

ELM AVENUE SIDEWALK TASA GRANT PROPOSAL

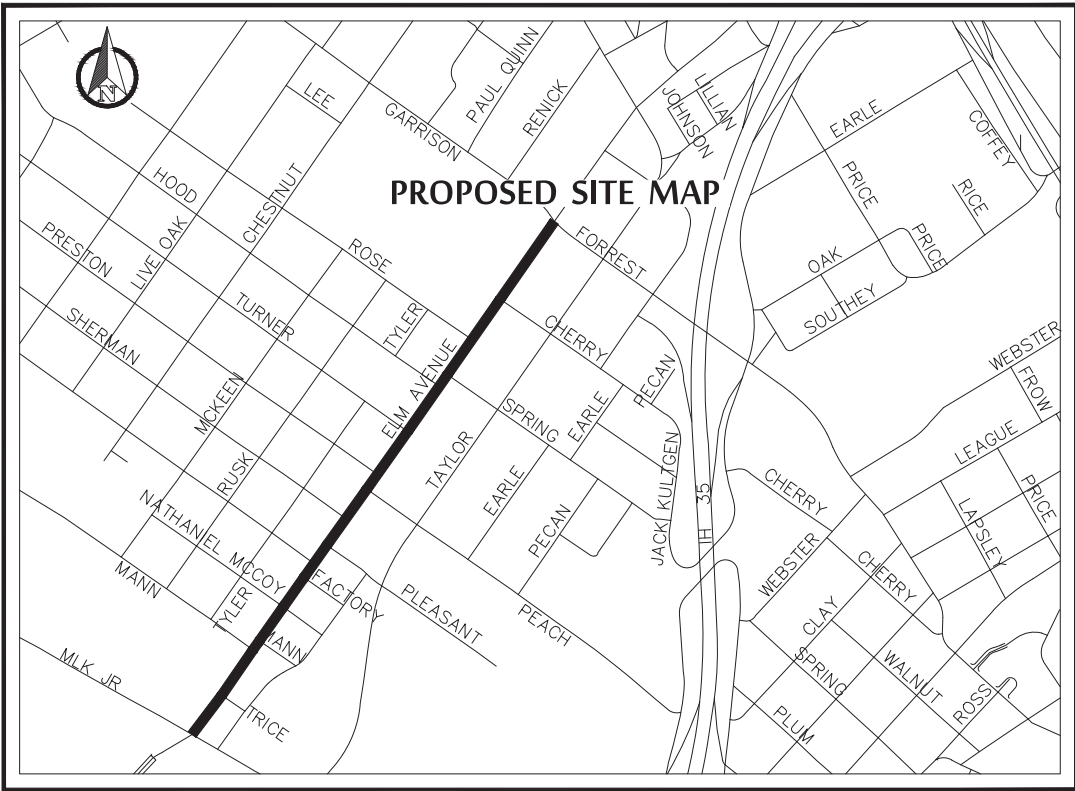


PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

MAYOR
KYLE DEAVER

CITY COUNCIL
WILBERT AUSTIN, SR. - COUNCIL DIST. 1
ALICE RODRIGUEZ - COUNCIL DIST. 2
JOHN KINNAIRD - COUNCIL DIST. 3
DILLON MEEK - COUNCIL DIST. 4
JIM HOLMES - COUNCIL DIST. 5

CITY MANAGER
DALE A. FISSELER, P.E.



60% PLANS

MAY 2017

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PROJECT ENGINEER (COMPLETE & CORRECT)

DATE

CITY ENGINEER (RECOMMENDED FOR
BIDDING)

DATE

DEPARTMENT DIRECTOR (APPROVED FOR
BIDDING)

DATE



ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WACO STANDARD SPECIFICATIONS FOR CONSTRUCTION (THE CURRENT VERSION) AND APPLICABLE CITY OF WACO MANUAL OF STANDARD DETAILS (WMSD) UNLESS OTHERWISE NOTED.

CONTRACT ADMINISTRATION
THE CONTRACT IS A WRITTEN AGREEMENT BY WHICH THE CONTRACTOR HAS COMMITTED TO COMPLETE THE SPECIFIC SCOPE OF WORK, IN COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS, SCHEDULE, AND ALL APPLICABLE LAWS, RULES AND REGULATIONS. COMPENSATION FOR SAID WORK SHALL BE MADE AS DESCRIBED IN THE AGREED UPON PROPOSAL.

ANY REQUEST FOR CHANGE TO THE DESIGN, SCHEDULE, OR PROJECT COST MUST BE MADE IN WRITING AND APPROVED PRIOR TO IMPLEMENTATION.

SUBMITTALS - THE CONTRACTOR SHALL SUBMIT, WITHIN 10 DAYS OF THE EFFECTIVE DATE OF THE NOTICE TO PROCEED:

THE NAME AND CONTACT INFORMATION OF THE PROJECT SUPERINTENDENT;

THE NAME AND CONTACT INFORMATION OF THE EMERGENCY CONTACT.

THE NAME, QUALIFICATIONS, AND CONTACT INFORMATION OF THE DESIGNATED SAFETY REPRESENTATIVE(S);

THE NAME AND CONTACT INFORMATION FOR THE DESIGNATED PROJECT MANAGER FOR THIS CONTRACT.

ENVIRONMENTAL AND SAFETY PLANS
THE CONTRACTOR SHALL SUBMIT FOR REVIEW ALL REQUIRED ENVIRONMENTAL AND SAFETY PLANS FOR THE COMPLETION OF THE WORK. THE WORK WILL NOT BE PERMITTED TO BEGIN UNTIL ALL RELATED PLANS HAVE BEEN REVIEWED BY THE APPROPRIATE PARTY (IES).

TRAFFIC CONTROL PLAN (TCP) - WHEN REQUIRED, THE CONTRACTOR IS RESPONSIBLE TO SUBMIT A TRAFFIC CONTROL PLAN FOR REVIEW. THE PLAN SHALL BE BASED UPON APPLICABLE CITY AND STATE REQUIREMENTS AND ESTABLISHED STANDARDS.

THE CONTRACTOR IS RESPONSIBLE TO MONITOR THE PLAN AS THE WORK PROGRESSES AND SUBMIT MODIFICATIONS FOR REVIEW AS NEEDED.

THE CONTRACTOR IS ALSO RESPONSIBLE TO ENSURE THE INSPECTOR IS PROVIDED A COPY OF THE SIGNED PLAN PRIOR TO BEGINNING WORK.

TRENCH SAFETY PLANS
WHEN REQUIRED BY THE WORK, THE CONTRACTOR SHALL SUBMIT A TRENCH SAFETY PLAN FOR REVIEW. THE PLAN SHALL INCLUDE THE RECOMMENDED SAFETY PROTECTION MEASURES WITH THE APPROPRIATE LOADING REQUIREMENTS. THE CONTRACTOR SHALL ENSURE THAT THE PROTECTIVE MEASURES LOCATED ON SITE AND ALL PROCEDURES ON THE PROJECT ARE IN COMPLIANCE WITH ALL ASPECTS OF THE PLAN.

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS. ALL RELATED DOCUMENTATION WILL BE MADE AVAILABLE TO THE INSPECTOR ON A DAILY BASIS. THE CONTRACTOR SHALL PROVIDE COPIES OF ALL RELATED DOCUMENTATION TO THE OWNER UPON REQUEST.

CONFINED SPACE PLANS
WHEN REQUIRED BY THE WORK, THE CONTRACTOR SHALL SUBMIT A CONFINED SPACE PLAN FOR REVIEW.

THE CONTRACTOR SHALL ENSURE THAT ALL PROCEDURES EMPLOYED ON THE PROJECT ARE IN COMPLIANCE WITH ALL ASPECTS OF THE PLAN.

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS. ALL RELATED DOCUMENTATION WILL BE MADE AVAILABLE TO THE INSPECTOR ON A DAILY BASIS. THE CONTRACTOR SHALL PROVIDE COPIES OF ALL RELATED DOCUMENTATION TO THE OWNER UPON REQUEST.

GENERAL NOTES

SANITARY SEWER PROJECTS
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE EACH SANITARY SEWER SERVICE AFFECTED BY THE PROJECT AND REPLACE EACH WITH AN EQUAL SIZE NEW SERVICE (4" MIN.), COMPLETE WITH 2-WAY CLEANOUT UNLESS OTHERWISE SPECIFIED.

ALL SANITARY SEWER MANHOLES SHOWN TO BE ABANDONED SHALL HAVE THE RING AND COVER REMOVED AND DELIVERED TO THE CITY OF WACO STORAGE YARD AT 4TH AND COLCORD. ALL PIPES INSIDE THE MANHOLE SHALL BE PLUGGED WITH CONCRETE, THE MANHOLE BACKFILLED WITH FLOWABLE FILL, FOLLOWED BY THE APPROPRIATE SURFACE REPLACEMENT. THE TOP OF THE MANHOLE SHALL BE BROKEN DOWN TO A POINT AT LEAST 12" BELOW NATURAL GROUND OR FINISHED PAVEMENT GRADE, OR 12" BELOW LIMITS OF CONSTRUCTION.

WATER LINES
SHALL HAVE A MINIMUM COVER OF 3.5' BELOW FINISHED STREET GRADE UNLESS OTHERWISE SPECIFIED.

EXISTING FIRE HYDRANTS THAT ARE TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE CITY OF WACO, AND SHALL BE DELIVERED IN WHOLE TO THE CITY OF WACO STORAGE YARD AT 4TH AND COLCORD.

UTILITIES
EXISTING UTILITIES HAVE BEEN SHOWN AS BEST AS CAN BE DETERMINED FROM UTILITY COMPANY RECORDS AND INVESTIGATION. THE UTILITY LINE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY AND ARE FURNISHED AS A GUIDE FOR THE CONTRACTOR. THE CONTRACTOR WILL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES BEFORE BEGINNING EXCAVATION.

GAS LINES TO BE RELOCATED OR ADJUSTED BY OTHERS. TELEPHONE LINES TO BE RELOCATED OR ADJUSTED BY OTHERS. UTILITY POLES TO BE RELOCATED BY OTHERS.

THE CONTRACTOR SHALL NOTIFY, (SEE DETAILED LIST BELOW), PRIOR TO STARTING CONSTRUCTION ON ANY STREET IN THE VICINITY OF ANY EXISTING UTILITIES SO THAT ANY ADJUSTMENTS OF EXISTING UTILITIES THAT HAVE NOT PREVIOUSLY BEEN MADE CAN BE MADE PRIOR TO CONSTRUCTION.

STORM WATER POLLUTION PREVENTION PLAN (EROSION CONTROL PLAN)
THE CONTRACTOR SHALL SUBMIT A STORM WATER POLLUTION PREVENTION PLAN (EROSION CONTROL PLAN) FOR REVIEW. THE PLAN SHALL BE BASED UPON APPLICABLE CITY, STATE, AND FEDERAL REQUIREMENTS AND ESTABLISHED STANDARDS.

THE CONTRACTOR IS RESPONSIBLE TO MONITOR THE PLAN AS THE WORK PROGRESSES AND SUBMIT MODIFICATIONS FOR REVIEW AS NEEDED.

THE CONTRACTOR IS ALSO RESPONSIBLE TO ENSURE THE INSPECTOR IS PROVIDED A COPY OF THE SIGNED PLAN PRIOR TO BEGINNING WORK.

STREET CONSTRUCTION
WHERE NEW CURB AND GUTTER IS PLACED NEXT TO EXISTING CURB AND GUTTER, THE GUTTER GRADES SHALL MATCH.

EXISTING PAVEMENT SHALL BE SAWED TO A SMOOTH STRAIGHT LINE AT THE BEGINNING AND END OF STREET CONSTRUCTION WHERE SHOWN AND AT ALL CONSTRUCTION LIMITS WHERE SHOWN.

IN THE CASE OF A STREET BEING LIME STABILIZED AND CURB & GUTTER BEING REPLACED, OR NEW CURB & GUTTER BEING CONSTRUCTED, EACH EXISTING WATER METER THAT IS NOT AT LEAST 2' BEHIND THE PROPOSED BACK OF CURB SHALL BE RELOCATED TO AT LEAST 2' BEHIND THE PROPOSED BACK OF CURB. EACH NEW WATER SERVICE IN THIS CASE SHALL BE CONSTRUCTED SUCH THAT THE METER IS AT LEAST 2' BEHIND THE PROPOSED BACK OF CURB.

INSTALLATION OF ANY PIPE WITHIN THE RIGHT-OF-WAY PROPOSED OR EXISTING STREET SHALL REQUIRE THE SAME EMBEDMENT AS FOR INSTALLATION IN STREETS.

STORM SEWER
MEASURE FOR PAYMENT FOR REINFORCED CONCRETE PIPE SHALL EXTEND ONLY TO THE INSIDE FACE OF MANHOLE WALLS AND SHALL EXCLUDE THE INSIDE MANHOLE DIMENSION.

EXISTING R.C.P. SHALL BECOME THE PROPERTY OF THE CONTRACTOR UPON REMOVAL FROM THE PROJECT.

THE APPROPRIATE CONTACT PEOPLE FOR UTILITIES ARE AS FOLLOWS:

UTILITY COMPANIES

AT&T CALVIN PEWITT (254) 773-8501 (O) (254) 715-7869 (M)	MCI FRANK WALKER (254) 753-3442
ATMOS ENERGY RICK SULAK (254) 722-6566 DUSTIN CUMMINGS (254) 715-8107	MCLEOD USA (PAETAC) TRACY COVINGTON (512) 934-1469
GRANDE COMMUNICATIONS JOHNNY HUTYRA (254) 235-2072	ONCOR ELECTRIC MELINDA CARSON (254) 582-1805
LEVEL 3 COMMUNICATIONS HUGH NIELSEN (512) 656-4763	TIME WARNER CABLE JOHNNY TINDLE (254) 761-3806
CITY OF WACO WATER DISTRIBUTION DANA JOHNSTON (254) 749-7835	
CITY OF WACO SANITARY SEWER RICHARD ZETTLER (254) 750-8040	
CITY OF WACO OPERATIONS DIVISION FRANK BUTLER (254) 749-8481	
CITY OF WACO TRAFFIC SECTION - ELECTRICAL CONDUIT BILLY DEHART (254) 749-4087	

ONE CALL NOTIFICATION CENTERS

LONESTAR NOTIFICATION CENTER WEBSITE: HTTP://WWW.OCCINC.COM/LOCATIONS/LONE_STAR.ASP (800) 669-8344	
TEXAS EXCAVATION SAFETY SYSTEM WEBSITE: HTTP://WWW.DIGTESS.ORG (800) DIG-TESS OR (800) 344-8377	
TEXAS ONE CALL SYSTEM WEBSITE: HTTP://WWW.TEXASONECALL.COM (800) 245-4545	
UNDERGROUND PIPELINE (GAS) DAMAGE REPORTING WEBSITE: HTTP://WWW.RRC.STATE.TX.US/PROGRAMS/DAMAGEPREVENTION/INDEX.PHP OPERATIONS CENTER: (800) 460-3030 OR (800) 545-6005	

ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL

GENERAL NOTES

NO.	REVISION	DATE

60%
PLANS

NAME _____ DATE _____

Design: B.A.S. Approved: P.N.R.
Checked: J.R. Project Mgr.: P.N.R.
File Name: EngineeringProject.DWG

Scale		NTS	
Project No.		Sheet No.	
S1234		01	
Date			
05/2017			
Sheet		OF 21	
01 OF 01			

Work Activities	Quantity	Unit
100 PREPARING ROW	1	LS
104 REMOVING CONCRETE (Driveways)	120	SY
104 REMOVING CONCRETE (Curb & Gutter)	4,000	LF
104 REMOVING CONCRETE (Sidewalk or Ramp)	5,873	SY
104 REMOVING CONCRETE (Steps)	40	Ea
105 REMOVING STAB BASE AND ASPH PAV	15,000	SY
162 BLOCK SOD (St Augustine)	200	SY
168 VEGETATIVE WATERING	4	MG
340 D-GR HMA(METH) TY-D PG64-22	15,000	SY
416 DRILL SHAFT (RDWY ILL POLE)(30 IN)	300	LF
450 RAIL (HANDRAIL) (TY B)	500	LF
464 RC PIPE (CL III) (12 IN)	130	LF
465 INLET (COMPL) (PCO) (3FTX5FT)	13	Ea
465 INLET (COMPL) (PCO) (3FTX6FT)(MOD)	4	Ea
465 INLET (COMPL) (PCO) (3FTX5FT)(W/EXT)	10	Ea
496 REMOVE STRUCT (INLET)	21	Ea
500 MOBILIZATION	1	LS
502 BARRICADES, SIGNS AND TRAFFIC HDLG	10	MO
529 CONC CURB AND GUTTER (TY II) (REINF)	10,300	LF
530 DRIVEWAYS (CONC)(6")(REINF)	525	SY
531 CONC SIDEWALK (5")(REINF)	5,873	SY
531 CURB RAMPS (TY 1)	28	Ea
531 CURB RAMPS (TY 5)	10	Ea
531 CURB RAMPS (TY 7)	32	Ea
531 CURB RAMPS (TY 10)	10	Ea
531 CURB RAMPS (SPECIAL)	10	Ea
618 CONDT (PVC)(SCHD 40)(3")	4,000	LF
644 INS SM RD SN SUP&AM TY TWT(1) WS (P)	70	Ea
666 REFL PAV MRK TY I (W) 4" (SLD)(100MIL)	6,000	LF
666 REFL PAV MRK TY I (W) 4" (BRK)(100MIL)	2,000	LF
666 REFL PAV MRK TY I (W) 8" (SLD)(100MIL)	400	LF
666 REFL PAV MRK TY I (W) 24" (SLD)(100MIL)	100	LF
666 REFL PAV MRK TY I (Y) 4" (SLD)(100MIL)	6,000	LF
668 PREFAB PAV MRK TY C (ACC PRK) W/BRDR	10	Ea
668 PREFAB PAV MRK TY C (ARROW)(W)	4	Ea
668 PREFAB PAV MRK TY C (BIKE LN)(BOX)	20	Ea
668 PREFAB PAV MRK TY C (BIKE LN)(SHRW)	16	Ea
678 PAV SURF PREP (4")	14,165	LF
678 PAV SURF PREP (8")	400	LF
678 PAV SURF PREP (24")	100	LF
678 PAV SURF PREP (PREFAB)(LRG)	50	Ea
1122 TEMP SEDIMENT CONT FENCE INSTALL	150	LF
1122 TEMP SEDIMENT CONT FENCE (INLET)	200	LF
1122 TEMP SEDIMENT CONT FENCE REMOVE	150	LF

Work Activities	Quantity	Unit
COW-0001 RETAINING WALL (6")(REINF)	1,000	LF
COW-0002 TREE GRATES	30	Ea
COW-0003 LANDSCAPE (CHIN PISTACHE)	30	Ea
COW-0004 RELOCATE EXIST LIGHT POLES	24	Ea
COW-0005 NEW ANTIQUE LIGHT POLE	26	Ea
COW-0006 DECORATIVE BENCH	20	Ea
COW-0007 TRASH RECEPTACLE	20	Ea
COW-0008 RELOCATE EXISTING FIRE HYDRAN	8	Ea
COW-0009 ADJUST WATER METER BOX	20	Ea
COW-0010 ADJUST VALVE COVER	4	Ea
COW-0011 IRRIGATION FOR LANSCAPING	1	LS

ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
SCHEDULE OF QUANTITIES

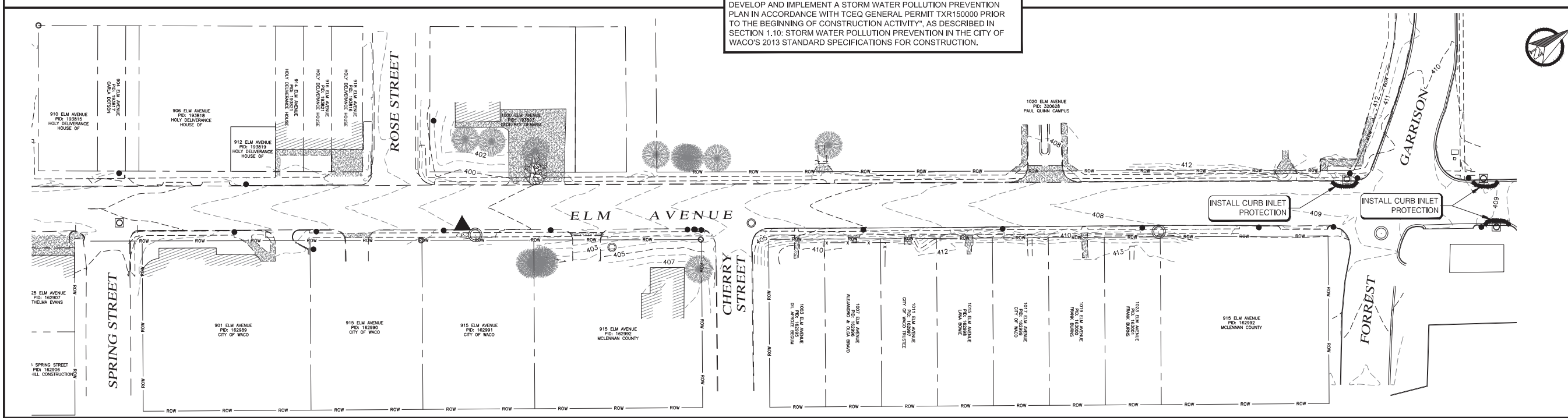
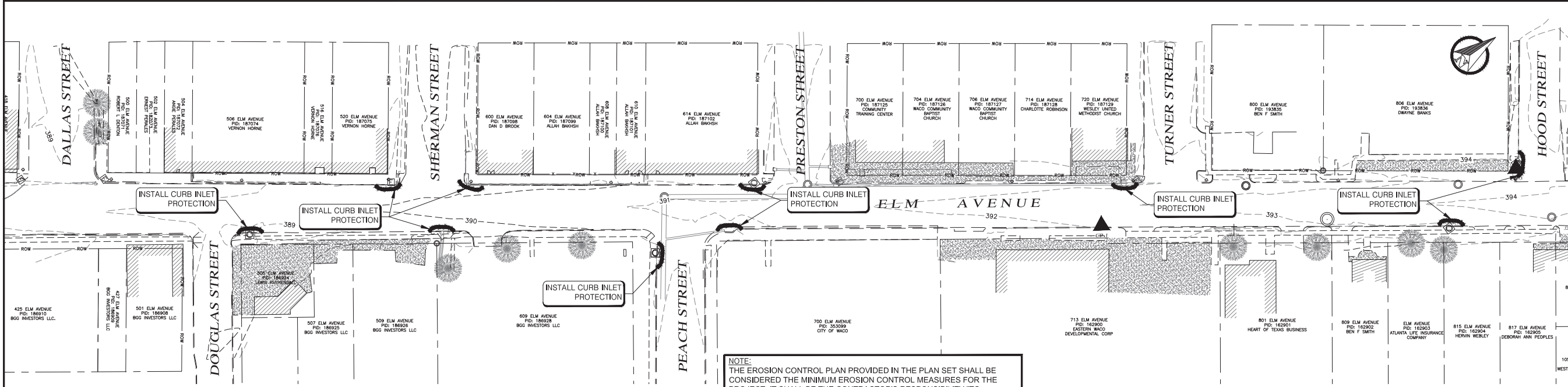
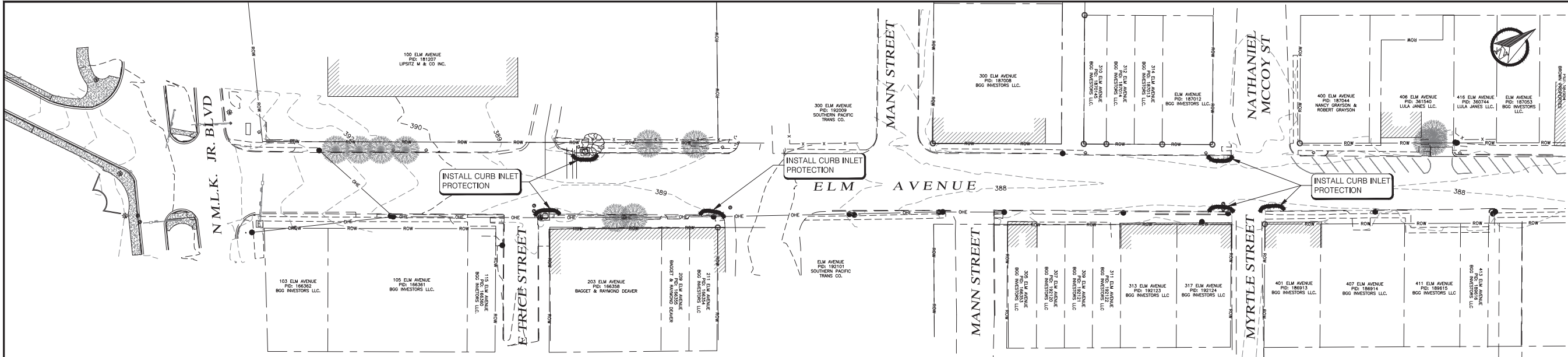
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PLANS

NAMEDATE

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Scale		NTS
Project No.	S1234	Sheet No.
Date	05/2017	02
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NOTE:
THE EROSION CONTROL PLAN PROVIDED IN THE PLAN SET SHALL BE
CONSIDERED THE MINIMUM EROSION CONTROL MEASURES FOR THE
PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO
DEVELOP AND IMPLEMENT A STORM WATER POLLUTION PREVENTION
PLAN IN ACCORDANCE WITH TCEQ GENERAL PERMIT TXR150000 PRIOR
TO THE BEGINNING OF CONSTRUCTION ACTIVITY, AS DESCRIBED IN
SECTION 1.10: STORM WATER POLLUTION PREVENTION IN THE CITY OF
WACO'S 2013 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

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ENGINEERING
DIVISION

ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
EROSION CONTROL

NO.	REVISION	DATE

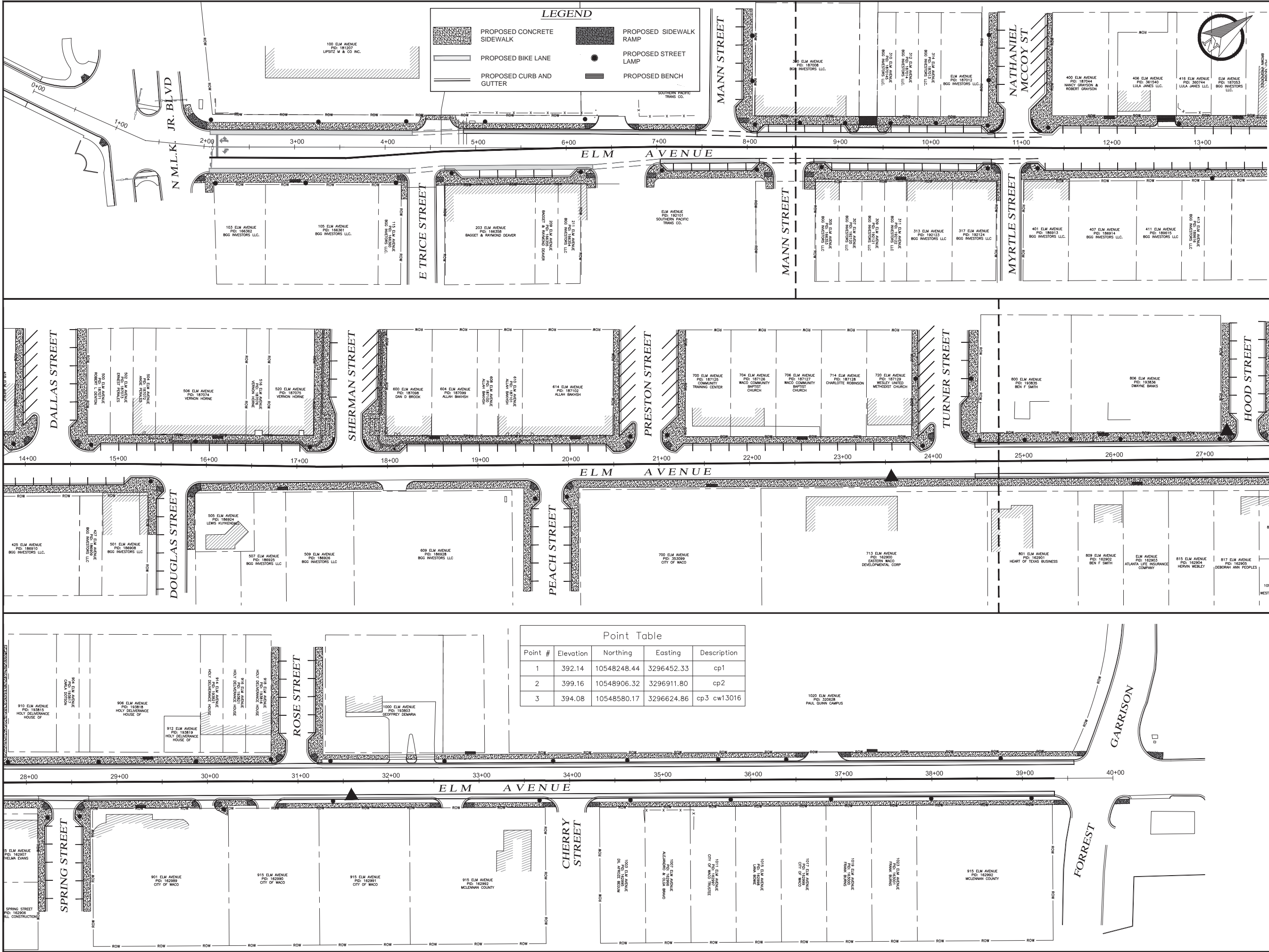
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File Name: EngineeringProject.DWG

Scale
1" = 50'

Project No. S1234 Sheet No. 03
Date 05/2017
Sheet 01 OF 01 OF 21



ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
SITE PLAN

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1" = 50'
Project No. S1234 Sheet No. 04
Date 05/2017
Sheet 01 OF 01

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Scale $1'' = 30'$

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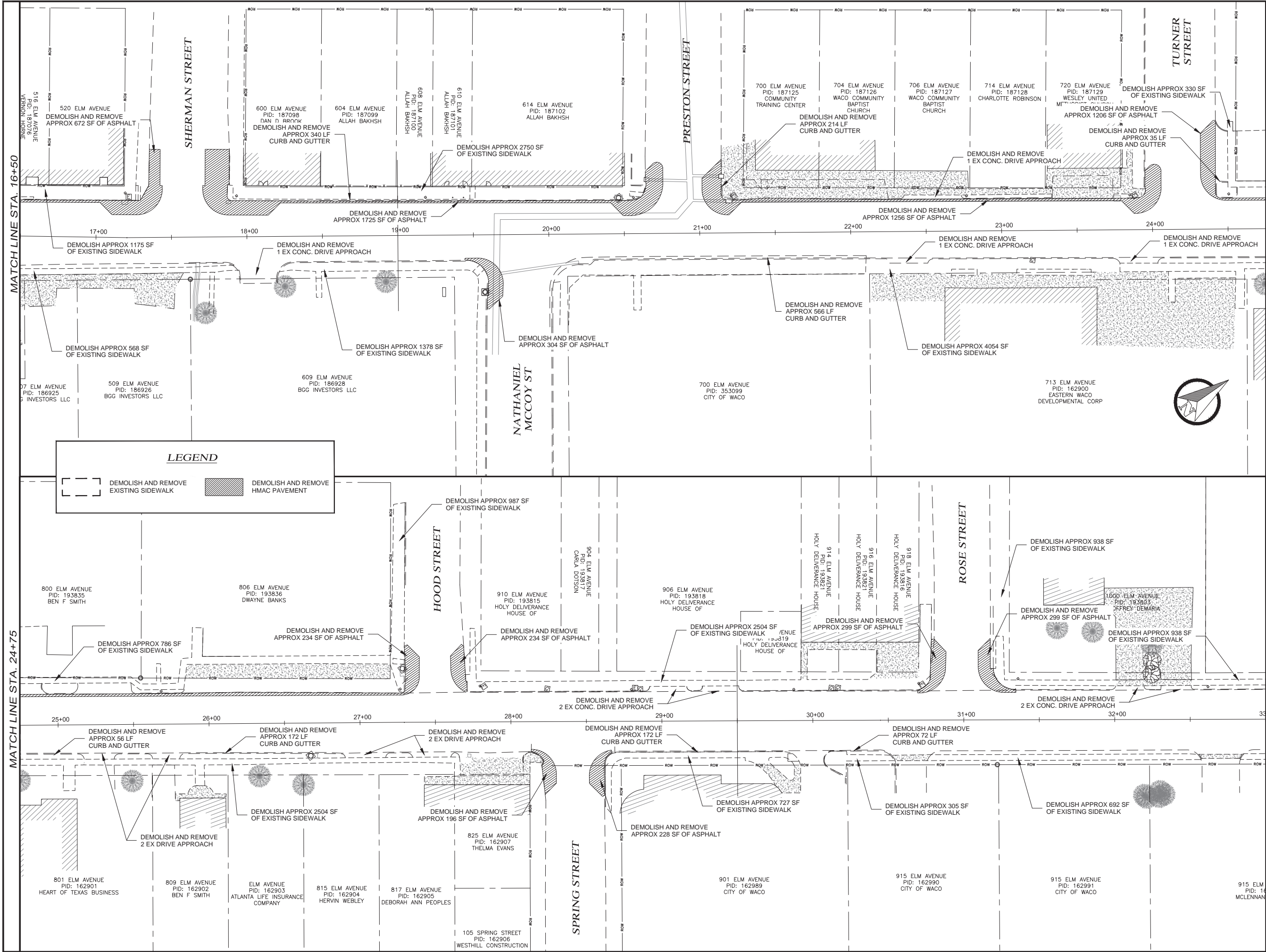
Date 05/2017

Sheet 01 OF 03

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OF 21



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ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
DEMOLITION PLAN SHEET 2

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Design: B.A.S. Approved: P.N.R.

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File Name: EngineeringProject.DWG

Scale
1" = 30'

Project No. S1234 Sheet No. 06

Date 05/2017

Sheet 02 OF 03 OF 21



ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
DEMOLITION PLAN SHEET 3

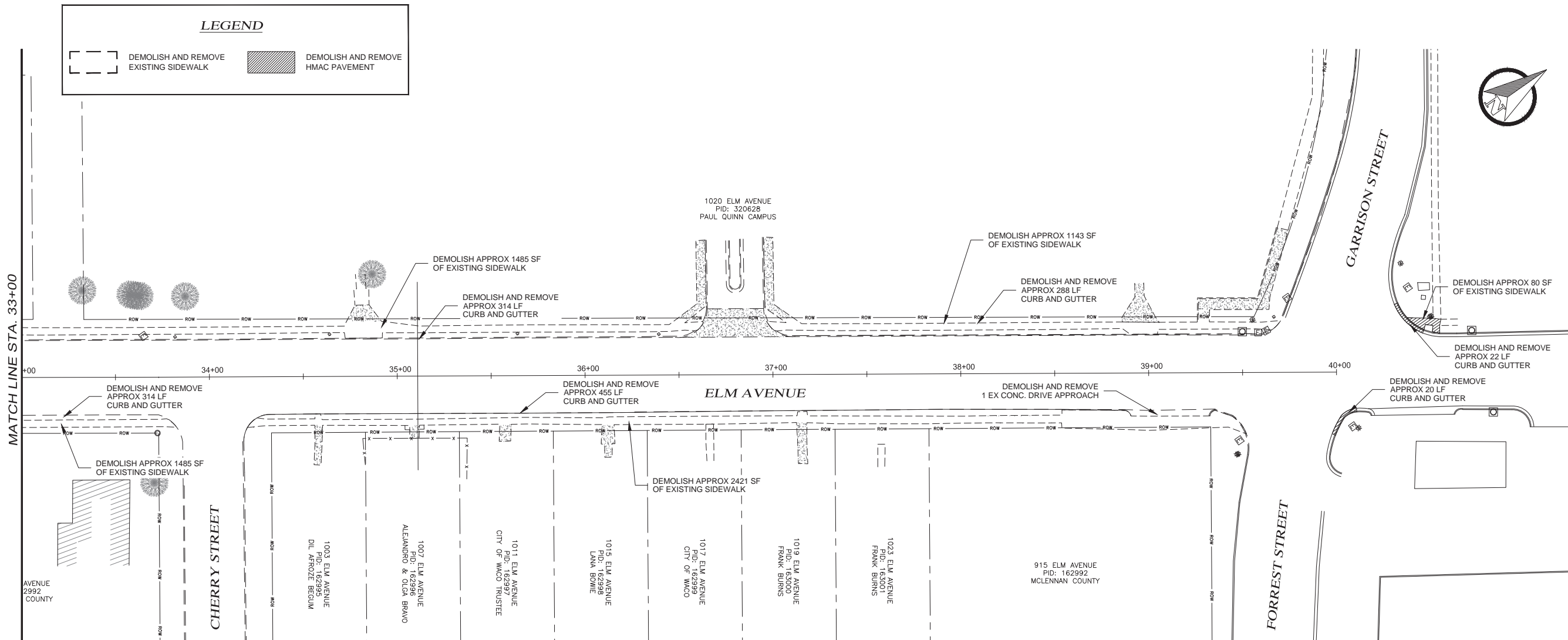
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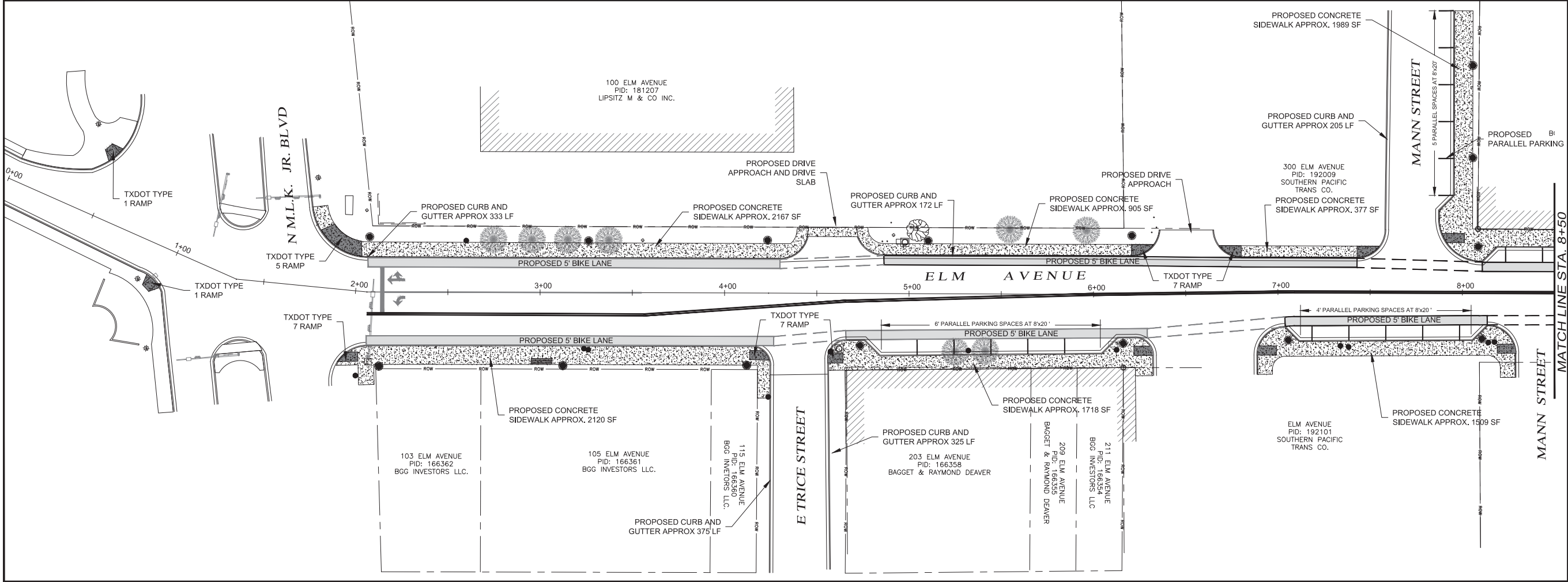
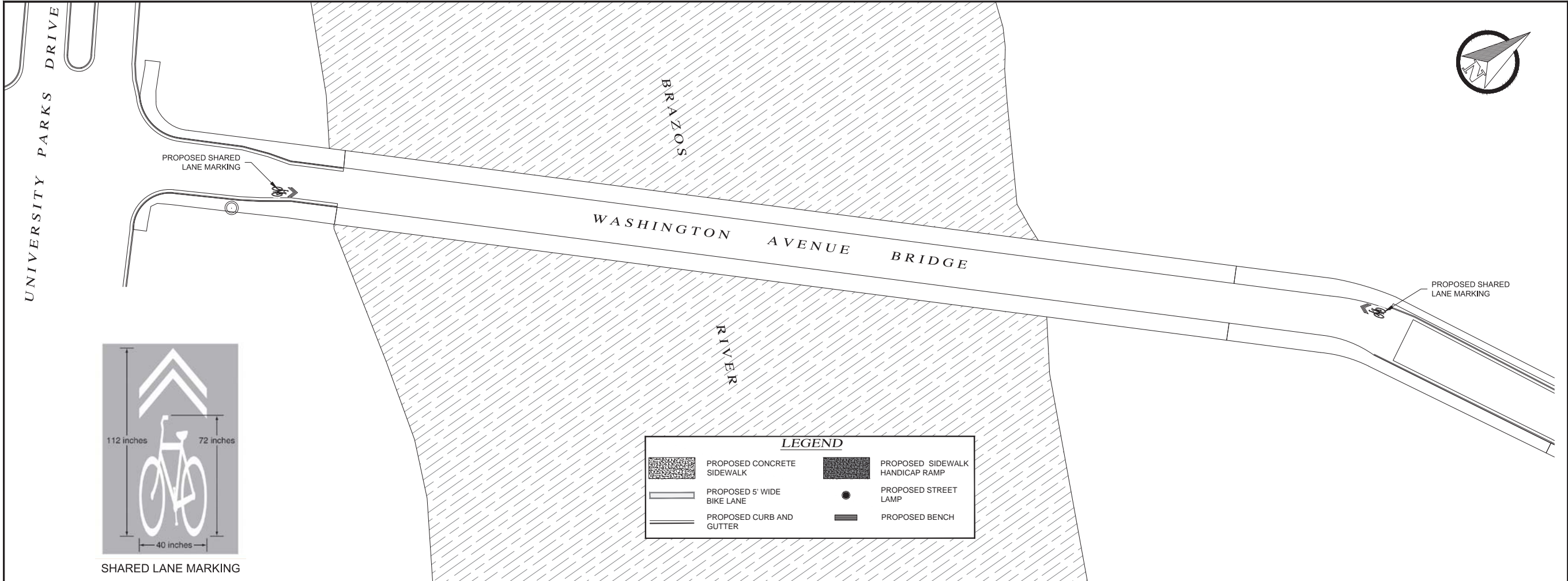
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PLANS

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Scale 1" = 30'		
Project No.	S1234	Sheet No.
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ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
SIDEWALK PLAN SHEET 1

NO.	REVISION	DATE

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PLANS

NAME _____ DATE _____

Design: B.A.S. Approved: P.N.R.
Checked: J.R. Project Mgr.: P.N.R.
File Name: Elm Street Corridor.dwg

Scale
1" = 30'

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**ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
SIDEWALK PLAN SHEET 2**

NO.	REVISION	DATE

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PLANS**

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Scale $1'' = 30'$

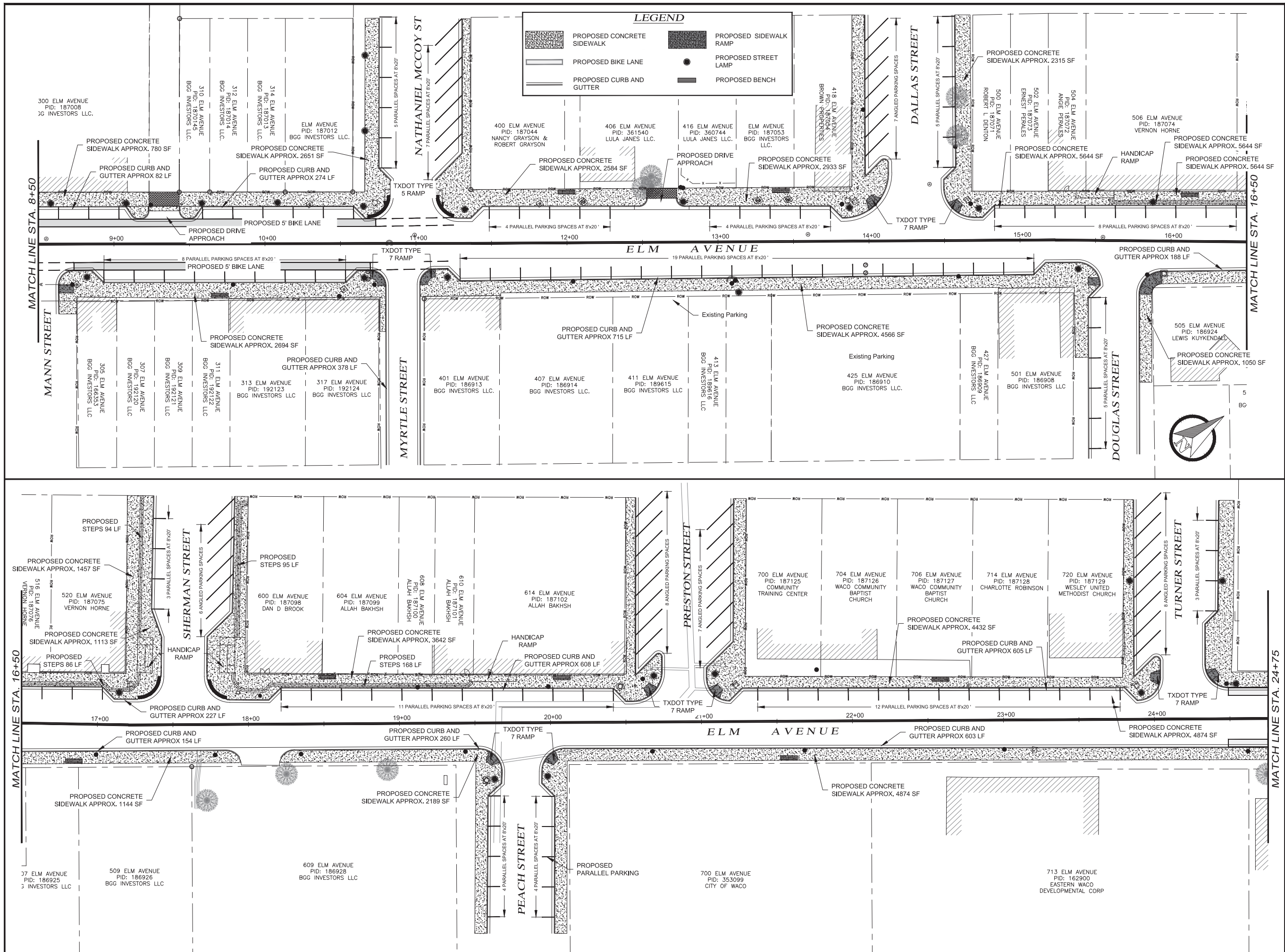
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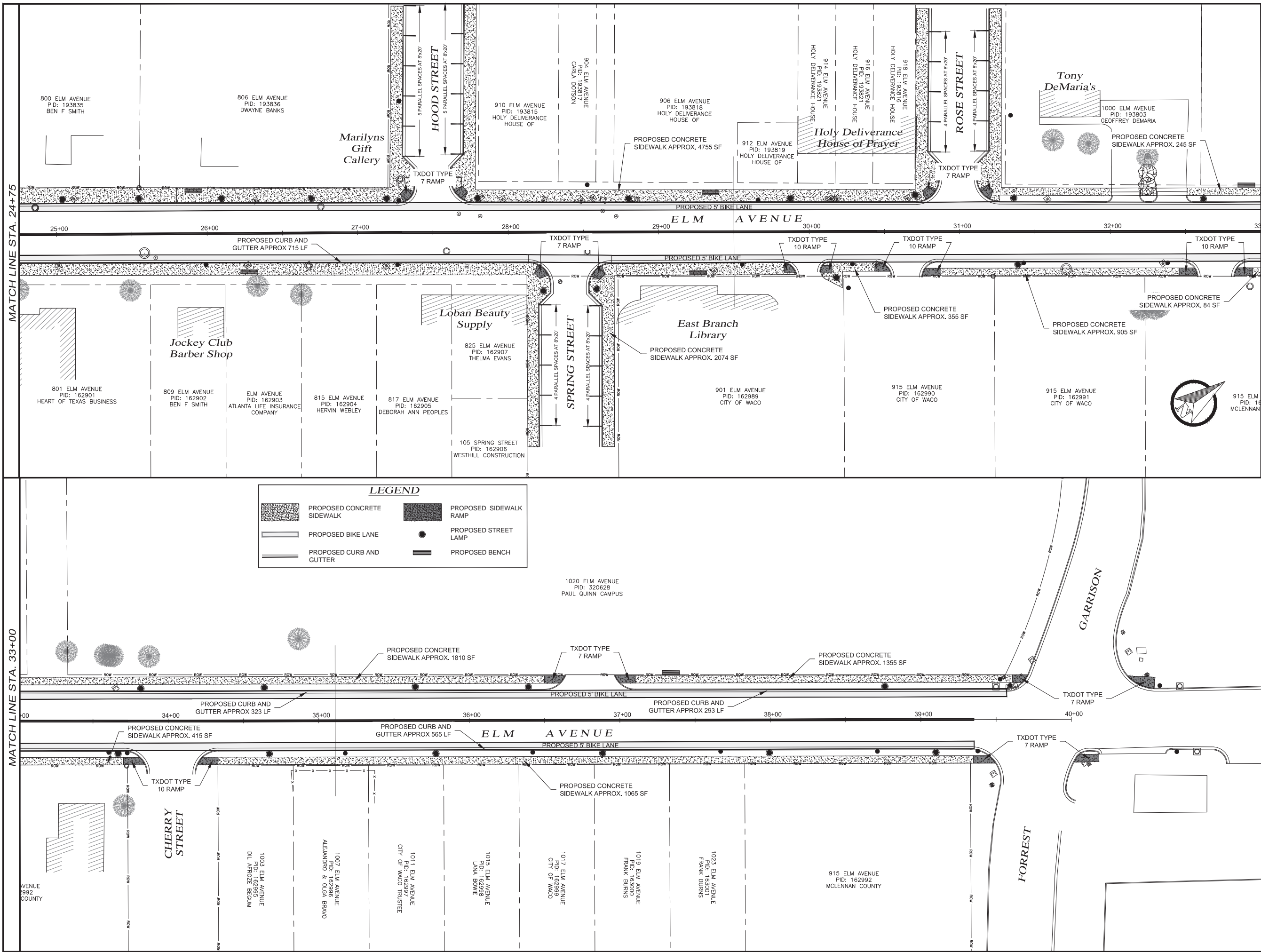
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ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
SIDEWALK PLAN SHEET 3

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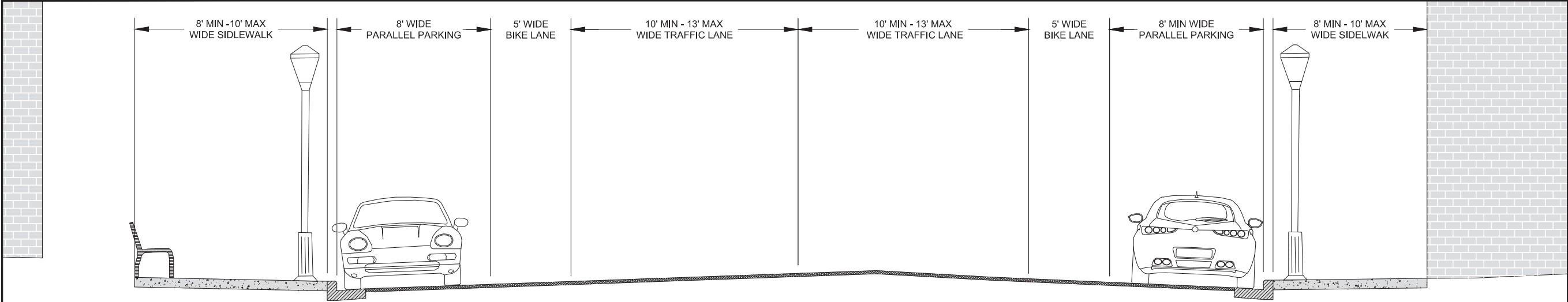
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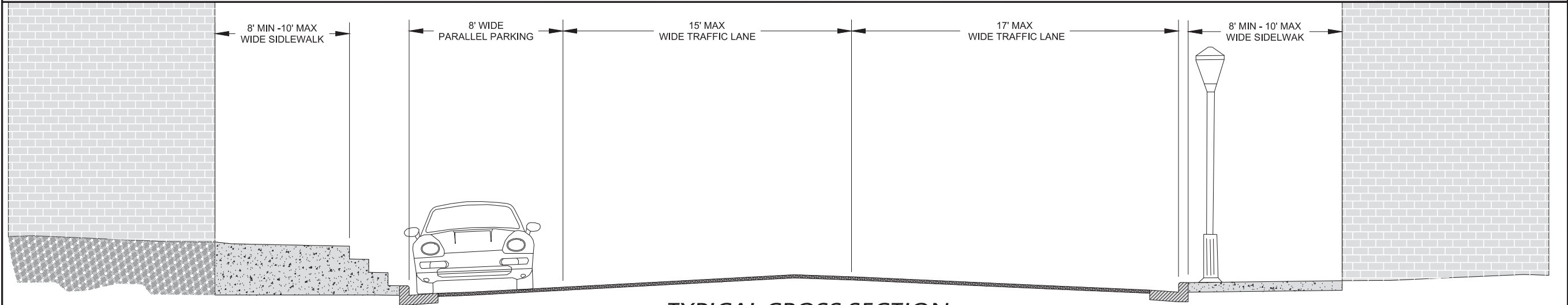
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Date 05/2017

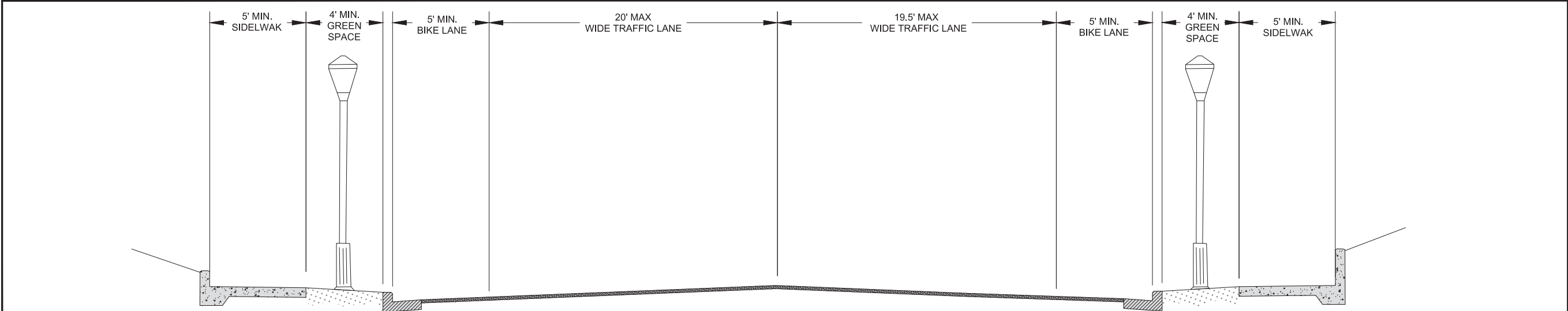
Sheet 03 OF 03 OF 21



TYPICAL CROSS SECTION
STA. 8+00 - 15+40
N.T.S.



TYPICAL CROSS SECTION
STA. 15+40 - 19+75
N.T.S.



TYPICAL CROSS SECTION
STA. 34+00 - 39+50
N.T.S.

PUBLIC WORKS

**ENGINEERING
DIVISION**

**ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL**

TYPICAL CROSS SECTIONS

NO.	REVISION	DATE

**60%
PLANS**

NAME _____ DATE _____

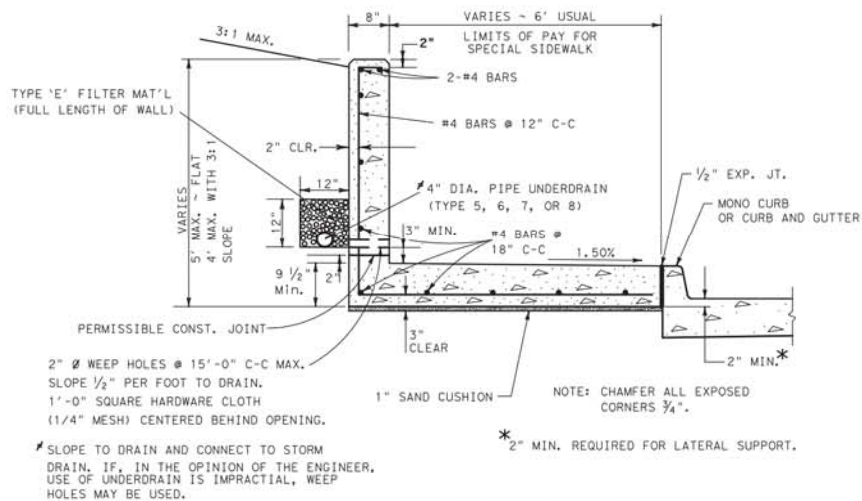
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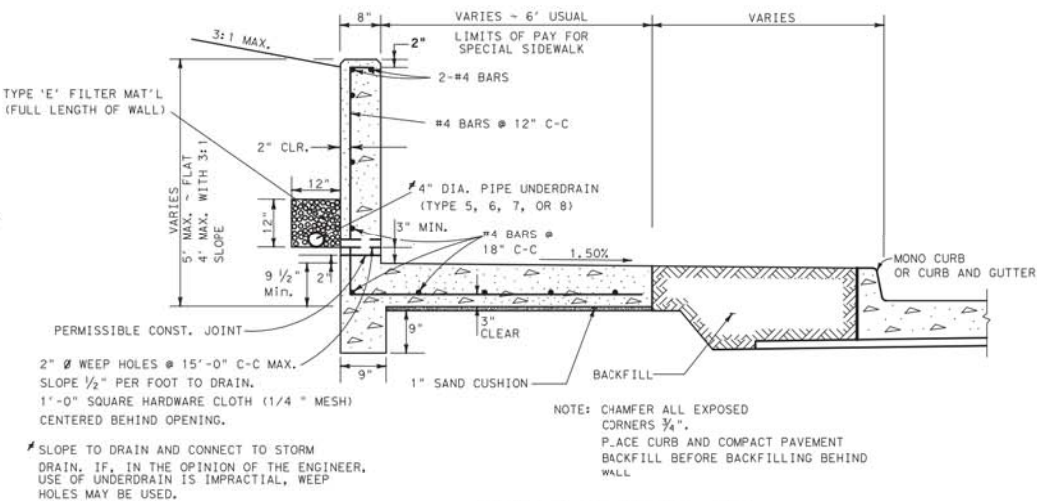
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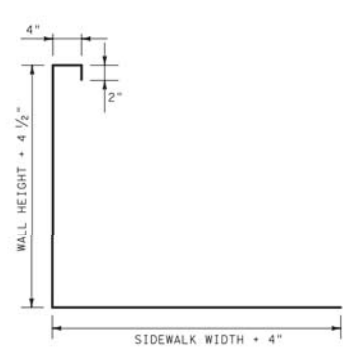
LEVELS DISPLAYED	
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SIDEWALK ADJACENT TO CURB

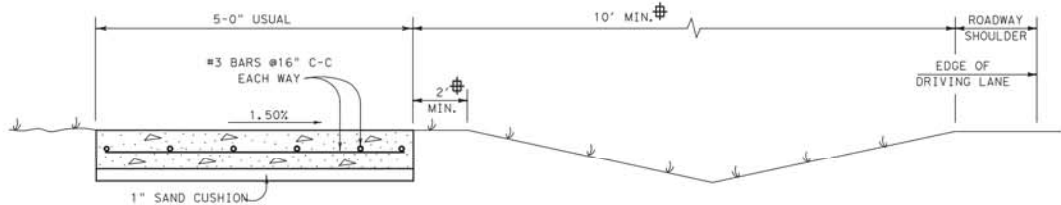


SIDEWALK REMOTE FROM CURB

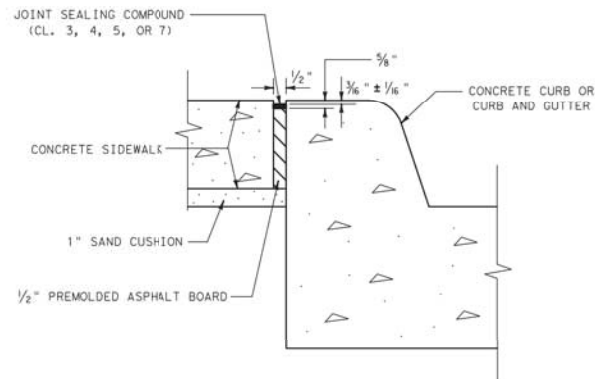


REINFORCING STEEL DETAIL

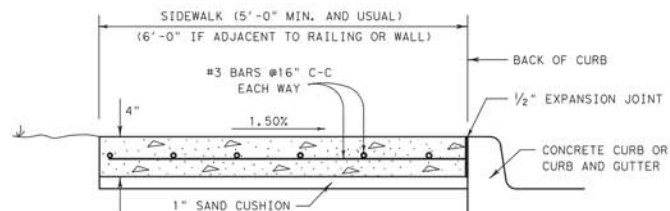
SPECIAL CONCRETE SIDEWALK w/ RETAINING WALL



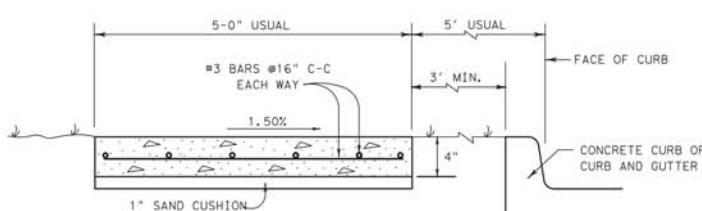
CONCRETE SIDEWALK
(ROADWAY W/O CURB)



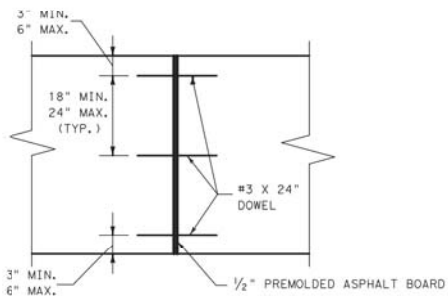
1/2" EXPANSION JOINT
(SIDEWALK ADJACENT TO CURB)



CONCRETE SIDEWALK
(ADJACENT TO CURB)



CONCRETE SIDEWALK
(REMOTE FROM CURB)



TRANSVERSE EXPANSION JOINT


SEE PLAN SHEETS FOR LOCATIONS OF SIDEWALKS AND RETAINING WALLS.

LONGITUDINAL SLOPE OF SIDEWALKS SHALL NOT EXCEED 5% EXCEPT IN CASES WHERE THE ADJACENT ROADWAY SLOPE EXCEEDS 5%. IF ROADWAY SLOPE EXCEEDS 5%, LONGITUDINAL SLOPE OF SIDEWALK MAY MATCH THAT OF ROADWAY.

IF SIDEWALK WIDTH IS LESS THAN 5', PROVIDE 5' x 5' PASSING AREAS AT INTERVALS NOT TO EXCEED 200' SPACING.

WHERE SIDEWALK WITH RETAINING WALL IS SPECIFIED, RETAINING WALL WILL BE SUBSIDIARY TO THE ITEM, "CONCRETE SIDEWALK (SPECIAL) (RETAINING WALL)", WITH LIMITS OF PAY AS SHOWN HEREON.

SURFACE TREATMENT OF RETAINING WALL FACE DETAILED ELSEWHERE IN THE PLANS.

 **Fort Worth District**
CONCRETE SIDEWALK DETAILS
CSWD-08 (FW)

ORIGINAL DRAWING	FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
JUNE 2008	6		
REVISIONS:	STATE	DIST.	COUNTY
	TEXAS		
	CONT.	SECT.	JOB
			HIGHWAY NO.

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PUBLIC WORKS



ENGINEERING
DIVISION

ELM AVENUE SIDEWALK TASA GRANT PROPOSAL

TXDOT

CONCRETE SIDEWALK DETAILS

NO.	REVISION	DATE

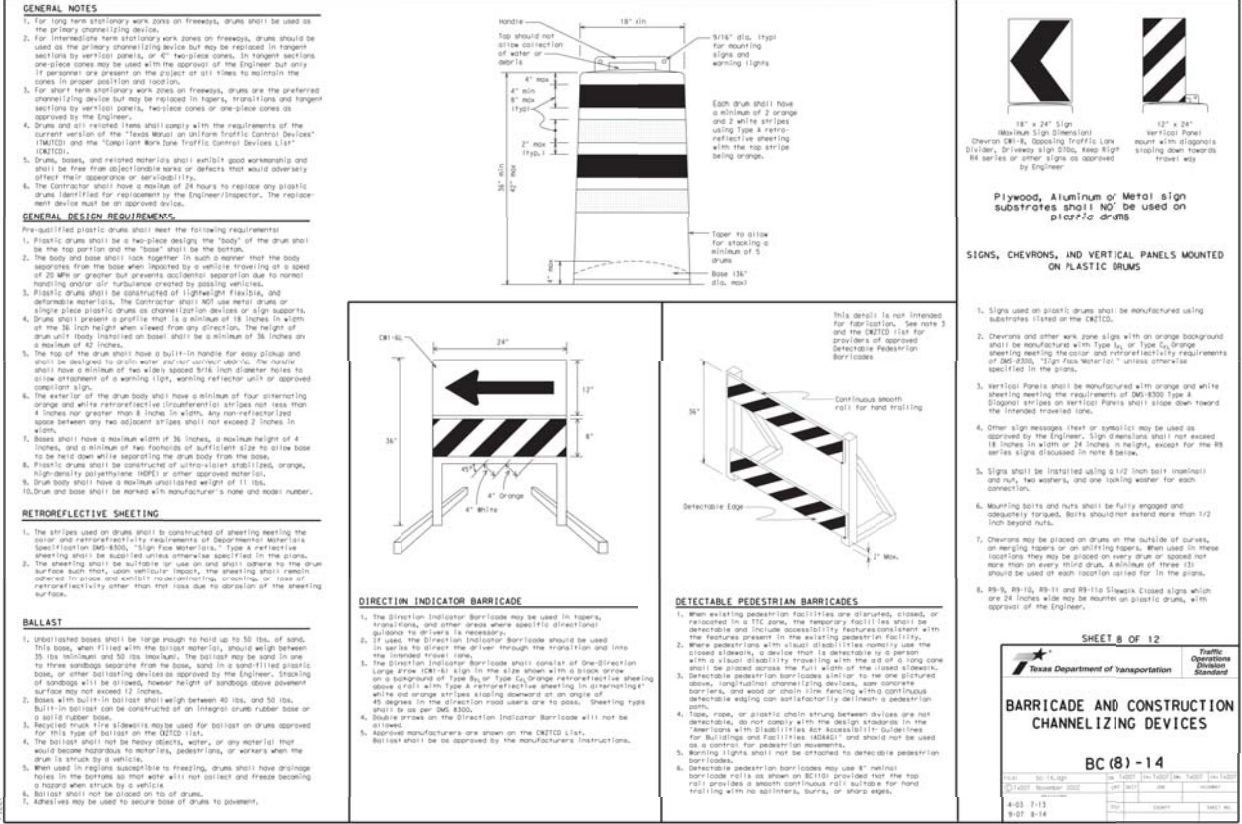
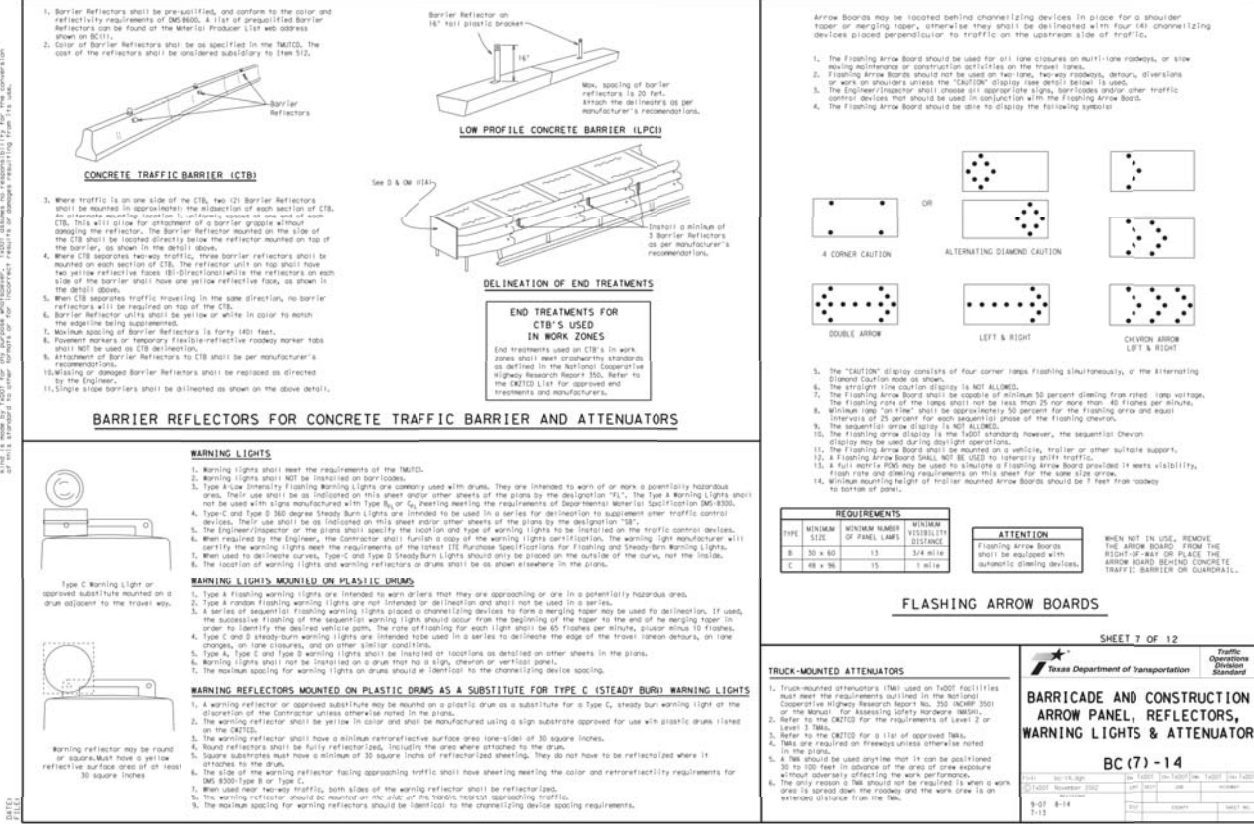
60% PLANS

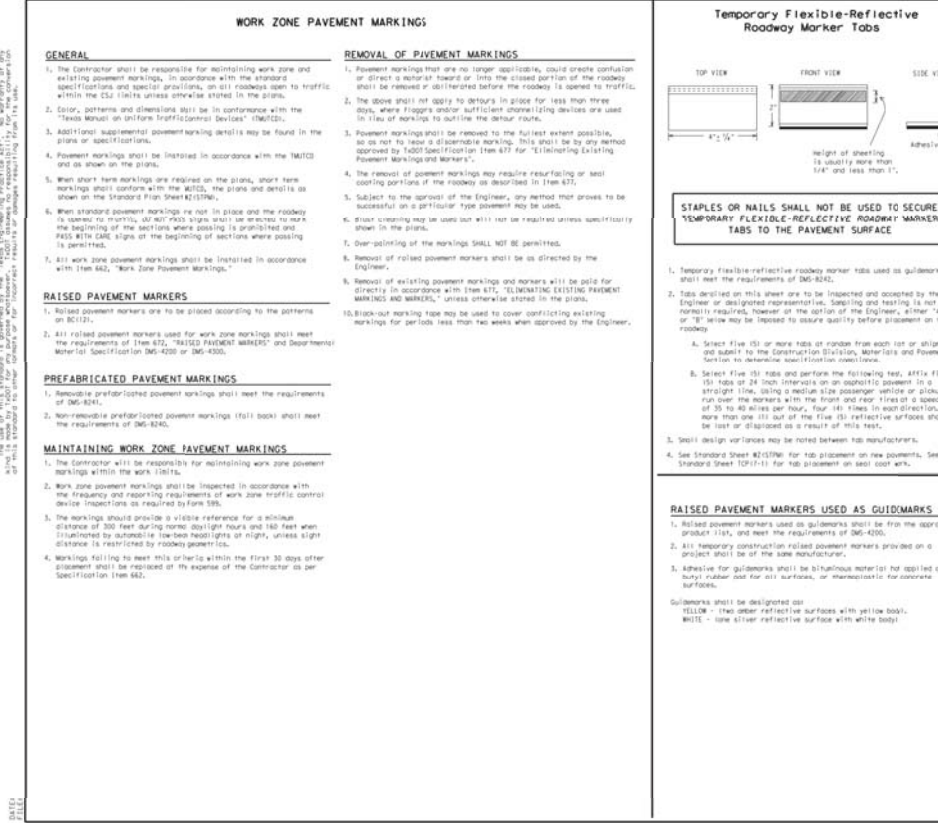
NAME _____ DATE _____

Design: B.A.S. Approved: P.N.R.
Checked: J.R. Project Mgr.: P.N.R.
File Name: EngineeringProject.DWG

Scale	
Project No. <u>S1234</u>	Sheet No. <u>13</u>
Date <u>05/2017</u>	OF <u>21</u>
Sheet <u>02</u> OF <u>03</u>	

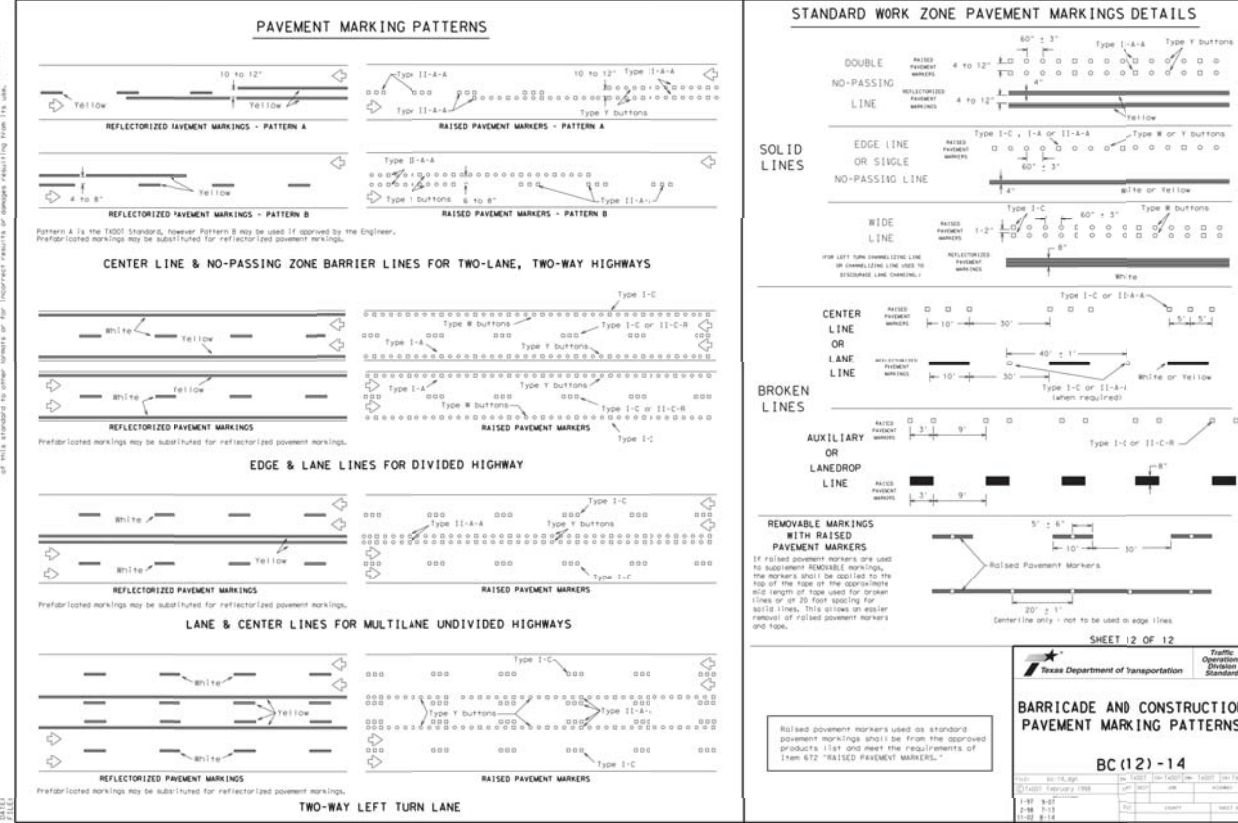
02 OF 03 | OF 21





DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
SPRINK AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective object pavement marker, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer's list web address shown on BC(11).





ELM AVENUE SIDEWALK TASA GRANT PROPOSAL TXDOT STANDARD PAVEMENT MARKINGS

NO.	REVISION	DATE

60% PLANS

NAME _____ DATE _____

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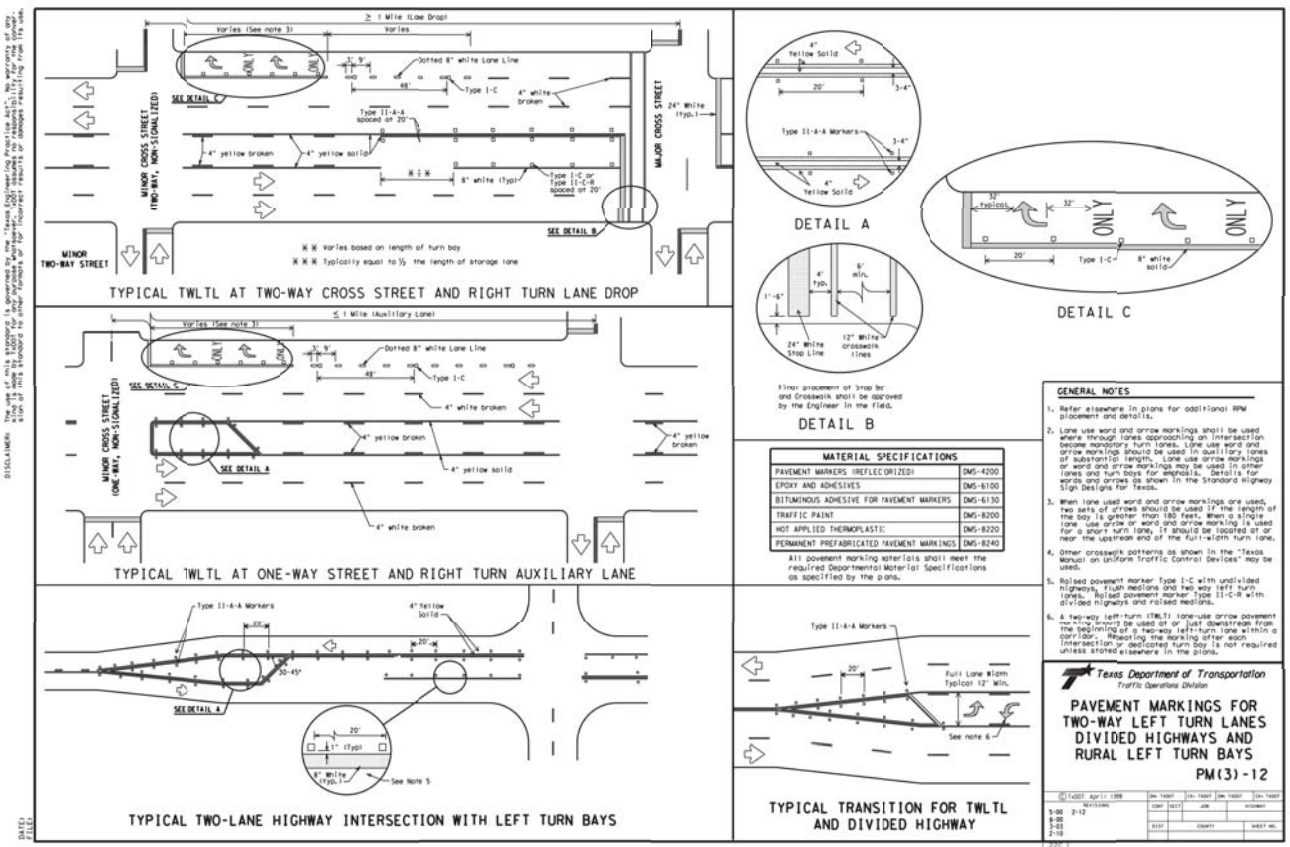
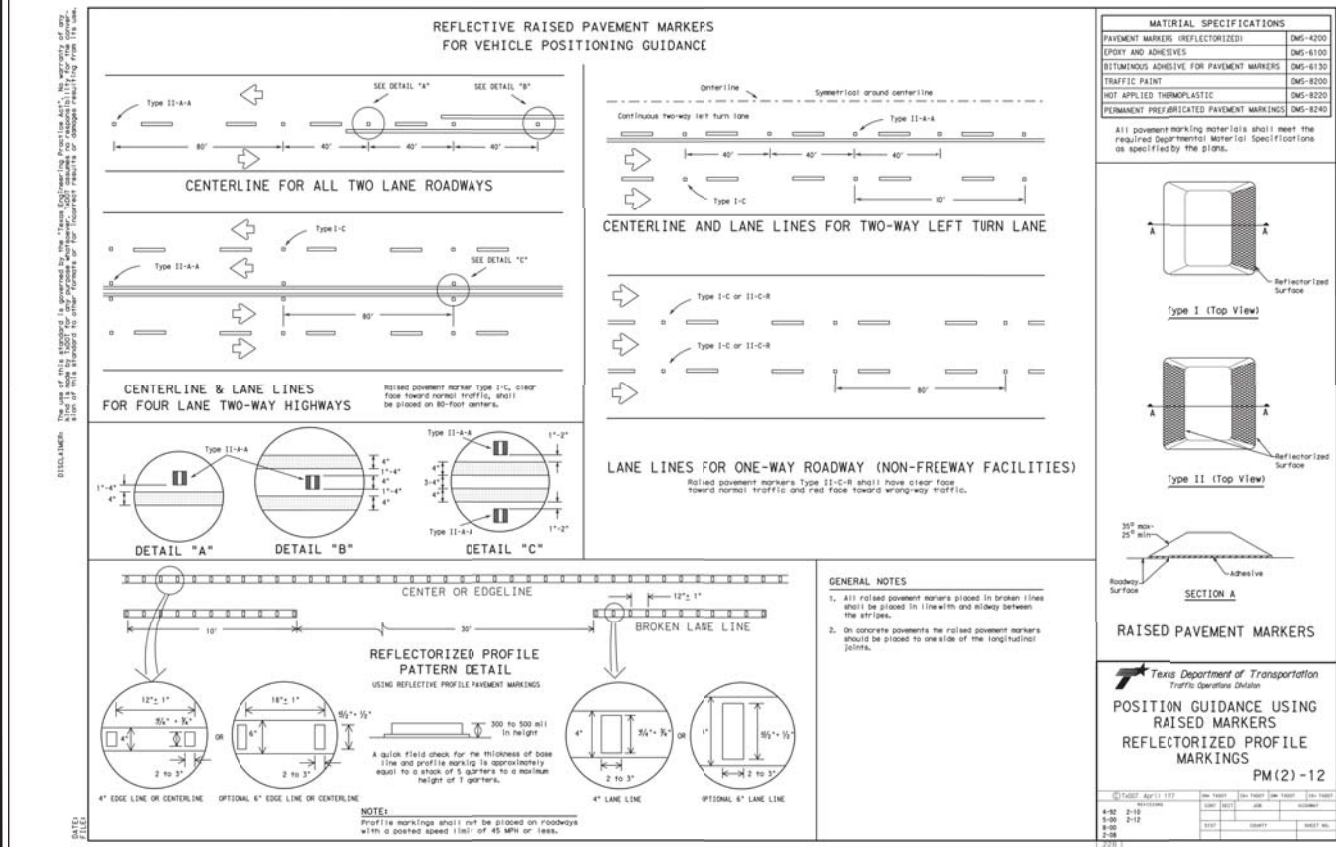
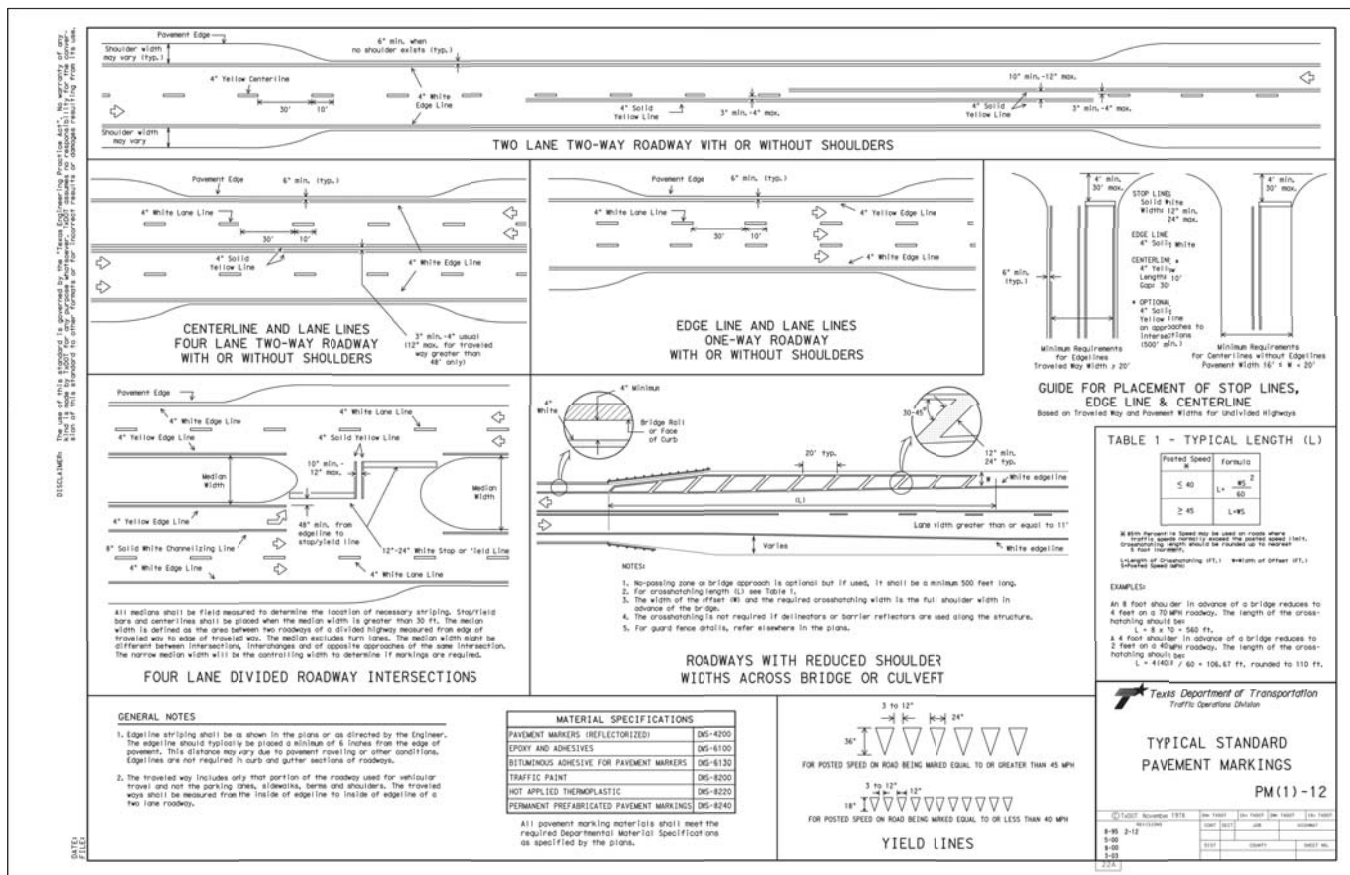
Project No. S1234

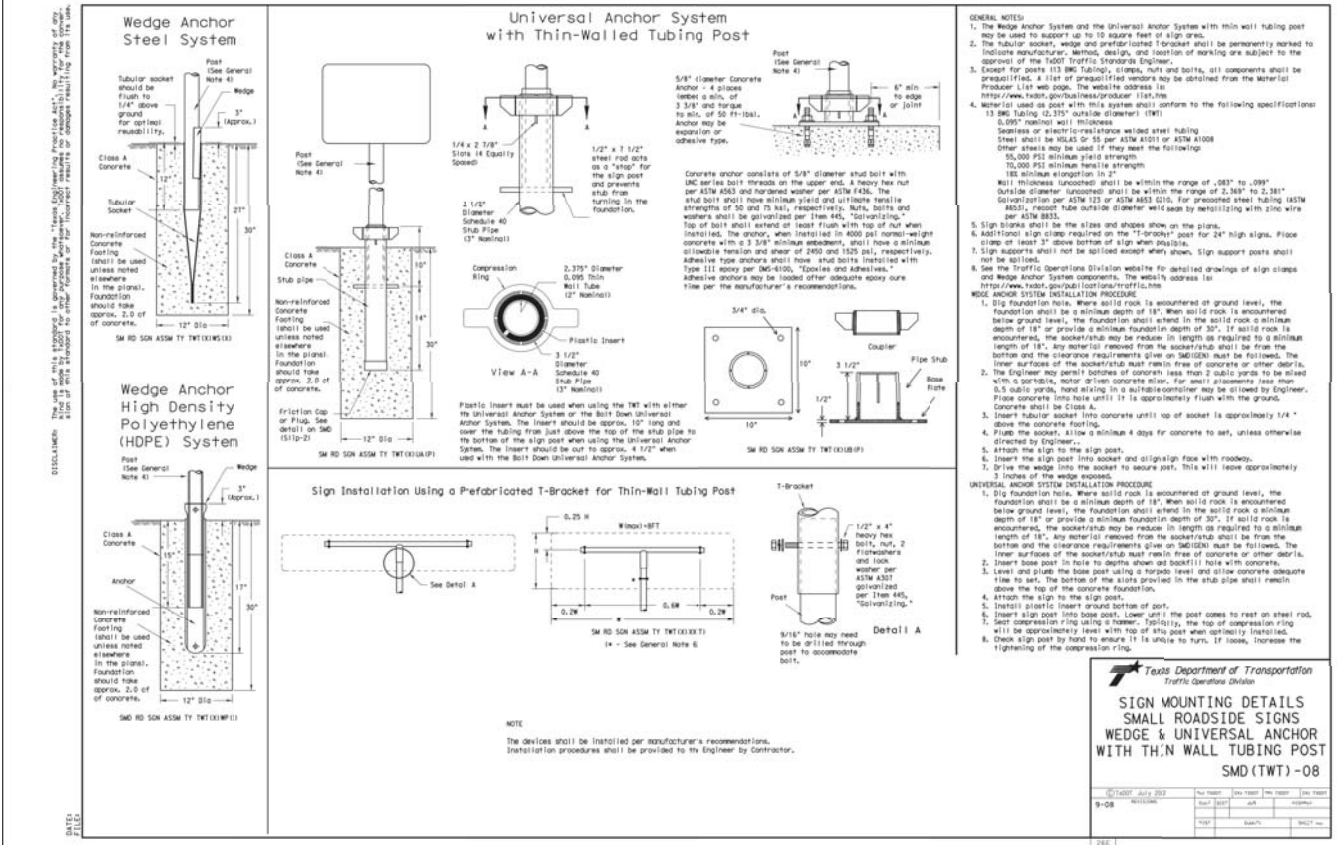
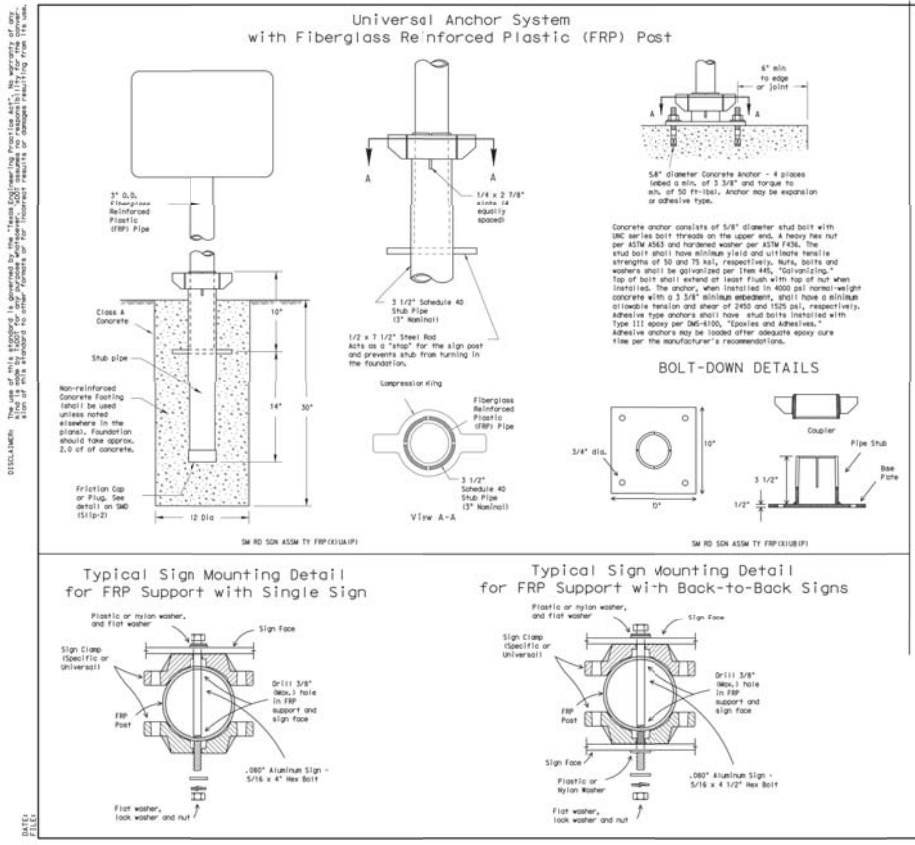
Sheet No. _____

Date 05/2017Sheet 01 OF 01

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OF 21







ELM AVENUE SIDEWALK
TASA GRANT PROPOSAL
PEDESTRIAN FACILITIES CURB RAMPS
PED-12A

NO.	REVISION	DATE

60%
PLANS

NAME _____ DATE _____

Design: B.A.S. Approved: P.N.R.
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File Name: EngineeringProject.DWG

Scale _____
Project No. S1234 Sheet No. 20
Date 05/2017
Sheet 01 OF 01 OF 21

General Notes

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

Curbs Ramps

Detachable Warning Material

18. Curb ramps must contain a detachable warning surface that consists of raised truncated domes complying with Section 305 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved non-sliping new material for the detachable warning surface material adjacent to uncoated concrete, unless specified elsewhere in the plans.
19. Detachable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
20. Detachable warning surfaces must be slip resistant and not allow water to accumulate.
21. Detachable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
22. Detachable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detachable warning surfaces may be curved along the corner radius.
23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detachable warning surface for each curb ramp type.

PERPENDICULAR CURB RAMP

Typical placement of detachable warning surface on sloping ramp run.

DIRECTIONAL CURB RAMP

Typical placement of detachable warning surface on sloping ramp run.

PARALLEL CURB RAMP

Typical placement of detachable warning surface on landing at street edge.

SECTION: CURB RAMP AT DETECTABLE WARNING

DETECTABLE WARNINGS

Detachable Warning Pavers

24. Furnish detachable warning paver units meeting all requirements of ASTM C-936, C-937. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of or less 25 percent of a full unit. Cut detachable warning paver units using a power saw.

Sidewalks

26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 306.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
28. Street grade and cross slopes shall be as shown elsewhere in the plans.
29. Changes in level greater than 1/4 inch are not permitted.
30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway, where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 506.
31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item "Sidewalks".
33. Sidewalk details are shown elsewhere in the plans.

SHEET 1 OF 4

Texas Department of Transportation

PEDESTRIAN FACILITIES
CURB RAMPS

PED-12A

DATE: 05/2017
BY: J.R.
CHECKED: B.A.S.
DATE: 05/2017

SHEET 2 OF 4

Texas Department of Transportation

PEDESTRIAN FACILITIES
CURB RAMPS

PED-12A

DATE: 05/2017
BY: J.R.
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TYPE 1

PERPENDICULAR CURB RAMP

TYPE 2

PARALLEL CURB RAMP

(Use only where water will not pond in the landing.)

TYPE 3

COMBINATION CURB RAMPS

TYPE 5

BLENDED TRANSITION

TYPE 7

DIRECTIONAL RAMPS WITHIN RADIUS

(Sidewalk set back from curb)

TYPE 10

(Sidewalk adjacent to curb)

TYPE 11

OFFSET PARALLEL CURB RAMP

TYPE 20

CURB RAMPS AT MEDIAN ISLANDS

TYPE 22

COMBINATION ISLAND RAMPS

NOTES / LEGEND

See General Notes on sheet 2 of 4 for more information.

--- Stop Limits of Payment

■ Detachable Warning Surface

**PEDESTRIAN FACILITIES
CURB RAMPS**

PED-12A

DATE: 05/2017
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DATE: 05/2017

CONCRETE DRIVEWAY PAYMENT

PROTECTED ZONE

4' MAX. BOLL. PROTECTION

4' MAX. BOLL. PROTECTION

PROTECTED ZONE

In pedestrian circulation area, maximum 4' projection for posts or wall required, objects between 27" and 80" above the surface.

PLAN VIEW

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

**PEDESTRIAN FACILITIES
CURB RAMPS**

PED-12A

DATE: 05/2017
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SKewed INTERSECTION WITH "LARGE" RADIUS

AT INTERSECTION W/FREE RIGHT TURN & ISLAND

SKewed INTERSECTION WITH "SMALL" RADIUS

MID-BLOCK PLACEMENT PERPENDICULAR RAMPS

NORMAL INTERSECTION WITH "SMALL" RADIUS

TYPICAL CROSSING LAYOUTS

**PEDESTRIAN FACILITIES
CURB RAMPS**

PED-12A

DATE: 05/2017
BY: J.R.
CHECKED: B.A.S.
DATE: 05/2017



ELM AVENUE SIDEWALK TASA GRANT PROPOSAL

PEDESTRIAN HANDRAIL DETAILS

PRD-06

NO.	REVISION	DATE

60% PLANS

NAME _____ DATE _____

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Project No. S1234 Sheet No. _____Date 05/2017Sheet 01 OF 01

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