR LOTS ADJACENT TO BRUSHY BAYOU.

0 25' 50' 100'
SCALE: 1" = 50'

RECORD DRAWING

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GRADING PLAN

PROJECT NO. 13454

11

13454-SHEET SET.DWG

HENDERSON ROAD (CR 341) (80' R.O.W.)

TRACTS 1A–1B–1C
CITY OF ANGLETON LIFT STATION

BRUSHY BAYOU

DRAINAGE RIGHT-OF-WAY (VARIABLE WIDTH) 5.3 ACRES

25' DRAINAGE EASEMENT

10' DRAINAGE E

ADDITIONAL 15' DRAINAGE EASEMENT

BUCHTA ROAD (CR 428) (60' R.O.W.)

BAYOU BEND COURT

BAYOU BEND BLVD.

LOT 2
HAZLEWOOD ESTATES
STEPHEN MARK HAZLEWOOD
1.076 ACRES
DOC. NO. 2018003779
OFFICIAL RECORDS

LOT 1
HAZLEWOOD ESTATES
KAREN MARIE & WADE T. BAILEY
1.43 ACRES
DOC. NO. 2018007199
OFFICIAL RECORDS

10' UTILITY EASEMENT

MOLINA SUBDIVISION
VOLUME 15, PAGE 139
B.C.P.R.

10' CROSSWALK

LA LAJA DRIVE (60' R.O.W.)

EARTHWORK QUANTITY:

CUT VOLUME:	15,248 CuYd
FILL VOLUME:	16,754 CuYd
NET FILL :	1,506 CuYd

0 25' 50' 100'
SCALE : 1" = 50'

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CUT AND FILL

PROJECT NO. 13454

12

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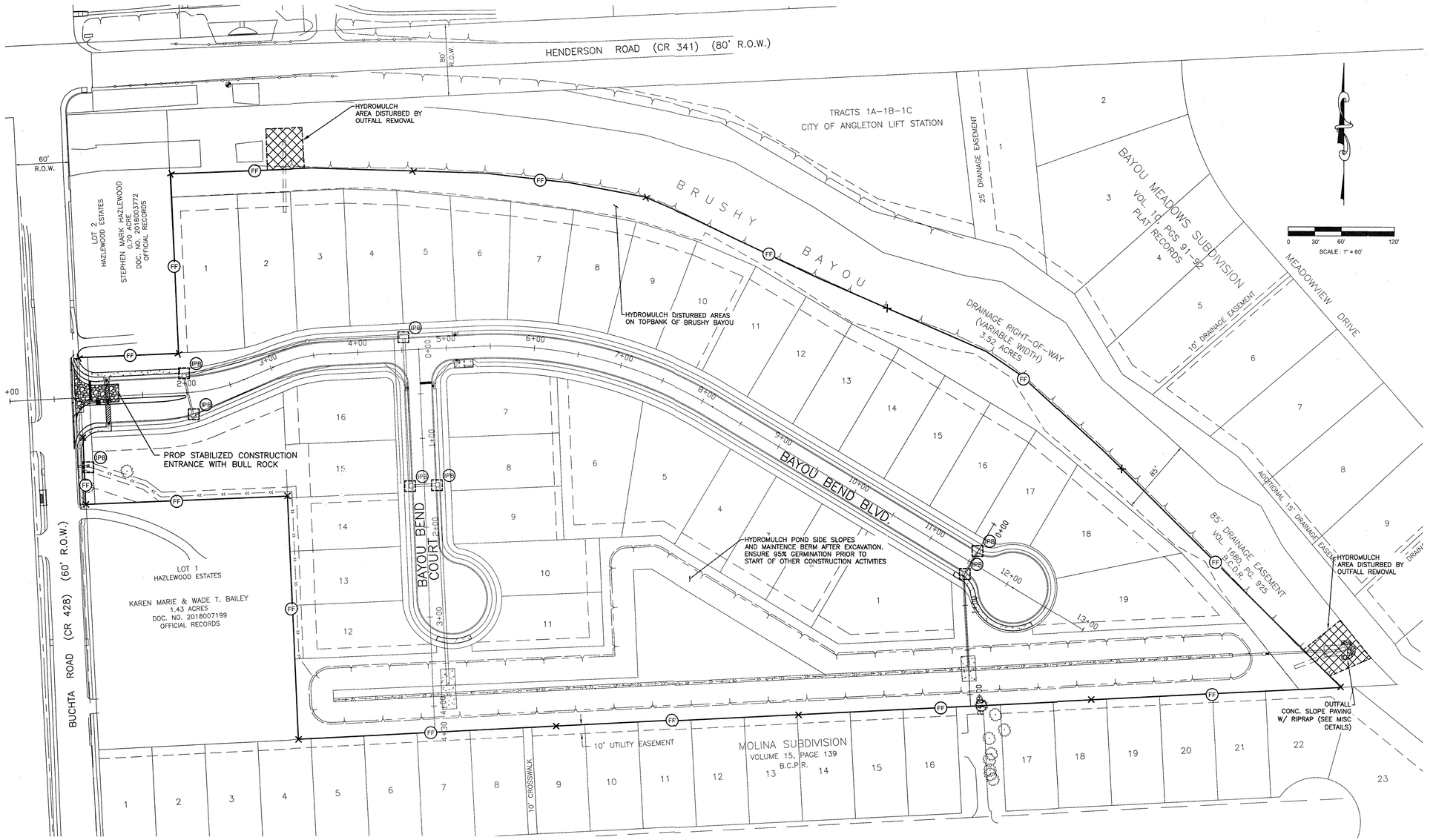
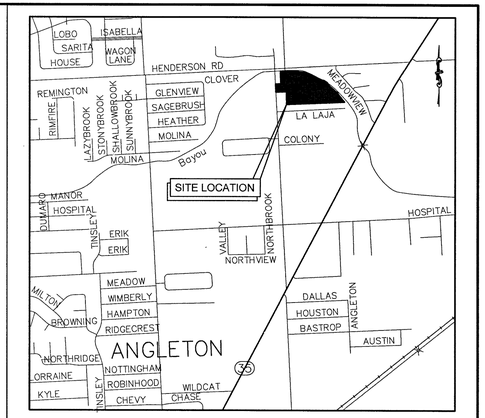


CONTRACTOR SHALL INSTALL 16" WIDE SOD BEHIND NEWLY CONTRUCTED BACK OF CURB AND SIDEWALKS. SILT FENCING (3400 LF) MAY BE USED IN LIEU OF SOD



VICINITY MAP

PROJECT/SITE INFORMATION

PROJECT NAME: BAYOU BEND ESTATES SUBDIVISION

PROJECT ADDRESS/LOCATION: SE CORNER OF HENDERSON RD AND BUCHTA RD

CITY: ANGLETON STATE: TX ZIP CODE: 77515

LATITUDE: 29°07'22.4" LONGITUDE: 95°25'54.8" COUNTY: BRAZORIA

NAME OF RECEIVING WATERS: GULF OF MEXICO

08/01/2021 — MONTH/DAY/YEAR — ESTIMATED CONSTRUCTION START DATE

02/01/2022 — MONTH/DAY/YEAR — ESTIMATED COMPLETION DATE

ESTIMATE OF AREA TO BE DISTURBED: 13.5 ACRES

ESTIMATE OF LIKELYHOOD OF DISCHARGE:

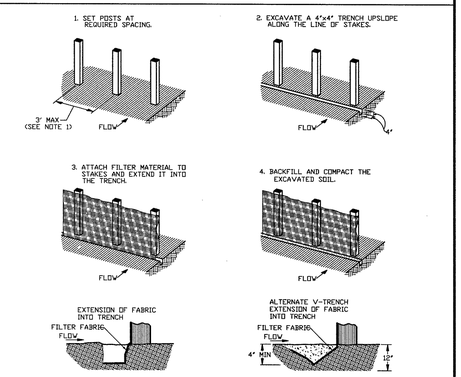
☐ UNLIKELY ☐ ONCE PER WEEK ☐ CONTINUAL
☒ ONCE PER MONTH ☐ ONCE PER DAY

ARE THERE ANY LISTED ENDANGERED OR THREATENED SPECIES, OR DESIGNATED CRITICAL HABITAT IN THE PROJECT AREA?

☐ YES ☒ NO

ELIGIBILITY WITH REGARD TO PROTECTION OF ENDANGERED SPECIES HAS BEEN SATISFIED THROUGH THE INDICATED SECTION OF PART 1.B.3.e.(2) OF THE PERMIT.

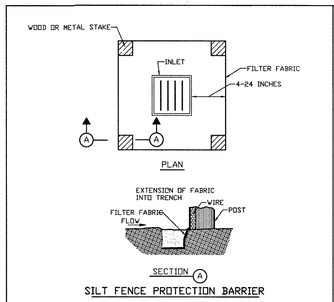
(a) ☒ (b) ☐ (c) ☐ (d) ☐



CONSTRUCTION NOTES:

1. 1 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC FENCE SHALL HAVE A MIN HEIGHT OF 19 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.

FILTER FABRIC FENCE



SILT FENCE PROTECTION BARRIER

LEGEND

- IPB — SILT FENCE AROUND STRUCTURE UNDER CONSTRUCTION
- FF — SILT FENCE ACROSS EXISTING DITCH REINFORCED FILTER BARRIER
- HYDROMULCH SEED

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date: 1/4/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 60'
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

SWPPP LAYOUT AND DETAILS

PROJECT NO. 13454

13

13454-SHEET SET.DWG

1. SITE DESCRIPTION

A. NATURE OF THE CONSTRUCTION ACTIVITY:
BAYOU BEND ESTATES SUBDIVISION ANGLETON, BRAZORIA COUNTY, TEXAS, BEING 13.5 ACRE DEVELOPED AREA WHICH WILL BE A RESIDENTIAL SUBDIVIISON OF 36 LOTS (60 FT WIDE MINIMUM). CONSTRUCTION WILL INCLUDE UNDERGROUND UTILTIES, STORM SEWER, CONCRETE ROADWAYS WITH 4" CURB, AND DETENTION POND.

B. INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
STREET RIGHT OF WAY AND LOT AREAS WILL BE STRIPPED OF ALL VEGETATIVE MATTER. THIS MATERIAL WILL BE STOCKPILED AT THE SITE TO BE SPREAD OVER THE LOTS AFTER FINAL GRADING. THE DETENTION POND WILL BE EXCAVATED AND MATERIAL WILL BE SPREAD ON THE SITE. UTILITY AND STORMSEWER WILL REQUIRE TRENCHING WITH SPOILS TO BE SPREAD ON THE LOTS. RAINFALL RUNOFF WILL BE DIRECTED TO THE STREET GUTTERS AND THE CONSTRUCTED STORM SEWER. TRUCKS WILL BE USED TO DELIVER MATERIALS TO THE SITE AND INCLUDE LIME, CONCRETE, AND PIPE. TRUCKS WILL ALSO BE USED TO HAUL MATERIAL AWAY FROM THE SITE. THE TRUCKS WILL BE ROUTED ALONG BUCHTA ROAD FOR INGRESS AND EGRESS. RUTTING ON SITE DURING WET WEATHER WILL PROVIDE POTENTIAL FOR TRACKING MUD ALONG BUCHTA ROAD. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING MUD TRACTED ONTO BUCHTA ROAD DAILY.

C. TOTAL PROJECT AREA: 15.87 ACRES

D. TOTAL AREA TO BE DISTURBED: 13.5 ACRES

WEIGHTED RUNOFF COEFFICIENT
(BEFORE CONSTRUCTION): 0.30 (AFTER CONSTRUCTION): 0.55

E. REFER TO GENERAL LOCATION MAP AND SITE MAP FOR DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER MAJOR GRADING ACTIVITIES; AREAS OF SOIL DISTURBANCE; AREAS WHICH WILL NOT BE DISTURBED; LOCTIONS OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS; LOCATIONS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR; LOCATION OF OFF-SITE MATERIAL, WASTE, BORROW OR EQUIPMENT STORAGE AREAS; SURFACE WATERS (INCLUDING WETLANDS); AND LOCATIONS WHERE STORM WATER DISCHARGES TO A SURFACE WATER.

F. LOCATION AND DESCRIPTION OF ANY DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION:

G. NAME OF RECEIVING WATERS:
DRAINAGE WILL BE COLLECTED IN THE PROPOSED DETENTION POND WHICH WILL DRAIN THRU A RESTRICTIVE OUTLET INTO BRUSHY BAYOU.

AREAL EXTENT AND DESCRIPTION OF WETLAND OR SPECIAL AQUATIC SITE AT OR NEAR THE SITE WHICH WILL BE DISTURBED OR WHICH WILL RECEIVE DISCHARGES FROM DISTURBED AREAS OFTHE PROJECT.

NONE

H. REFER TO FEDERAL REGISTER, VOLUME 63, NO.128, MONDAY JULY 6, 1998, PAGES 36497 TO 36515 FOR REQUIREMENTS OF NPDES GENERAL PERMITS FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES IN REGION 6.

I. LISTED ENDANGERED OR THREATENED SPECIES OR CRITICAL HABITAT FOUND IN PROXIMITY TO THE CONSTRUCTION ACTIVITY:

NONE

J. PROPERTY LISTED OR ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES:

NONE

2. CONTROLS

NARRATIVE - SEQUENCE OF CONSTRUCTION ACTIVITIES AND APPROPRIATE CONTROL MEASURES DURING CONSTRUCTION

1. INSTALL SILT FENCE ALONG THE PERIMETER OF THE WORK AREA. CONSTUCT THE STABILIZED CONSTRUCTION ENTRANCE.

2. STRIPPING OF ALL VEGETATION MAY BEGIN. REMOVED VEGETATION WILL BE STOCKPILED AT THE SITE.

2. CUT ALL PERIMETER SWALES SHOWN ON THE LOT GRADING PLAN. THE DETENTION POND WILL BE EXCAVATED AND SPOILS WILL BE SPREAD ON SITE. INSTALL THE RESTRICTIVE OUTLET TO THE POND. COVER THE OUTLET WITH A ROCK BERM. HYDROMULCH THE POND SIDE SLOPES.

3. INSTALL WATERLINE, SANITARY SEWER, SERVICE LEAD, STORM SEWER, INLETS, AND MANHOLES. PROVIDE INLET PROTECTION ON ALL INLETS. ALL SPOILS FROM TRENCHING WILL BE SPREAD ON THE ADJACENT LOTS.

4. BEGIN ROADWAY EXCAVATION, LIME STABILIZATION, AND CONCRETE PAVING.

5. INSTALL CONCRETE CURB. PLACE AN 16" WIDE STRIP OF SOD BEHIND THE CURB. FILTER FABRIC FENCE INSTALLED FLUSH WITH BACK OF CURB MAY BE USED IN LIEU OF SOD.

6. PERFORM FINAL GRADE ON LOTS. SPREAD STOCKPILED VEGETATIVE MATERIAL OVER LOTS. SEED AND FERITILIZED ALL AREAS TO ENSURE GROWTH.

A. EROSION AND SEDIMENT CONTROLS: EROSION AND SEDIMENT CONTROLS SHALL RETAIN SEDIMENT ON SITE TO THE EXTENT PRACTICABLE. CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS (WHERE APPLICABLE) AND GOOD ENGINEERING PRACTICES. OFFSITE SEDIMENT ACCUMULATIONS MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS WHEN CAPACITY HAS BEEN REDUCED BY 50%. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WALL SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES.

SOIL STABILIZATION PRACTICES:	OWNER/ DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
TEMPORARY SEEDING				
PERMANENT PLANTING, SODDING, OR SEEDING		X		
MULCHING- WHERE INDICATED		X		
SOIL RETENTION BLANKET				
VEGETATIVE BUFFER STRIPS				
PRESERVATION OF NATURAL RESOURCES				
OTHER: (RIP RAP)		X		

THE FOLLOWING RECORDS SHALL BE MAINTAINED AND ATTACHED TO THIS SWPPP:
DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED.

STRUCTURAL PRACTICES:	OWNER/ DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
SILT FENCES		X		
HAY BALES				
ROCK BERMS		X		
DIVERSION, INTERCEPTOR, OR PERIMETER DIKES				
DIVERSION, INTERCEPTOR, OR PERIMETER SWALES		X		
DIVERSION DIKE AND SWALE COMBINATIONS				
PIPE SLOPE DRAINS				
ROCK BEDDING AT CONSTRUCTION EXIT		X		
TIMBER MATTING AT CONSTRUCTION EXIT				
SEDIMENT TRAPS (AT INLETS)		X		
SEDIMENT BASINS				
STORM INLET PROTECTION		X		
STONE OUTLET STRUCTURES				
OTHER:				

B. STORM WATER MANAGEMENT MEASURES INSTALLED DURING CONSTRUCTION TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION:
CURBS & GUTTERS STORM SEWERS

C. OTHER CONTROLS

NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE UNITED STATES, EXCEPT AS AUTHORIZED BY A PERMIT ISSUED UNDER SECTION 404 OF THE CLEAN WATER ACT.

WASTE MATERIALS: ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL CONTAINER. THE CONTAINER SHALL MEET ALL STATE AND CITY SOLID WASTE MANAGEMENT REGULATIONS. THE CONTAINER SHALL BE EMPTIED AS NECESSARY AND THE TRASH HAULED TO AN APPROPRIATE DUMP SITE. NO CONSTRUCTION MATERIALS WILL BE BURIED ON SITE.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS: PAINT, CLEANING SOLVENTS, ASPHALT PRODUCTS, PETROLEUM PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, AND CONCRETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR SHOULD BE CONTACTED IMMEDIATELY.

SANITARY WASTE: PORTABLE SANITARY FACILITIES WILL BE PROVIDED BY THE CONTRACTOR. ALL SANITARY WASTES WILL BE COLLECTED FROM PORTABLE UNITS AND SERVICED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

OFFSITE VEHICLE TRACKING SHALL BE MINIMIZED BY:
___ HAUL ROADS DAMPENED FOR DUST CONTROL LOADED
_X_ HAUL TRUCKS TO BE COVERED WITH TARPAULIN
_X_ EXCESS DIRT ON ROAD REMOVED DAILY STABILIZED
___ CONSTRUCTION ENTRANCE

OTHER: TRUCKS HAULING VEGETATION AND DEBRIS WILL BE MONITORED AND SHALL BE COVERED WITH TARPAULINS IF REQUIRED TO PREVENT DUST OR OTHER PARTICLES FROM BLOWING OR FALLING FROM TRUCK.

REMARKS: ALL OPERATIONS WILL BE CONDUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNTS OF SEDIMENT THAT MAY ENTER THE RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, WATERBODY, OR STREAMBED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS.

3. MAINTENANCE

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IF A REPAIR IS NECESSARY IT SHALL BE DONE AT THE EARLIEST TIME POSSIBLE, BUT NO LATER THAN SEVEN CALENDAR DAYS AFTER THE GROUND HAS DRIED SUFFICIENTLY TO PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. THE AREAS ADJACENT TO DRAINAGE WAYS SHALL HAVE PRIORITY, FOLLOWED BY DEVICES PROTECTING STORM SEWER INLETS. MAINTENANCE SHALL BE PERFORMED BEFORE THE NEXT ANTICIPATED STORM EVENT OR AS SOON AS PRACTICABLE.

4. INSPECTION

AN INSPECTION WILL BE PERFORMED BY THE PERMITEE EVERY FOURTEEN DAYS AS WELL AS AFTER EVERY ONE-HALF INCH OR GREATER RAINFALL EVENT. AN INSPECTION AND RAINFALL REPORT WILL BE MADE AFTER EACH INSPECTION. ANY DEFICIENCIES WILL BE NOTED AND APPROPRIATE CHANGES SHALL BE MADE TO THE SYSTEM TO COMPLY WITH REQUIREMENTS.

5. NON-STORMWATER DISCHARGES

___ FIRE HYDRANT FLUSHING
_X_ BUILDING WASHDOWN WITHOUT DETERGENTS
_X_ PAVEMENT WASHDOWN WITHOUT DETERGENTS
_X_ CONDENSATE
___ UNCONTAMINATED GROUNDWATER
___ UNCONTAMINATED FOUNDATION DRAINS

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

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DATE

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STATE OF TEXAS
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REGISTERED PROFESSIONAL ENGINEER

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979-481-4840

PLAN:
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BAYOU BEND ESTATES
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PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

SWPPP NARRATIVE

PROJECT NO. 13454

13454-SHEET SET.DWG

Drainage Analysis

Job # 13454 - Hazelwood, Buchta Rd, Angleton TX

Rainfall intensity calculations for Brazoria County

I = intensity (in/hr)
b = coefficient
t = time of concentration
d = coefficient
e = coefficient

subscript

i =1 = 2year storm
i =2 = 5 year storm
i =3 = 10 year strom
i =4 = 25 year storm
i =5 = 50 year storm
i =6 = 100 year storm

$i := 1..6$

$b_i :=$

75.5
82.8
88.1
100.8
107.3
120.2

$e_i :=$

0.807
0.775
0.756
0.753
0.742
0.741

$d_i :=$

14.7
16.9
18.4
19.1
19.8
21.3

$T_0 := 32.1$ ENTER PREDEVELOPMENT TIME OF CONCENTRATION

$I_i := \frac{b_i}{(d_i + T_0)^{e_i}}$ $I_6 = 6.307$ Predevelopment Intensity of interest

$C := .1269$ ENTER PREDEVELOPMENT C VALUE

$A := 15.1$ ENTER AREA

$C_f := 1.00$

$Q := C \cdot C_f \cdot I_6 \cdot A$

$Q = 12.085$

Must Insert correct subscript for I to obtain the relevant Q

$V := (C) \cdot A \cdot 43560 \cdot 1.08$

$V = 9.015 \times 10^4$

For these calculations, total volume storage is assumed to equal (C)*A with A converted to square feet multiplied by 13" (1.08')

DEVELOPMENT OF RUNOFF HYDROGRAPH
MALCOM'S METHOD AS DESCRIBED IN THE
BRAZORIA COUNTY DRAINAGE CRITERIA
MANUAL

$T := \frac{V}{1.39 \cdot Q}$ $T = 5.367 \times 10^3$

T = Time to peak, presented as a function of volume and peak flow and therefore indirectly related to time of concentration

$t := 0, 1000 .. 84000$

$f(t) := \left(\frac{Q}{2}\right) \cdot \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$

f(t) describes rising limb of hydrograph

$g(t) := 4.34 \cdot Q \cdot \exp\left[-1.30 \cdot \left(\frac{t}{T}\right)\right]$

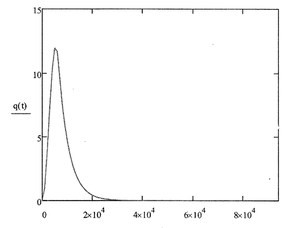
g(t) describes descending limb of hydrograph

$q(t) := \text{if}(t \le 1.25 \cdot T, f(t), g(t))$

$Volume_{pre} := \int_0^{86400} q(t)\, dt$

$Volume_{pre} = 9.047 \times 10^4$

Predevelopment hydrograph



$T_0 := 29.1$ ENTER POST DEVLOPMENT TIME OF CONCENTRATION

$I_i := \frac{b_i}{(d_i + T_0)^{e_i}}$ $I_6 = 6.583$ Post development I of interest

$C := 0.55$ ENTER POST DEVELOPMENT C FACTOR REVISE Cf AND AREA IF NECESSARY

$C_f := 1.25$

$Q := C \cdot I_6 \cdot A \cdot C_f$

$Q = 68.337$

$V := (C) \cdot A \cdot 43560 \cdot 1.08$

$V = 3.907 \times 10^5$

$T := \frac{V}{1.39 \cdot Q}$ $T = 4.113 \times 10^3$

$t := 0, 1000 .. 25000$

$f(t) := \left(\frac{Q}{2}\right) \cdot \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$

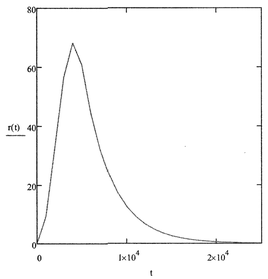
$g(t) := 4.34 \cdot Q \cdot \exp\left[-1.30 \cdot \left(\frac{t}{T}\right)\right]$

$r(t) := \text{if}(t \le 1.25 \cdot T, f(t), g(t))$

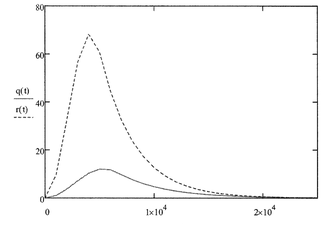
$Volume_{post} := \int_0^{86400} r(t)\, dt$

$Volume_{post} = 3.921 \times 10^5$

Post development hydrograph



Combined pre and post development hydrographs



$v(t) := ((r(t) - q(t))) \cdot 1$

$v(t) := \text{if}(f(t) > 0, f(t), 0)$

THE REQUIRED STORAGE COMPUTED AS THAT PART OF THE POST DEVELOPMENT HYDROGRAPH THAT FALLS ABOVE THE PREDEVELOPMENT HYDROGRAPH

ACRE -FEET

$\frac{\int_0^{86400} v(t)\, dt}{43560} = 6.928$

Hydrological and Hydraulic Impacts
Hazelwood - Buchta Road, Angleton TX
Job # 13454

Brazoria County, Texas

A = 15.1 Acre Development :

Pre Development:

C = 0.1269
TC = 32.1 Minutes, I = 6.307 in/hr
Q = 100 Year Storm = 12.085 cfs

Post Development

C = 0.55
T/C = 29.1 Minutes, I= 6.583 in/hr
Q = 100 Year Storm = 68.337 cfs

Required Detention:

6.928 acre - feet (301,784 c.f.)

Maximum allowable outfall rate is 0.80 cfs/acre ac according to Bra Co Master Study for Drainage Areas BB35 & BB36 of Bastrop Bayou

Pre Q100= 0.80 x 15.1 = 12.08 CFS

Miguel Sauceda, P.E. December 18, 2020

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

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BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
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HYDROLOGICAL CALCULATIONS

PROJECT NO. 13454

13454-SHEET SET.DWG

WinStorm (STORM DRAIN DESIGN) Version 3.05, Jan. 25, 2002
Run @ 6/17/2021 9:36:27 AM

PROJECT NAME : BAYOU BEND
JOB NUMBER : 13454
PROJECT DESCRIPTION :
DESIGN FREQUENCY : 5 Years
ANALYSYS FREQUENCY : 100 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 5 Years

Runoff Computation for Design Frequency.

ID (acre)	C Value	Area (min)	Tc (min)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q
A-3	0.55	1.67	10.00	10.00	7.99	0.000	7.336
A-4	0.55	0.83	10.00	10.00	7.99	0.000	3.646
A-5	0.55	1.38	10.00	10.00	7.99	0.000	6.062
A-1	0.55	0.38	10.00	10.00	7.99	0.000	1.669
A-2	0.55	0.94	10.00	10.00	7.99	0.000	4.129

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length/ Perim. (sf)	Grate Area (%)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	DeprW (ft)	Depth Allowed (ft)	Critic Elev.
A-3	Curb	10.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.70
A-4	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.00
A-5	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.00
A-1	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.60
A-2	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.60

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (sf)	Grate Perim (cfs)	Grate Area (cfs)	Total Q (ft)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left	Ponded Width Right
A-3	Curb	10.00	n/a	n/a	7.336	10.327	0.398	12.70	12.70
A-4	Curb	5.00	n/a	n/a	3.646	6.261	0.349	9.80	9.80
A-5	Curb	5.00	n/a	n/a	6.062	6.261	0.489	11.85	11.85
A-1	Curb	5.00	n/a	n/a	1.669	6.261	0.207	7.30	7.30
A-2	Curb	5.00	n/a	n/a	4.129	6.261	0.379	10.25	10.25

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr.Area (in/hr)	Cumulat. Tc cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node (ft)	Total Disch.
A-3	Curb	0.550	2.99	11.49	7.52	0.000	0.00	12.375
A-4	Curb	0.550	3.82	12.18	7.33	0.000	0.00	15.401
A-5	Curb	0.550	5.20	12.29	7.30	0.000	0.00	20.880
A-1	Curb	0.550	0.38	10.00	7.99	0.000	0.00	1.669
A-2	Curb	0.550	1.32	10.26	7.90	0.000	0.00	5.737
MH-1	CircMh	0.550	1.32	10.26	7.90	0.000	0.00	5.737
OUT	Outlt	0.550	5.20	12.29	7.30	0.000	0.00	20.880

Conveyance Configuration Data

Run# (ft)	Node I.D. US (ft)	DS (ft)	Flowline Elev. US (ft)	DS (ft)	Shape # (ft)	Span (%)	Rise	Length	Slope	n_value
1	A-1	A-2	20.46	20.33	Circ 1	0.00	1.50	44.00	0.30	0.013
2	A-2	MH-1	20.33	20.06	Circ 1	0.00	2.00	142.00	0.19	0.013
3	MH-1	A-3	20.06	19.83	Circ 1	0.00	2.00	104.00	0.22	0.013
4	A-3	A-4	19.83	19.51	Circ 1	0.00	2.50	164.00	0.20	0.013
5	A-4	A-5	19.51	19.45	Circ 1	0.00	2.50	28.00	0.21	0.013
6	A-5	OUT	19.45	19.00	Circ 1	0.00	3.00	224.00	0.20	0.013

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run# (ft)	Hydraulic Gradeline US Elev (ft)	DS Elev (%)	Fr.Slope (ft)	Depth Unif. (ft)	Actual (f/s)	Velocity Unif. (f/s)	Actual (cfs)	Q (cfs)	Cap (ft)	Junc Loss
1	22.54	22.53	0.025	0.55	1.50	2.84	0.94	1.67	5.71	0.000
2	22.53	22.44	0.064	1.09	2.00	3.26	1.83	5.74	9.87	0.000
3	22.44	22.37	0.064	1.05	2.00	3.45	1.83	5.74	10.64	0.000
4	22.37	22.22	0.091	1.52	2.50	3.95	2.52	12.37	18.12	0.000
5	22.22	22.18	0.141	1.72	2.50	4.28	3.14	15.40	18.99	0.000
6	22.18	22.00	0.098	1.88	3.00	4.49	2.95	20.88	29.90	0.000

OUTPUT FOR ANALYSYS FREQUENCY of: 100 Years

Runoff Computation for Analysis Frequency.

ID (acre)	C Value	Area (min)	Tc (min)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q
A-3	0.55	1.67	10.00	10.00	12.00	0.000	11.020
A-4	0.55	0.83	10.00	10.00	12.00	0.000	5.477
A-5	0.55	1.38	10.00	10.00	12.00	0.000	9.106
A-1	0.55	0.38	10.00	10.00	12.00	0.000	2.508
A-2	0.55	0.94	10.00	10.00	12.00	0.000	6.203

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length/ Perim. (sf)	Grate Area (%)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	DeprW (ft)	Depth Allowed (ft)	Critic Elev.
A-3	Curb	10.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.70
A-4	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.00
A-5	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.00
A-1	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.60
A-2	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.60

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (sf)	Grate Perim (cfs)	Grate Area (cfs)	Total Q (ft)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left	Ponded Width Right
A-3	Curb	10.00	n/a	n/a	11.020	13.436	0.418	14.80	14.80
A-4	Curb	5.00	n/a	n/a	5.477	6.261	0.457	11.40	11.40
A-5	Curb	5.00	n/a	n/a	9.106	6.718	0.709	13.80	13.80
A-1	Curb	5.00	n/a	n/a	2.508	6.261	0.272	8.50	8.50
A-2	Curb	5.00	n/a	n/a	6.203	6.261	0.497	11.95	11.95

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr.Area (in/hr)	Cumulat. Tc cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node (ft)	Total Disch.
A-3	Curb	0.550	2.99	11.36	11.40	0.000	0.00	18.746
A-4	Curb	0.550	3.82	12.02	11.13	0.000	0.00	23.389
A-5	Curb	0.550	5.20	12.12	11.09	0.000	0.00	31.729
A-1	Curb	0.550	0.38	10.00	12.00	0.000	0.00	2.508
A-2	Curb	0.550	1.32	10.23	11.89	0.000	0.00	8.632
MH-1	CircMh	0.550	1.32	10.23	11.89	0.000	0.00	8.632
OUT	Outlt	0.550	5.20	12.12	11.09	0.000	0.00	31.729

Conveyance Configuration Data

Run# (ft)	Node I.D. US (ft)	DS (ft)	Flowline Elev. US (ft)	DS (ft)	Shape # (ft)	Span (%)	Rise	Length	Slope	n_value
1	A-1	A-2	20.46	20.33	Circ 1	0.00	1.50	44.00	0.30	0.013
2	A-2	MH-1	20.33	20.06	Circ 1	0.00	2.00	142.00	0.19	0.013
3	MH-1	A-3	20.06	19.83	Circ 1	0.00	2.00	104.00	0.22	0.013
4	A-3	A-4	19.83	19.51	Circ 1	0.00	2.50	164.00	0.20	0.013
5	A-4	A-5	19.51	19.45	Circ 1	0.00	2.50	28.00	0.21	0.013
6	A-5	OUT	19.45	19.00	Circ 1	0.00	3.00	224.00	0.20	0.013

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run# (ft)	Hydraulic Gradeline US Elev (ft)	DS Elev (%)	Fr.Slope (ft)	Depth Unif. (ft)	Actual (f/s)	Velocity Unif. (f/s)	Actual (cfs)	Q (cfs)	Cap (ft)	Junc Loss
1	23.32	23.30	0.057	0.69	1.50	3.15	1.42	2.51	5.71	0.000
2	23.30	23.09	0.146	1.44	2.00	3.57	2.75	8.63	9.87	0.000
3	23.09	22.94	0.146	1.38	2.00	3.75	2.75	8.63	10.64	0.000
4	22.94	22.60	0.209	2.19	2.50	4.12	3.82	18.75	18.12	0.000
5	22.60	22.51	0.325	2.50	2.50	4.76	4.76	23.39	18.99	0.000
6	22.51	22.00	0.226	2.63	3.00	4.84	4.49	31.73	29.90	0.000

END

NORMAL TERMINATION OF WINSTORM.

WinStorm (STORM DRAIN DESIGN) Version 3.05, Jan. 25, 2002
Run @ 4/28/2021 3:58:12 PM

PROJECT NAME : BAYOU BEND
JOB NUMBER : 13454
PROJECT DESCRIPTION :
DESIGN FREQUENCY : 5 Years
ANALYSYS FREQUENCY : 100 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 5 Years

Runoff Computation for Design Frequency.

ID (acre)	C Value	Area (min)	Tc (min)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q
A-6	0.55	2.35	10.00	10.00	7.99	0.000	10.323
A-7	0.55	1.20	10.00	10.00	7.99	0.000	5.271

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length/ Perim. (sf)	Grate Area (%)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	DeprW (ft)	Depth Allowed (ft)	Critic Elev.
A-6	Curb	10.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.70
A-7	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.70

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (sf)	Grate Perim (cfs)	Grate Area (cfs)	Total Q (ft)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left	Ponded Width Right
A-6	Curb	10.00	n/a	n/a	10.323	10.327	0.500	14.45	14.45
A-7	Curb	5.00	n/a	n/a	5.271	6.261	0.446	11.25	11.25

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr.Area (in/hr)	Cumulat. Tc cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node (ft)	Total Disch.
A-6	Curb	0.550	2.35	10.00	7.99	0.000	0.00	10.323
A-7	Curb	0.550	3.55	10.13	7.94	0.000	0.00	15.512
OUT	Outlt	0.550	3.55	10.13	7.94	0.000	0.00	15.512

Conveyance Configuration Data

Run# (ft)	Node I.D. US (ft)	DS (ft)	Flowline Elev. US (ft)	DS (ft)	Shape # (ft)	Span (%)	Rise	Length	Slope	n_value
3	A-6	A-7	17.87	17.82	Circ 1	0.00	2.50	28.00	0.18	0.013
4	A-7	OUT	17.82	17.60	Circ 1	0.00	2.50	104.00	0.21	0.013

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run# (ft)	Hydraulic Gradeline US Elev (ft)	DS Elev (%)	Fr.Slope (ft)	Depth Unif. (ft)	Actual (f/s)	Velocity Unif. (f/s)	Actual (cfs)	Q (cfs)	Cap (ft)	Junc Loss
3	22.17	22.15	0.063	1.41	2.50	3.63	2.10	10.32	17.34	0.000
4	22.15	22.00	0.143	1.72	2.50	4.31	3.16	15.51	18.87	0.000

OUTPUT FOR ANALYSYS FREQUENCY of: 100 Years

Runoff Computation for Analysis Frequency.

ID (acre)	C Value	Area (min)	Tc (min)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q
A-6	0.55	2.35	10.00	10.00	12.00	0.000	15.507
A-7	0.55	1.20	10.00	10.00	12.00	0.000	7.918

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length/ Perim. (sf)	Grate Area (%)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	DeprW (ft)	Depth Allowed (ft)	Critic Elev.
A-6	Curb	10.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.70
A-7	Curb	5.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	26.70

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (sf)	Grate Perim (cfs)	Grate Area (cfs)	Total Q (ft)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left	Ponded Width Right
A-6	Curb	10.00	n/a	n/a	15.507	13.436	0.583	16.85	16.85
A-7	Curb	5.00	n/a	n/a	7.918	6.718	0.597	13.10	13.10

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr.Area (in/hr)	Cumulat. Tc cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node (ft)	Total Disch.
A-6	Curb	0.550	2.35	10.00	12.00	0.000	0.00	15.507
A-7	Curb	0.550	3.55	10.12	11.94	0.000	0.00	23.317
OUT	Outlt	0.550	3.55	10.12	11.94	0.000	0.00	23.317

Conveyance Configuration Data

Run# (ft)	Node I.D. US (ft)	DS (ft)	Flowline Elev. US (ft)	DS (ft)	Shape # (ft)	Span (%)	Rise	Length	Slope	n_value
3	A-6	A-7	17.87	17.82	Circ 1	0.00	2.50	28.00	0.18	0.013
4	A-7	OUT	17.82	17.60	Circ 1	0.00	2.50	104.00	0.21	0.013

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run# (ft)	Hydraulic Gradeline US Elev (ft)	DS Elev (%)	Fr.Slope (ft)	Depth Unif. (ft)	Actual (f/s)	Velocity Unif. (f/s)	Actual (cfs)	Q (cfs)	Cap (ft)	Junc Loss
3	22.38	22.34	0.143	1.88	2.50	3.93	3.16	15.51	17.34	0.000
4	22.34	22.00	0.323	2.50	2.50	4.75	4.75	23.32	18.87	0.000

END

NORMAL TERMINATION OF WINSTORM.

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST, ANGLETON, TEXAS 77515
PHONE: (979) 849-5881 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WINDSTORM DATA
I-1 TO I-5
I-6 TO I-9

PROJECT NO. 13454

13454-SHEET SET.DWG

DISCLAIMER:
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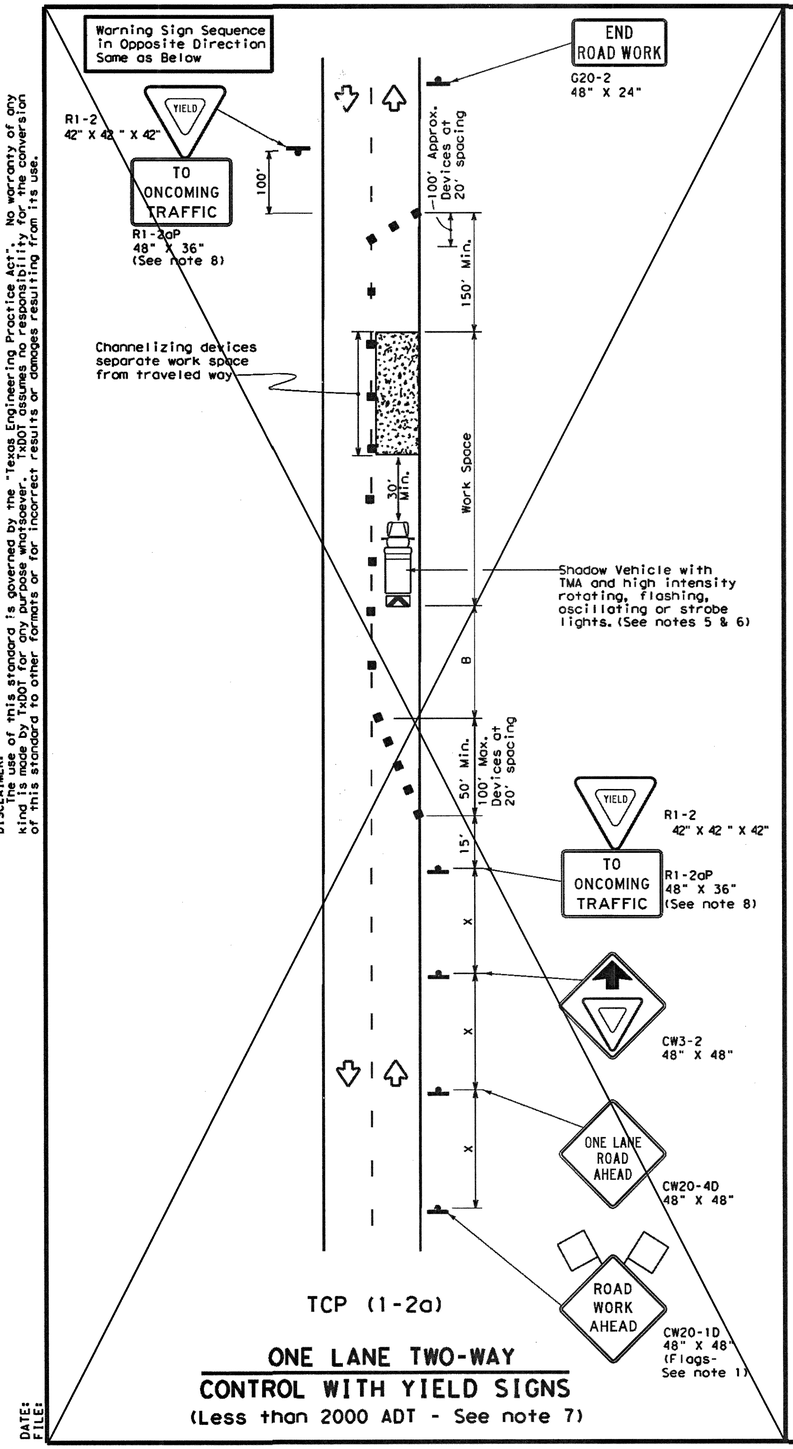

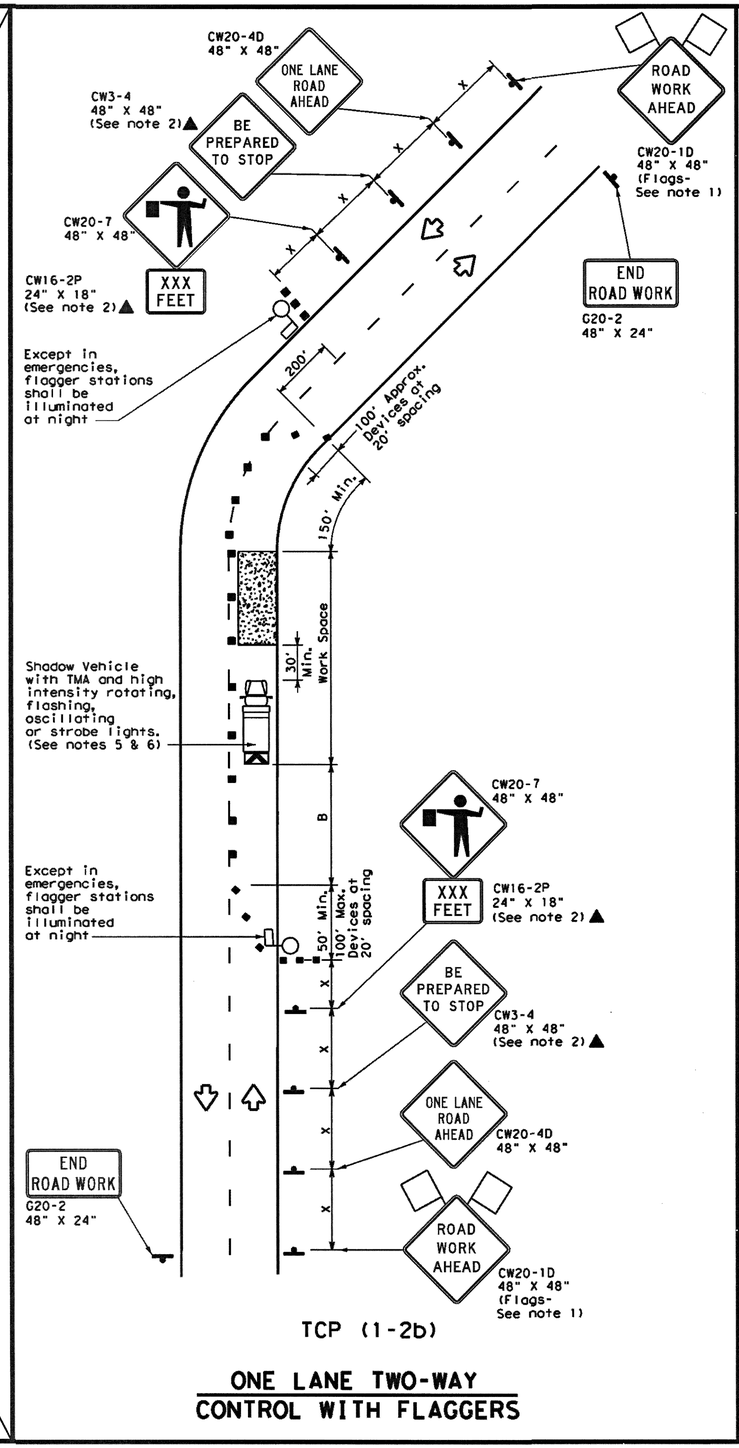

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L=WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

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

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
4. Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
5. 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.
6. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.

TCP (1-2a)

7. R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than one half city block. In rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
8. R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.

TCP (1-2b)

9. Flaggers should use two-way radios or other methods of communication to control traffic.
10. Length of work space should be based on the ability of flaggers to communicate.
11. If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
12. Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
13. Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation | Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY TRAFFIC CONTROL

TCP(1-2)-18

FILE: tcp1-2-18.dgn	DN:	CK:	DW:	CK:
©TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-90 4-98 2-94 2-12 1-97 2-18	DIST	COUNTY		SHEET NO.
				152

DATE:
FILE:

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

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DRAWN
CHECKED
DATE

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BAKER & LAWSON, INC.
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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date: 1/11/24

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

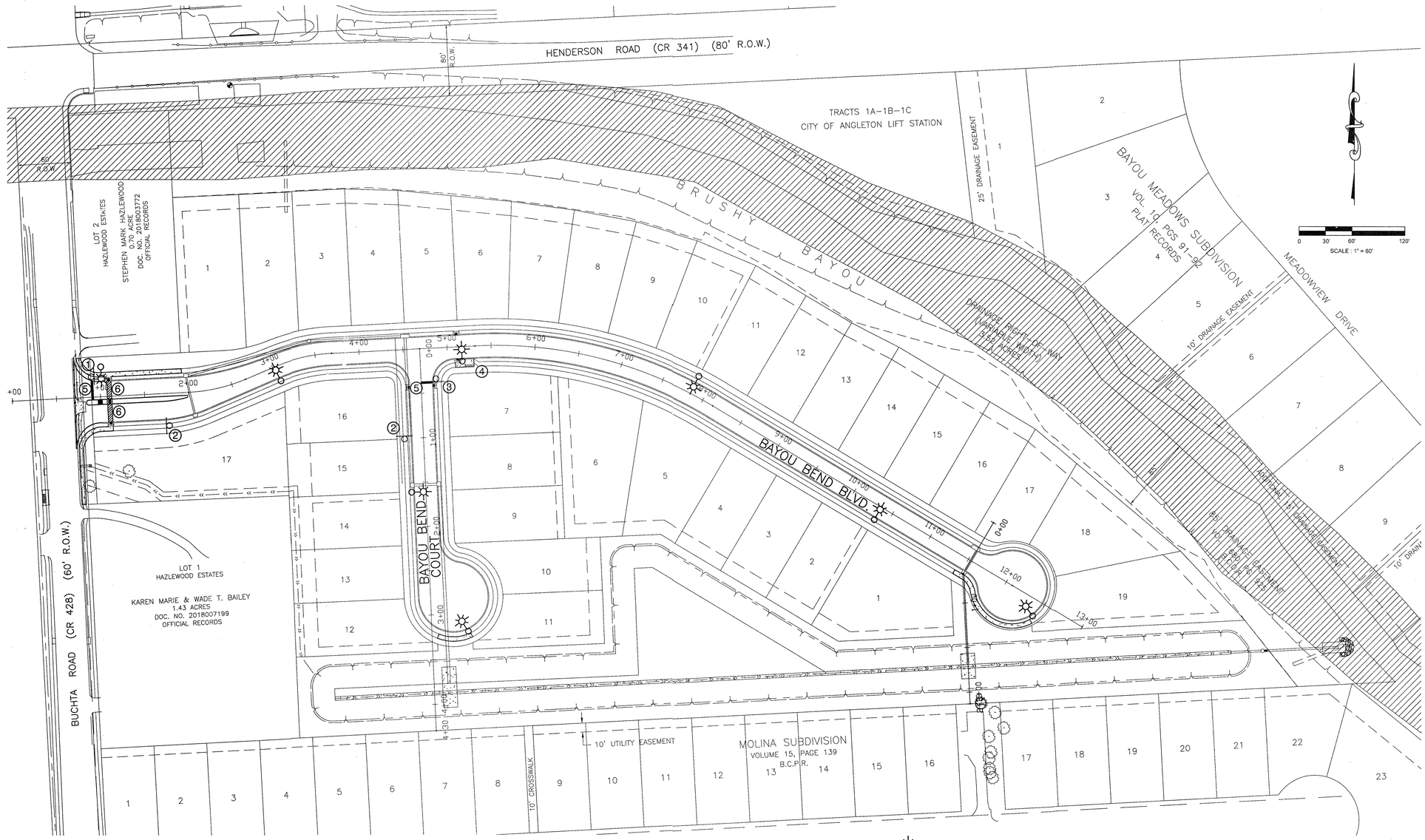
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

TRAFFIC CONTROL PLAN

PROJECT NO. 13454

13454-SHEET SETDWG



STREET AREA LIGHTING (8 LOCATIONS)

STREET SIGNS

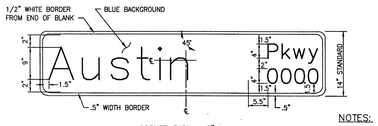
1. STOP - FACING BAYOU BEND BLVD.
   BUCHTA RD. / BAYOU BEND BLVD.
   "NO OUTLET" SIGN FACING BUCHTA RD.
2. 30 MPH SPEED LIMIT
3. STOP - FACING BAYOU BEND COURT
   BAYOU BEND BLVD. / BAYOU BEND COURT
   "DEAD END" SIGN FACING BAYOU BEND BLVD.
4. 3 CBU POST OFFICE MAIL BOXES
5. 24" WIDE THERMOPLASTIC STOP BAR
6. CROSSWALK STRIPPING (THERMOPLASTIC)

LIGHTING PLAN PROVIDED IS SHOWN AS RECOMMENDED. FINAL LOCATIONS AND QUANTITIES ARE DETERMINED BY TEXAS NEW MEXICO POWER (TNMP).

GENERAL CONSTRUCTION NOTES:

1. SECURELY ATTACH STREET NAME SIGN TO TRAFFIC SIGNAL SUPPORT WIRES WITH MULTI-LEVELING, WIND DUMPING BRACKETS.
2. SUPPORT WIRES SHOULD NOT BE PROHIBITED FROM INDEPENDENT MOVEMENT.
3. INSTALL ONE STREET NAME SIGN APPROXIMATE 2' FROM POLE ABOVE ON-COMING TRAFFIC ON EACH TRAFFIC SIGNAL SPAN.
4. THE FIRST LETTER OF EACH WORD SHALL EZ UPPER CASE, SUBSEQUENT LETTERS SHALL BE LOWER CASE. ALL INDIVIDUAL LETTERS FOR EXAMPLE "J.A." SHALL BE UPPER CASE. STREET SUFFIXES & "NO OUTLET" SHALL BE UPPER CASE.
5. ALL SHEETING SHALL BE "DIAMOND GRADE" OR APPROVED EQUAL.
6. USE ANODIZED BLANKS ONLY
7. STREET SIGN FONTS SHALL BE HELVETICA BOLD, MEDIUM STYLE
8. MINIMUM SIGN THICKNESS: 9" SIGNS = .080", 14" SIGNS = .1875"

SL-ST-68



CORNER RADII = 2"
PLINE WIDTH = .5"

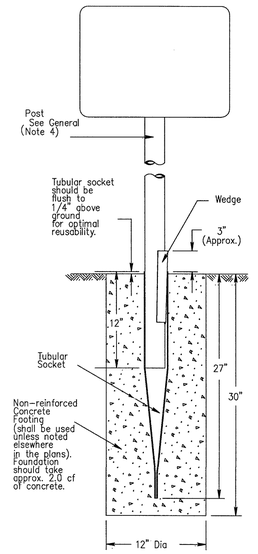
DETAIL OF SIGN FOR MAST ARM TRAFFIC SIGNAL POLES

NOTES:

1. HELVETICA BOLD, MEDIUM STYLE; WITH 9" UPPER CASE LETTERS AND 6" LOWER CASE LETTERS.
2. REFER TO C.O.S.L. DESIGN STANDARDS FOR MORE INFO.

SL-ST-67

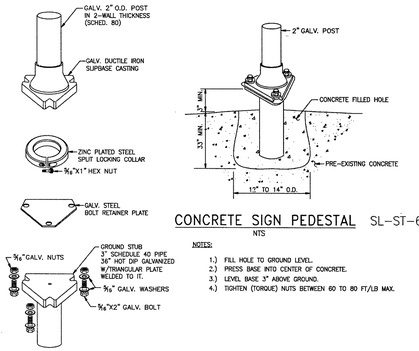
Wedge Anchor System



SM RD SGN ASSM TY TWT(X)WA(P)

SL-ST-62

SL-ST-68



CONCRETE SIGN PEDESTAL SL-ST-65
NTS

NOTES:

1.) FILL HOLE TO GROUND LEVEL.
2.) PRESS BASE INTO CENTER OF CONCRETE.
3.) LEVEL BASE 3" ABOVE GROUND.
4.) TIGHTEN (TORQUE) NUTS BETWEEN 60 TO 80 FT/LB MAX.

POZ-LOCK SLIPBASE SYSTEM
NTS

SL-ST-64

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

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DATE

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PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date: 1/11/21

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 60'
PROFILE:
HORIZONTAL:
VERTICAL:

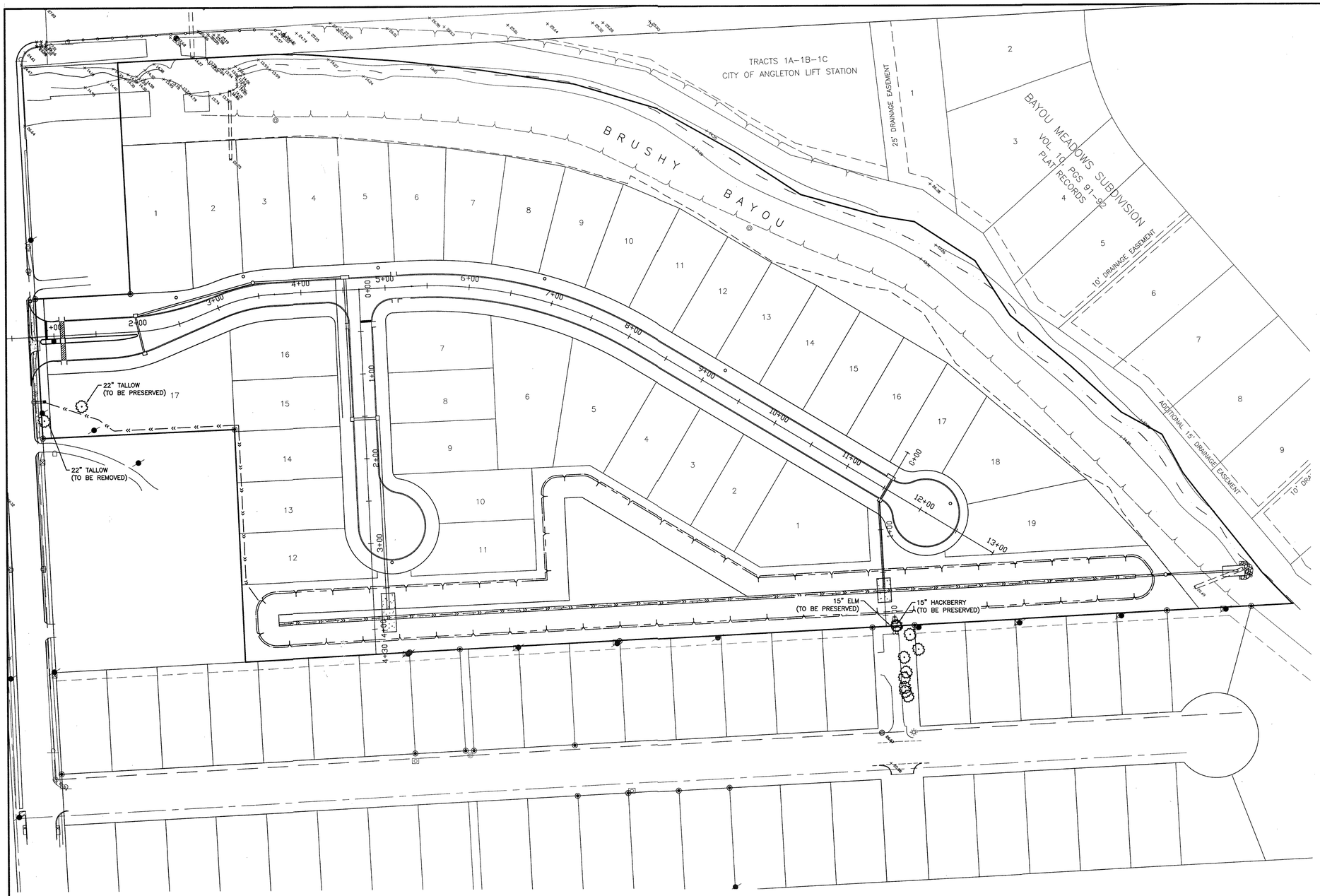
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PAVEMENT MARKING, STREET SIGN, MAILBOX, AND ROADWAY LIGHTING LAYOUT

PROJECT NO. 13454

18

13454-SHEET SET.DWG



SYMBOLS

- = SET 5/8" I.R. W/CAP "BAKER & LAWSON"
- = FOUND MONUMENT (AS NOTED)
- = (TBM) TEMPORARY BENCHMARK
- = POWER POLE
- = MAIL BOX
- = WATER METER
- = LIVE OAK (HERITAGE TREE)
- = PECAN (HERITAGE TREE)
- = ELM (SIGNIFICANT TREE)
- = INSIGNIFICANT TREE

THERE WERE NO HERITAGE TREES (LIVE OAK OR PECAN) IDENTIFIED ON THE PROPERTY BASED ON FIELD SURVEY PERFORMED 11/16/2020 AND 11/17/2020.

NO REPLACEMENT TREES ARE REQUIRED.

THERE IS NO CREDIT FOR PRESERVATION OF HERITAGE TREES ON THIS SITE.

ONE ELM TREES IS ON THE SITE. THE ELM TREE IS CONSIDERED A SIGNIFICANT TREE UNDER THE ANGLETON LDC. THE ELM TREE WILL BE PRESERVED.

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

B&L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST. ANGLETON, TEXAS 77515
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STATE OF TEXAS
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BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

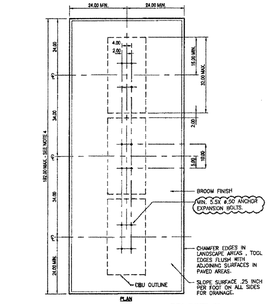
HERITAGE TREE SURVEY
AND TREE PRESERVATION
PLAN

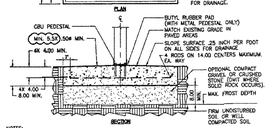
PROJECT NO. 13454

18A

13454-SHEET SET.DWG

NOTES TO A/E:





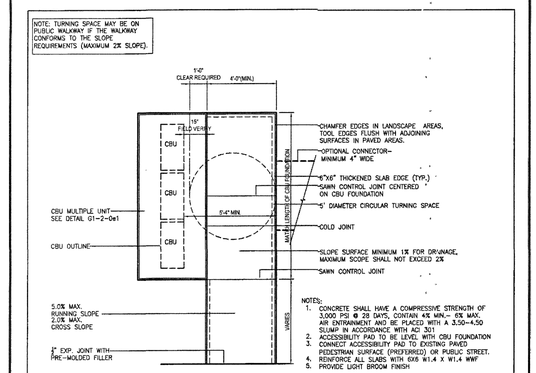
NOTES:
1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI @ 28 DAYS, CONTAIN 4% MIN. TO 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3.50 - 4.50 SLUMP IN ACCORDANCE WITH ACI 301
2. REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
3. EXPANSION BOLTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVIDERS:
   a. HILTI KWIK BOLT (www.us.hilti.com) 1-1/2" DIAMETER x 5-1/2" OVERALL LENGTH
      GALVANIZED, CATALOG #: 000-453-696
      KB II 1/2-5/13, STAINLESS STEEL: CATALOG #: 000-454-744
      ENSURE THAT THIC MIN. EMBEDMENT IN CONCRETE IS AT LEAST 3-1/2".
   b. ITW RAMSET/REDHEAD TRUBOLT (www.ramset-redhead.com)
      GALVANIZED, 1/2" DIAMETER x 7" OVERALL LENGTH; CATALOG NUMBER: #TO-12706
      ENSURE THAT THE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4-1/4".
   c. RAWL STUD (www.rawl.com)
      GALVANIZED, 1/2" DIAMETER x 5-1/2" OVERALL LENGTH; CATALOG NUMBER: 7724
      ENSURE THAT THE MIN. EMBEDMENT IN CONCRETE IS AT LEAST
* A 2 CBU CONFIGURATION IS DEPICTED. A 3 OR 4 CBU CONFIGURATION MAY BE USED AS LONG AS THEY ARE ARRANGED IN GROUPS SUCH THAT THE OVERALL DIMENSION OF THE CONCRETE BASE DOES NOT EXCEED 18 FEET.

Detail	CLUSTER BOX UNIT (CBU) INSTALLATION - MULTIPLE UNIT	Fac.	Ctr.	Sect.	Para.	Detail
CAD File: ./usps/library/details/Gt-2-0e1	Scale: 1/2" = 1'-0"	G1 - 2 - 0 e1				
		USPS SDL Issued: 10/1/2016	Last Revised: 10/27/2016			

UNITED STATES POSTAL SERVICE. STANDARD DETAIL LIBRARY

NOTES TO A/E:

1. IF THE ACCESSIBLE ROUTE FROM THE CBU(s) CONNECTS WITH A STREET OR OTHER PAVED SURFACE AT A VERTICAL CURB, A CURB RAMP SHOULD BE INSTALLED IN ACCORDANCE WITH RE-4 REQUIREMENTS.



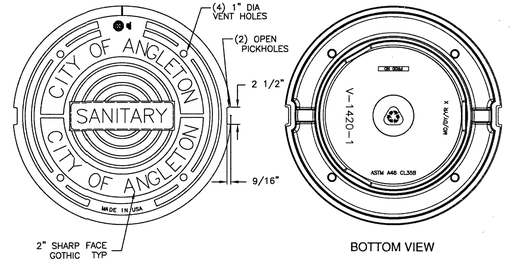
NOTES:
1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI @ 28 DAYS, CONTAIN 4% MIN. - 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3.50-4.50 SLUMP IN ACCORDANCE WITH ACI 301
2. ACCESSIBILITY PAD TO BE LEVEL WITH CBU FOUNDATION
3. CONNECT ACCESSIBILITY PAD TO EXISTING PAVED PEDESTRIAN SURFACE (PREFERRED) OR PUBLIC STREET.
4. REINFORCE ALL SLABS WITH 6X6 W1.4 X W1.4 WWF
5. PROVIDE LIGHT BROOM FINISH

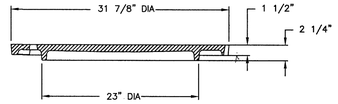
Paved Pedestrian Surface (if available) or Public Street

Detail	CLUSTER BOX UNIT (CBU) ACCESS MANUVERING SPACE - MULTIPLE UNIT	Fac.	Ctr.	Sect.	Para.	Detail
CAD File: ./usps\library\details\Gt-2-0e3.dwg	Scale: 1/4"=1'-0"	G1 - 2 - 0 e3				
		USPS SDL Issued: 10/1/2016	Last Revised: 7/14/2016			

UNITED STATES POSTAL SERVICE. STANDARD DETAIL LIBRARY

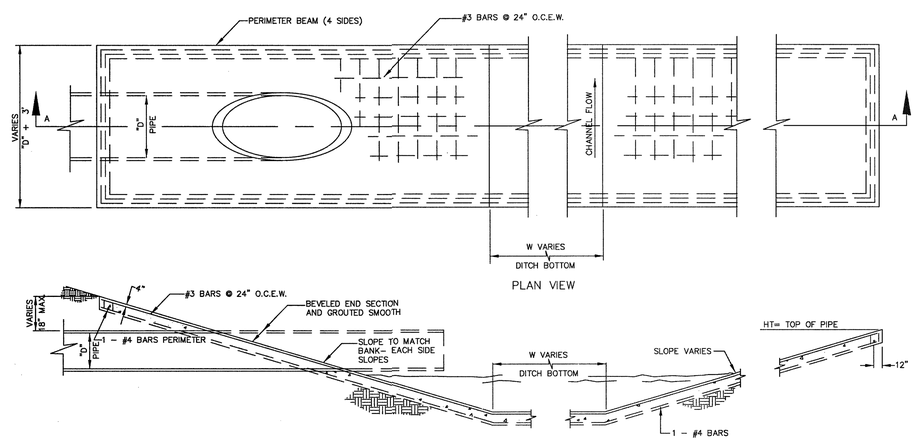
V1420-1 Cover





NOTES
1. MATERIAL SPECIFICATION SHALL BE ASTM A-48 CLASS 35B.
2. COVER TO BE SOLID, WITHOUT HOLES AND WITH NON-PENETRATION RIM ACCESS RECESSES ONLY.
3. HORIZONTAL BEARING SURFACES TO BE MACHINED AND SEALED AT INSTALLATION WITH WATERPROOF GREASE COATING.
4. LOAD RATING TO BE HEAVY-DUTY.
5. MANHOLE FRAMES AND COVERS SET IN FARM TO MARKET ROADS OR HIGHWAYS SHALL FOLLOW TXDOT SPECIFICATIONS. (UNLESS OTHERWISE NOTED BY ANGLETON)

1 — 32" Manhole Cover and Frame
Scale: NTS

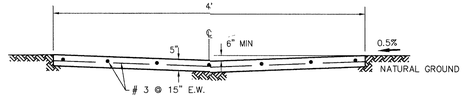


W= WIDTH PER PLAN
D= PIPE DIAMETER PER PLAN
S= SLOPE PER PLAN/FIELD

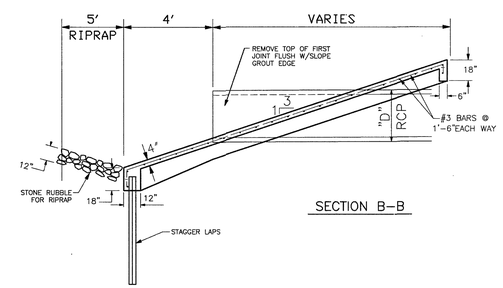
SECTION "A-A"

TYPE (B)
TYPICAL DRAINAGE OUTFALL CHANNEL
NTS

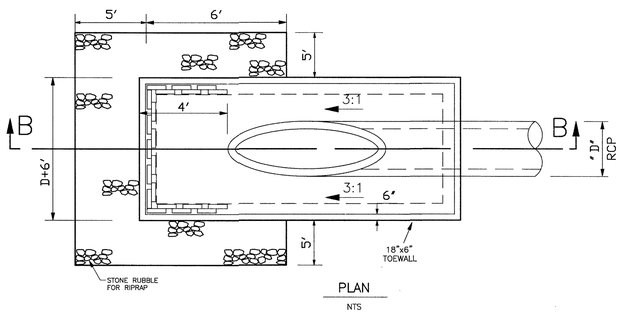
DETAIL
4' CONCRETE PILOT CHANNEL
N.T.S.



NOTES:
1. 1" DEPRESSION FOR EACH 1' OF WIDTH.
2. WIDTH TO BE AT LEAST 1' WIDER THAN PIPE ENTERING POND.



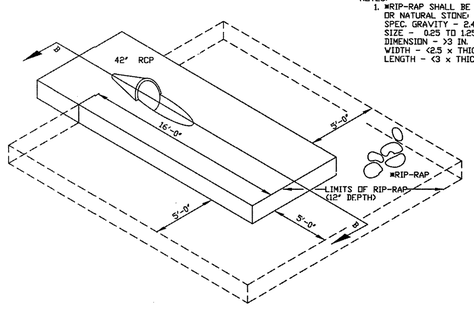
SECTION B-B



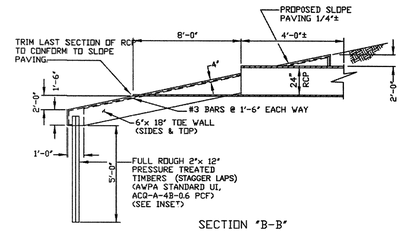
DRAINAGE OUTFALL CHANNEL

STANDARD CONCRETE SLOPE PAVING PIPE OUTFALL
NTS

NOTES:
1. RIP-RAP SHALL BE BROKEN CONCRETE OR NATURAL STONE
   SPEC GRAVITY - 2.4
   SIZE - 0.25 TO 1.25 CF (40-190#)
   DIMENSION - >3 IN.
   WIDTH - <2.5 x THICKNESS
   LENGTH - <3 x THICKNESS

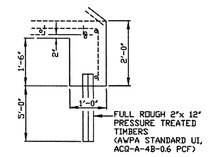


ISOMETRIC VIEW



SECTION "B-B"

DRAINAGE OUTFALL CHANNEL



INSET

TYPE (A)

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN STD.
CHECKED
DATE

B&L BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST. ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS · MIGUELANGEL A. SAUCEDA · 121992 · REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992
Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

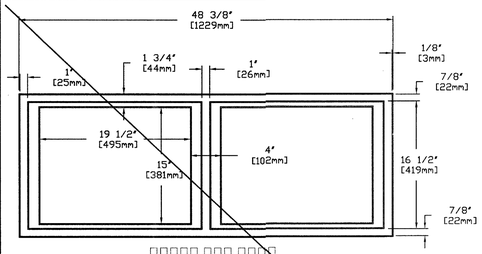
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

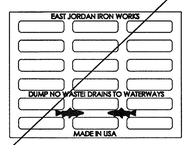
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

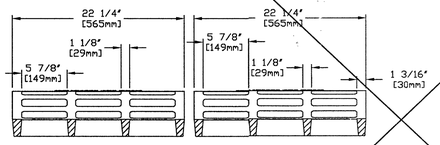
MISCELLANEOUS DETAILS

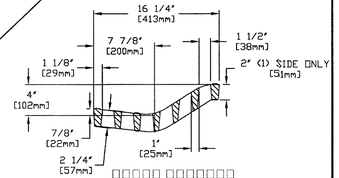
PROJECT NO. 13454

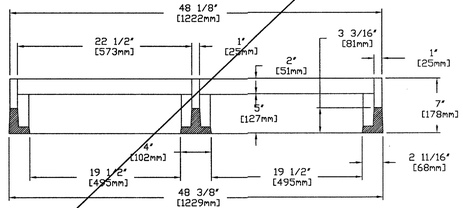
13454 DETAIL SET.DWG

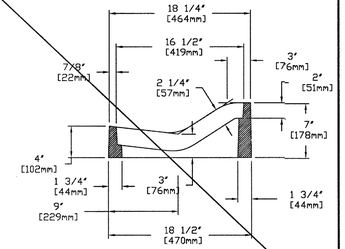








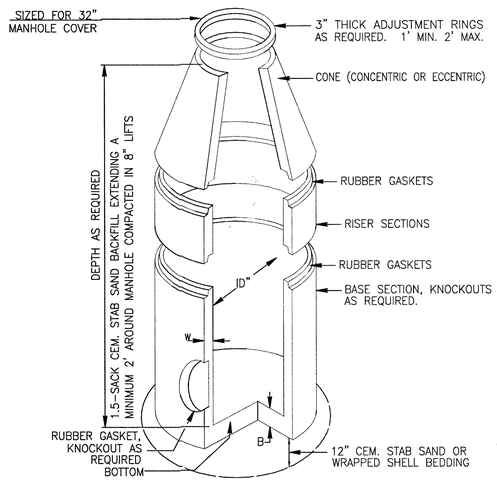




CATCH BASIN ASSEMBLY

N.T.S.

SL-DR-03



DIMENSIONS AND WEIGHTS			
I.D. SIZE (in)	W (in)	B (in)	RISER WT/LF (lb)
48	5	6	868
60	6	8	1300
72	7	8	1811
96	9	8	3090

NOTES

1. LIFTING INSERTS AS REQUIRED.
2. ALL JOINTS SHALL BE SEALED WITH APPROVED RUBBER GASKET
3. STRUCTURE TO BE PLACED ON 12" STABILIZED BASE.
4. C.S.S. SHALL BE BROUGHT TO WITHIN 2-FT OF TOP OF MANHOLE.

SPECIFICATIONS:

CONCRETE: CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATES FOR H-20 LOADING.

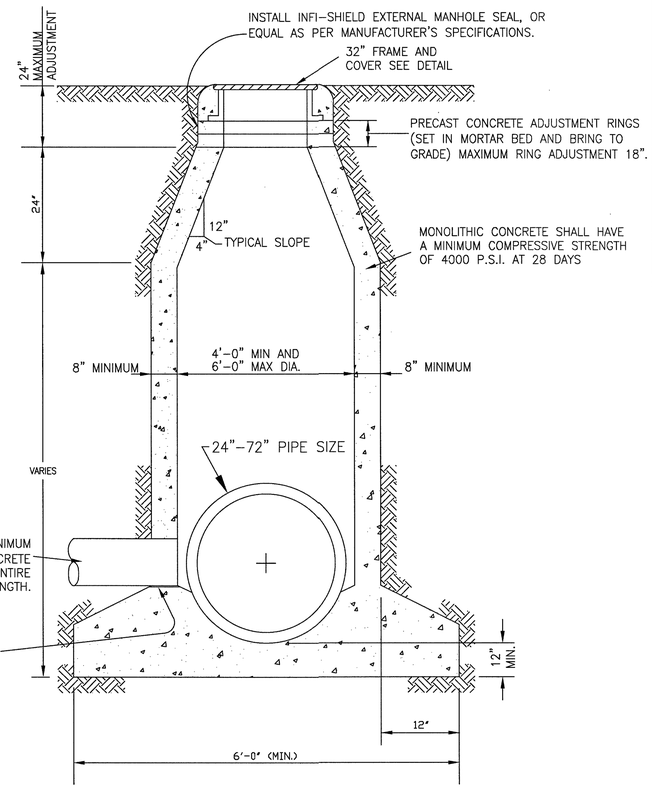
REINFORCEMENT: STRUCTURAL REINFORCEMENT CONFORMING TO ASTM-C-478.

C.I. CASTINGS: CAST IRON FRAMES AND GRATES ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 35.

PRECAST CONCRETE MANHOLE

N.T.S.

SL-DR-02



TYPE "C" CAST-IN-PLACE MANHOLE

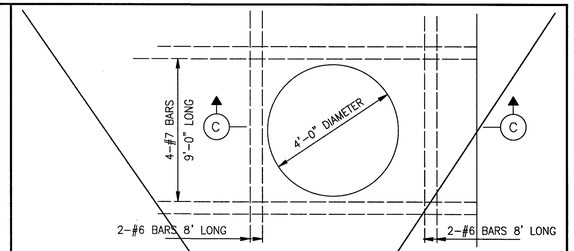
N.T.S.

NOTES:

1. CONCRETE SHALL BE A MONOLITHIC POUR.
2. #4 REBAR TO BE PLACED IN BASE AND WALLS @ 12" C-C EW.
3. 1-1/2" C.S.S. BACKFILL TO BE PLACED AROUND MANHOLE COMPACTED IN 8" LIFTS (MAX).

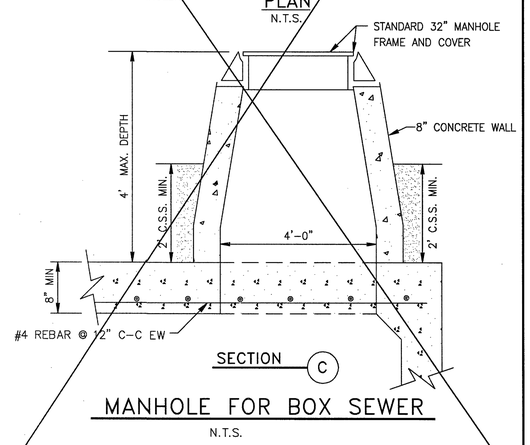
RECORD DRAWING

SL-DR-01



PLAN

N.T.S.



MANHOLE FOR BOX SEWER

N.T.S.

SL-DR-04

GENERAL CONSTRUCTION NOTES:

1. ALL CAST CONCRETE BASES AND WALLS SHALL HAVE # 4 REBAR @ 12" C-C EW
2. CONCRETE SHALL BE 3000 PSI MIN.
3. USE C.S.S. BEDDING AS PER DETAILS 1 1/2 SK, COMPACTED 8" LIFTS (MAX.). TO 95% STANDARD.

REFER TO:

1. *GENERAL NOTES, C.S.S & CONCRETE NOTES.*
2. *STORM SEWER NOTES*

No.	DATE	REVISION

SEAL:

DATE

DESIGN ENGINEER:

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER MANHOLE CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-03

SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

B&L BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
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STATE OF TEXAS
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REGISTERED PROFESSIONAL ENGINEER

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BAYOU BEND ESTATES
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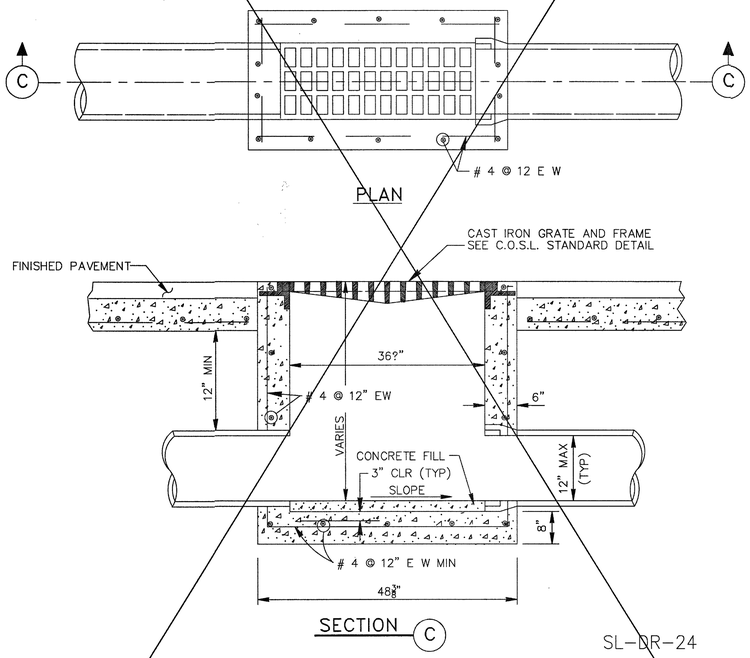
STORM SEWER MANHOLE CONSTRUCTION DETAILS
SL-03

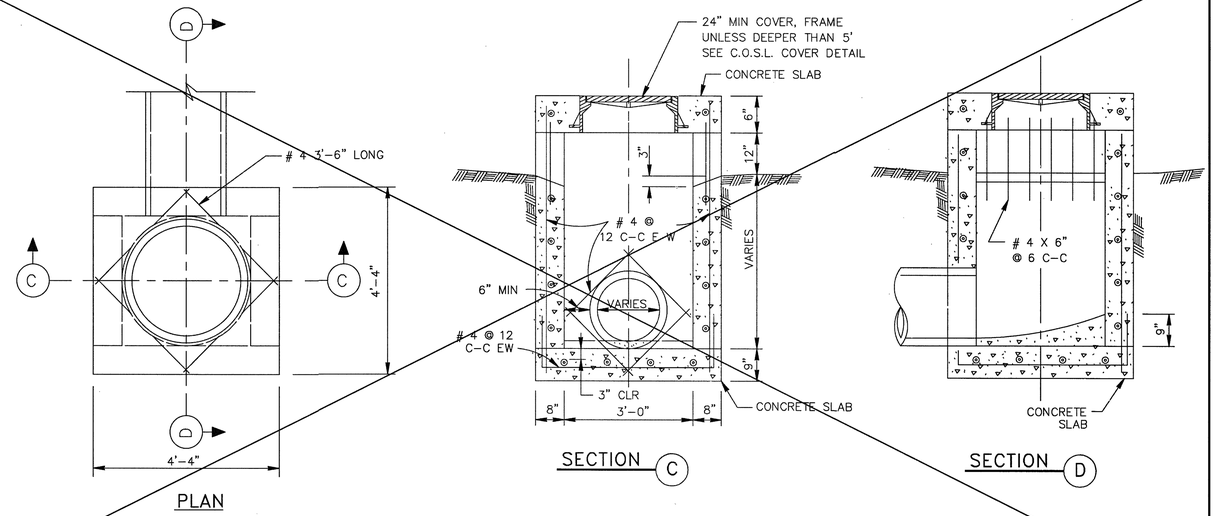
PROJECT NO. 13454

13454 DETAIL SET.DWG



SL-DR-24

TYPE "D" INLET



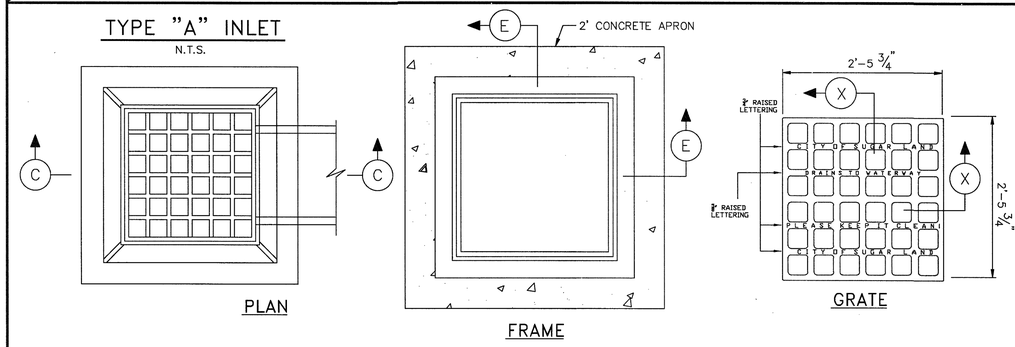
TYPE "E" INLET

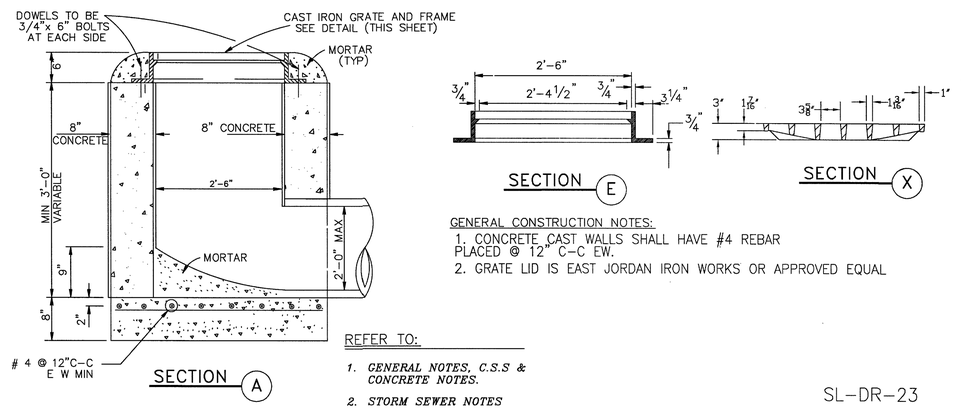
N.T.S.

SL-DR-22

TYPE "A" INLET

N.T.S.





GENERAL CONSTRUCTION NOTES:

1. CONCRETE CAST WALLS SHALL HAVE #4 REBAR PLACED @ 12" C-C EW.
2. GRATE LID IS EAST JORDAN IRON WORKS OR APPROVED EQUAL

REFER TO:

1. *GENERAL NOTES, C.S.S & CONCRETE NOTES.*
2. *STORM SEWER NOTES*

SL-DR-23

RECORD DRAWING

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER INLET CONSTRUCTION DETAILS I

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-07

SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
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STATE OF TEXAS
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Date: 1/11/22

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Clint Peltier Custom Homes
979-481-4840

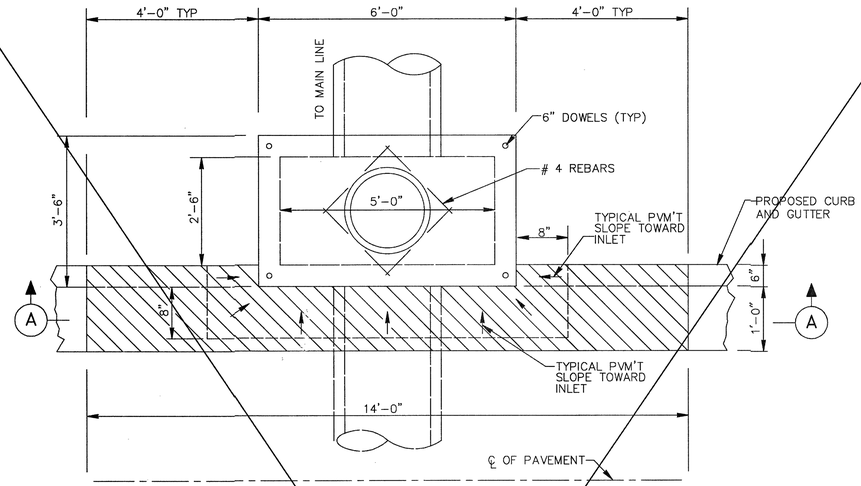
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

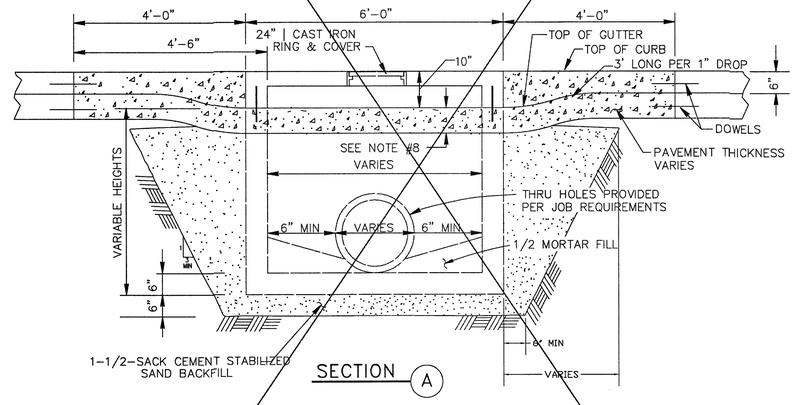
STORM SEWER MANHOLE CONSTRUCTION DETAILS
SL-07

PROJECT NO. 13454

13454 DETAIL SET.DWG



PLAN



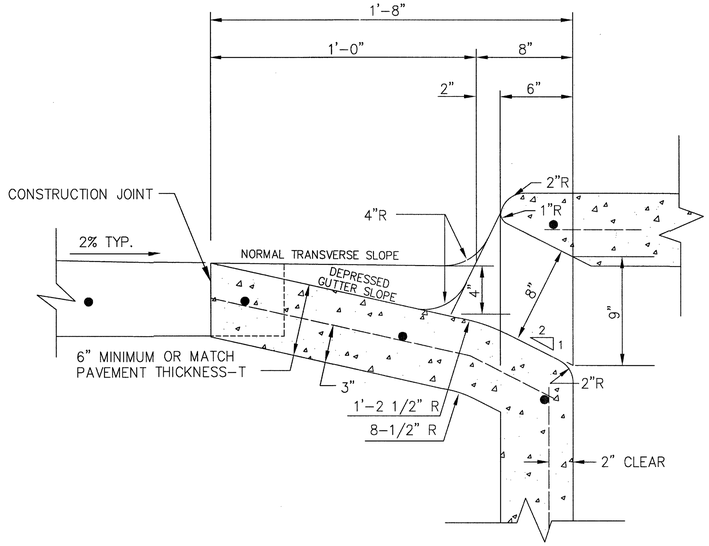
SECTION (A)

TYPE "H-2" INLET

SL-DR-25

NOTES:

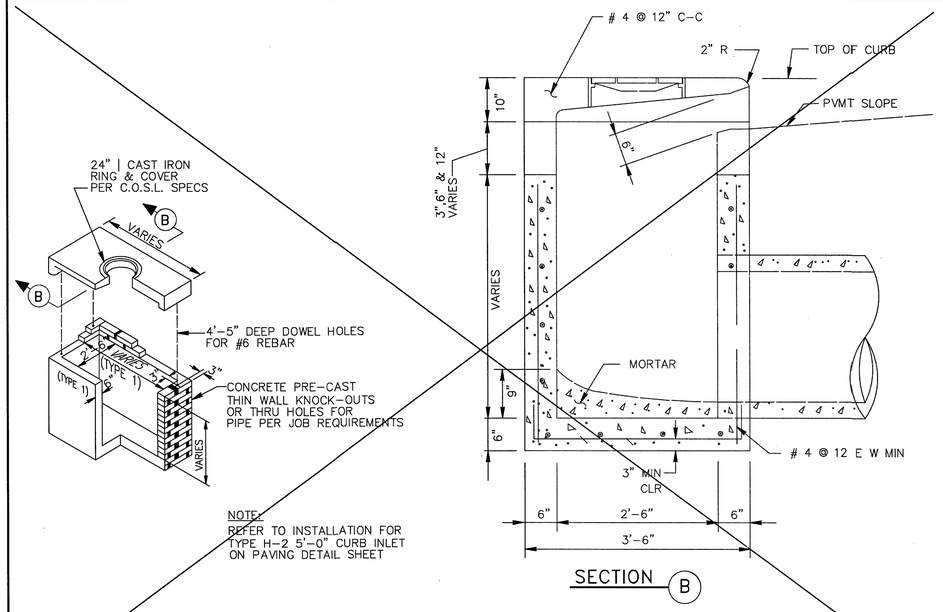
1. INLET WALLS MAY BE EXTENDED USING PRECAST RISER SECTION.
2. INLET TOPS MUST BE SECURED TO THE INLET WALL USING #6 DOWELS DRILLED AND GROUTED A MINIMUM DEPTH OF 5" INTO THE INLET WALL. A PLAN PREPARED BY THE MANUFACTURER MUST BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. THE PLAN SHOULD DETAIL CONNECTIONS AND SEALING OF JOINTS.
3. PRECAST INLET TOPS SHALL NOT UTILIZE MULTIPLE ONE-FOOT SECTIONS TO ACHIEVE GRADE.
4. INLET BACKFILL SHALL BE CEMENT STABILIZED SAND TO THE TOP OF THE INLET FIRST STAGE.
5. GRADE 60 REINFORCEMENT. #4 STEEL REBAR TO CONFORM TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
6. PRECAST INLET MUST BE CONSTRUCTED TO SPECIFICATIONS REQUIRED BY APPROVED DRAWINGS. (SEE GENERAL NOTES).
7. TOPS POURED-IN-PLACE REQUIRE #4 REBAR @ 12" C-C EACH WAY, 4,500 PSI CONCRETE MINIMUM AND 3" THICK MINIMUM.
8. PAVEMENT DEPTH AT INLET SHALL BE EQUAL TO OR GREATER THAN REQUIRED PAVEMENT DEPTH.
9. DEPRESS GUTTER TO INLET.
10. ALL SIDES OF ALL INLETS MUST BE COMPACTED.
11. REFER TO GEOTECHNICAL REPORTS FOR RECOMMENDED TRENCH SIDE SLOPES.



THROAT DETAIL FOR STANDARD INLETS ON CONCRETE STREETS

SCALE: N.T.S.

SL-DR-40



SECTION (B)

TYPE "H-2" PRECAST INLET

N.T.S.

SL-DR-26

REFER TO:

1. *GENERAL NOTES*
2. *SEE C.S.S., PAVEMENT NOTES*

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER INLET CONSTRUCTION DETAILS II

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-08

SHEET OF

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

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DATE

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ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST, ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS · MIGUELANGEL A. SAUCEDA · 121992 · REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

STORM SEWER INLET CONSTRUCTION DETAILS II
SL-08

PROJECT NO. 13454

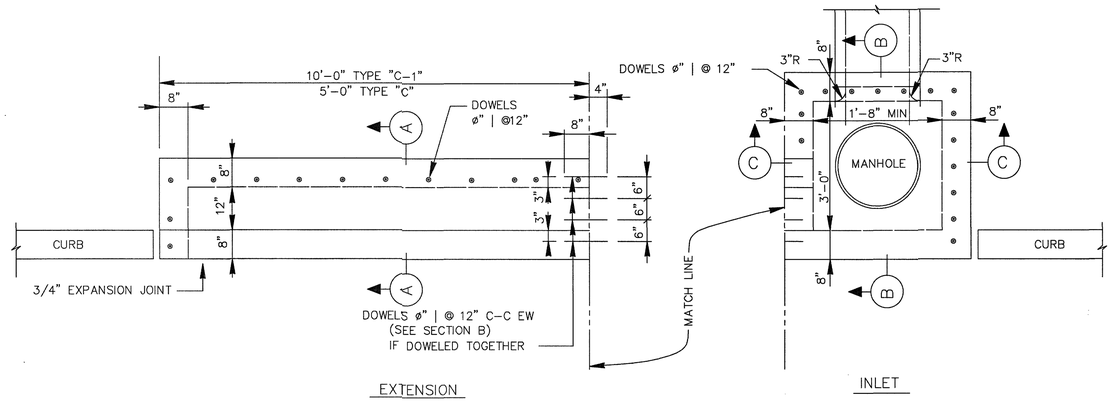
13454 DETAIL SET.DWG

GENERAL NOTES:

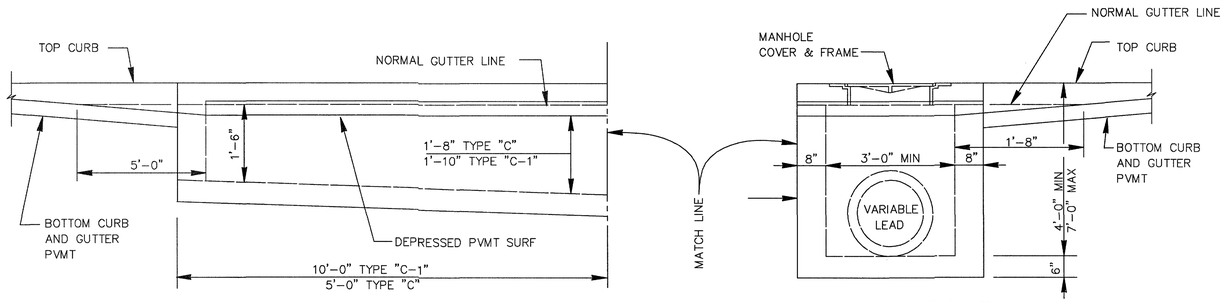
TYPE "C" INLET WITH ONE EXTENSION
TYPE "C-1" INLET WITH DOUBLE EXTENSION
TYPE "C-2" INLET WITH EXTEN. ON EACH SIDE
TYPE "C-2A" INLET WITH NO EXTENSION

NOTES:

1. FOR TYPE "C-1" INLETS PROVIDE A CENTER 6"X6" COLUMNS IN THE CURB LINE BETWEEN ALL EXTENSIONS.
2. WALLS TO BE 8" IF BUILT WITH REINFORCED CONCRETE. BRICK WALLS ARE NOT ALLOWED.



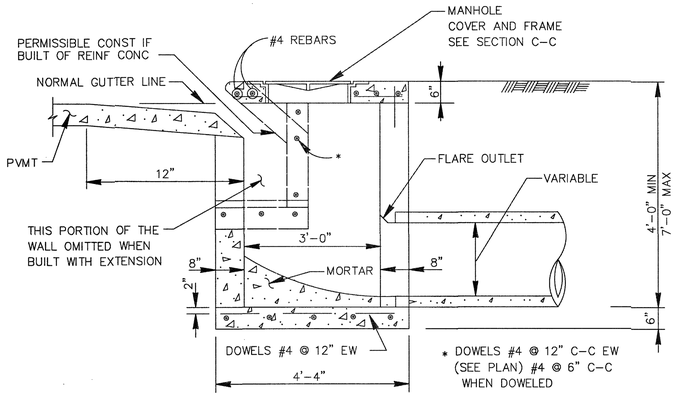
PLAN



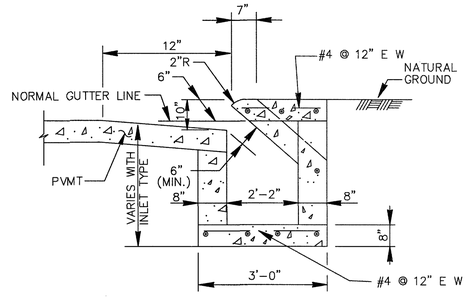
PLAN

SECTION (C)

SL-DR-27



SECTION (B)



SECTION (A)

TYPE "C" INLET

N.T.S.

SL-DR-28

RECORD DRAWING

REFER TO:

1. GENERAL NOTES
2. STORM SEWER NOTES

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER INLET
CONSTRUCTION DETAILS III

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-09

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NO.	DATE	DESCRIPTION	APPROVED

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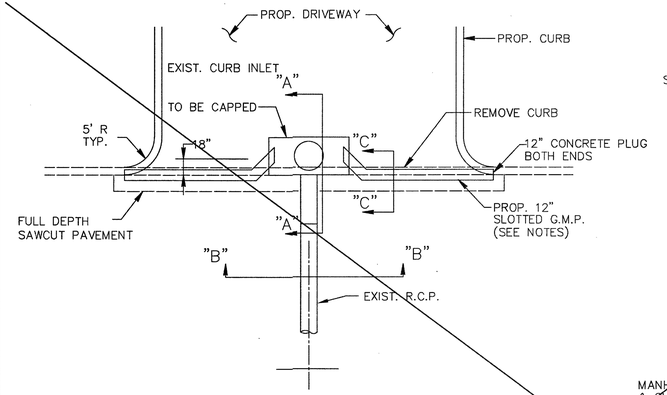
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

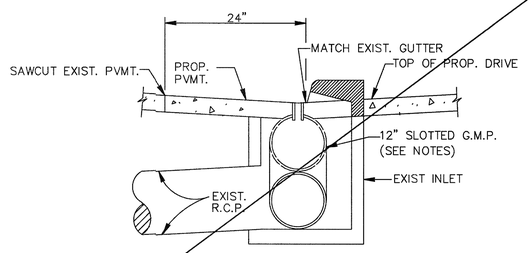
STORM SEWER INLET
CONSTRUCTION DETAILS III
SL-09

PROJECT NO. 13454

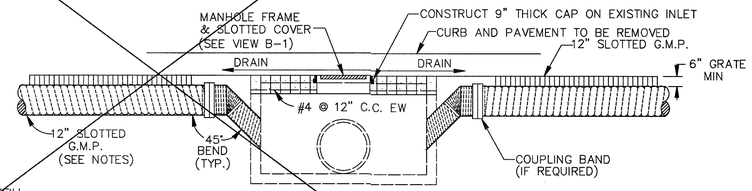
13454 DETAIL SET.DWG



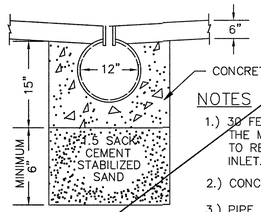
SLOTTED PIPE INSTALLATION
FOR DRIVEWAY CONSTRUCTION



SECTION A–A



SECTION B–B



SECTION C–C

NOTES

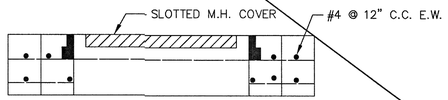
1.) 30 FEET OF SLOT IS THE MINIMUM REQUIREMENT TO REPLACE A TYPE B–B INLET.

2.) CONCRETE MIN. 3000 P.S.I.

3.) PIPE TO BE GALVANIZED TYPE II WITH GALVANIZED SLOT

4.) CONDITIONS MAY VARY. CONTRACTOR TO ROLL FITTING AND ENTER BOX BELOW 9" CAP.

5.) SEE C.S.S. NOTES.

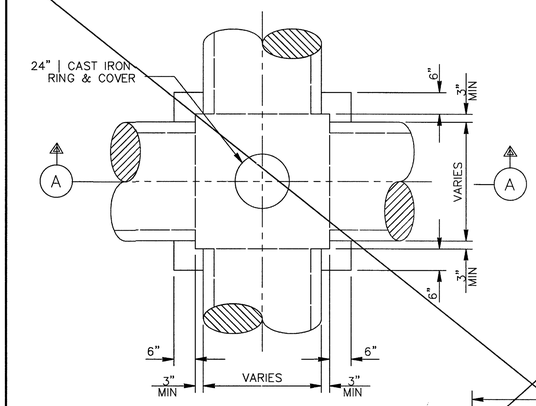


VIEW B–1

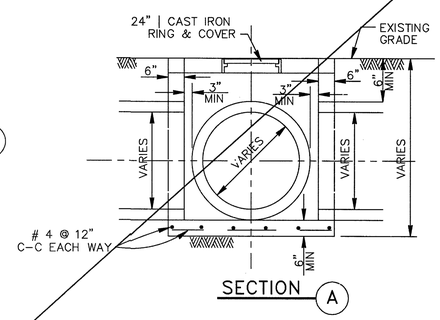
SLOTTED DRAIN DETAIL

N.T.S.

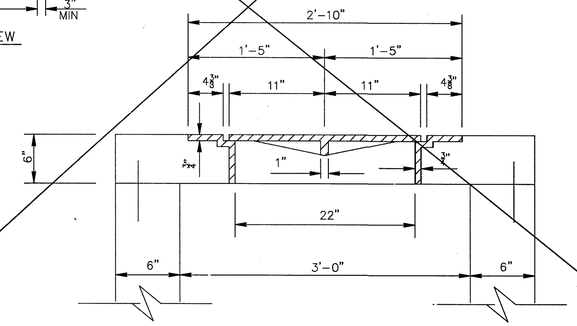
SL–DR–29



PLAN VIEW



SECTION A



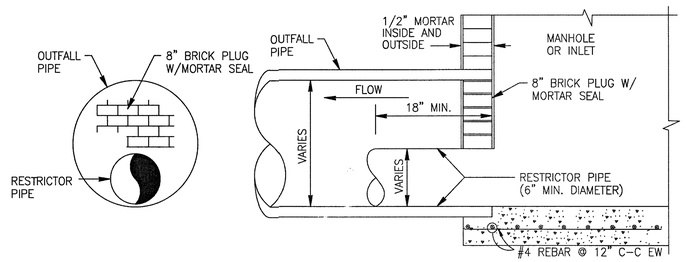
FRAME AND COVER SECTION

JUNCTION BOX

N.T.S.

SL–DR–30

No.	DATE	REVISION



CHOKE OUTFALL RESTRICTOR DETAIL

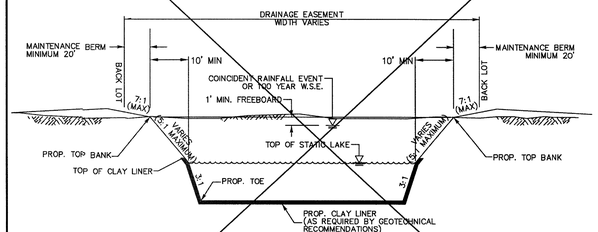
STORM SEWER CHOKE RESTRICTOR

N.T.S.

SL–DR–31

REFER TO:

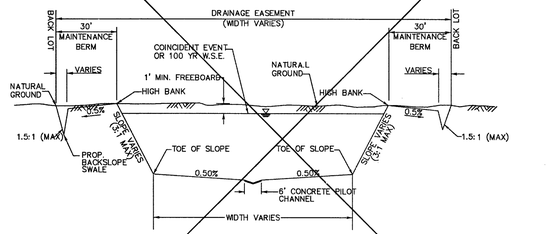
1. *GENERAL NOTES*
2. *STORM SEWER NOTES*



WET DETENTION POND/AMENITY LAKE

N.T.S.

SL–DR–32



DRY DETENTION POND

N.T.S.

RECORD DRAWING

SL–DR–33

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL–10

SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

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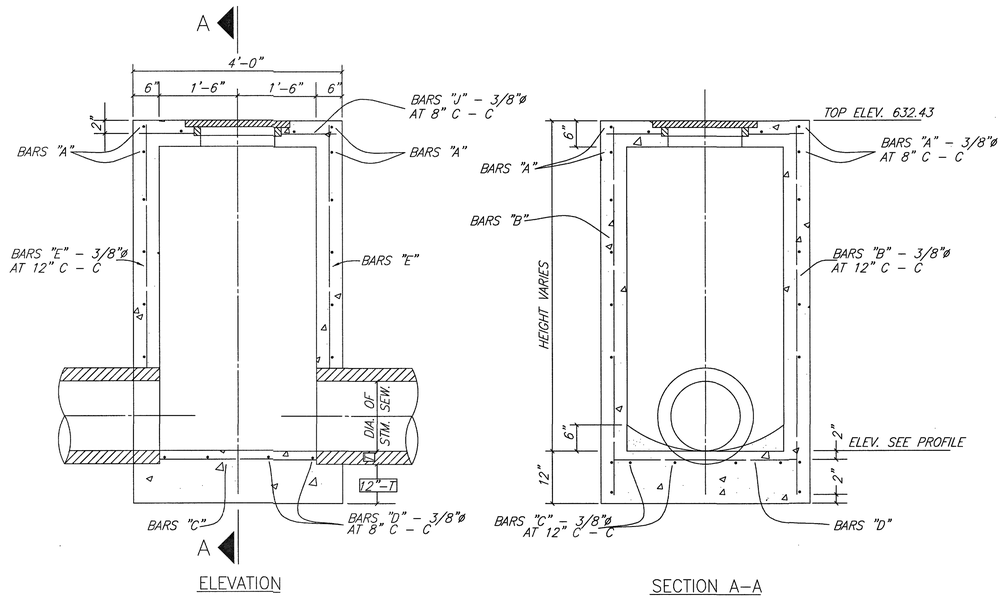
STORM SEWER CONSTRUCTION DETAILS SL–10

PROJECT NO. 13454

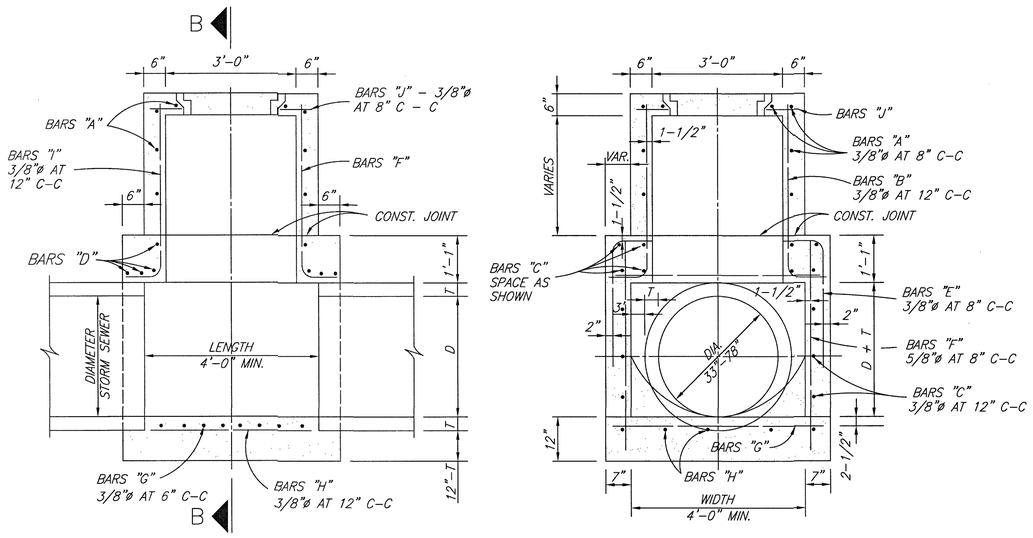
24

13454 DETAIL SET.DWG



STORM SEWER TYPE A MANHOLE

MAX. PIPE SIZE 30" - N.T.S.



TYPE B STORM SEWER MANHOLE

MAX. PIPE SIZE 78" - N.T.S.

RECORD DRAWING

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEEREING DEPARTMENT

CONSTRUCTION PLANS FOR:

JUNCTION BOX MANHOLES

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-11

SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

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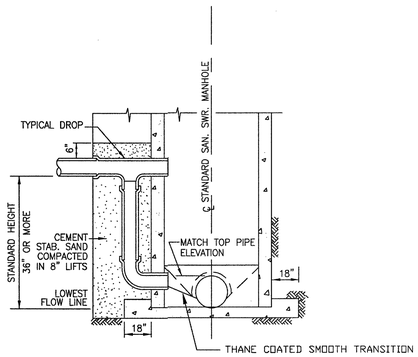
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

JUNCTION BOX MANHOLES SL-11

PROJECT NO. 13454

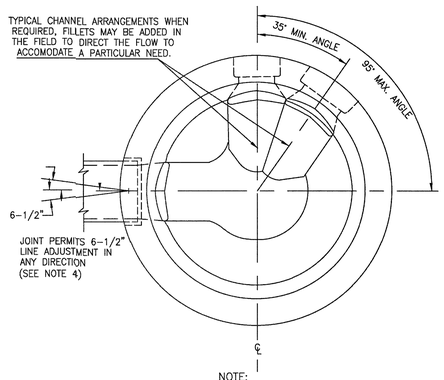
13454 DETAIL SET.DWG



STANDARD DROP DETAIL

(SEE C.S.S. NOTES)

SL-SS-05



PIPING CONNECTIONS DETAIL

SL-SS-05

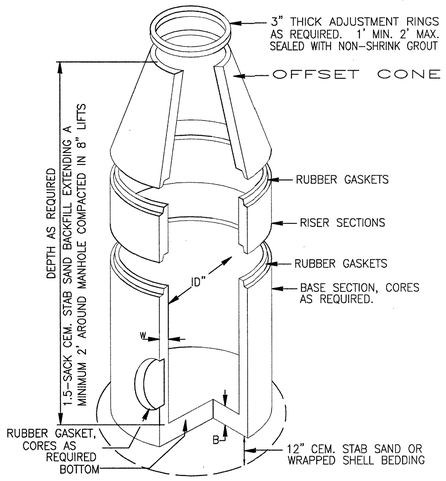
NOTE:

1. INFLUENT AND EXFLUENT PIPING CONNECTIONS TO MANHOLE SHALL BE ALIGNED TO PREVENT REVERSE FLOW.
2. INFLUENT AND EXFLUENT CONNECTIONS ARE LIMITED TO A MAXIMUM 90° INCLUDED ANGLE OF CONVERGENCE.
3. MINIMUM 35° AND MAXIMUM 90° INCLUDED ANGLES MUST BE PROVIDED BETWEEN MULTIPLE INFLUENT CONNECTIONS.
4. ANGLE OF DEFLECTION AT PIPING JOINTS AS PER MANUFACTURE'S RECOMMENDATIONS.

NOTES:

1. CONTRACTOR SHALL CONTACT CITY OF SUGAR LAND ENGINEERING DEPARTMENT AT (281) 275-2780 IF WET SAND OR OTHER UNSTABLE SOIL CONDITIONS, HIGH WATER TABLE AND/OR UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED.
2. SHOULD A CONFLICT ARISE BETWEEN INFORMATION DEPICTED ON APPROVED CONSTRUCTION DRAWINGS AND INFORMATION INCLUDED IN PROJECT SPECIFICATIONS, CITY OF SUGAR LAND DESIGN STANDARDS SHALL GOVERN.
3. SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED A MINIMUM OF FOUR FOOT FROM BACK OF CURB ON CURB AND GUTTER ROADWAYS AND THREE FEET FROM EDGE OF TRAVELLED ROADWAY ON THOSE THOROUGHFARES HAVING NO CURBING, MEASURED FROM OUTSIDE DIAMETER OF MANHOLE. SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED BENEATH STREET PAVING EXCEPT WHERE SPECIFICALLY AUTHORIZED BY CITY ENGINEER AND SO DESIGNATED ON APPROVED CONSTRUCTION DRAWINGS.
4. ALL SUCH MANHOLE COVERS SHALL HAVE THE CITY OF SUGAR LAND EMBLEM AND THE WORDS "SUGAR LAND" AND "SANITARY SEWER" CAST IN RAISED RELIEF AS DEPICTED IN CITY OF SUGAR LAND STANDARD CONSTRUCTION DETAILS SHEETS. ALL SANITARY SEWER MANHOLES SHALL INCORPORATE INFLOW PROTECTORS.
5. MANHOLE RIM ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY. CONTRACTORS SHALL ADJUST RIM ELEVATIONS TO 0.4 FEET ABOVE FINISHED GRADE WITHIN RIGHTS-OF-WAY AND EASEMENTS AT EACH MANHOLE LOCATION AFTER FINAL GRADING. ADJUSTMENTS TO MANHOLE RIM ELEVATIONS SHALL BE ACCOMPLISHED BY THE USE OF THROAT RINGS ONLY (MAX. OF 24 INCHES PERMITTED). THE AREA ADJACENT TO SANITARY SEWER MANHOLE LOCATIONS SHALL BE GRADED AWAY FROM SUCH MANHOLES SO AS PREVENT ENTRY OF STORM WATER RUNOFF TO THE SANITARY SEWER SYSTEM.
6. DROP CONNECTIONS ARE REQUIRED WHEN INVERT ELEVATION OF SEWER LINE TO BE CONNECTED EXCEEDS 36 INCHES DISTANCE ABOVE INVERT ELEVATION OF MANHOLE BASE. ALL DROP CONNECTIONS SHALL BE CONSTRUCTED OF SAME MATERIALS AS SEWER AND SHALL BE CONSTRUCTED EXTERIOR TO MANHOLE. PIPE CONNECTIONS TO MANHOLES SHALL BE SO CONSTRUCTED AS TO BE WATERTIGHT AND TO ALIGN UPPER INSIDE PIPE WALL ELEVATIONS OF ALL PIPING CONNECTED TO BASE OF MANHOLE UNIFORMLY, REGARDLESS OF PIPE DIAMETERS. DROP ASSEMBLIES SHALL BE BEDDED IN CEMENT STABILIZED SAND. CEMENT STABILIZED SAND SHALL EXTEND A MINIMUM OF SIX INCHES PAST PIPING LATERALLY FROM BASE OF MANHOLE UPWARD TO A POINT SIX INCHES (MINIMUM) ABOVE THE HORIZONTAL SEWER PIPING WHERE CONNECTED TO THE MANHOLE ABOVE THE VERTICAL DROP.
7. CONNECTIONS TO EXISTING AND/OR NEW SANITARY SEWER MANHOLES CONSTRUCTED OF PRECAST CONCRETE NOT HAVING PRECORED HOLES OF CORRECT DIAMETER, LOCATION AND FIELD CORING ONLY SHALL ACCOMPLISH INVERT ELEVATION. IN NO INSTANCE WILL EITHER MANUAL OR PNEUMATIC CHISELS AND/OR HAMMER DRILLS BE UTILIZED TO BREAK HOLES IN PRECAST CONCRETE MANHOLES, PIPE SEGMENTS OR OTHER PRECAST STRUCTURES SUCH AS LIFT STATIONS.
8. BEDDING AND BACKFILL OF SANITARY SEWER PIPING AND MANHOLES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH CITY OF SUGAR LAND DESIGN STANDARDS. A 1.5-SACK MIX IS REQUIRED FOR ALL CEMENT STABILIZED SAND BEDDING AND SUCH BEDDING SHALL BE INSTALLED IN LIFTS OF EIGHT INCHES MAXIMUM.
9. SOLVENT WELDED JOINTS ARE NOT AN ACCEPTABLE JOINING METHOD FOR SANITARY SEWERS CONSTRUCTED OF PVC PIPING MATERIALS AND LOCATED WITHIN RIGHTS-OF-WAY OR EASEMENTS. RUBBER GASKETED BELL AND SPIGOT SANITARY SEWER JOINTS ARE MANDATORY. BELL (FEMALE) ENDS OF PIPE SHALL BE INSTALLED ON UPSTREAM SIDE WITH SPIGOT (MALE) ENDS ORIENTED DOWNSTREAM.
10. SANITARY SEWER SERVICE LEADS SHALL BE EXTENDED TO RIGHTS-OF-WAY AND/OR EASEMENT LINES AS APPLICABLE AND CAPPED/PLUGGED FOR FUTURE CONNECTIONS. SERVICE LEADS ARE TO BE INSTALLED SO AS TO PASS UNDER POTABLE WATER PIPING AT CROSSINGS WHERE POSSIBLE.
11. EACH SANITARY SEWER SERVICE LEAD STUB, PLUGGED WYE BRANCH OUTLET AND STACK SHALL BE MARKED WITH A PRESSURE TREATED 4 X 4 TIMBER AT THE TIME OF CONSTRUCTION, BEGINNING AT THE INVERT ELEVATION OF THE STUB OR WYE AND AT AN ELEVATION TWO FEET BELOW THE CAPPED TERMINATION POINT OF THE STACK AND EXTENDING TWO FEET ABOVE FINISHED GRADE. EACH TIMBER MARKER SHALL BE PAINTED RED AND LABELED "SANITARY SEWER STUB", "SANITARY SEWER WYE" OR "SANITARY SEWER STACK" AS APPROPRIATE WITH STUB, WYE BRANCH OUTLET OR STACK SIZE NOTED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION. DURING THE COURSE OF ANY AND ALL CLEARING, GRUBBING, FILL, GRADING, EXCAVATION OR OTHER CONSTRUCTION, CONTRACTOR SHALL ENSURE THAT STORM DRAINAGE PATHWAYS ARE MAINTAINED AND REMAIN OPEN TO ENSURE POSITIVE DRAINAGE AND THAT SUCH CONVEYANCES ARE NOT IMPEDED OR BLOCKED IN ANY WAY. STORM SEWER INLETS SHALL BE PROTECTED FROM ENTRY OF SILT, TRASH, DEBRIS AND ANY SUBSTANCES DELETERIOUS TO THE STORM SEWER SYSTEM AND/OR WATERWAYS RECEIVING STORM WATER RUNOFF. CONTRACTOR SHALL AT COMPLETION OF WORK, FILL LOW SPOTS AND GRADE ALL RIGHTS-OF-WAY AND UTILITY EASEMENTS AND REGRADE/RESTORE DITCHES AS NECESSARY TO MAINTAIN AND/OR ESTABLISH POSITIVE DRAINAGE.
13. ALL SANITARY SEWER PIPING AND BEDDING SHALL BE INSPECTED BY CITY CONSTRUCTION INSPECTOR FOR CONFORMANCE WITH CITY INFRASTRUCTURE STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY NOTIFY THE CITY OF ALL CONSTRUCTION ACTIVITIES AND TO CONFORM TO CITY OF SUGAR LAND PUBLIC WORKS DEPARTMENT INSPECTION POLICY.
14. C.S.S. 1' ABOVE PIPE AND 6" BELOW PIPE MINIMUM.
15. SEE GENERAL NOTES AND C.S.S. NOTES.

SL-SS-07



SPECIFICATIONS:

CONCRETE: CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATES FOR H-20 LOADING.

REINFORCEMENT: STRUCTURAL REINFORCEMENT CONFORMING TO ASTM-C-478.

C.I. CASTINGS: CAST IRON FRAMES AND LIDS ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 35.

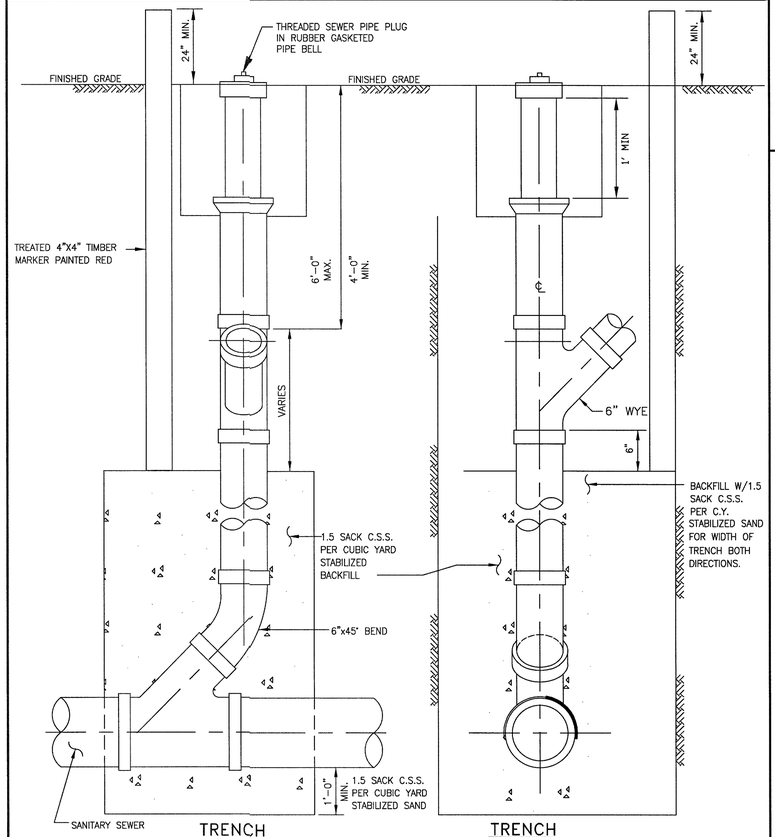
NOTES

1. LIFTING INSERTS AS REQUIRED.
2. ALL JOINTS SHALL BE SEALED WITH APPROVED RUBBER GASKET
3. STRUCTURE TO BE PLACED ON 12" STABILIZED BASE.
4. C.S.S. SHALL BE BROUGHT TO WITHIN 2-FT OF TOP OF MANHOLE.
5. PRE-CAST MANHOLE SHALL BE IN COMPLIANCE APPROVED PRODUCT LIST.
6. THANE COAT SHALL BE IN COMPLANCE WITH APPROVED PRODUCT LIST.
7. INVERTS SHALL COMPLY WITH C.O.S.L., DESIGN MANUAL SPECIFICATIONS.
8. INFLOW PROTECTORS REQUIRED ON ALL SANITARY MANHOLES.
9. REFER TO SANITARY MANHOLE LIDS, C.S.S. NOTES, MODIFIED BEDDING DETAILS AND NOTES.

PRECAST SANITARY MANHOLE

N.T.S.

SL-SS-03



TRENCH SIDE VIEW

TRENCH END VIEW

STACK DETAIL

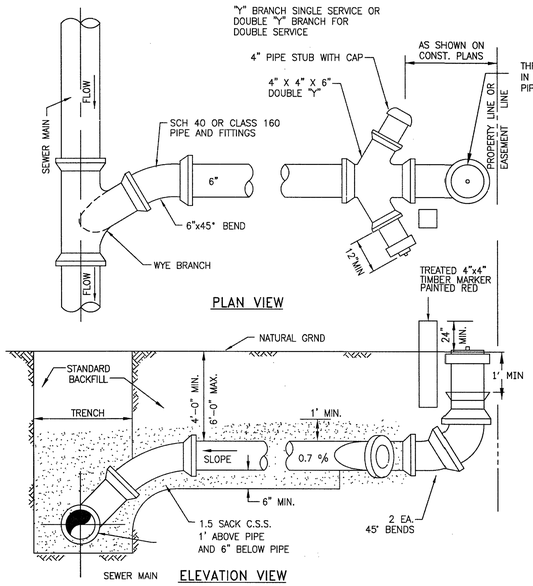
N.T.S.

NOTES:

A.) NO STACKS ON MAINS OVER 16' DEEP OR IN WET SAND CONDIITIONS.

B.) ALL STACK CONNECTIONS SHALL BE IN-LINE FITTINGS.

SL-SS-04



SANITARY SEWER SERVICE CONNECTION

N.T.S.

SL-SS-06

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

SANITARY SEWER CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-14

SHEET OF

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

B&L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST, ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

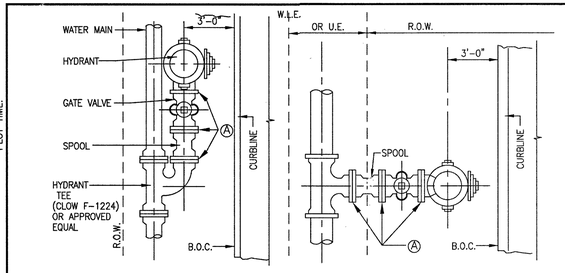
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES AND DETENTION

SANITARY SEWER CONSTRUCTION DETAILS SL-14

PROJECT NO. 13454

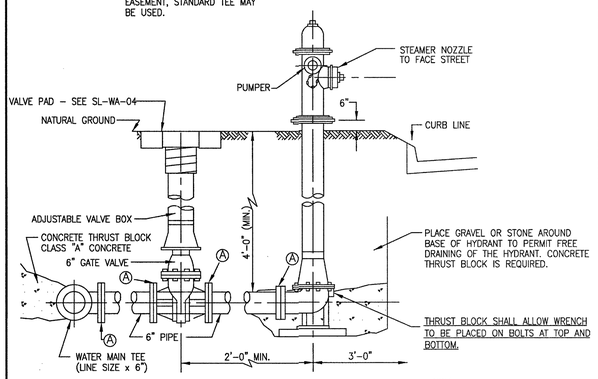
13454 DETAIL SET.DWG



R.O.W. INSTALLATION
N.T.S.

EASEMENT INSTALLATION
N.T.S.

NOTE:
WHEN WATER LINE IS LOCATED IN EASEMENT, STANDARD TEE MAY BE USED.



FLUSHING VALVE COLOR CODE

MAIN LINE DIAMETER	BONNET, PUMPER CAP AND STEAMER CAP
6 INCHES (AND LESS)	YELLOW
8 INCHES	WHITE
12 TO 16 INCHES	GREEN
GREATER THAN 16 INCHES	ORANGE

FIRE HYDRANT BODY TO BE PAINTED GEO-GLEN 301 BRIGHT SILVER ALUMINUM POLYURETHANE ENAMEL, BY GEO-GLEN ENTERPRISES OR APPROVED EQUAL.

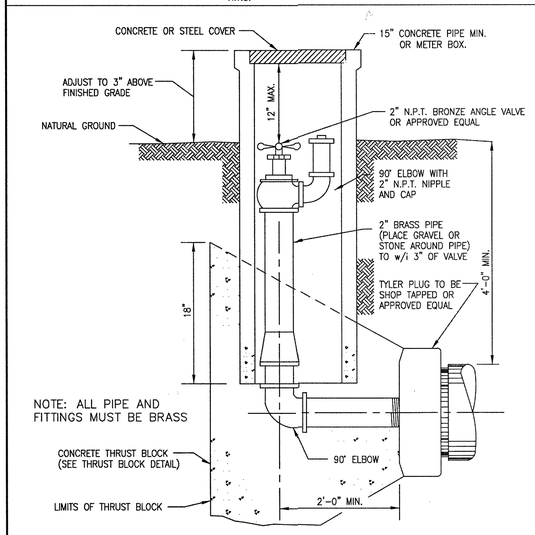
NOTE:
ALL FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 W/ STORZ INTEGRAL CONNECTOR STEAMER NOZZLE SIZE 5-1/4" TWO PUMPER 2-1/2" N.S.T.

ALL FLUSHING VALVES TO BE SAND BLASTED AND PAINTED AS PER C.O.S.L. DESIGN STANDARDS.

TYPICAL GATE & FIRE HYDRANT INSTALLATION
N.T.S.

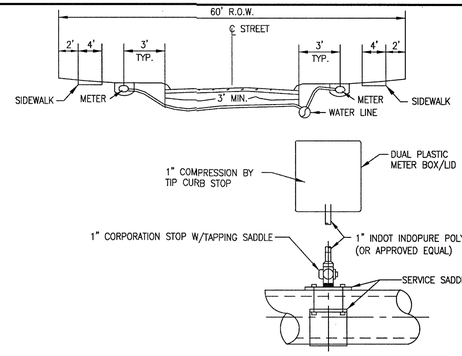
Ⓐ =RESTRAINED JOINT

SL-WA-01



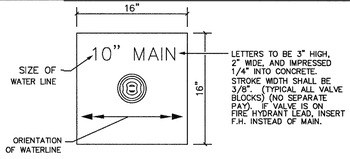
2" BLOW OFF VALVE ASSEMBLY
N.T.S.

SL-WA-02



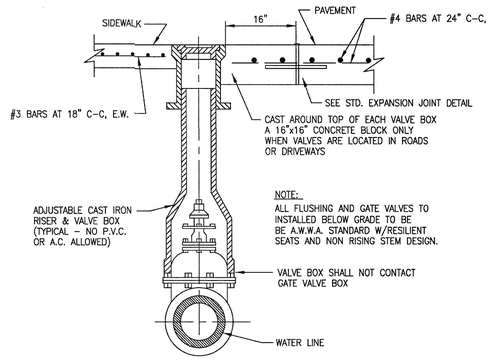
WATER SERVICE CONNECTION
AND
WATER SERVICE TAPPING ASSEMBLY DETAIL
N.T.S.

SL-WA-03



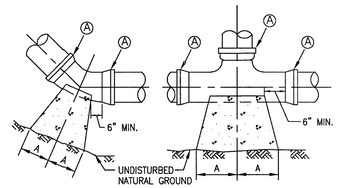
CONCRETE PAD
N.T.S.

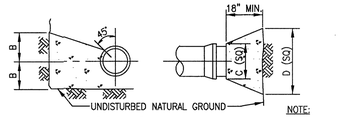
NOTE: ALL VALVES MUST HAVE CONCRETE PAD



VALVE BOX INSTALLATION DETAIL
N.T.S.

SL-WA-04



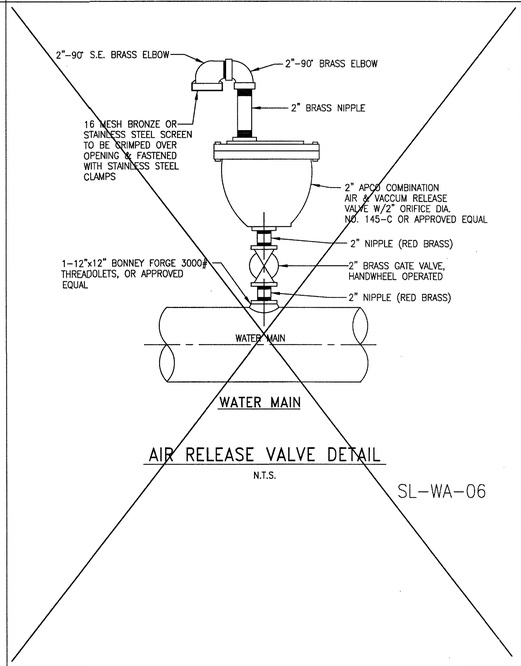


NOTE:
THRUST BLOCKS AT TRENCH FACE MUST HAVE A MINIMUM BEARING SURFACE OF 10 SQ. FEET AND SHALL BE NO SMALLER THAN 1.5 TIMES PIPE DIAMETER.
ALL CONCRETE SHALL BE 5 SACK MIN., 3000 P.S.I.

THRUST BLOCK DETAIL
N.T.S.

Ⓐ =RESTRAINED JOINT

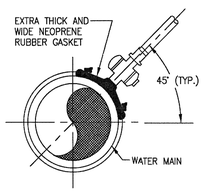
SL-WA-05

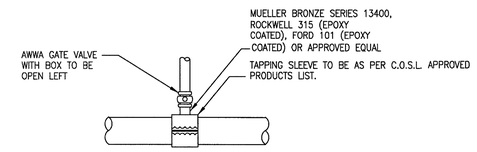


WATER MAIN

AIR RELEASE VALVE DETAIL
N.T.S.

SL-WA-06





TOP VIEW

TAPPING SLEEVE & VALVE DETAIL
N.T.S.

SL-WA-07

CONSTRUCTION NOTES:

1. WATER LINES 12" (IN.) AND LESS SHALL BE AWWA C-900 DR18 WATER LINE GREATER THAN 12" (IN.) IN ø SHALL BE AWWA C-905 DR 18
2. ALL FLUSHING VALVES AND GATE VALVES TO BE AMERICAN WATER WORKS ASSOC. (AWWA) STANDARD COUNTERCLOCKWISE OPENING WITH NON-RISING STEM DESIGN.
3. ALL DUCTILE IRON PIPE SHALL BE CLASS 50 MORTAR LINED. NO A.C. PIPE WILL BE ALLOWED AND ALL DUCTILE IRON FITTINGS SHALL BE MORTAR LINED PUSHON OR MECHANICAL JOINTS.
4. ALL BACKFILL WITHIN THE R.O.W. SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
5. MINIMUM SPACING BETWEEN TAPS SHALL BE 2' AT ALTERNATING TAP ANGLES.

RECORD DRAWING

SL-WA-08

NOTES:
POLYETHYLENE WRAP FOR IRON PIPE

NOTE:

1. POLYETHYLENE FILM SHALL BE USED AS A WRAP TO PROTECT CAST IRON AND OTHER METALS IN A CORROSIVE SOIL ENVIRONMENT.
2. AN 8 MIL POLYETHYLENE FILM WRAP SHALL BE REQUIRED AROUND ALL METAL PIPE AND APPURTENANCES (EXCEPT FIRE HYDRANTS).
3. POLYETHYLENE FILM SHALL BE FURNISHED AND INSTALLED EITHER IN TUBULAR FORM PRIOR TO LOWERING THE PIPE IN TRENCH OR IN SHEET FORM.
4. POLYETHYLENE TUBE ENCASEMENT SHALL CONFORM WITH THE MINIMUM REQUIREMENTS OF "POLYETHYLENE ENCASEMENT FOR GRAY AND DUCTILE CAST-IRON PIPING FOR WATER AND OTHER LIQUIDS", ANSI/AWWA C105, CURRENT REVISION. SOILS WITHIN A PROJECT SHALL BE TESTED IN ACCORDANCE WITH APPENDIX A OF ANSI/AWWA C105 TO ADEQUATELY DETERMINE THE REQUIREMENTS FOR ENCASEMENT.
5. ALL FITTINGS AND PIPE JOINTS WITHIN 10' OF A FITTING SHALL HAVE RESTRAINT JOINTS

SIZE	90° BEND		45° BEND		22 1/2° BEND		TEES		PLUGS	
	A	B	A	B	A	B	A	B	A	B
2 1/2"	12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
6"	16"	10"	9"	10"	6"	12"	10"	12"	10"	21"
8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
10"	26"	17"	14"	17"	10"	13"	16"	20"	14"	36"
12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
14"	35"	24"	19"	24"	12"	20"	22"	27"	18"	48"
16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"
20"	50"	40"	30"	40"	18"	30"	30"	40"	30"	*78"
24"	50"	40"	30"	40"	18"	30"	30"	40"	30"	*78"
30"	60"	48"	36"	48"	20"	36"	36"	48"	36"	*96"

BENDS, TEES & PLUGS FOR PIPE OF VARIOUS SIZES

SL-WA-08

No.	DATE	REVISION

SEAL:

DATE

DESIGN ENGINEER:

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

WATER LINE
CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-15

SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST, ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS · MIGUELANGEL A. SAUCEDA · 121992 · REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WATER LINE
CONSTRUCTION DETAILS
SL-15

PROJECT NO. 13454

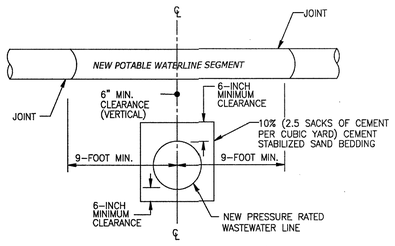
27

13454 DETAIL SET.DWG

PLOT DATE:

I

NEW POTABLE WATERLINE CROSSING NEW PRESSURE RATED WASTEWATER LINE WITH SEGMENT LENGHTS OF EIGHTEEN (18) FEET OR GREATER, HAVING 6 INCHES OF VERTICAL CLEARANCE AND 4 FEET OF HORIZONTAL CLEARANCE

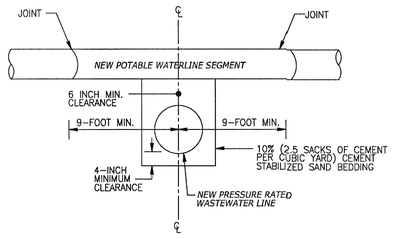


- WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN JOINTS OF THE WASTEWATER LINE.
- MINIMUM WASTEWATER PIPE STIFFNESS OF 115 PSI AT 5% DEFLECTION.
- EMBED WASTEWATER LINE IN CEMENT STABILIZED SAND TO AT LEAST 12" INCHES BEYOND EACH JOINT OF CROSSED SECTION OF PIPE.

SL–WA–09

II

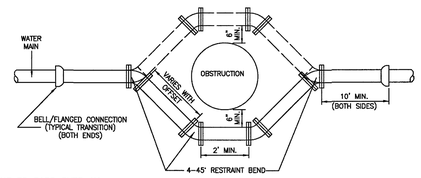
NEW POTABLE WATERLINE CROSSING NEW PRESSURE RATED WASTEWATER LINE



- WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN JOINTS OF THE WASTEWATER LINE.
- MINIMUM WASTEWATER PIPE STIFFNESS OF 115 PSI AT 5% DEFLECTION.
- EMBED WASTEWATER LINE IN CEMENT STABILIZED SAND TO AT LEAST 12" INCHES BEYOND EACH JOINT OF CROSSED SECTION OF PIPE.

SL–WA–10

III



FOR A LINE TO PASS OVER AN OBSTRUCTION RATHER THAN UNDER, IT MUST HAVE ADEQUATE COVER AND BE APPROVED BY THE ENGINEERING DEPARTMENT.

NOTES:

1. PIPE MATERIAL SHALL BE AWWA C900 PVC, DR-14, 200 PSI WITH INTEGRAL PVC RESTRAINED JOINTS.
2. OFFSET ASSEMBLY MUST PASS OVER THE OBSTRUCTION AS LONG AS THE MINIMUM CLEARANCE IS MAINTAINED. SPECIFIC APPROVAL FROM THE UTILITES DEPARTMENT MUST BE GRANTED FOR THE OFFSET TO PASS UNDER THE OBSTRUCTION.
3. MATERIAL AND COATINGS SHALL BE IN ACCORDANCE WITH WATER MAIN STANDARD SPECIFICATIONS.
4. RESTRAIN EXISTING PIPING BEYOND OFFSET SECTION AS REQUIRED TO PREVENT MOVEMENT.
5. ALL PVC PRODUCTS MUST BE LISTED ON CITY OF SUGAR LAND'S APPROVED PRODUCTS LIST.

MIN. PIPE WALL THICKNESS	
4"	– 0.250"
6"	– 0.280"
8"	– 0.322"
12" AND LARGER	– 0.375"

PVC WATER PIPE OFFSET ASSEMBLY

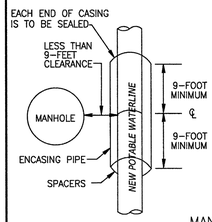
SL–WA–11

GENERAL NOTES:

1. CONTRACTOR SHALL CONTACT CITY OF SUGAR LAND ENGINEERING DEPARTMENT AT (281) 275-2780 IF WET SAND OR OTHER UNSTABLE SOIL CONDITIONS, HIGH WATER TABLE AND/OR UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED.
2. SHOULD A CONFLICT ARISE BETWEEN INFORMATION DEPICTED ON APPROVED CONSTRUCTION DRAWINGS AND INFORMATION INCLUDED IN PROJECT SPECIFICATIONS, CITY OF SUGAR LAND DESIGN STANDARDS SHALL GOVERN.
3. ALL NEW POTABLE WATER LINES AND SANITARY SEWER FORCE MAINS SHALL BE BEDDED IN COMPACTED BANK SAND A MINIMUM OF 6 INCHES BELOW, ABOVE AND TO EITHER SIDE OF SUCH PIPING.
4. ALL NEW SANITARY SEWER GRAVITY DRAIN LINES SHALL BE BEDDED IN CEMENT STABILIZED SAND CONFORMING TO THE REQUIREMENTS FOR EITHER CLASS "A" STANDARD BEDDING OR CLASS "A–A" BEDDING AS APPLICABLE. USE OF MODIFIED "A" OR MODIFIED "A–A" BEDDING FOR SANITARY SEWER INSTALLATIONS WHERE WET SAND CONDITIONS ARE ENCOUNTERED AND SEPARATION DISTANCE TO POTABLE WATER LINES IS LESS THAN 9 FEET REQUIRES APPROVAL BY CITY ENGINEER.
5. CEMENT STABILIZED BEDDING SHALL BE A MINIMUM 1.5 SACK PER CUBIC YARD C.S.S., INSTALLED IN MAXIMUM LIFTS OF 8 INCHES AND MECHANICALLY TAMPED TO 95% PROCTOR.
6. WHERE REQUIRED, SLEEVING (ENCASEMENT) OF POTABLE WATER PIPING AND/OR SANITARY SEWER GRAVITY DRAIN LINES AND FORCE MAINS SHALL BE PROVIDED. SUCH SLEEVING (ENCASEMENT) SHALL BE CONSTRUCTED OF APPROVED PIPING MATERIALS HAVING A MINIMUM PRESSURE RATING OF 150 PSI AND ANNULAR SPACES AT EACH END SHALL BE SEALED WITH A MATERIAL APPROVED FOR SUCH USE.
7. ALL NEW POTABLE WATER LINES SHALL BE SLEEVED (ENCASED) WHERE A MINIMUM OF 9 FEET SEPARATION DISTANCE TO EXISTING OR PROPOSED SANITARY SEWER MANHOLE, LIFT STATION OR WASTEWATER TREATMENT PLANT CANNOT BE MAINTAINED. SLEEVING SHALL BE A MINIMUM OF 18 FEET IN LENGTH AND CENTERED ON THE POINT OF CLOSEST PROXIMITY.
8. ALL NEW POTABLE WATER LINES SHALL BE SLEEVED (ENCASED) WHERE LESS THAN 2 FEET VERTICAL OR 4 FEET HORIZONTAL CLEARANCE TO EXISTING OR PROPOSED SANITARY SEWER GRAVITY LINES OR FORCE MAINS CANNOT BE MAINTAINED. SLEEVING SHALL BE A MINIMUM OF 18 FEET IN LENGTH AND CENTERED ON THE POINT OF CROSSING. WHERE PIPING IS LAID PARALLEL AND MINIMUM SEPARATION DISTANCES CANNOT BE MAINTAINED, SLEEVING SHALL EXTEND AT LEAST 9 FEET PAST THE POINT WHERE MINIMUM SEPARATION DISTANCES ARE ACHIEVED.
9. ALL NEW POTABLE WATER LINES SHALL BE CONSTRUCTED ABOVE EXISTING OR PROPOSED SANITARY SEWER GRAVITY LINES OR FORCE MAINS WHERE POSSIBLE. WHERE INSTALLATION BENEATH SANITARY SEWER GRAVITY LINES OR FORCE MAINS IS UNAVOIDABLE AT POINTS OF CROSSING, SLEEVING (ENCASEMENT) IS REQUIRED FOR ALL NEW POTABLE WATER LINES CONSTRUCTED OF PVC PIPING MATERIALS, REGARDLESS OF SEPARATION DISTANCE. SLEEVING SHALL BE A MINIMUM OF 18 FEET IN LENGTH AND CENTERED ON THE POINT OF CROSSING.
10. ALL NEW SANITARY SEWER GRAVITY LINES AND/OR FORCE MAINS CONSTRUCTED OF PVC PIPING MATERIALS SHALL BE SLEEVED (ENCASED) WHERE LESS THAN 2 FEET VERTICAL OR 4 FEET HORIZONTAL CLEARANCE TO EXISTING POTABLE WATER PIPING CANNOT BE MAINTAINED. SLEEVING SHALL BE A MINIMUM OF 18 FEET IN LENGTH AND CENTERED ON THE POINT OF CLOSEST PROXIMITY.
11. ALL NEW SANITARY SEWER GRAVITY LINES AND/OR FORCE MAINS SHALL BE CONSTRUCTED BELOW EXISTING POTABLE WATER LINES WHERE POSSIBLE. WHERE INSTALLATION ABOVE POTABLE WATER LINES IS UNAVOIDABLE, SLEEVING (ENCASEMENT) IS REQUIRED FOR ALL SUCH SANITARY SEWER LINES CONSTRUCTED OF PVC PIPING MATERIALS, REGARDLESS OF SEPARATION DISTANCE. SLEEVING SHALL BE A MINIMUM OF 18 FEET IN LENGTH AND CENTERED ON THE POINT OF CROSSING.
12. WHERE NEW SANITARY SEWER SIZING (24 INCH AND GREATER) PRECLUDES THE USE OF PVC PIPING MATERIALS AND SLEEVING (ENCASEMENT) OF THE SANITARY SEWER WOULD OTHERWISE BE REQUIRED BUT IS IMPRACTICAL, THE EXISTING POTABLE WATER PIPING SHALL EITHER BE OFFSET TO PROVIDE THE REQUIRED MINIMUM CLEARANCES OR SLEEVED (ENCASED) IN LIEU OF SLEEVING (ENCASING) THE SANITARY SEWER LINE. SLEEVING SHALL BE A MINIMUM OF 18 FEET IN LENGTH AND CENTERED ON THE POINT OF CROSSING.
13. IN NO INSTANCE SHALL A FIRE HYDRANT BE INSTALLED WITHIN 9 LINEAR FEET OF A SANITARY SEWER SYSTEM.
14. NOTE: SEPARATION DISTANCES ARE MEASURED FROM THE OUTSIDE DIAMETERS OF EACH PIPE AND FROM THE EXTERIOR SURFACES OF MANHOLES, LIFT STATIONS, WASTEWATER TREATMENT PLANTS AND ASSOCIATED APPURTENANCES.
15. REFER TO GENERAL SANITARY, WATER AND C.S.S. NOTES.

SL–WA–18

DETAIL OF WATER LINE CROSSING WASTEWATER FACILITIES WHERE SEPARATION IS LESS THAN 9' (NINE FEET)

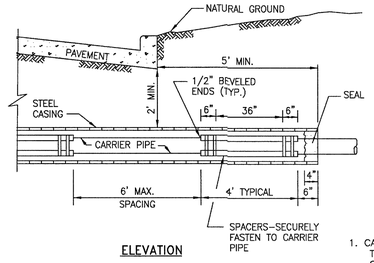


ENCASING PIPE

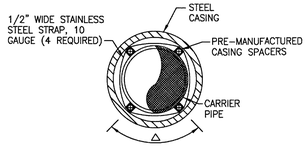
- 150 PSI PRESSURE CLASS PIPE MINIMUM 18 FEET LONG DIAMETER = 2 X WATERLINE DIAMETER
- SPACE AROUND CARRIER PIPE SHALL BE SUPPORTED AT FIVE (5) FOOT (OR LESS INTERVALS WITH SPACERS)
- CENTERED ON CROSSING
- BOTH ENDS SEALED WITH CEMENT GROUT OR A MANUFACTURED WATER TIGHT SEAL.

MANHOLE CLEARANCE

SL–WA–12



ELEVATION



CASING SCHEDULE		
CARRIER PIPE	NOMINAL CASING	MIN. WALL THICKNESS (IN.)
6"	12"	0.11
8"	14"	0.15
10"	16"	0.18
12"	18"	0.20

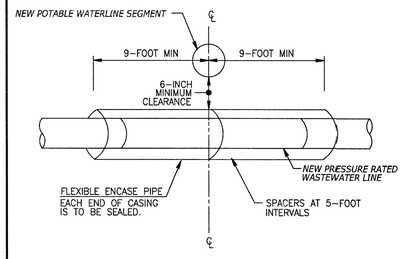
1. CASING SIZE AND THICKNESS SHALL CONFORM TO THE MINIMUM REQUIREMENTS AS SHOWN ON CASING SCHEDULE, OTHER PERMITS AS REQUIRED.
2. MAINTAIN 1" MINIMUM CLEARANCE BETWEEN THE MAXIMUM OUTSIDE DIAMETER OF CARRIER PIPE AND CASING AT ALL LOCATIONS.
3. DIMENSIONS ARE APPROXIMATE ONLY. CONTRACTOR SHALL INSTALL ADEQUATELY SIZED CASING TO ACCOMMODATE THE CARRIER PIPE.

SL–WA–13

IV

ENCASED WASTEWATER LINE

NEW POTABLE WATERLINE CROSSING NEW PRESSURE RATED WASTEWATER LINE WITH SEGMENT LENGHTS OF OF LESS THAN EIGHTEEN (18) FEET

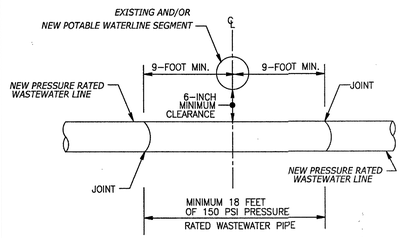


- MINIMUM CASING PIPE STIFFNEESS OF 115 PSI AT 5% DELECTION.
- MINIMUM CASING PIPE DIAMETER = 2 X WASTEWATER LINE DIAMETER.
- THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE (F) FOOT (OR LESS). INTERVALS WITH SPACERS
- EACH END CASING IS TO BE SEALED WITH WATER TIGHT NO-SHRINK GROUT OR MANUFACTURED WATER TIGHT SEAL.

SL–WA–17

ALTERNATIVE A:

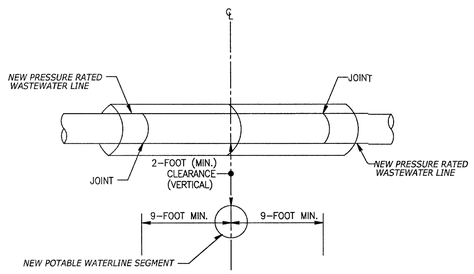
PRESSURE RATED WASTEWATER PIPE



SL–WA–14

ALTERNATIVE B:

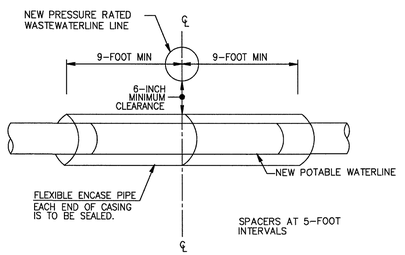
EXISTING POTABLE WATERLINE CROSSING EXISTING PRESSURE RATED WASTEWATER LINE



SL–WA–15

ALTERNATIVE C:

ENCASE NEW POTABLE WATERLINE UNDER A NEW PRESSURE RATED WASTEWATER LINE



- SAME ENCASEMENT CRITERIA AS "ALTERNATIVE B" OR
- NEW WATERLINE (WITHOUT CASING) TO BE CONSTRUCTED OF PVC C-900 (DR-18), DUCTILE IRON WITH MECHANICAL JOINT OR STEEL PIPE WITH WITH WELDED JOINTS.
- BOTH WATERLINE AND WASTEWATER LINE MUST PASS A PRESSURE AND LEAKAGE TEST AS SPECIFIED IN AWWA C600 STANDARDS.

RECORD DRAWING SL–WA–16

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

WATER LINE CROSSING DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL–16
SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST. ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

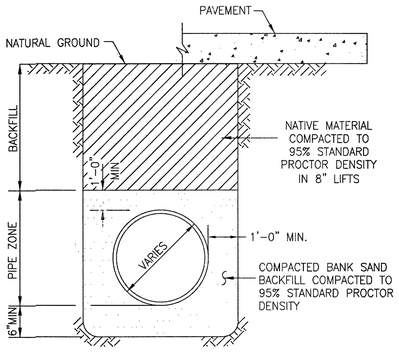
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WATER LINE CROSSING DETAILS
SL–16

PROJECT NO. 13454

28

13454 DETAIL SET.DWG



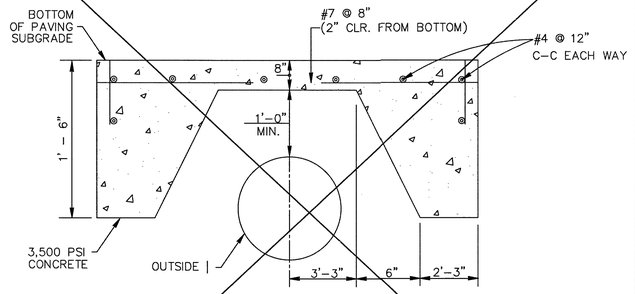
P.V.C. PIPE BEDDING & BACKFILL

N.T.S.

*SEE CONSTRUCTION NOTES

SANITARY FORCE MAIN & WATER LINE BEDDING AND BACKFILL

SL-BB-01



PROTECTIVE SLAB DETAIL

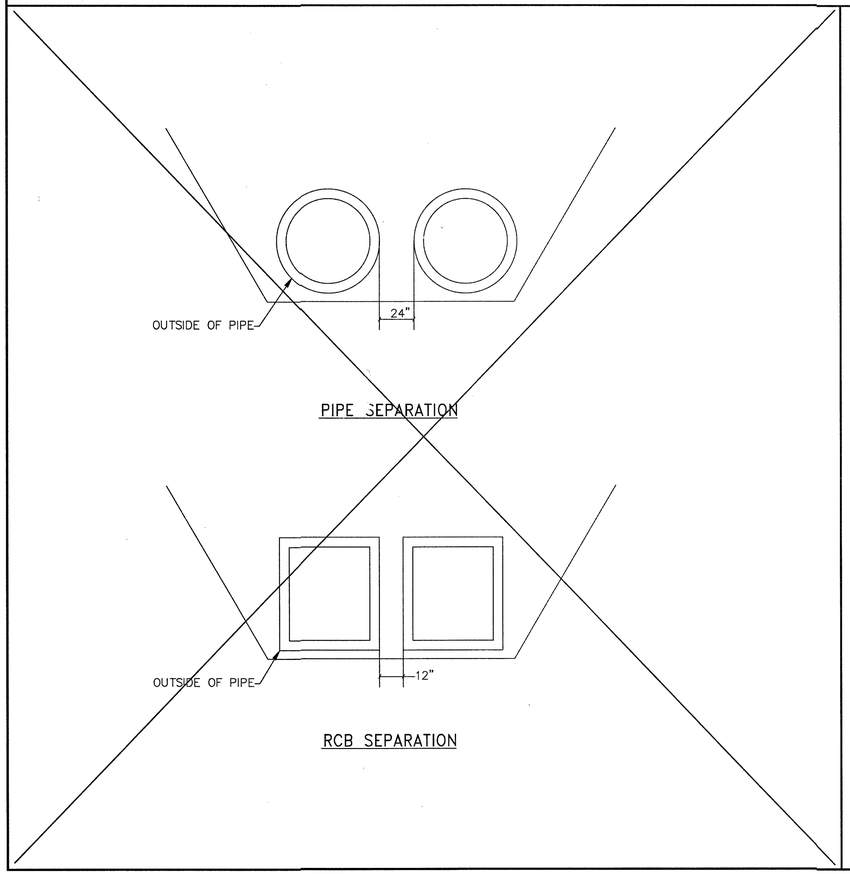
ZERO LOAD TRANSFER CONCRETE SLAB

SL-BB-04

CONSTRUCTION NOTES

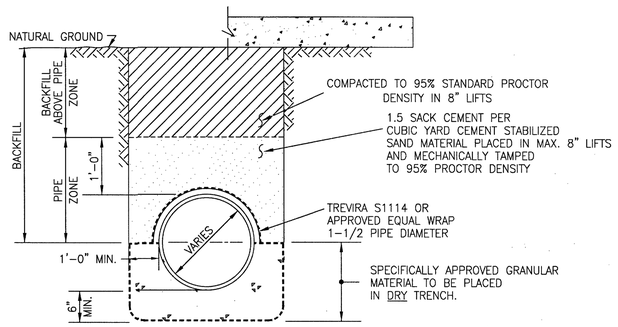
1. CONTRACTOR SHALL CONTACT SUGAR LAND ENGINEERING DEPARTMENT IMMEDIATELY IF WET SAND CONDITIONS ARE ENCOUNTERED.
2. LIMESTONE AND RECYCLED CONCRETE DIMENSIONS SHOWN ARE TYPICAL BUT MAY BE VARIED BY ORDER OF CITY ENGINEER.
3. LIMESTONE OR RECYCLED CONCRETE SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATION No. 248 FLEXIBLE BASE, TYPE A, GRADE 2 AGGREGATE.
4. NO BEDDING SHALL BE INSTALLED IN WET CONDITIONS. WHEN WELL POINTING OR IN WET SAND CONDITIONS, MAINTAIN GROUND WATER 1 (FT) BELOW BOTTOM OF TRENCH FOR A MINIMUM OF 24-HRS AFTER BEDDING AND BACKFILL IS IN PLACE.
5. ALL MATERIALS SHALL BE FROM THE APPROVED PRODUCTS LIST UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER.
6. SANITARY SEWER BEDDING FOR WET SAND CONDITIONS SHALL BE AS PER MODIFIED "A".
7. ALL SAND BEDDING FOR WATER LINES SHALL BE CLEAN, MECHANICALLY COMPACTED BANK SAND.
8. REFER TO: MANHOLE DETAILS, SANITARY, C.S.S., GENERAL, WATER CROSSING, WATER DISTRIBUTION DETAILS AND NOTES.
9. ALL BEDDING WILL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
10. A GEOTECHNICAL REPORT MAY BE REQUIRED TO ANALYZE THE BEARING CAPACITY OF EXISTING SOILS AND MAKE A DETERMINATION IF ADDITIONAL BEDDING AND BACKFILL IS APPROPRIATE.

SL-BB-05



PIPE SEPARATION

RCB SEPARATION



MODIFIED "A"

N.T.S.

NOTE: C.S.S. SHALL BE INSTALLED A MIN. 1' ABOVE TOP OF PIPE.

SANITARY SEWER BEDDING AND BACKFILL

RECORD DRAWING

SL-BB-03

REFER TO:

1. *GENERAL NOTES*
2. *C.S.S. NOTES*

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

WATER LINE, SANITARY SEWER FORCE MAIN BEDDING DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-19

SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
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STATE OF TEXAS
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Date: 1/11/22

OWNER:
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Clint Peltier Custom Homes
979-481-4840

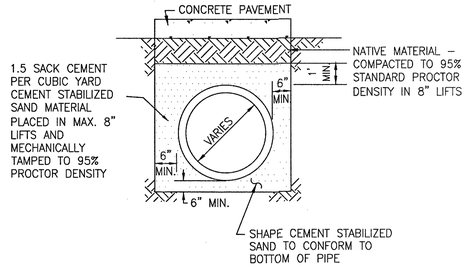
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES AND DETENTION

WATER LINE, SANITARY SEWER FORCE MAIN BEDDING DETAILS SL-19

PROJECT NO. 13454

13454 DETAIL SET.DWG

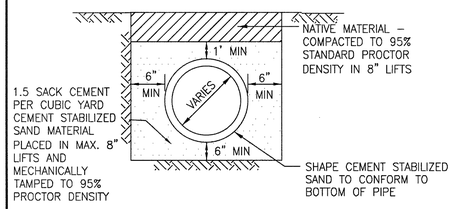


BEDDING DETAIL FOR
CONCRETE CULVERT USED
UNDER ROADWAY PAVEMENT

CLASS "A-A"

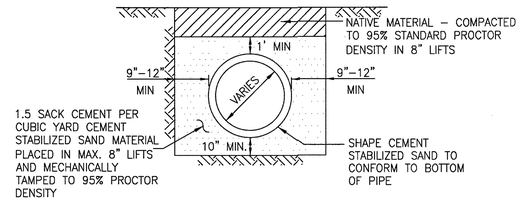
N.T.S.

SL-BB-06



BEDDING DETAIL FOR
REINFORCED CONCRETE PIPE
STORM SEWER
36" DIAMETER & SMALLER

SL-BB-07

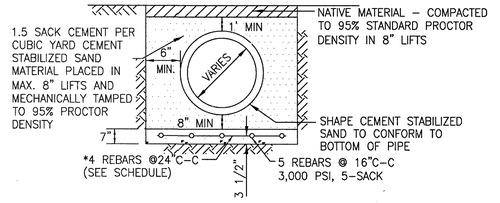


NOTES

1. 1.5-SACK CEMENT PER CUBIC YARD STABILIZED SAND PLACED BEFORE PIPE IS PLACED (10" MINIMUM FOR 42" TO 60", 14" MINIMUM FOR 66" TO 108")

BEDDING DETAIL FOR
REINFORCED CONCRETE PIPE
STORM SEWER
42" TO 108" DIAMETER
WHERE SATISFACTORY SOIL CONDITIONS EXIST

SL-BB-08

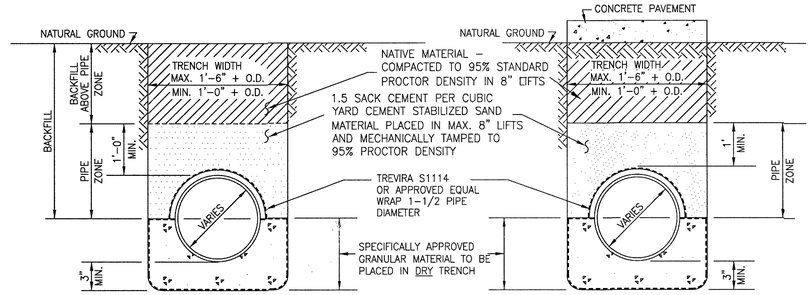


NOTES

1. 1.5-SACK CEMENT PER CUBIC YARD STABILIZED SAND PLACED BEFORE PIPE IS PLACED (8" MINIMUM FOR 42" TO 60", 12" MINIMUM FOR 66" TO 108").

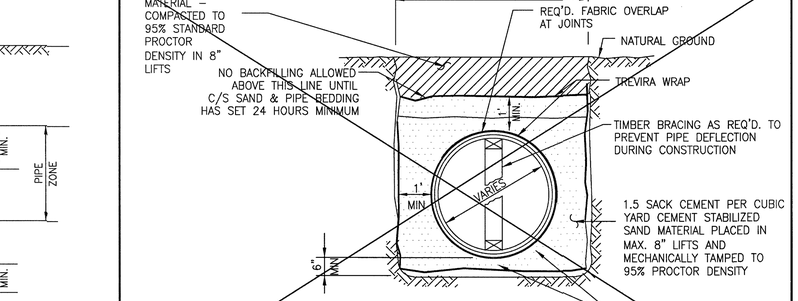
SEAL SLAB
BEDDING DETAIL FOR
REINFORCED CONCRETE PIPE
STORM SEWER
42" TO 108" DIAMETER
WHERE UNSATISFACTORY SOIL CONDITIONS EXIST

SL-BB-09



MODIFIED "A"

N.T.S.



USE FOR SEWERS UNDER EXISTING OR FUTURE ROADS, STREETS, DRIVEWAYS OR OTHER PVM'T.

MODIFIED "A-A"

N.T.S.

1. MODOFIED BEDDING TO BE USED IN WET GROUND CONDITIONS FOR NON=COHESIVE MATERIALS WITH A SHEAR STRENGTH LESS THAN 1000 PSI.

SL-BB-10

BEDDING DETAIL FOR STORM SEWER-
CORREGATED METAL PIPE

N.T.S.

SL-BB-11

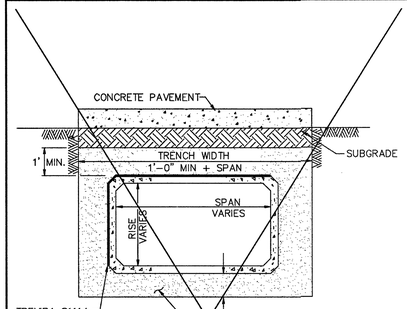
CONSTRUCTION NOTES

1. CONTRACTOR SHALL CONTACT SUGAR LAND ENGINEERING DEPARTMENT IMMEDIATELY IF WET SAND CONDITIONS ARE ENCOUNTERED.
2. SPECIFICALLY APPROVED GRANULAR MATERIAL DIMENSIONS SHOWN ARE TYPICAL BUT MAY BE VARIED BY ORDER OF CITY ENGINEER.
3. SPECIFICALLY APPROVED GRANULAR MATERIAL SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATION No. 247 FLEXIBLE BASE, TYPE A, GRADE 2 AGGREGATE.
4. NO BEDDING SHALL BE INSTALLED IN WET CONDITIONS. WHEN WELL POINTING OR IN WET SAND CONDITIONS, MAINTAIN GROUND WATER 1' (FT.) BELOW BOTTOM OF TRENCH FOR A MINIMUM OF 24-HRS AFTER BEDDING AND BACKFILL IS IN PLACE.
5. R.C.P. AND BOX CULVERTS SHALL BE INSTALLED WITH APPROVED GASKETS ONLY.
6. MANHOLES SHALL BE PROVIDED WHERE MODIFIED "A" OR MODIFIED "A-A" BEDDING IS USED. STACKS ARE NOT ALLOWED.
7. REFER TO: MANHOLE DETAILS, INLETS, OUTFALL AND END TREATMENT DETAILS, C.S.S., GENERAL NOTES, AND STORM NOTES.
8. SPECIFIC DESIGNS MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER FOR MANHOLE ACCESS TO BOX CULVERTS AS REQUIRED.
9. ALL BACKFILL WITHIN THE R.O.W. SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
10. A GEOTECHNICAL REPORT MAY BE REQUIRED TO ANALYZE THE BEARING CAPACITY OF EXISTING SOILS AND MAKE A DETERMINATION IF ADDITIONAL BEDDING AND BACKFILL IS APPROPRIATE.

TYPICAL SEAL SLAB
BAR SCHEDULE
(OR AS DIRECTED BY ENGINEER)

PIPE SIZE	LGT LAT #4 BARS	NO LONGIT #5 BARS
42"	5'4"	5
48"	6'8"	6
54"	6'8"	6
60"	8'0"	7
66"	8'0"	7
72"	9'4"	8
78"	9'4"	8
84"	9'4"	8
90"	10'8"	9
96"	10'8"	9
102"	12'0"	10
108"	12'0"	10

SL-BB-15

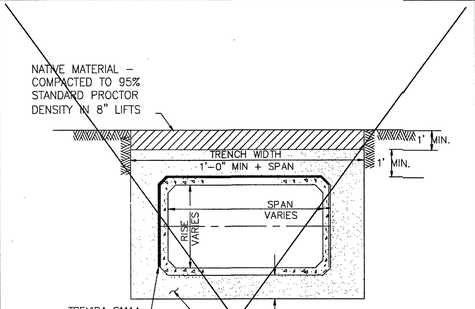


BEDDING DETAIL FOR
REINFORCED CONCRETE BOX
CULVERT UNDER ROADWAY PAVEMENT

NOTES

1. 1.5-SACK CEMENT PER CUBIC YARD STABILIZED SAND PLACED BEFORE PIPE IS PLACED (8" MINIMUM FOR 42" TO 60", 12" MINIMUM FOR 66" TO 108").

SL-BB-12

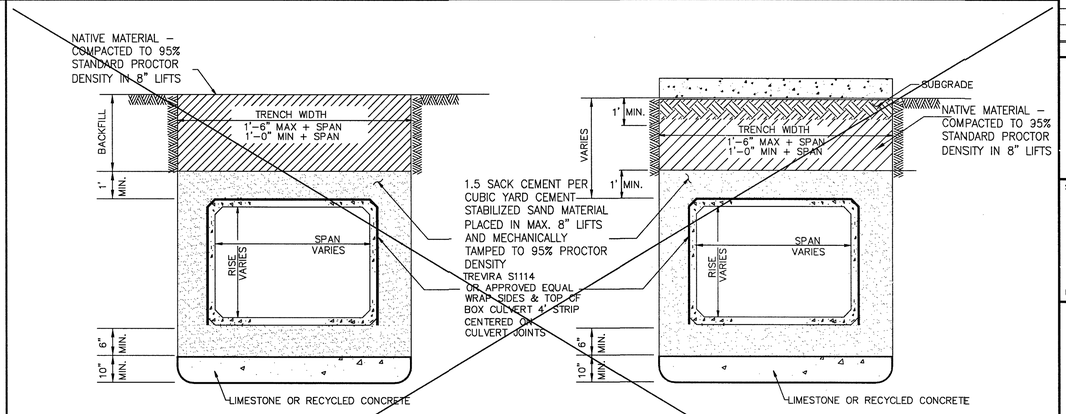


BEDDING DETAIL FOR
REINFORCED CONCRETE BOX
PLACED IN EASEMENT

SL-BB-13

NOTES

1. 1.5-SACK CEMENT PER CUBIC YARD STABILIZED SAND PLACED BEFORE PIPE IS PLACED (8" MINIMUM FOR 42" TO 60", 12" MINIMUM FOR 66" TO 108").



BEDDING DETAIL FOR
REINFORCED CONCRETE BOX CULVERT
W/MODIFIED BEDDING

BEDDING DETAIL FOR
REINFORCED CONCRETE BOX CULVERT
W/MODIFIED BEDDING
UNDER ROADWAY PAVEMENT

SL-BB-14

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

STORM SEWER PIPE BEDDING AND BACKFILL DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-20

SHEET OF

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4699
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

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OWNER:
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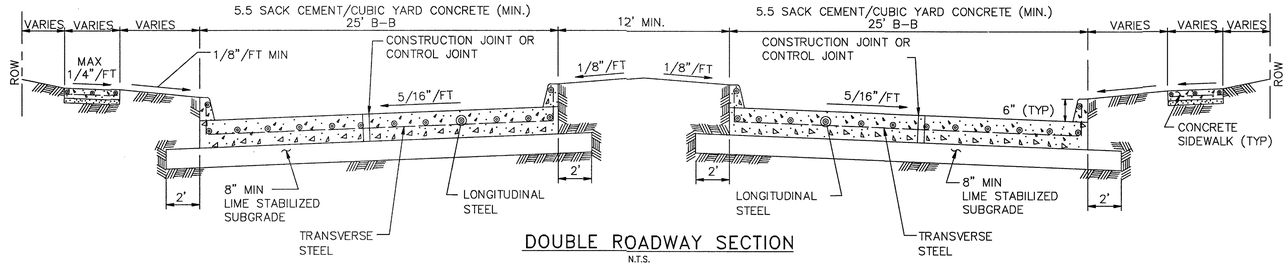
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

STORM SEWER PIPE
BEDDING AND BACKFILL
DETAILS
SL-20

PROJECT NO. 13454

13454 DETAIL SET.DWG



DOUBLE ROADWAY SECTION

N.T.S.

SL-ST-01

CONSTRUCTION NOTES:

1. 6 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 24 INCHES C-C, E.W. IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR LOCAL STREETS

2. 7 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 18 INCHES C-C, IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR COLLECTOR STREETS

3. EIGHT (8) INCH, 5.5 SK, 3500 PSI @ 28 DAYS, REINFORCED WITH #4 18" C.C. EACH WAY IS THE MINIMUM ACCEPTABLE FOR ARTERIAL STREETS.

4. HARD AGGREGATE IS NOT ALLOWED IN STREET PAVEMENT MIX. ADMIXTURES REQUIRE CITY OF SUGAR LAND PUBLIC WORKS DEPARTMENT APPROVAL.

5. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT ALL POINTS OF CURVATURE, POINTS OF TANGENCY AND ALL INTERSECTION CURB RETURN POINTS. MAXIMUM SPACING SHALL BE 200' AND BE SEALED WITH SEALANT CONFORMING TO TXDOT ITEM 360 (& ITEM 438) AND TXDOT DMS-6310, CLASS-2.

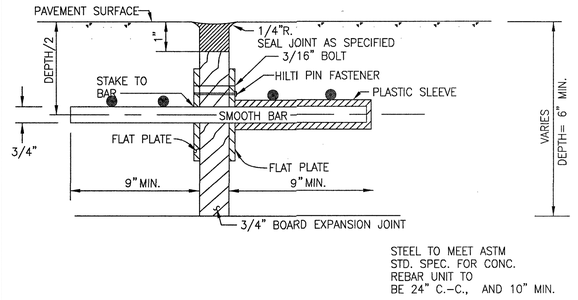
6. TRANSVERSE CONTROL JOINTS ARE REQUIRED AT MAXIMUM SPACING OF 20'-0" C-C, AND VERTICAL CURB JOINTS TO BE SEALED WITH SPECIAL JOINT SEALANT ASTM-D-1190-74 OR AASHTO-M173-60 FOR PAVEMENT 8" THICK AND GREATER. (ELASTONETRIC TYPE HOT POURED)

7. PAVEMENT FINISH SHALL BE BAKER BROOM FINISH. CURING COMPOUND REQUIRED ON ALL CONCRETE.

8. STORM WATER POLLUTION PROTECTION SHALL BE DESIGNED, CONSTRUCTED, MAINTAINED AND SHALL BE IN TOTAL COMPLIANCE WITH THE STORM QUALITY MANUAL OF THE CITY OF SUGAR LAND. CITY ENGINEER'S APPROVAL.

9. REFER TO GENERAL, C.S.S., AND PAVEMENT NOTES.

SL-ST-12

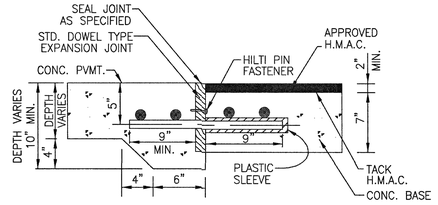


STEEL TO MEET ASTM STD. SPEC. FOR CONC. REBAR UNIT TO BE 24" C.-C., AND 10" MIN.

DOWEL TYPE EXPANSION JOINT

N.T.S.

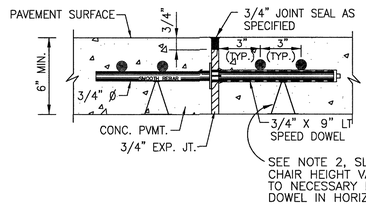
SL-ST-03



DOWEL TYPE EXPANSION JOINT

N.T.S.
(CONC. PAVING TO CONC. BASE)

SL-ST-06

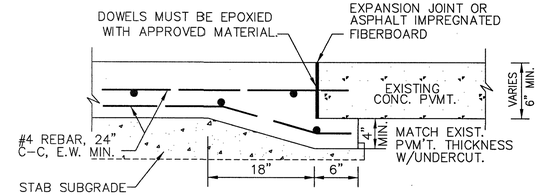


SEE NOTE 2, SL-22 CHAIR HEIGHT VARIES TO CONFORM TO NECESSARY HEIGHT TO MAINTAIN DOWEL IN HORIZONTAL POSITION.(TYP.)

SPEED DOWEL EXPANSION JOINT

N.T.S.

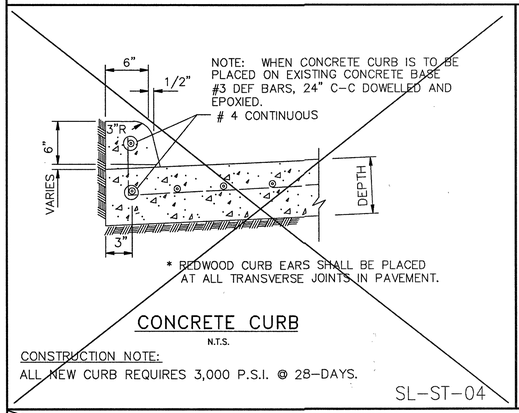
SL-ST-08



UNDERCUT DETAIL WITH HEADER

N.T.S.

SL-ST-09

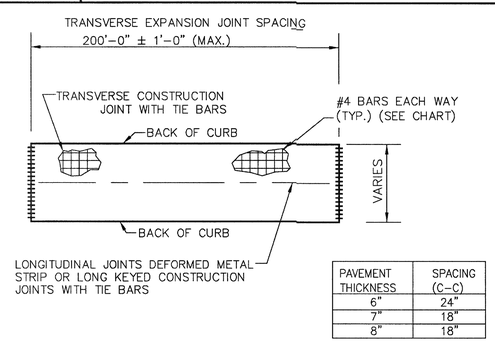


CONCRETE CURB

N.T.S.

CONSTRUCTION NOTE:
ALL NEW CURB REQUIRES 3,000 P.S.I. @ 28-DAYS.

SL-ST-04

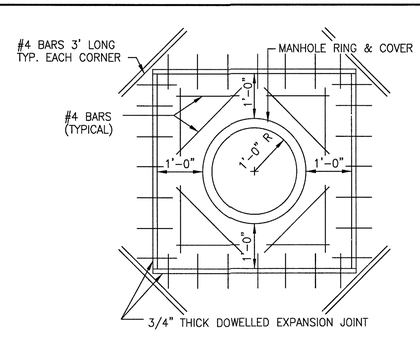


PAVEMENT THICKNESS	SPACING (C-C)
6"	24"
7"	18"
8"	18"

PAVING PANEL

N.T.S.

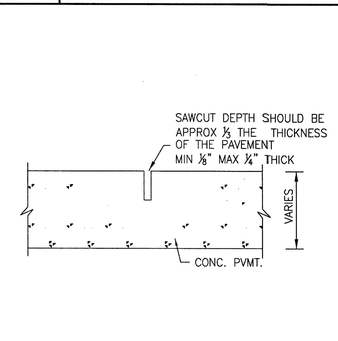
SL-ST-05



MANHOLE BLOCKOUT

N.T.S.
(STORM & SANITARY) IN PAVEMENT

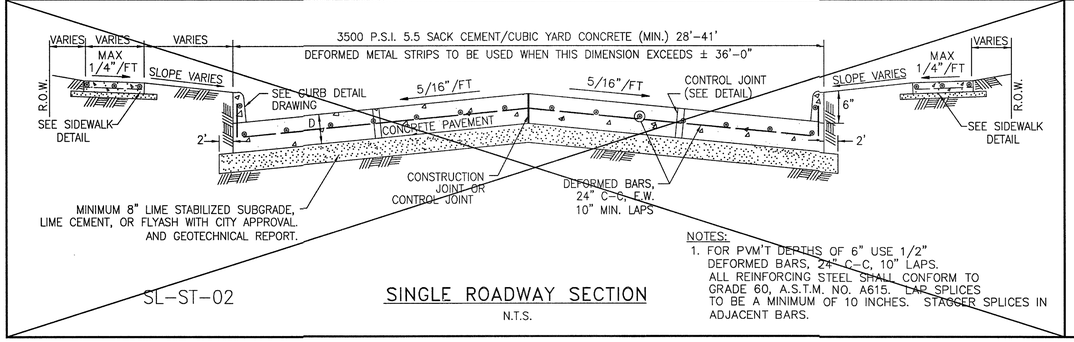
SL-ST-10



CONTROL JOINT

N.T.S.

SL-ST-11

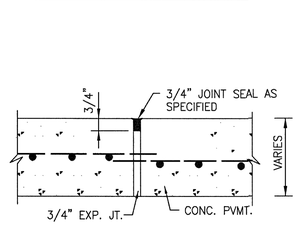


SINGLE ROADWAY SECTION

N.T.S.

SL-ST-02

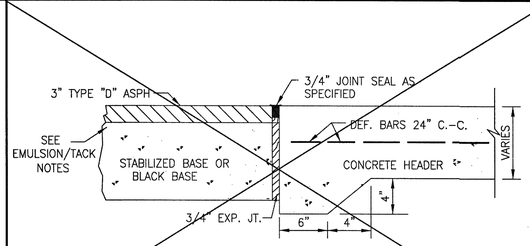
NOTES:
1. FOR PVM'T DEPTHS OF 6" USE 1/2" DEFORMED BARS, 24" C-C, 10" LAPS. ALL REINFORCING STEEL SHALL CONFORM TO GRADE 60, A.S.T.M. NO. A615. LAP SPLICES TO BE A MINIMUM OF 10 INCHES. STAGGER SPLICES IN ADJACENT BARS.



CONSTRUCTION JOINT SEAL

N.T.S.

SL-ST-12



PAVING HEADER

(FOR USE IN CONNECTING CONC. PVMT. TO ASPHALT PVMT.) (PROP. OR EXIST.)

SL-ST-07

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

NO.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

CONCRETE PAVEMENT CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-21
SHEET OF

RECORD DRAWING

DESIGNED MS
DRAWN BT
CHECKED
DATE

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

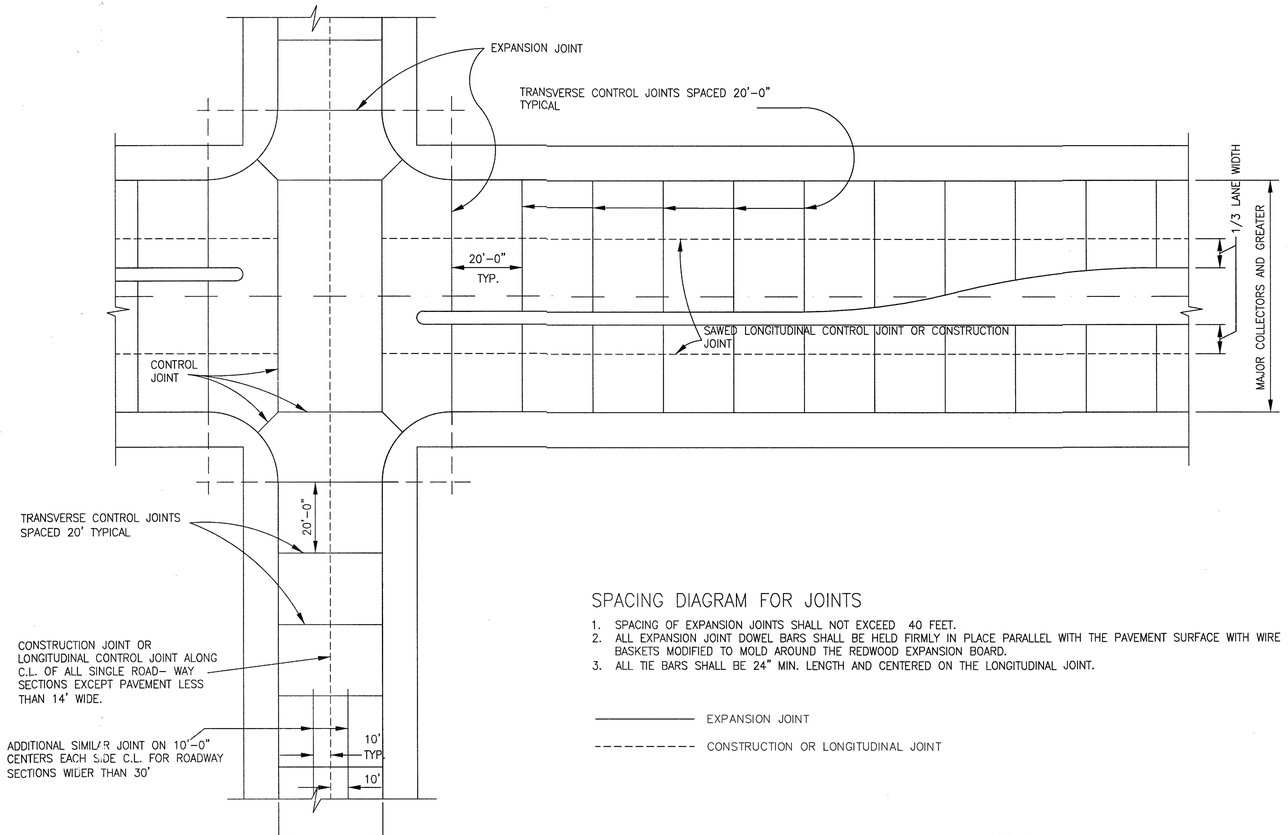
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES AND DETENTION

CONCRETE PAVEMENT CONSTRUCTION DETAILS
SL-21

PROJECT NO. 13454

13454 DETAIL SET.DWG

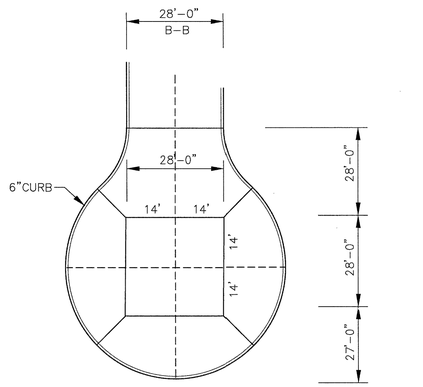


SPACING DIAGRAM FOR JOINTS

1. SPACING OF EXPANSION JOINTS SHALL NOT EXCEED 40 FEET.
2. ALL EXPANSION JOINT DOWEL BARS SHALL BE HELD FIRMLY IN PLACE PARALLEL WITH THE PAVEMENT SURFACE WITH WIRE BASKETS MODIFIED TO MOLD AROUND THE REDWOOD EXPANSION BOARD.
3. ALL TIE BARS SHALL BE 24" MIN. LENGTH AND CENTERED ON THE LONGITUDINAL JOINT.

———— EXPANSION JOINT

---------- CONSTRUCTION OR LONGITUDINAL JOINT



———— EXPANSION JOINT

---------- CONSTRUCTION OR LONGITUDINAL JOINT

TYPICAL JOINT LAYOUT
FOR CUL-DE-SAC

RECORD DRAWING

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

CONCRETE PAVEMENT
CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
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CHECKED BY:
SCALE:

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PLANS FOR
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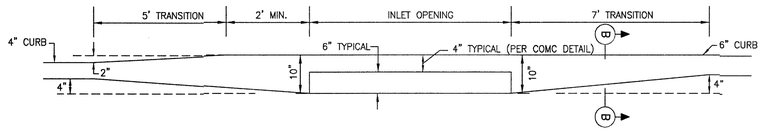
CONSTRUCTION DETAILS
SL-22

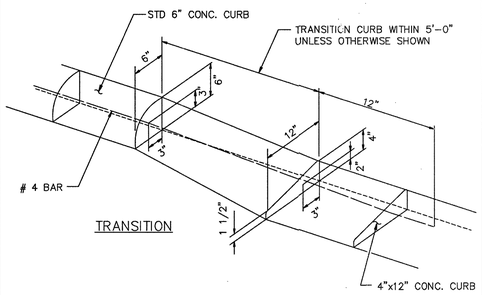
PROJECT NO. 13454

13454 DETAIL SET.DWG



TYPICAL CURB TRANSITION FOR INLET INSTALLATION

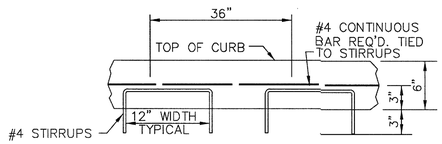
SL-ST-13



TRANSITION

TYPICAL CURB TRANSITION

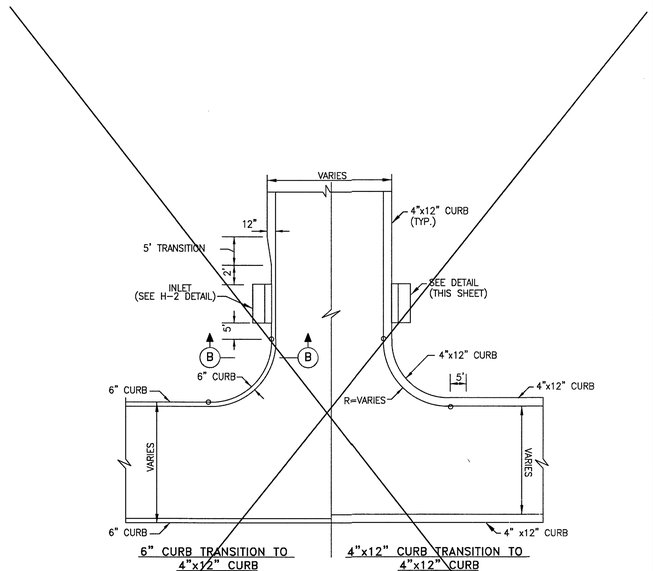
SL-ST-15



TYPICAL CONCRETE CURB REINFORCING

N.T.S.

SL-ST-16



6" CURB TRANSITION TO 4"x12" CURB

4"x12" CURB TRANSITION TO 4"x12" CURB

TYPICAL 4"X12" CURB W/INLET TRANSITION FOR CURB RETURNS

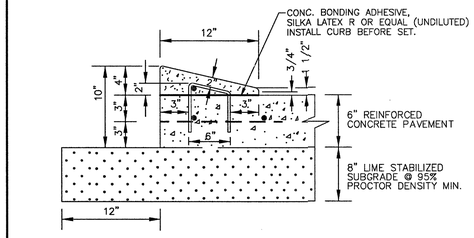
N.T.S.

SL-ST-14

CONSTRUCTION NOTES:

1. 6 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 24 INCHES C-C, E.W. IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR RESIDENTIAL STREETS.
2. 7 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 24 INCHES C-C, IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR COLLECTOR STREETS
3. EIGHT (8) INCH, 5.5 SK, 3500 PSI @ 28 DAYS, REINFORCED WITH #4 18" C.C. EACH WAY IS THE MINIMUM ACCEPTABLE FOR ARTERIAL STREETS.
4. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT ALL POINTS OF CURVATURE, POINTS OF TANGENCY AND ALL INTERSECTION CURB RETURN POINTS MAXIMUM SPACING SHALL BE 200' AND BE SEALED CONFORMING TO TXDOT ITEM 360 (& ITEM 438) AND TXDOT DMS-6310, CLASS-2.
5. TRANSVERSE CONTROL JOINTS ARE REQUIRED AT MAXIMUM SPACING OF 20'-0" C-C, AND VERTICAL CURB JOINTS TO BE SEALED WITH SPECIAL JOINT SEALANT ASTM-D-1190-74 OR AASHTO-M173-60 FOR PAVEMENT 8" THICK AND GREATER. (ELASTONETRIC TYPE HOT POURED)
6. PAVEMENT FINISH SHALL BE BAKER BROOM FINISH. CURING COMPOUND ON ALL CONCRETE.
7. STORM WATER POLLUTION PROTECTION SHALL BE DESIGNED, CONSTRUCTED, MAINTAINED AND SHALL BE IN TOTAL COMPLIANCE WITH THE STORM WATER QUALITY MANUAL OF THE CITY OF SUGAR LAND.
8. UNSTABLE SUBGRADE SHALL BE EXCAVATED AND REPLACED WITH CEMENT STABILIZED SAND.
9. USE 1"x2" REDWOOD STAKES FOR HEADERS.
10. EDGE ALL SIDES WITH EDGING TOOL.
11. DOWEL SHALL BE 3/4" DIAMETER, WITH MINIMUM 8" PENETRATION (BOTH SIDES).
12. IT IS THE CONTRACTOR'S RESPONSIBLITY TO NOTIFY THE CITY OF SUGAR LAND OF ANY BIRDBATH PROBLEMS PRIOR TO CONSTRUCTION OF DRIVEWAY.
13. REFER TO GENERAL, C.S.S., AND PAVEMENT NOTES.
14. 1.0 LBS. OF APPROVED POLYPROPYLENE FIBER MESH PER C/Y IN 4"X12" CURBS REQUIRED.

SL-ST-20

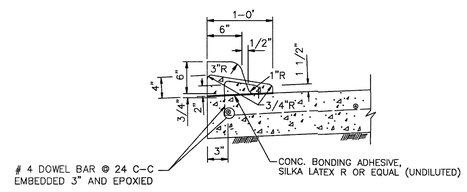


4"x12" MOUNTABLE CONCRETE CURB

NOTES:

1.) 1.0 LBS. OF APPROVED NON-METALLIC FIBER MESH PER C/Y IN 4"X12" CURBS.
2.) #3 RE-BAR STIRRUPS TO BE PLACED AT INTERVALS OF 2' (FT) C-C.
3.) #4 RE-BAR LONGITUDINAL SHALL BE TIED TO EACH STIRRUP
4.) MOUNTABLE CURB ONLY ALLOWED ON ≤ 41' (FT), UNDIVIDED, RESIDENTIAL ROADWAYS WITHIN SUBDIVISIONS.

SL-ST-17



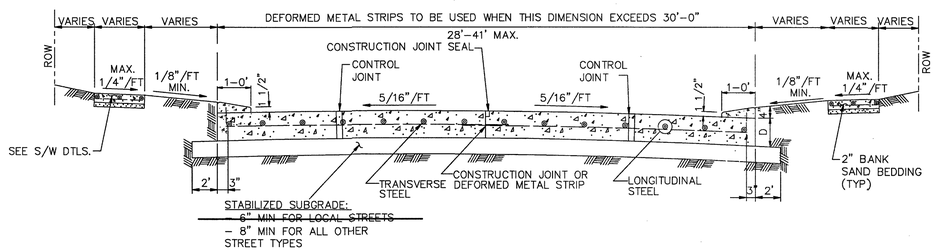
4-INCH x 12-INCH TRANSITION CURB

SL-ST-18

4"x12" MOUNTABLE CONCRETE CURB AND TRANSITION CURB NOTES:

1. 6-INCH CONCRETE CURB TO BE CONSTRUCTED ON ALL ESPLANADES, ISLANDS AND NON-RESIDENTIAL STREETS. RESIDENTIAL STREETS MAY BE CONSTRUCTED WITH EITHER 6-INCH CONCRETE CURB OR 4-INCH x 12-INCH CONCRETE CURB AS NOTED ON PLANS.
2. ALL 4-INCH x 12-INCH CONCRETE CURBS TO BE POURED SEPARATE FROM PROPOSED CONCRETE PAVEMENT.
3. TRANSITIONS FROM 6-INCH CONCRETE CURB TO 4-INCH x 12-INCH CONCRETE CURB TO BE ACCOMPLISHED WITHIN 5 FEET (TYP.), UNLESS OTHERWISE SHOWN. REINFORCING STEEL AS SHOWN IN "4-INCH x 12-INCH TRANSITION CURB" DETAIL IS TO BE INSTALLED.

SL-ST-20



STABILIZED SUBGRADE:
- 6" MIN FOR LOCAL STREETS
- 8" MIN FOR ALL OTHER STREET TYPES

TYPICAL SINGLE ROADWAY SECTION FOR CONCRETE PAVEMENT WITH 4"X12" CURB

* SEE 4" x 12" MOUNTABLE CURB DETAIL (THIS SHEET)

RECORD DRAWING

SL-ST-19

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

RESIDENTIAL CURB CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-23

SHEET OF

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DATE

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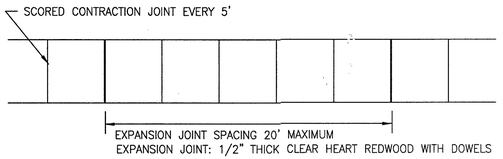
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES AND DETENTION

RESIDENTIAL CURB CONSTRUCTION DETAILS
SL-23

PROJECT NO. 13454

33

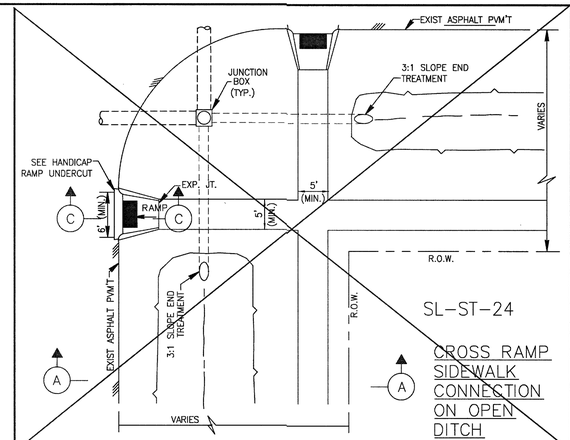
13454 DETAIL SET.DWG



SIDEWALK JOINT DETAILS

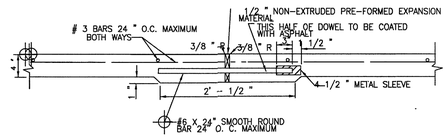
N.T.S.

SL-ST-23



SL-ST-24

CROSS RAMP SIDEWALK CONNECTION ON OPEN DITCH



B-B
EXPANSION JOINT DETAIL

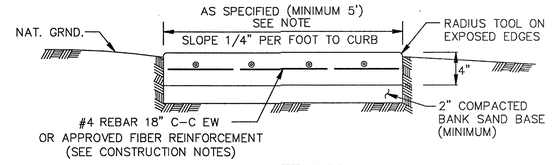
NOTES:

1. EXISTING CURB AND GUTTER TO BE SAW CUT, REMOVED AND REPLACED. DOWEL STEEL FOR MINIMUM REINFORCING OVERLAP OF 10 INCHES (10") DOWELS SHALL BE EIGHTEEN INCHES (18") LONG AND EPOXIED A MINIMUM OF (8") EIGHT INCHES INTO EXISTING PAVEMENT.
2. IF SIDEWALKS ARE NEITHER EXISTING NOR PROPOSED WHERE WHEELCHAIR RAMP ACCESS IS REQUIRED, CONCRETE SIDEWALKS SURFACE 4 1/2" THICK SHALL BE INSTALLED TO PROVIDE ACCESS TO THE PEDESTRIAN PUSH BUTTONS.
3. DETECTABLE WARNINGS REQUIRED BY T.A.S. SECTIONS 4.1 AND 4.7 SHALL COMPLY WITH T.A.S. SECTION 4.29
4. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACE SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE.
5. DETECTABLE WARNING SURFACE SHALL COVER THE ENTIRE WIDTH AND DEPTH OF RAMP.
6. DETECTABLE WARNINGS SHALL BE INSTALLED WITH PAVERS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
7. CONCRETE PAVER UNITS SHALL MEET ALL REQUIREMENTS OF ASTM C-935, C-33, AND SHALL BE PLACED IN A TWO BY TWO UNIT BASKET WEAVE PATTERN, UNLESS SHOWN OTHERWISE IN THE PLANS.
8. CONCRETE PAVER UNITS SHALL HAVE A TRUNCATED DOME TOP SURFACE FOR DETECTABLE WARNING TO PEDESTRIANS. DOMES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.
9. CONCRETE PAVER UNIT COLOR FOR THE RAMP SHALL BE A CONTRASTING COLOR THAT PROVIDES A LIGHT REFLECTIVE THAT SIGNIFICANTLY CONTRASTS WITH THE ADJACENT SURFACES. ADJACENT SURFACES INCLUDE SIDE FLARES.
10. CONCRETE PAVER UNITS SHALL BE SAW CUT ONLY, AND ANY CUT UNIT SHALL NOT BE LESS THAN 25% OF A FULL UNIT.

CONSTRUCTION NOTES:

1. THE MAXIMUM WIDTH BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 20'-0"
2. EXPANSION JOINT IS TO BE 1/2" THICK CLEAR HEART REDWOOD WITH DOWELS.
3. SCORED CONTRACTION JOINTS SHALL BE EVERY 5' OR EQUAL TO WIDTH OF SIDEWALK.
4. ALL EARTHEN AREAS ARE TO BE SODDED UNLESS SHOWN OTHERWISE ON DRAWINGS.
5. 4 INCH, 5 SACK CEMENT PER CUBIC YARD CONCRETE, 3000 PSI. REINFORCED CONCRETE WITH #3 BARS, 18 INCHES C-C, FOR SIDEWALKS, #4 BARS 18' C-C FOR WHEEL CHAIR RAMPS IS THE MINIMUM ACCEPTED. MINIMUM 3 LONGITUDINAL BARS. FIBER REINFORCING SIDEWALKS-STEEL AND POLYPROPYLENE BLENDED FIBER REINFORCEMENT SYSTEM SUCH AS NOVOMESH e3 AS MANUFACTURED BY S.I. CONCRETE SYSTEMS (OR PRE-APPROVED EQUAL) MAY BE USED AS AN ALTERNATE TO CONVENTIONAL REBAR REINFORCING AT A DOSAGE RATE OF 24 LBS. PER CUBIC YARD OF CONCRETE.
6. USE RADIUS TOOL ON ALL EXPOSED EDGES.
7. TOP OF THE SIDEWALK ELEVATION TO BE TOP OF CURB.
8. MEMBRANE CURING COMPOUND IS REQUIRED AS DESCRIBED IN ITEM 526 IN THE TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
9. REFER TO GENERAL NOTES AND CONCRETE/PAVING NOTES.
10. SIDEWALK EXPANSION JOINTS SHALL CONFORM TO STREET EXPANSION JOINT STANDARDS.

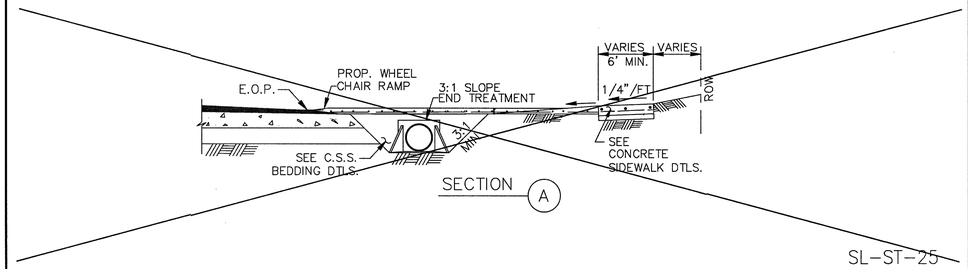
SL-ST-34



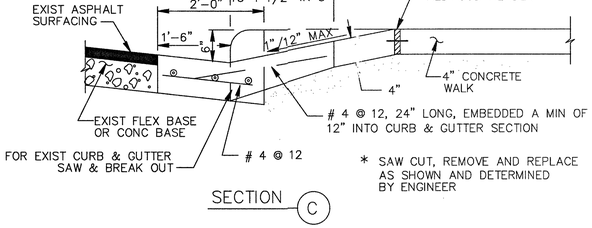
CONCRETE SIDEWALK

NOTE:
BANK SAND IS DEFINED AS A WELL-GRADED SAND, FREE OF SILT, CLAY, LOAM, FRIABLE OR SOLUBLE MATERIALS AND ORGANIC MATTER, MEETING THE UNIFIED SOILS CLASSIFICATION SYSTEM GROUP SYMBOL SW CRITERIA W/ A PLASTICITY INDEX OF ≤ 10. AND NO MORE THAN 12% OF MATERIAL CAN PASS THE No. 200 SIEVE.

SL-ST-29

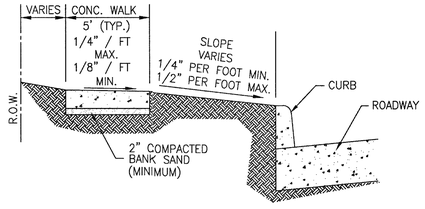


SL-ST-25



HANDICAP RAMP CURB & GUTTER*

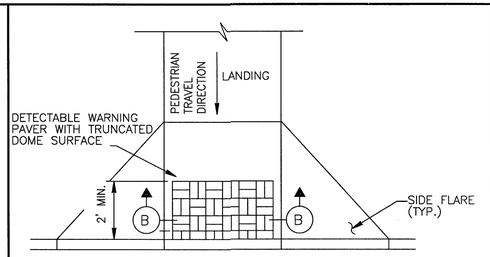
SL-ST-26



NOTE:
SEE SIDEWALK, CONC/PAVING, AND GENERAL NOTES

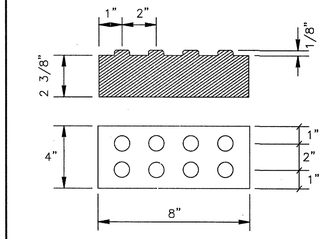
SL-ST-28

TYPICAL SINGLE ROADWAY SIDEWALK



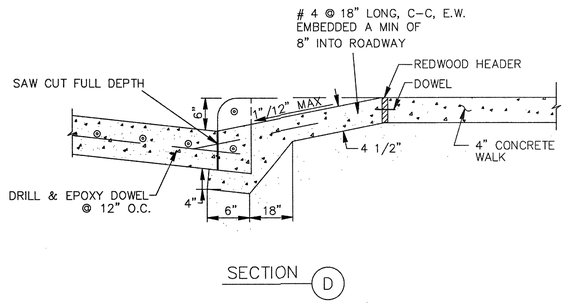
SL-ST-31

TRUNCATED DOME PATTERN CURB RAMP



SL-ST-32

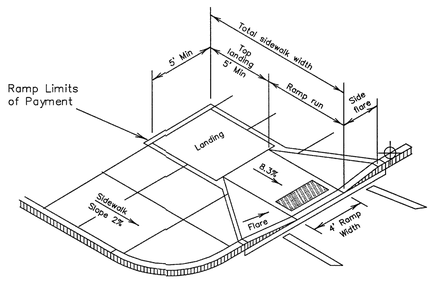
CONCRETE PAVER WITH TRUNCATED DOME SURFACE



HANDICAP RAMP UNDERCUT

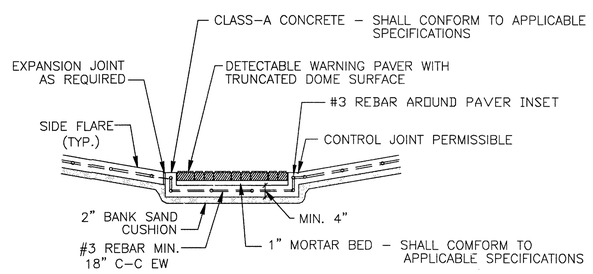
SL-ST-27

1. STANDARD FLARED SINGLE RAMPS ARE ALLOWED AT LOCAL/LOCAL STREET CROSSINGS



WHEELCHAIR RAMP SIDEWALK CONNECTION

SL-ST-30



SL-ST-33

No.	DATE	REVISION

SEAL:

DATE

DESIGN ENGINEER:

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

WHEEL CHAIR RAMP & SIDEWALK DETAILS I

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-25

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STATE OF TEXAS
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PLANS FOR
GRADING, PAVING, UTILITIES AND DETENTION

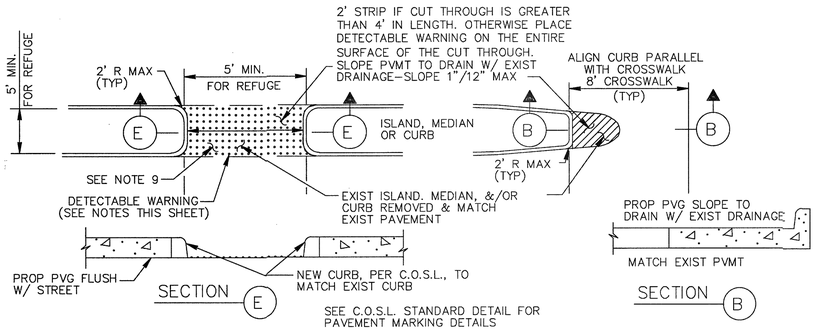
WHEEL CHAIR RAMP & SIDEWALK DETAILS I
SL-25

PROJECT NO. 13454

34

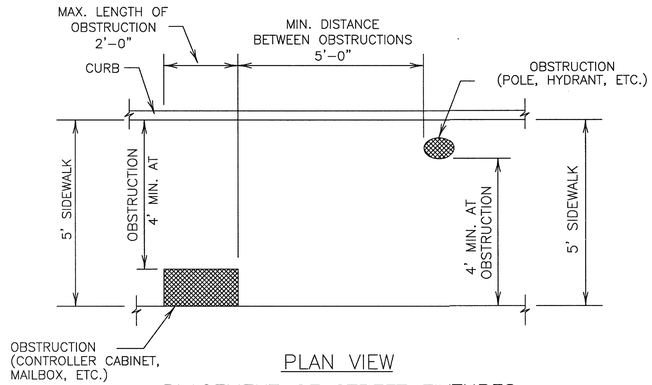
13454 DETAIL SET.DWG

PLOT DATE:



FOR ISLAND, MEDIAN, OR CURB MODIFICATIONS FOR CROSSWALKS

SL–ST–35



PLAN VIEW

PLACEMENT OF STREET FIXTURES

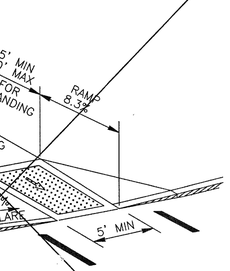
(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)

SL–ST–36

NOTES:

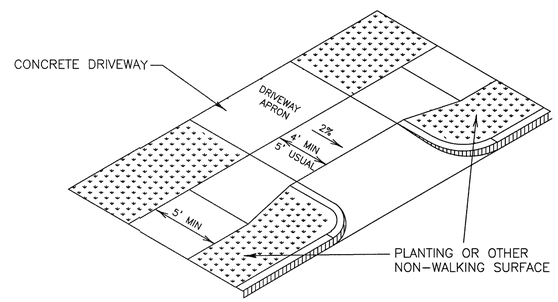
1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED
2. THE MINIMUM SIDEWALK WIDTH IS 5' (FEET). THE LANDING SHALL BE 5' x 5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%. USUAL SIDEWALK CROSS SLOPE EQUALS 1.5%. CHANGES IN LEVEL GREATER THAN 1/4" (IN.) ARE NOT PERMITTED.
3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 5' x 5' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
4. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6" (IN.) OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES, WITH THE FOLLOWING EXCEPTIONS:
   A.) HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
   B.) THE LEAST POSSIBLE GRADE SHOULD BE USED TO MAXIMIZE ACCESSIBILITY. WHERE STRUCTURALLY IMPRACTICAL TO ACHIEVE TEXAS ACCESSIBILITY STANDARDS (TAS) COMPLIANCE, THE RUNNING SLOPE OF SIDEWALKS AND CROSSWALKS, WITHIN THE PUBLIC R.O.W., MAY FOLLOW THE GRADE OF THE PARALLEL ROADWAY WITHOUT INVOKING TEXAS ACCESSIBILITY STANDARDS (TAS) VARIANCES FOR LANDINGS OR HANDRAILS. WHERE A CONTINUOUS GRADE GREATER THAN 5% MUST BE PROVIDED, HANDRAILS MAY BE DESIRABLE ON ONE OR BOTH SIDES OF THE SIDEWALK TO IMPROVE ACCESSIBILITY. HANDRAILS MAY ALSO BE NEEDED TO PROTECT PEDESTRIANS FROM POTENTIALLY HAZARDOUS CONDITIONS.
5. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED. ALL CONCRETE SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
6. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOME SURFACES, IN ACCORDANCE WITH ADA AND TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR), TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. TEXTURES ALSO SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILTIY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
8. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. TO SERVE AS A REFUGE AREA, THE MEDIAN SHALL BE A MINIMUM OF 5' (FT.) WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
9. SMALL CHANNELIZATION ISLANDS, WHICH CAN NOT PROVIDE A MINIMUM 5' x 5' LANDING AT THE TOP OF RAMPS, SHALL BE CUT THROUGH LEVEL WITH THE SURFACE OF THE STREET.
10. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
11. EXISTING FEATURES THAT COMPLY WITH T.A.S. MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
12. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE.

SL–ST–40



CURB RAMPS AT MEDIAN ISLANDS

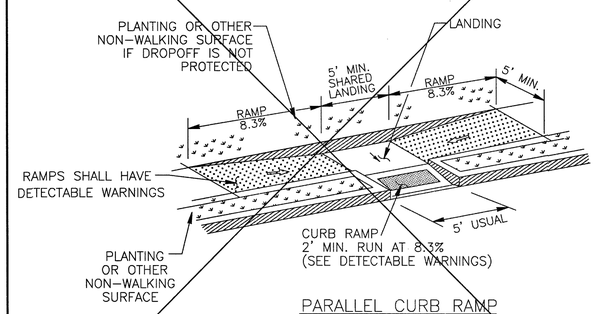
SL–ST–37



SETBACK SIDEWALK

SIDEWALK TREATMENT AT DRIVEWAYS

SL–ST–38



PARALLEL CURB RAMP

SL–ST–39

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

WHEEL CHAIR RAMP & SIDEWALK DETAILS II

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL–26

SHEET OF

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

B&L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992

Date: 1/11/24

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

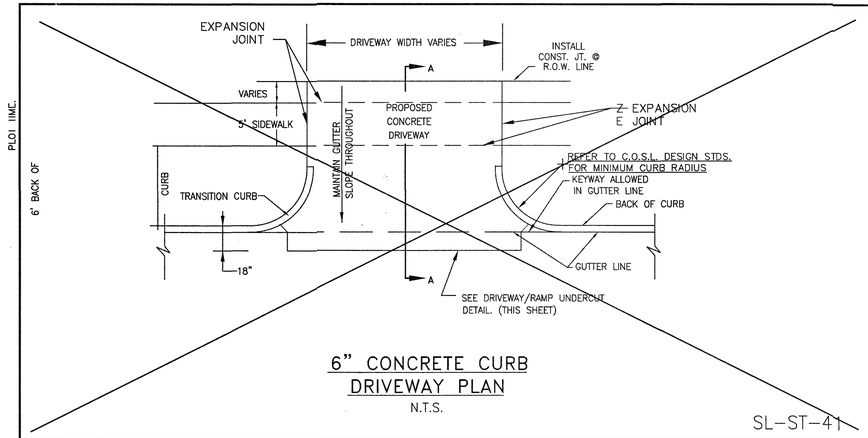
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WHEEL CHAIR RAMP & SIDEWALK DETAILS II
SL–26

PROJECT NO. 13454

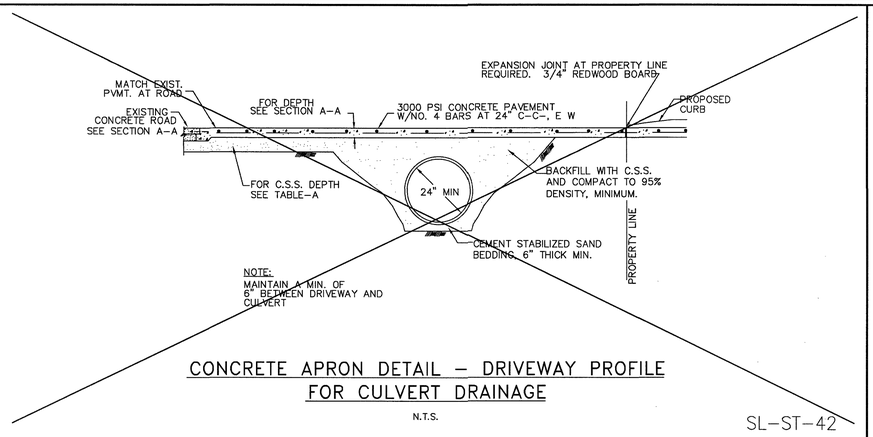
13454 DETAIL SEET.DWG



6" CONCRETE CURB DRIVEWAY PLAN

N.T.S.

SL-ST-41



CONCRETE APRON DETAIL – DRIVEWAY PROFILE FOR CULVERT DRAINAGE

N.T.S.

SL-ST-42

SL-ST-49

NOTES:

1.) SAW CUT & BREAKOUT NO MORE THAN 72 HOURS PRIOR TO PROPOSED CONCRETE PLACEMENT. NOTIFY SUGAR LAND PRIOR TO CUT.

2.) UNSTABLE SUBGRADE SHALL BE OVER EXCAVATED & REPLACED WITH CONCRETE.

3.) IT IS CONTRACTOR'S RESPONSIBILITY TO NOTIFY SUGAR LAND OF ANY BIRD BATH PROBLEMS PRIOR TO CONSTRUCTION OF DRIVEWAY.

4.) USE 1"x2" TREATED REDWOOD FOR HEADER.

5.) EDGE ALL SIDES WITH EDGING TOOL AND BROOM FINISH

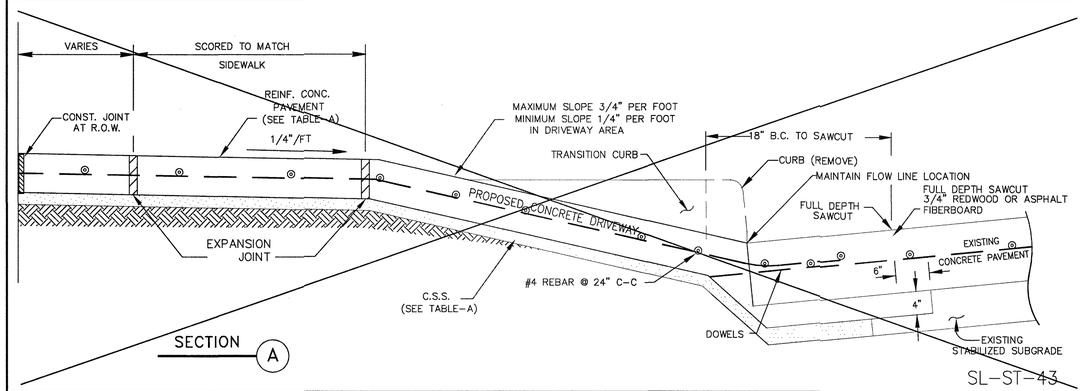
6.) FOR INDUSTRIAL DRIVES, PAVEMENT SHALL HAVE A DEPTH OF 8" (IN).

7.) EXPANSION JOINT AT PROPERTY LINE REQUIRED. 3/4" REDWOOD BOARD WITH No. 4 DOWELS MINIMUM.

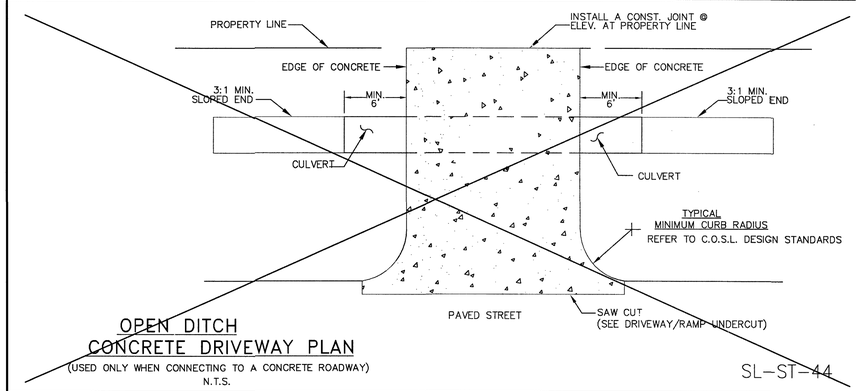
8.) MAXIMUM ALLOWABLE DRIVEWAY GRADE IN PULIC R.O.W. IS 5%

9.) DRIVEWAY GRADE MUST MEET A.D.A AND T.A.S. SIDEWALK SLOPE, SIDEWALKS MUST BE SCORED TO MATCH ADJACENT SIDEWALK. IF SLOPE IS CONTINUED THROUGH THE R.O.W. LINE, PROVIDE A 3/4" REDWOOD EXPANSION JOINT WITH DOWELS AT R.O.W. LINE.

10.) REFER TO GENERAL , C.S.S., ASPHALT, AND CONCRETE PAVEMENT NOTES.



SL-ST-43



OPEN DITCH CONCRETE DRIVEWAY PLAN

(USED ONLY WHEN CONNECTING TO A CONCRETE ROADWAY)

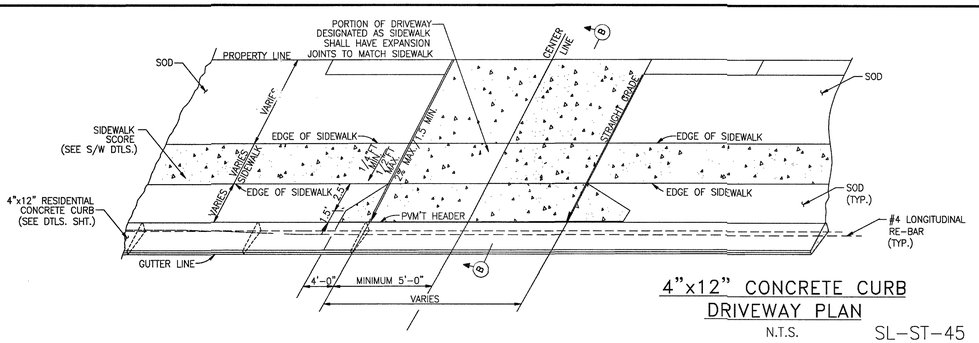
N.T.S.

SL-ST-44

TABLE-A

CEMENT STABILIZED SAND 2-SK/C.Y.	
RESIDENTIAL	4" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM
REINFORCED CONCRETE PAVEMENT 3,000 PSI MIN	
RESIDENTIAL	4" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM

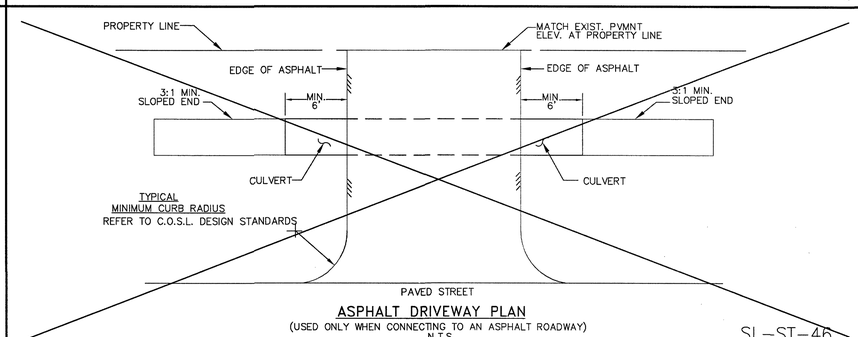
DRIVEWAY PAVEMENT CONSTRUCTION TABLE



4"x12" CONCRETE CURB DRIVEWAY PLAN

N.T.S.

SL-ST-45

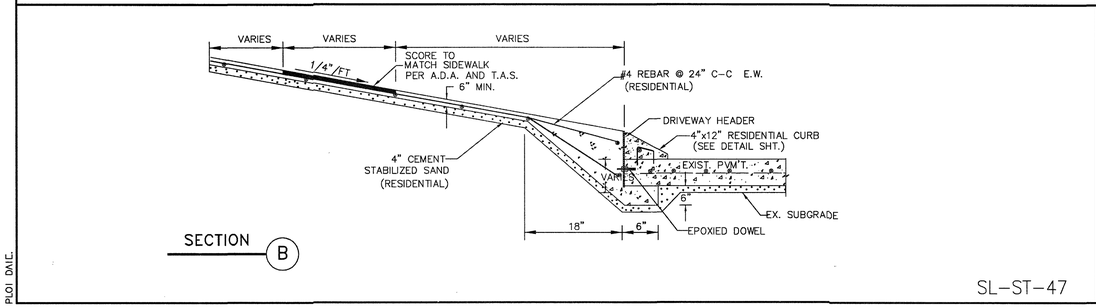


ASPHALT DRIVEWAY PLAN

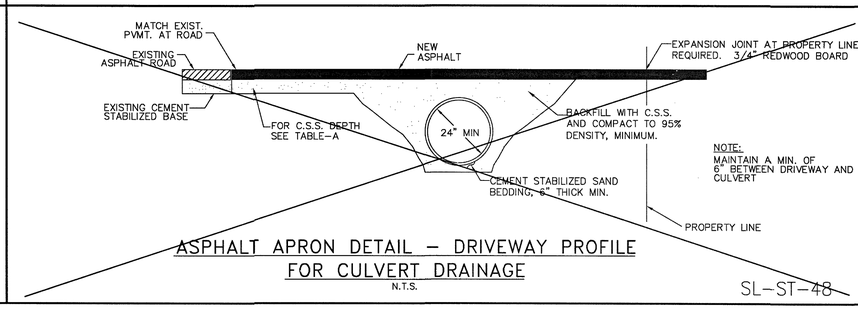
(USED ONLY WHEN CONNECTING TO AN ASPHALT ROADWAY)

N.T.S.

SL-ST-46



SL-ST-47



ASPHALT APRON DETAIL – DRIVEWAY PROFILE FOR CULVERT DRAINAGE

N.T.S.

SL-ST-48

No.	DATE	REVISION

SEAL:

DATE

DESIGN ENGINEER:

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

DRIVEWAY CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-27

SHEET OF

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE

BAKER & LAWSON, INC.
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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Sauceda P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES AND DETENTION

DRIVEWAY CONSTRUCTION DETAILS
SL-27

PROJECT NO. 13454

36

13454 DETAIL SET.DWG

HYPER-CHLORINATED WATER NOTES

1. HYPER-CHLORINATED WATER SHALL NOT BE DISCHARGED TO THE STORM SEWER OR DRAINAGE SYSTEM UNLESS THE CHLORINE CONCENTRATION IS REDUCED TO 4 PPM OR LESS BY CHEMICALLY TREATING THE DECHLORINATE OR BY ONSITE RETENTION UNTIL NATURAL ATTENUATION OCCURS.
2. DISCHARGE OF HIGH FLOW RATE AND VELOCITIES SHALL BE DIRECTED TO VELOCITY DISSIPATION DEVICES.
3. CHLORINE CAN BURN VEGETATION, SO IT SHOULD NOT BE USED TO WATER VEGETATION THAT IS BEING USED FOR STABILIZATION, VEGETATED FILTERS OR BUFFERS, OR OTHER VEGETATION TO BE PRESERVED.
4. HYPER-CHLORINATED WATER MAY BE DISCHARGED TO AN ONSITE RETENTION AREA UNTIL NATURAL ATTENUATION OCCURS. THE AREA MAY BE A DRY STORMWATER RETENTION BASIN, OR A PORTION OF THE SITE MAY BE GRADED TO FORM A TEMPORARY PIT OR BERMED AREA.
5. NATURAL ATTENUATION OF THE CHLORINE MAY BE AIDED BY AERATION. AIR CAN BE ADDED TO THE WATER BY DIRECTING THE DISCHARGE OVER A ROUGH SURFACE BEFORE IT ENTERS THE TEMPORARY RETENTION AREA OR AN AERATION DEVICE CAN BE PLACED IN THE RETENTION AREA.
6. ONSITE DISCHARGE MAY REQUIRE SEVERAL HOURS TO A FEW DAYS BEFORE THE WATER IS SAFE TO DISCHARGE. THE RATE AT WHICH CHLORINE WILL ATTENUATE IS AFFECTED BY SOIL CONDITIONS AND WEATHER CONDITIONS. ATTENUATION WILL OCCUR QUICKEST DURING WARM, SUNNY, AND DRY PERIODS.

SANITARY WASTE NOTES

1. THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE NUMBER OF PORTABLE TOILETS BASED ON THE NUMBER OF EMPLOYEES USING THE TOILETS AND THE HOURS THEY WILL WORK.
2. SANITARY FACILITIES SHALL BE PLACED ON A MINIMUM OF 50 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE, CHANNELS OR SURFACE WATERS. IF UNABLE TO MEET THE 50 FOOT REQUIREMENT DUE TO SITE CONFIGURATION, PORTABLE TOILETS SHALL BE A MINIMUM OF 20 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE CHANNELS OR SURFACE WATER AND SECONDARY CONTAINMENT SHALL BE PROVIDE IN CASE OF SPILLS.
3. THE LOCATION OF THE PORTABLE TOILETS SHALL BE ACCESSIBLE TO MAINTENANCE TRUCKS WITHOUT DAMAGING EROSION AND SEDIMENT CONTROLS OR CAUSING EROSION OR TRACKING PROBLEMS.
4. SANITARY FACILITIES SHALL BE FULLY ENCLOSED AND DESIGNED IN A MANNER THAT MINIMIZES THE EXPOSURE OF SANITARY WASTE TO PRECIPITATION AND STORMWATER RUNOFF.
5. WHEN HIGH WINDS ARE EXPECTED, PORTABLE TOILETS SHALL BE ANCHORED OR OTHERWISE SECURED TO PREVENT THEM FROM BEING BLOWN OVER.
6. THE COMPANY THAT SUPPLIES AND MAINTAINS THE PORTABLE TOILETS SHALL BE NOTIFIED IMMEDIATELY IF A TOILET IS TIPPED OVER OR DAMAGED IN A WAY THAT THE RESULTS IN A DISCHARGE. DISCHARGED SOLID MATTER SHALL BE VACUUMED INTO A SEPTIC TRUCK BY THE COMPANY THAT MAINTAINS THE TOILETS.
7. THE OPERATOR OF THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) SHALL BE NOTIFIED IF A DISCHARGE FROM THE PORTABLE TOILETS ENTERS THE MS4 OR A NATURAL CHANNEL.
8. SANITARY FACILITIES SHALL NOT BE PERMITTED ON PUBLIC SIDEWALKS, STREETS OR INLETS.

DEBRIS AND TRASH NOTES

1. ALL WASTE SOURCES AND STORAGE AREAS SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL MATERIAL AND WASTE SOURCES BE CLOSER THAN 20 FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS.
2. CONSTRUCTION WASTE AND TRASH SHALL BE STORED IN A MANNER THAT MINIMIZES ITS EXPOSURE TO PRECIPITATION AND STORMWATER RUNOFF.
3. WHENEVER POSSIBLE, MINIMIZE PRODUCTION OF DEBRIS AND TRASH.
4. INSTRUCT CONSTRUCTION WORKERS IN PROPER DEBRIS AND TRASH STORAGE AND HANDLING PROCEDURES.
5. SEGREGATE POTENTIAL HAZARDOUS WASTE FROM NON-HAZARDOUS CONSTRUCTION SITE DEBRIS.
6. PROHIBIT LITTERING BY WORKERS AND VISITORS.
7. POLICE SITE DAILY FOR LITTER AND DEBRIS.
8. ENFORCE SOLID WASTE HANDLING AND STORAGE PROCEDURES.
9. IF FEASIBLE, RECYCLE CONSTRUCTION AND DEMOLITION DEBRIS SUCH AS WOOD, METAL, AND CONCRETE.
10. TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AT REGULAR INTERVALS THAT ARE SCHEDULED TO EMPTY CONTAINERS WHEN THEY ARE 90 PERCENT FULL OR MORE FREQUENTLY.
11. GENERAL CONSTRUCTION DEBRIS MAY BE HAULED TO A LICENSED CONSTRUCTION DEBRIS LANDFILL.
12. USE WASTE AND RECYCLING HAULERS/FACILITIES APPROVED BY THE LOCAL MUNICIPALITY.
13. CHIPPING OF TREES AND BRUSH FOR USE SUCH AS MULCH IS PREFERRED ALTERNATIVE TO OFFSITE DISPOSAL.
14. NO WASTE, TRASH, OR DEBRIS SHALL BE BURIED, BURNED OR OTHER WISE DISPOSED OF ONSITE.
15. CLEARLY MARK ON ALL DEBRIS AND TRASH CONTAINERS WHICH MATERIALS ARE ACCEPTABLE. FOREMAN AND/OR CONSTRUCTION SUPERVISOR SHALL MONITOR ONSITE SOLID WASTE STORAGE AND DISPOSAL PROCEDURES DAILY.

CONCRETE SAWCUTTING WASTE NOTES

1. DURING SAWCUTTING OPERATIONS, THE SLURRY AND CUTTINGS SHALL BE CONTINUOUSLY VACUUMED OR OTHERWISE RECOVERED AND NOT BE ALLOWED TO DISCHARGE FROM THE SITE.
2. IF THE PAVEMENT TO BE CUT IS NEAR A STORM DRAIN INLET, THE INLET SHALL BE BLOCKED BY SANDBAGS OR EQUIVALENT TEMPORARY MEASURES TO PREVENT THE SLURRY FROM ENTERING THE INLET. REMOVE THE SANDBAGS IMMEDIATELY AFTER COMPLETING SAWCUTTING OPERATIONS, SO THEY DO NOT CAUSE DRAINAGE PROBLEMS DURING STORM EVENTS.
3. SLURRY AND CUTTINGS SHALL NOT BE ALLOWED TO REMAIN ON THE PAVEMENT TO DRY OUT
4. DEVELOP PRE-DETERMINED, SAFE SLURRY DISPOSAL AREAS.
5. COLLECTED SLURRY AND CUTTINGS SHOULD BE IMMEDIATELY HAULED FROM THE SITE FOR DISPOSAL AT A WASTE FACILITY. IF THIS IS NOT POSSIBLE, THE SLURRY AND CUTTINGS SHALL BE DISCHARGED INTO ONSITE CONTAINMENT.
6. THE ONSITE CONTAINMENT MAY BE EXCAVATED OR BERMED PIT LINED WITH PLASTIC MINIMUM OF 10 MILIMETERS THICK. IF THE PROJECT INCLUDES PLACEMENT OF NEW CONCRETE, SLURRY FROM SAWCUTTING MAY BE DISPOSED OF IN FACILITIES DESIGNATED FOR THE WASHOUT OF CONCRETE TRUCKS INSTEAD CONSTRUCTING A SEPARATE CONTAINMENT.
7. THE CONTAINMENT SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL THE COLLECTION AREA BE CLOSER THAN 20 FEET FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS.
8. SEVERAL, PORTABLE, PRE-FABRICATED, CONCRETE WASHOUT, COLLECTION BASINS ARE COMMERCIALLY AVAILABLE AND ARE AN ACCEPTABLE ALTERNATIVE TO AN ONSITE CONTAINMENT PIT.
9. REMOVE WASTER CONCRETE WHEN THE CONTAINMENT IS HALF FULL. ALWAYS MAINTAIN A MINIMUM OF ONE FOOT FREEBOARD.
10. ONSITE EVAPORATION OF SLURRY WATER AND RECYCLING OF THE CONCRETE WASTE IS THE PREFERRED DISPOSAL METHOD. WHEN THIS IS NOT FEASIBLE, DISCHARGE FROM THE COLLECTION AREA SHALL ONLY BE ALLOWED IF A PASSIVE TREATMENT SYSTEM IS USED TO REMOVE THE FINES. MECHANICAL MIXING IS REQUIRED IN THE COLLECTION AREA. THE pH MUST BE TESTED, AND DISCHARGED IS ALLOWED IN IF THE pH DOES NOT EXCEED 8.0. THE pH MAY BE LOWERED BY ADDING SULFURIC ACID TO THE SLURRY WATER.
11. CARE SHALL BE EXERCISED WHEN TREATING THE SLURRY WATER FOR DISCHARGE. MONITORING MUST BE IMPLEMENTED TO VERIFY THAT DISCHARGES FROM THE COLLECTION AREA DO NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
12. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO CONTROL SAWCUTTING WASTE, SINCE THE GRAIN SIZE IS SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.

SPILL AND LEAK RESPONSE NOTES

1. RECORDS OF RELEASES THAT EXCEED THE REPORTABLE QUANTITY (RQ) FOR OIL AND HAZARDOUS SUBSTANCES SHOULD BE MAINTAINED IN ACCORDANCE WITH THE FEDRAL AND STATE REGULATIONS.
2. EMERGENCY CONTACT INFORMATION AND SPILL RESPONSE PROCEDURES SHALL BE POSTED IN A READILY AVAILABLE REA FOR ACCESS BY ALL EMPLOYEES AND SUBCONTRACTORS.
3. SPILL CONTAINMENT KITS SHOULD BE MAINTAINED FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS THAT ARE REGULARLY ONSITE. MATERIALS IN KITS SHOULD BE BASED ON CONTAINMENT GUIDELINES IN THE MATERIALS SAFETY AND DATA SHEETS (MSDSS) FOR THE SUBSTANCE MOST FREQUENTLY ONSITE.
4. SPILL KITS ARE INTENDED FOR RESPONSE TO SMALL SPILLS, TYPICALLY LESS THAN 5 GALLONS, OF SUBSTANCES THAT ARE NOT EXTREMELY HAZARDOUS.
5. SIGNIFICANT SPILLS OR OTHER RELEASES WARRANT IMMEDIATE RESPONSE BY TRAINED PROFESSIONALS.
6. SUSPECTED JOB-SITE CONTAMINATION SHOULD BE IMMEDIATELY REPORTED TO REGULATORY AUTHORITIES AND PROTECTIVE ACTIONS TAKEN.
7. THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE A SITE SUPERINTENDENT, FOREMAN, SAFETY OFFICER, OR OTHER SENIOR PERSON WHO IS ONSITE DAILY TO BE THE SPILL AND LEAK RESPONSE COORDINATOR (SLRC) AND MUST HAVE KNOWLEDGE OF AND BE TRAINED IN CORRECT SPILL AND LEAK RESPONSE PROCEDURES.

SUBGRADE STABILIZATION NOTES

1. MINIMIZE THE DISCHARGE OF THE CHEMICAL STABILIZERS BY THE CONTRACTOR LIMITING THE AMOUNT OF STABILIZING AGENT ONSITE TO THAT WHICH CAN BE THOROUGHLY MIXED AND COMPACTED BY THE END OF EACH WORKDAY.
2. STABILIZERS SHALL BE APPLIED AT RATES THAT RESULT IN NO RUN OFF.
3. STABILIZATION SHALL NOT OCCUR IMMEDIATELY BEFORE AND DURING RAINFALL EVENTS.
4. NO TRAFFIC OTHER THAN WATER TRUCKS AND MIXING EQUIPMENT SHALL BE ALLOWED TO PASS OVER THE AREA BEING STABILIZED UNTIL AFTER COMPLETION OF MIXING THE CHEMICAL.
5. AREA ADJACENT AND DOWNSTREAM OF STABILIZED AREAS SHALL BE ROUGHENED TO INTERCEPT CHEMICAL RUNOFF AND REDUCE RUNOFF VELOCITY.
6. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO TREAT CHEMICAL RUNOFF, BECAUSE THE CHEMICALS ARE DISSOLVED IN THE WATER AND WON'T BE AFFECTED BY A BARRIER AND THE SUSPENDED SOLIDS ARE SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.
7. IF SOIL STABILIZERS ARE STORED ONSITE, THEY SHALL BE CONSIDERED HAZARDOUS MATERIAL AND SHALL BE MANAGED ACCORDING TO THE CRITERIA OF CHEMICAL MANAGEMENT TO CAPTURE ANY ACCIDENTAL LIME OR CHEMICAL OVERFLOW.
8. THE CONTRACRTOR SHALL INSTALL BMP'S TO ALL INLETS AND OPENINGS CONNECTED TO THE STORM SEWER SYSTEMS TO PREVENT LIME FROM ENTERING THE MS4 SYSTEM.

SANDBLASTING WASTE NOTES

1. THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE THE SITE SUPERINTENDENT, FOREMAN, OR OTHER PERSON WHO IS RESPONSIBLE FOR SANDBLASTING TO ALSO BE RESPONSIBLE FOR SANDBLASTING WASTE MANAGEMENT.
2. PROHIBIT THE DISCHARGE OF SANDBLASTING WASTE.
3. USE ONLY INERT, NON-DEGRADABLE SANDBLAST MEDIA.
4. USE APPROPRIATE EQUIPMENT FOR THE JOB; DO NOT OVER-BLAST.
5. WHENEVER POSSIBLE, BLAST IN A DOWNWARD DIRECTION.
6. CEASE BLASTING ACTIVITIES IN HIGH WINDS OR IF WIND DIRECTION COULD TRANSPORT GRIT TO DRAINAGE FACILITIES.
7. INSTALL DUST SHIELDING AROUND SANDBLASTING AREAS.
8. COLLECT AND DISPOSE OF ALL SPENT SANDBLAST GRIT, USE DUST CONTAINMENT FABRICS AND DUST COLLECTION HOPPERS AND BARRELS.
9. NON-HAZARDOUS SANDBLAST GRIT MAY BE DISPOSED IN PERMITTED CONSTRUCTION DEBRIS LANDFILLS OR PERMITTED SANITARY LANDFILLS.
10. IF SANDBLAST MEDIA CANNOT BE FULLY CONTAINED, CONSTRUCT SEDIMENT TRAPS DOWNSTREAM FROM BLASTING AREA WHERE APPROPRIATE.
11. USE SAND FENCING WHERE APPROPRIATE IN AREAS WHERE BLAST MEDIA CANNOT BE FULLY CONTAINED.
12. IF NECESSARY, INSTALL MISTING EQUIPMENT TO REMOVE SANDBLAST GRIT FROM THE AIR PREVENT RUNOFF FROM MISTING OPERATIONS FROM ENTERING DRAINAGE SYSTEMS.
13. USE VACUUM GRIT COLLECTION SYSTEMS WHERE POSSIBLE.
14. KEEP RECORDS OF SANDBLASTING MATERIALS, PROCEDURES, AND WEATHER CONDITIONS ON A DAILY BASIS.
15. TAKE ALL REASONABLE PRECAUTIONS TO ENSURE THAT SANDBLASTING GRIT IS CONTAINED AND KEPT AWAY FROM DRAINAGE STRUCTURES.
16. SAND BLASTING MEDIA SHOULD ALWAYS BE STORED UNDER COVER AWAY FROM DRAINAGE STRUCTURES.
17. ENSURE THAT STORED MEDIA OR GRIT IS NOT SUBJECTED TO TRANSPORT BY WIND.
18. ENSURE THAT ALL SANDBLASTING EQUIPMENT AND STORAGE CONTAINERS COMPLY WITH CURRENT LOCAL, STATE, AND FEDERAL REGULATIONS.
19. CAPTURE AND TREAT RUNOFF, WHICH COMES INTO CONTACT WITH SANDBLASTING MATERIALS OR WASTE.

No.	DATE	REVISION

SEAL:

DATE _____

DESIGN ENGINEER:

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

GENERAL EROSION CONTROL NOTES

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-33

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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED
PROFESSIONAL ENGINEER

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Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

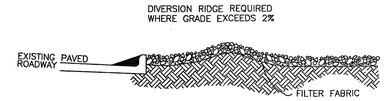
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

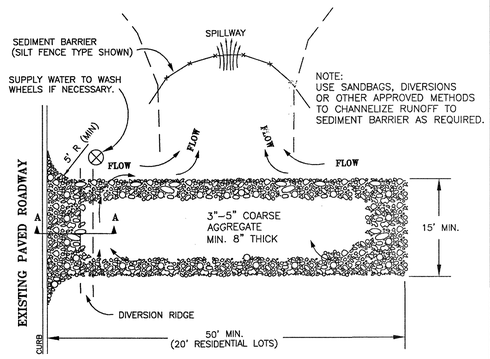
GENERAL EROSION CONTROL NOTES
SL-33

PROJECT NO. 13454

13454 DETAIL SET.DWG

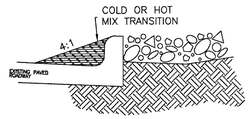


SECTION A – A



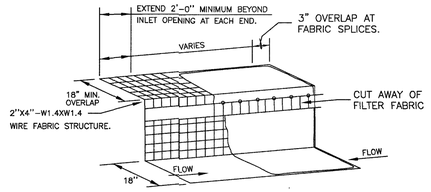
PLAN

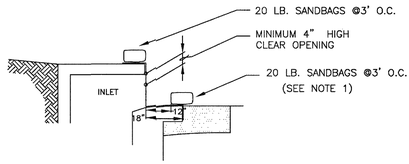
WHEN SEDIMENT HAS SUBSTANTIALLY CLOGGED THE VOID AREA BETWEEN THE ROCKS, THE AGGREGATE MAT MUST BE WASHED DOWN OR REPLACED. PERIODIC RE–GRADING AND TOP DRESSING WITH ADDITIONAL STONE MUST BE DONE TO KEEP THE EFFICIENCY OF THE ENTRANCE FROM DIMINISHING.

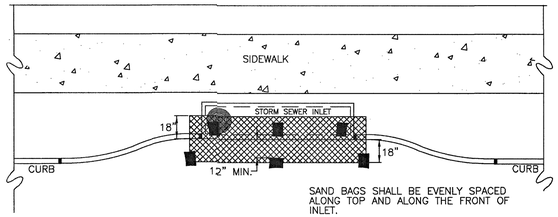


TRANSITION

TEMPORARY STONE CONSTRUCTION
ENTRANCE/EXIT
N.T.S.







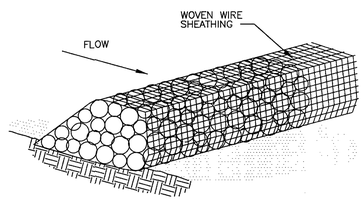
CURB INLET PROTECTION DETAIL
N.T.S.

NOTES:

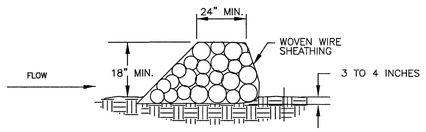
1. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL TO PROVIDE A 4" MINIMUM CLEAR OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION
2. INSPECTION SHALL BE MADE BY CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTION IF THE STORMWATER BEGINS TO OVERTOP THE CURB.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF THE SEDIMENT IS STABILIZED.

INLET OPENING	MINIMUM NUMBER OF SAND BAGS	
	TOP	FRONT
5'	2	3
10'	3	3
15'	3	4
20'	4	4

ROCK BERM DETAIL
N.T.S.



ISOMETRIC PLAN VIEW



CROSS SECTION
N.T.S.

ROCK BERM GENERAL NOTES

1. USE ONLY OPEN GRADED ROCK 4–8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK 3–5 INCHES IN DIAMETER FOR OTHER CONDITIONS.

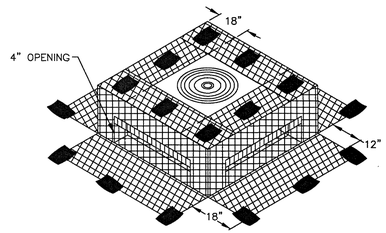
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.

3. THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTEDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

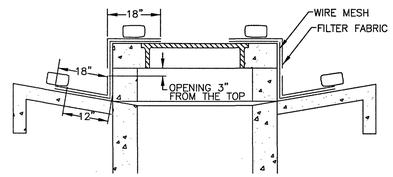
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE–THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.

5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.

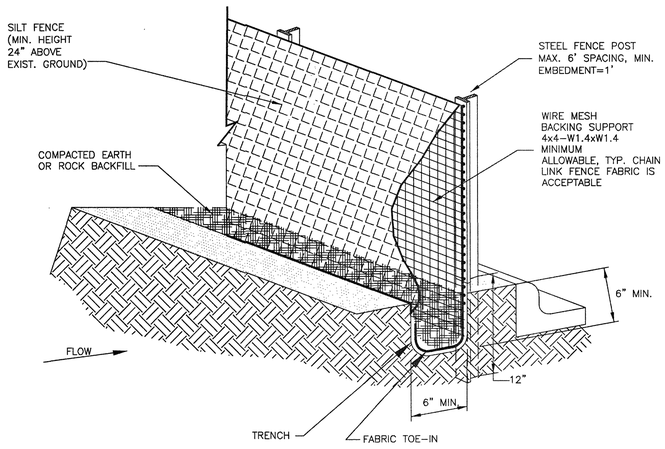


ISOMETRIC VIEW



SECTION

FILTER FABRIC WYE INLET PROTECTION
N.T.S.



ISOMETRIC PLAN VIEW
N.T.S.

SILT FENCE GENERAL NOTES

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

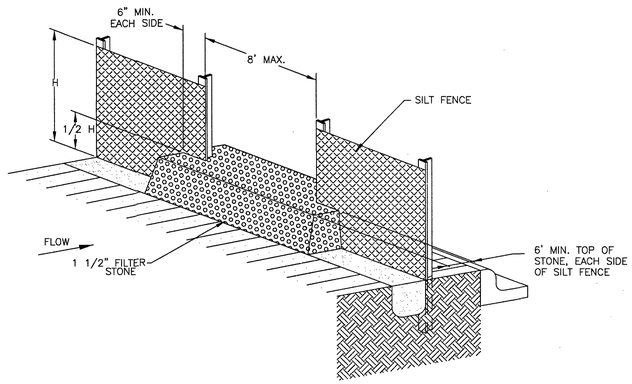
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

NOTE: STONE OVERFLOW STRUCTURES OF OTHER OUTLET CONTROL DEVICES SHALL BE INSTALLED AT ALL LOW POINTS ALONG THE FENCE OR EVERY 300 FEET IF THERE IS NO APPARENT LOW POINT



SILT FENCE
STONE OVERFLOW STRUCTURE
N.T.S.

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

EROSION CONTROL DETAILS – 1

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL–34

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STATE OF TEXAS
MIGUELANGEL A. SAUCEDA
121992
REGISTERED
PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

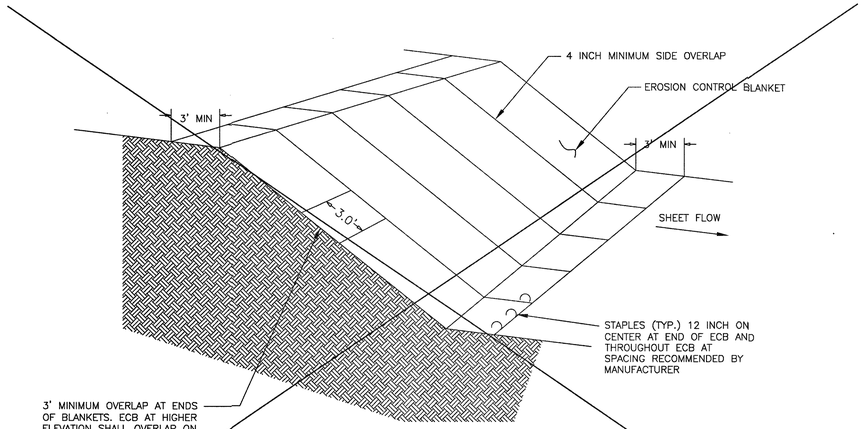
PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

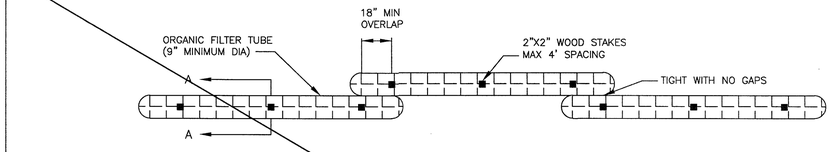
EROSION CONTROL
DETAILS – 1
SL–34

PROJECT NO. 13454

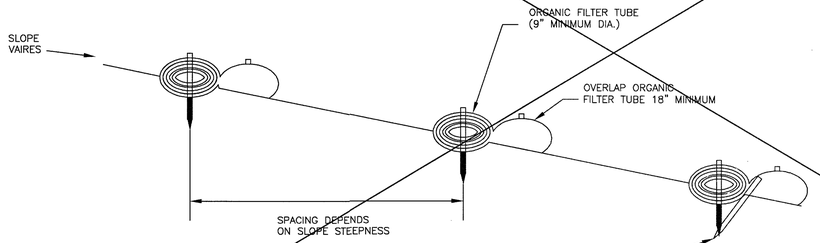
13454 DETAIL SET.DWG



EROSION CONTROL BLANKETS
N.T.S.



ORGANIC FILTER TUBE PERIMETER CONTROL PLAN VIEW
N.T.S.



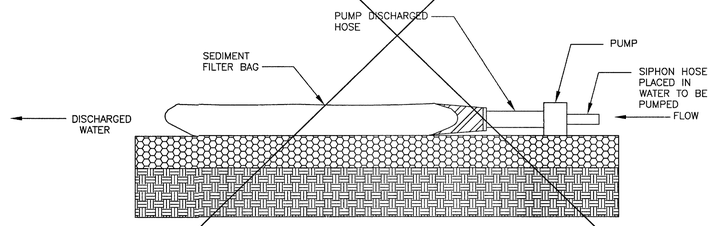
ORGANIC FILTER TUBE PERIMETER CONTROL PROFILE
N.T.S.

ORGANIC FILTER TUBES NOTES

1. TYPE OF NETTING, FILTER MATERIAL, DIAMETER OF TUBE, AND SPACING OF TUBES SHALL BE SPECIFIED BY THE DESIGNER BASED ON THE FOLLOWING SITE PARAMETERS:
   - SIZE OF CONTRIBUTING DRAINAGE AREA
   - STEEPNESS OF SLOPE
   - GROUND CONDITIONS (SOIL OR PAVEMENT)
2. DESIGNER SHALL SHOW ON THE DRAWINGS THE LOCATIONS WHERE TUBE ARE TO BE TURNED UPSLOPE. UPSLOPE LENGTHS SHALL BE MINIMUM OF 10 FEET.

FILTER TUBE
N.T.S.

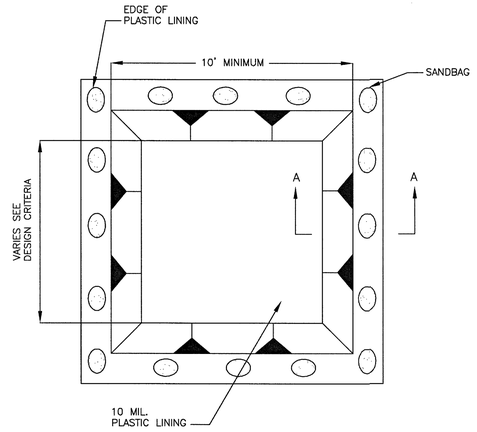
SEDIMENT FILTER BAG PLAN VIEW
N.T.S.



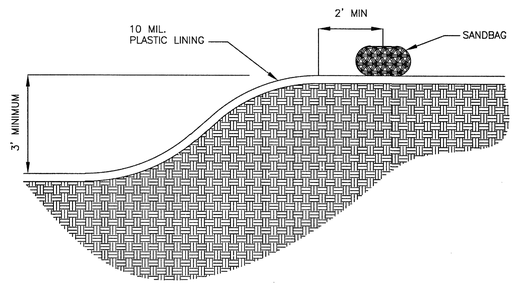
SEDIMENT FILTER BAG PROFILE
N.T.S.

NOTE: A FILTRATION BAG IS NOT REQUIRED IF IF THE DRAINAGE SYSTEM CAN BE ADEQUATELY PROTECTED

DEWATERING CONTROLS
N.T.S.



CONCRETE WASHOUT PLAN VIEW
N.T.S.



CONCRETE WASHOUT SECTION A–A
N.T.S.

CONCRETE WASHOUT NOTES

1. SANDBAGS MAYBE REPLACED BY A SOIL BERM TO ANCHOR THE PLASTIC BAG

CONCRETE WASHOUT AREA
N.T.S.

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

EROSION CONTROL DETAILS – 2

JOB No.:
DATE:
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