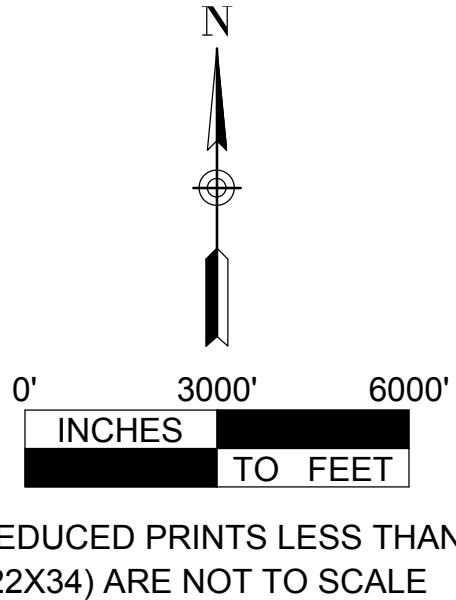
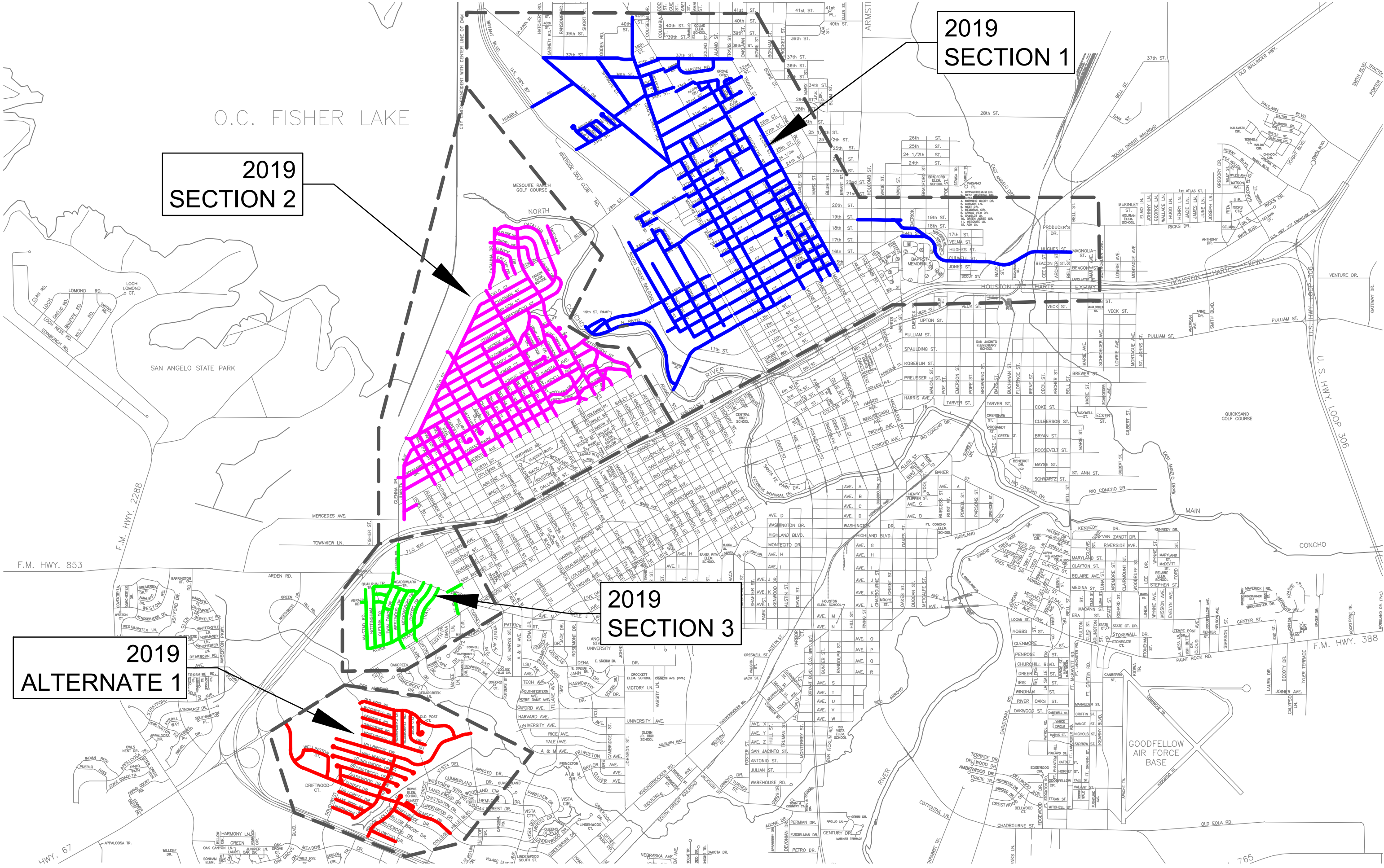


CITY OF SAN ANGELO, TEXAS  
TOM GREEN COUNTY, TEXAS

PROJECT NO. 2018-3-487  
PLANS OF PROPOSED  
2019 SEALCOAT CONSTRUCTION  
"BID SET"  
OCTOBER, 2018



#	SHEET	DESCRIPTION
1.	C-000	COVER SHEET
2.	C-001	GENERAL NOTES
3.	C-002	STRIPING DETAILS 1
4.	C-003	STRIPING DETAILS 2
5.	C-004	STRIPING DETAILS 3
6.	C-005	ESTIMATED QUANTITIES
7.	C-400	2019 SEALCOAT PLAN SECTION 1
8.	C-401	2019 SEALCOAT PLAN SECTION 2
9.	C-402	2019 SEALCOAT PLAN SECTION 3
10.	C-403	2019 ALTERNATE SECTION 1



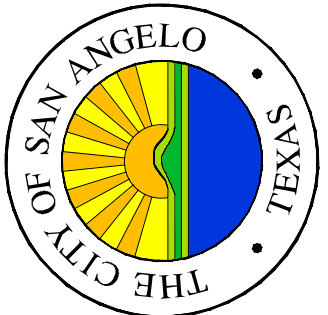
CITY MANAGER: DANIEL VALENZUELA  
MAYOR: BRENDA GUNTER

COUNCIL MEMBERS:

- |                      |                      |
|----------------------|----------------------|
| SMD1 - TOMMY HIEBERT | SMD4 - LUCY GONZALES |
| SMD2 - TOM THOMPSON  | SMD5 - LANE CARTER   |
| SMD3 - HARRY THOMAS  | SMD6 - BILLIE DEWITT |

PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES DIVISION  
CITY ENGINEER: RUSSELL PEHL, P.E.

CITY OF SAN ANGELO  
ENGINEERING SERVICES  
CITY HALL ANNEX  
301 W. BEAUREGARD AVE.  
SAN ANGELO, TX. 76903  
(325) 657-4201  
WWW.COSSTIX.US



NO	DESCRIPTION	DATE

The Seal appearing on this document was authorized by Russell J. Pehl, P.E. 104795 on: October 26, 2018

*Russell J. Pehl*

ES-03-19	COVER SHEET	DRAWN BY: M.T.
	2019 SEALCOAT CONSTRUCTION	
	PROJECT NO: 2018-3-487	
	DESIGN BY: M.G.	

SCALE: 1"=3000'	DATE: 10/26/18	SHEET NO. C-000
	ARCHIVE NO: R-1918	1 OF 10



**6. GENERAL NOTES**

THE GENERAL NOTES LISTED HEREIN ARE GROUPED BY GENERAL CATEGORY OF WORK, BUT ARE APPLICABLE TO ALL ITEMS OF WORK FOR THE ENTIRE PROJECT.

AS REFERRED TO HEREIN, THE CITY REFERS TO THE CITY OF SAN ANGELO, THE ENGINEER, AND/OR ANY OF THEIR DESIGNATED REPRESENTATIVES.

THE TOTAL BID SUBMITTED SHALL BE THE TOTAL COMPENSATION PROVIDED TO THE CONTRACTOR FOR THE WORK TO BE PERFORMED IN THIS CONTRACT. ANY WORK PROVIDED FOR HEREIN AND NOT PAID FOR DIRECTLY SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE CONTRACT AND NO DIRECT PAYMENT SHALL BE MADE.

THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN ALL AREAS THROUGHOUT THE DURATION OF THE PROJECT. ALL REQUIRED MAINTENANCE OF THE COMPLETED WORK SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED A PART OF THIS CONTRACT AND AT THE CONTRACTOR'S EXPENSE UNTIL FINAL ACCEPTANCE BY THE CITY.

THE CONTRACTOR SHALL SUBMIT IN WRITING FOR APPROVAL THE PROCEDURE TO BE USED FOR HANDLING PUBLIC CLAIMS AND COMPLAINTS INCLUDING THE TIME FRAME IN WHICH THE CONTRACTOR IS REQUIRED TO RESPOND TO COMPLAINTS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUPPLY A TOLL FREE NUMBER OF THE INSURANCE COMPANY OR CONTRACTOR'S PERSON RESPONSIBLE FOR PROCESSING COMPLAINTS AND CLAIMS.

SIGNS, MARKINGS, DELINEATORS AND SIGNALS CONFORM TO DETAILS SHOWN ON THE PLANS, THE TMUTCD, THE COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICE LIST (CWZTCDL), THE TXDOT'S STANDARD SHEETS, "STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS" AND "SIGN CREW FIELD BOOK." THESE PUBLICATIONS ARE AVAILABLE FROM TXDOT'S TRAFFIC OPERATIONS DIVISION.

LOCATE THE PROJECT BULLETIN BOARD AT AN APPROVED LOCATION WITHIN THE PROJECT LIMITS SUCH AS AT A FIELD OFFICE, STAGING AREA, OR STOCKPILE, AND MAKE ACCESSIBLE TO THE PUBLIC AT ALL TIMES. DO NOT REMOVE THE BULLETIN BOARD FROM THE PROJECT UNTIL APPROVED. IF A CONSTRUCTION SITE NOTICE IS REQUIRED FOR THE PROJECT, POST A COPY AT EACH GEOGRAPHICALLY SEPARATED WORK LOCATION.

ALL MOTOR VEHICLE EQUIPMENT HAVING AN OBSTRUCTED VIEW TO THE REAR SHALL HAVE A REVERSE SIGNAL ALARM AUDIBLE ABOVE THE SURROUNDING NOISE LEVEL.

**INSTRUCTIONS TO BIDDERS**

**FOR QUESTIONS CALL:**

MITCHELL GATLIN, E.I.T.  
301 W. BEAUREGARD AVE.  
SAN ANGELO, TEXAS 76903  
(325) 657-4201  
mitchell.gatlin@cosatx.us

**6.1. CONTRACT TIME, PROSECUTION, AND PROGRESS**

THE SEALCOAT SEASON SHALL BE FROM MAY 15 TO AUGUST 30 OF THE PROJECT YEAR TO COMPLETE PAVING OPERATIONS.

THE DATES OF PAVING OPERATIONS AND DATES OF FULL PROJECT COMPLETION MAY DIFFER. THE CONTRACTOR SHALL HAVE FROM MAY 15 TO AUGUST 30 TO COMPLETE PAVING OPERATIONS AND NINETY (90) CALENDAR DAYS TO COMPLETE THE PROJECT. PROJECT TASKS OTHER THAN PAVING OPERATIONS MAY BE COMPLETED AFTER AUGUST 30. FOR EACH CALENDAR DAY PAVING OPERATIONS REMAIN INCOMPLETE AFTER AUGUST 30 AND/OR EACH CALENDAR DAY OTHER PROJECT TASKS REMAIN INCOMPLETE AFTER NINETY (90) CALENDAR DAYS, AN AMOUNT OF ONE THOUSAND FIFTY DOLLARS AND ZERO CENTS (\$1,050.00) PER CALENDAR DAY SHALL BE ASSESSED AND DEDUCTED FROM THE MONIES DUE OR TO BECOME DUE THE CONTRACTOR, NOT AS A PENALTY, BUT AS LIQUIDATED DAMAGES. WORK ON SUNDAYS AND THE ELEVEN LEGAL HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING DAY, GOOD FRIDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERAN'S DAY, THANKSGIVING DAY AND DAY AFTER, CHRISTMAS EVE AND CHRISTMAS DAY.

THE CONTRACTOR SHALL NOT CONDUCT ANY OPERATIONS OR PERFORM ANY WORK PERTAINING TO THE PROJECT BEFORE SUNRISE AND THIRTY (30) MINUTES BEFORE SUNSET OR AFTER.

DO NOT APPLY ASPHALT LATER THAN ONE (1) HOUR BEFORE SUNSET UNLESS OTHERWISE APPROVED.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEASE FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF WORK.

**6.2. MEASUREMENT**

THE CONTRACTOR SHALL PROVIDE THE CITY WITH THE CALIBRATION TEST RESULTS FROM THE DISTRIBUTOR MACHINE PRIOR TO COMMENCEMENT OF WORK.

ASPHALT MATERIAL WILL BE MEASURED AT THE APPLIED TEMPERATURE BY STRAPPING THE TANK BEFORE AND AFTER ROAD APPLICATION AND DETERMINING THE NET VOLUME IN GALLONS USED, AS DIRECTED, IN THE ACCEPTED SURFACE TREATMENT.

AGGREGATE WILL BE MEASURED BY THE CUBIC YARD IN THE TRUCKS APPLIED ON THE ROAD. THE ENGINEER MAY REQUIRE LOADED AGGREGATE TO BE STRUCK OFF FOR ACCURATE MEASUREMENT. UNLESS OTHERWISE AUTHORIZED, USE TRUCKS OF UNIFORM CAPACITY TO DELIVER THE AGGREGATE. PROVIDE DOCUMENTATION SHOWING MEASUREMENTS AND CALCULATION IN CUBIC YARDS. CLEARLY MARK THE CALIBRATED LEVEL.

**6.3. PAYMENT**

THE CITY WILL PAY THE CONTRACTOR MONTHLY BASED UPON THE WORK PERFORMED THE PREVIOUS MONTH. THE AMOUNT DUE THE CONTRACTOR FOR THAT MONTH WILL BE NEGOTIATED BETWEEN THE CONTRACTOR AND THE CITY. IN THE EVENT OF A DISPUTE, THE CITY'S ESTIMATE SHALL BE FINAL. FROM THE AMOUNT DUE EACH MONTH, THE CITY WILL RETAIN FIVE PERCENT (5%) UNTIL SATISFACTORY COMPLETION OF THE ENTIRE WORK. THE FIVE PERCENT (5%) RETAINAGE WILL BE PAID TO THE CONTRACTOR AS A FINAL PAYMENT, THIRTY (30) DAYS AFTER ALL WORK HAS BEEN COMPLETED AND ACCEPTED BY THE CITY ENGINEER.

WITH PRIOR APPROVAL OF THE CITY, PAYMENT WILL BE MADE FOR MATERIAL ON HAND, PROVIDED THE MATERIAL IS STORED ON THE PROJECT OR AT AN APPROVED LOCATION IN A MANNER ACCEPTABLE TO THE CITY. PAYMENT WILL BE MADE WITH THE NEXT MONTHLY ESTIMATE PAYMENT, PROVIDED THE CONTRACTOR PRESENTS A TRUE AND VALID PAID RECEIPT ACCEPTABLE TO THE CITY FOR THE MATERIAL.

**6.4. QUANTITIES**

THE CONTRACTOR SHALL SATISFY HIMSELF THAT ALL QUANTITIES OF MATERIAL AND WORK, WHETHER PAID FOR DIRECTLY OR CONSIDERED SUBSIDIARY TO THE WORK, ARE ADEQUATE FOR COMPLETION OF THE WORK PRIOR TO BID SUBMITTAL. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE LOCATION AND THE WORK TO BE PERFORMED UNDER THIS CONTRACT. THE CONTRACTOR SHALL VERIFY BOTH THE QUANTITIES OF MATERIALS AND WORK IN THE PLANS AND IN THE BIDDING DOCUMENTS. SUBMITTAL OF A BID SHALL BE CONSIDERED PROOF THAT THE CONTRACTOR HAS COMPLIED WITH THIS ITEM AND ALL ITEMS CONTAINED HEREIN. ANY DISCREPANCIES FOUND IN THE CONSTRUCTION PLANS AND/OR CONSTRUCTION SPECIFICATIONS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.

THE CONTRACTOR SHALL PERFORM A QUANTITY CALCULATION FROM THE CONSTRUCTION PLANS TO VERIFY THOSE QUANTITIES ARE IN AGREEMENT WITH THOSE CONTAINED IN THE BID ESTIMATE. QUANTITY DISAGREEMENT SHALL NOT BE A BASIS FOR A DISPUTE OR CLAIM BEFORE, DURING, OR AFTER CONSTRUCTION.

**6.5. SURFACE TREATMENTS**

ALL MATERIALS SHALL BE OF THE TYPE(S) AND GRADE(S) SHOWN AND SHALL CONFORM TO THE PERTINENT MATERIAL REQUIREMENTS OF THE FOLLOWING ITEMS AS REFERENCED IN THE TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, LATEST REVISION.

ALL SURFACE TREATMENTS SHALL CONFORM TO TXDOT ITEM 316, "SURFACE TREATMENTS."

ASPHALTS SHALL CONFORM TO TXDOT ITEM 300, "ASPHALTS, OILS, AND EMULSIONS."

AGGREGATES SHALL CONFORM TO TXDOT ITEM 302, "AGGREGATE FOR SURFACE TREATMENTS."

THE CONTRACTOR SHALL PREPARE WORK AREAS BY REMOVING ALL VEGETATION FROM THE PAVEMENT SURFACE, REMOVING EXISTING RAISED PAVEMENT MARKERS, AND ANY OTHER DEBRIS ON THE PAVEMENT SURFACE. THE CONTRACTOR SHALL SWEEP THE PAVEMENT SURFACE NO SOONER THAN 3 DAYS BEFORE SEALCOATING TO REMOVE DIRT, DUST, OR OTHER DELETERIOUS MATTER. ALL MATERIAL SHALL BE REMOVED FROM THE SITE COMPLETELY AND SHALL NOT BE PLACED, EVEN TEMPORARILY, ON CURBS, YARDS, RIGHT-OF-WAYS OR OTHER AREAS. THIS WORK WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE CONTRACT. ALL MATERIALS REMOVED FROM THE PROJECT ARE THE PROPERTY OF THE CONTRACTOR.

THE CONTRACTOR SHALL PROTECT EXISTING MANHOLES AND VALVE BOXES BY PLACING PAPER WITH AGGREGATE AND A TEMPORARY RAISED PAVEMENT MARKER TO MARK THE LOCATION OF THE MANHOLE OR VALVE BOX FOR REMOVAL OF PAPER AFTER SEALCOATING OPERATIONS. THIS WORK WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE CONTRACT.

COVER OR PROTECT THE FOLLOWING, AS APPLICABLE: RAILINGS, BRIDGE JOINTS, UTILITY COVERS, RAILROAD CROSSINGS, AND EXPOSED CONCRETE SUCH AS CURBS, BRIDGE APPROACH SLABS, BRIDGE DECKS, SIDEWALKS AND CONCRETE PAVEMENT.

DO NOT PLACE WET AGGREGATE.

USE MEDIUM PNEUMATIC ROLLERS THAT MEET THE REQUIREMENTS OF ITEM 201, "ROLLING." IF TRAP ROCK AGGREGATE IS USED, THE ENGINEER MAY REQUIRE STEEL WHEEL ROLLERS.

PROVIDE A MINIMUM OF FOUR ROLLERS.

IF THE ENGINEER SEES A PROBLEM WITH UNEVEN APPLICATION RATES FROM THE ASPHALT NOZZLES, THE TRAVERSE DISTRIBUTION TEST, TEX-922-K, PART III MAY BE PERFORMED AND WITNESSED BY THE ENGINEER.

FURNISH SIMILAR COLOR AGGREGATE FROM A COMMON SOURCE FOR INDIVIDUAL ROADWAYS.

THE CONTRACTOR SHALL STOCKPILE MATERIALS AT THE LOCATION SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER. LOCATE STOCKPILE SITE A MINIMUM OF 30 FEET FROM THE ROADWAY UNLESS OTHERWISE AUTHORIZED. PLACE STOCKPILES IN A MANNER THAT WILL NOT INTERFERE WITH TRAFFIC OR SIGHT DISTANCE. KEEP STOCKPILE CLEAR OF DEBRIS AND VEGETATIVE GROWTH. THE CONTRACTOR SHALL REMOVE ANY REMAINING AGGREGATE FROM STOCKPILE LOCATIONS WITHIN 30 DAYS OF FINAL ACCEPTANCE OF THE PROJECT. ANY AGGREGATE LEFT PAST 30 DAYS WILL BECOME CITY PROPERTY.

THE ASPHALT RATE SHALL VARY BETWEEN 0.38 - 0.40 GAL/SY, WITH A ROCK RATE OF 110 SY/CY BUT MAY VARY AS DIRECTED BY THE ENGINEER.

FURNISH AGGREGATE FROM THE SAME SOURCE UNLESS OTHERWISE APPROVED.

ALL LOCATIONS ARE A SINGLE COURSE APPLICATION UNLESS OTHERWISE NOTED.

PAPER OR OTHER APPROVED MATERIAL SHALL BE USED TO PREVENT OVERLAPPING OF TRAVERSE JOINTS.

THE CONTRACTOR SHALL MAINTAIN THE SURFACE UNTIL THE WORK IS ACCEPTED BY THE CITY. LACK OF UNIFORMITY, SUCH AS SPOTS WHERE COVERAGE IS NOT COMPLETE, SHALL BE CORRECTED BY HAND SPOTTING OR OTHER APPROVED METHOD. ALL FAT OR BLEEDING SURFACES SHALL BE COVERED WITH APPROVED MATERIAL IN SUCH A MANNER THAT THE ASPHALTIC MATERIAL WILL NOT ADHERE TO OR BE PICKED UP BY THE TIRES OF VEHICLES. UPON NOTIFICATION, THE CONTRACTOR SHALL MAKE REPAIRS WITHIN 10 DAYS. THESE REPAIRS INCLUDE, BUT ARE NOT LIMITED TO PATCHES AND REPAIR OF BLEEDING AREAS. IF THESE CORRECTIONS ARE NOT COMPLETED IN THAT TIME, ALL OTHER WORK WILL CEASE, BUT TIME CHARGES WILL CONTINUE AS DIRECTED.

**6.6. STREET SWEEPING**

THE CONTRACTOR SHALL SWEEP PAVED ARES ONE WEEK AND AGAIN ONE MONTH AFTER PAVING. THE CONTRACTOR SHALL REMOVE EXCESS OR LOOSE AGGREGATE FROM PAVED AREAS, DRIVEWAYS, SIDEWALKS, CURBS, AND RESIDENTIAL YARDS ACCEPTABLE TO THE ENGINEER. STREET SWEEPING OPERATIONS SHALL NOT IN ANY WAY ADVERSELY AFFECT THE FINISHED PAVED SURFACE AND WILL NOT BE PAID FOR DIRECTLY BUT WILL BE SUBSIDIARY TO ITEM 316.

**6.7. TRAFFIC CONTROL PLAN**

THE CONTRACTOR SHALL MAINTAIN TEMPORARY TRAFFIC CONTROL MEASURES THROUGHOUT THE PROJECT THAT ARE CONSTANTLY IN FULL COMPLIANCE WITH THE CURRENT VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

THE CONTRACTOR SHALL USE THE PROVIDED TRAFFIC CONTROL PLANS OR PROVIDE A MUTCD COMPLIANT ENGINEERED TRAFFIC CONTROL PLAN TO THE CITY AND BE APPROVED BY THE CITY BEFORE ANY WORK COMMENCES.

ALL STREET SEGMENTS AND INTERSECTING STREETS SHALL HAVE PROJECT BARRICADES IN COMPLIANCE WITH TXDOT'S LATEST VERSION OF "BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS" IN PLACE BEFORE WORK BEGINS. THE CONTRACTOR SHALL UTILIZE TXDOT'S LATEST STANDARD TRAFFIC CONTROL PLAN SHEETS DURING PAVING OPERATIONS.

THE CITY MAY ORDER ALL WORK STOPPED IF THE CONTRACTOR FAILS TO COMPLY WITH THE TRAFFIC CONTROL PLAN.

THE CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES DURING CONSTRUCTION. WHEN PAVING OPERATIONS REQUIRE A LANE CLOSURE THE CONTRACTOR SHALL PROVIDE CONES, VERTICAL PANELS, DRUMS, SIGNS, FLAGGERS, AND FLASHING ARROW PANELS TO ROUTE TRAFFIC. IF TWO-WAY TRAFFIC OPERATIONS ARE NOT PRACTICAL, THE CONTRACTOR SHALL UTILIZE A PILOT CAR OPERATION.

FLAGGERS ARE REQUIRED AT ALL INTERSECTIONS.

PROVIDE FLAGGERS AT SUCH TIMES AND LOCATIONS AS DIRECTED TO ENSURE THE SAFE PASSAGE OF TRAFFIC THROUGH CONSTRUCTION AREAS. WHEN FLAGGERS ARE USED TO CONTROL TRAFFIC, FURNISH AND INSTALL SIGNS CW200-7 "FLAGGER SYMBOL", CW20-7aD "FLAGGER AHEAD", AND CW3-4 "BE PREPARED TO STOP". FLAGGERS SHALL USE 24 INCH STOP/SLOW PADDLES.

REMOVE TYPE III BARRICADES AND PLASTIC DRUMS UPON DEPLETION OF A STOCKPILE. AT CONTRACTOR'S OPTION, PLACE THESE ITEMS IN AN AREA AWAY FROM TRAFFIC AT LEASE THIRTY (30) FEET.

OMIT ADVANCE WARNING SIGNS, FURNISH, AND INSTALL REDUCED SIZE SIGNS CW20-1 "ROAD WORK AHEAD" MOUNTED BACK TO BACK WITH REDUCED SIZE SIGNS G20-2 "END ROAD WORK" SIGNS AT INTERSECTING CITY STREETS.

THE CONTRACTOR SHALL FOLLOW TXDOT'S MOBILE OPERATIONS STANDARD TRAFFIC CONTROL PLAN SHEETS FOR REMOVING EXISTING RAISED PAVEMENT MARKERS PLACING WORK ZONE PAVEMENT MARKERS, REMOVING WORK ZONE PAVEMENT MARKERS, STRIPING OPERATIONS, AND PLACING RAISED PAVEMENT MARKERS.

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO ALLOW PROPERTY OWNERS AND BUSINESSES ACCESS AT ALL TIMES.

THE CONTRACTOR SHALL NOTIFY ALL ADJACENT PROPERTY OWNERS AND BUSINESSES OF LANE CLOSURES, STREET CLOSURES, AND OF A PROPOSED CONSTRUCTION SCHEDULE AT LEAST SEVEN (7) DAYS BEFORE ANY PAVING OPERATIONS BEGIN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.

THE CONTRACTOR SHALL INSPECT AND CORRECT TRAFFIC CONTROL DEFICIENCIES EACH DAY THROUGHOUT THE DURATION OF THE CONTRACT.

THE CONTRACTOR SHALL PROVIDE THE CONTRACT INFORMATION OF AT LEAST ONE EMPLOYEE ON CALL NIGHTS AND WEEKENDS (OR ANY OTHER TIME THAT WORK IS NOT IN PROGRESS) FOR MAINTENANCE OF SIGNS AND TRAFFIC CONTROL DEVICES.

**6.8. WORK ZONE PAVEMENT MARKINGS**

ALL PAVEMENT MARKINGS SHALL CONFORM TO TXDOT ITEM 662, "WORK ZONE PAVEMENT MARKINGS."

USE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO DELINEATE STOP BARS, CROSSWALKS, SYMBOLS, OR WORDS.

USE THE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TAB CONFIGURATION SHOWN ON STANDARD SHEET TCP(7-1) FOR CONVENTIONAL ROADWAYS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF THE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKERS ONCE THE THERMOPLASTIC STRIPING HAS BEEN COMPLETED.

PAYMENT FOR WORK ZONE PAVEMENT MARKINGS SHALL BE SUBSIDIARY.

**6.9. CONSTRUCTION INSPECTIONS**

CONSTRUCTION INSPECTION SHALL BE AT THE DISCRETION OF THE CITY WITHIN THE REQUIREMENTS OF THE CITY. THE CONTRACTOR SHALL KEEP THE ENTIRE PROJECT SITE ACCESSIBLE TO THE CITY AND ANY OTHER GOVERNMENTAL ENTITY THAT MAY EXERCISE REGULATORY CONTROL OF THE PROJECT OR ANY PORTION OF THE WORK.

**6.10. PROTECTION OF WORK**

THE CONTRACTOR SHALL PROTECT ALL AREAS, WHETHER WITHIN OR OUTSIDE OF THE ACTUAL LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION AS GOOD AS, OR BETTER THAN, THAT PRESENT PRIOR TO THE CONSTRUCTION. THE CITY SHALL BE THE SOLE JUDGE AS THE ACCEPTABILITY OF THE RESTORATION.

CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE LIMITED TO THE AREAS TO WHICH WORK IS TO BE PERFORMED. ANY AREAS OUTSIDE OF THE WORK AREA THAT HAS EXPERIENCED DAMAGE (SUCH AS TREES, OR LOSS OF VEGETATIVE COVER) FROM THE CONSTRUCTION, STORAGE OF EQUIPMENT AND/OR MATERIALS, OR ANY OTHER PROCESS ASSOCIATED WITH CONSTRUCTION, SHALL BE REPAIRED BY THE CONTRACTOR AT HIS SOLE EXPENSE TO THE SATISFACTION OF THE CITY.

ANY DAMAGE CREATED BY ANY EQUIPMENT OR ANY OTHER MEANS ON THE PROJECT OR ON ADJACENT PROPERTIES AND/OR STREETS AND ROADS SHALL BE REPAIRED TO THE CITY'S SATISFACTION AT THE CONTRACTOR'S SOLE EXPENSE.

THE CONTRACTOR SHALL NOT CUT OR TRIM TREES WITHOUT CONSENT OF THE CITY.

**6.11. THERMOPLASTIC PAVEMENT STRIPING AND RAISED PAVEMENT MARKERS**

ALL MATERIALS SHALL BE OF THE TYPE(S) AND WIDTH(S) SHOWN AND SHALL CONFORM TO THE PERTINENT MATERIAL REQUIREMENTS OF THE FOLLOWING ITEMS AS REFERENCED IN THE TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, LATEST REVISION.

ALL PAVEMENT MARKINGS SHALL CONFORM TO TXDOT ITEM 666, "REFLECTORIZED PAVEMENT MARKINGS."

ALL PREFABRICATED MARKINGS SHALL CONFORM TO TXDOT ITEM 668, "PREFABRICATED PAVEMENT MARKINGS."

ALL RAISED PAVEMENT MARKERS SHALL CONFORM TO TXDOT ITEM 672, "RAISED PAVEMENT MARKERS."

THE FINAL LONGITUDINAL STRIPING SHALL BE 120 MIL (0.120") THICK HOT-SPRAYED THERMOPLASTIC PLACED OVER THE TEMPORARY STRIPING. IF TEMPORARY STRIPING IS USED, OR TO FOLLOW THE TEMPORARY REFLECTIVE-FLEXIBLE ROADWAY TABS 14 TO 30 CALENDAR DAYS AFTER THE COMPLETION OF THE FINAL PAVEMENT SURFACING, OR AS DIRECTED BY THE PROJECT ENGINEER. ALL OTHER PAVEMENT MARKINGS SHALL BE APPLIED AT THE SAME TIME. TEMPORARY STRIPING SHALL BE WATER BASED PAINT.

ALL FINAL TRANSVERSE PAVEMENT MARKINGS SHALL BE 120 MIL (0.120") THICK HOT-SPRAYED THERMOPLASTIC. ALL PAVEMENT ARROWS AND OTHER SYMBOLS SHALL BE PREFABRICATED THERMOPLASTIC APPLICATIONS UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

PRIOR TO THE INSTALLATION OF THE FINAL PAVEMENT SURFACE, THE CONTRACTOR MUST REMOVE/OBLITERATE ALL EXISTING RAISED PAVEMENT MARKINGS (RPMS) IN THE WORK AREA IN ACCORDANCE WITH THE CITY OF SAN ANGELO STANDARDS AND SPECIFICATIONS ITEMS 900 AND 901. ALL MECHANICAL REMOVAL METHODS AND SEALING OF PAVEMENT MARKINGS ON CONCRETE SURFACES SHALL BE SUBSIDIARY TO THE PLACEMENT OF PAVEMENT MARKINGS AND MARKERS.

ALL RAISED PAVEMENT MARKERS (RPMS) SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW. TYPE C PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE CLEAR FACE OF EACH MARKER IS FACING THE APPROACHING TRAFFIC AND PERPENDICULAR TO THE DIRECTION OF TRAFFIC. ALL PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE TO TXDOT STANDARD SHEETS PM (1) - 12, PM (2) - 12, AND PM (3) - 12.

**6.12. STORM WATER POLLUTION PREVENTION PLAN**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND COMPLYING WITH THE REQUIREMENTS THEREOF FOR THE PROJECT.

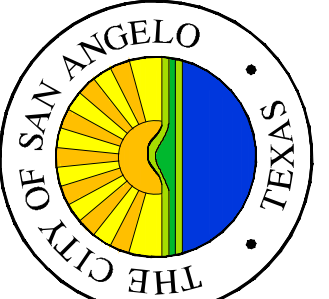
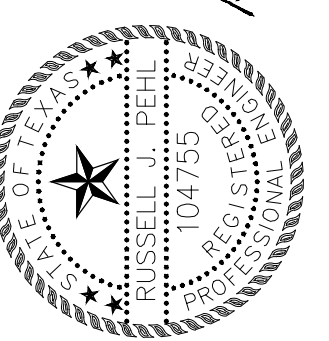
THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL BMPs TO PREVENT SEDIMENT FROM REACHING PAVED AREAS, STORM SEWERS SYSTEMS, DRAINAGE COURSES, AND ADJACENT PROPERTIES. IN THE EVENT THE PREVENTION MEASURES ARE NOT EFFECTIVE, THE CONTRACTOR SHALL REMOVE ALL DEBRIS, SILT OR MUD AND RESTORE THE RIGHT-OF-WAY OR ORIGINAL PROPERTIES TO A CONDITION AS GOOD AS, OR BETTER THAN, THAT PRESENT PRIOR.

**6.13. MATERIALS TESTING**

THE CONTRACTOR SHALL PROVIDE TEST REPORTS SHOWING THAT ALL AGGREGATE MEETS THE REQUIREMENTS OF TXDOT ITEM 302, "AGGREGATE FOR SURFACE TREATMENTS" AND ITEM 300, "ASPHALT, OILS, AND EMULSIONS."

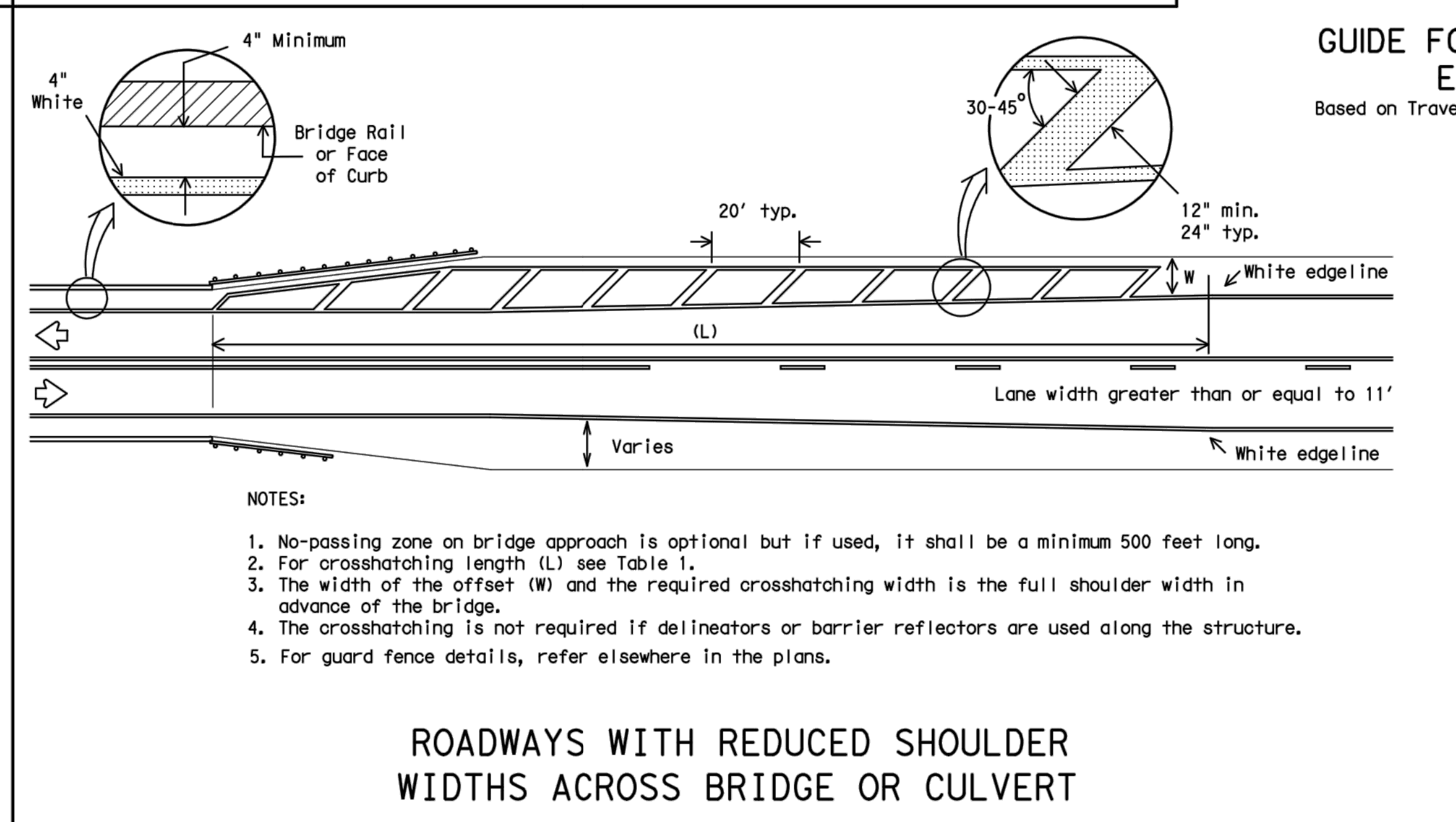
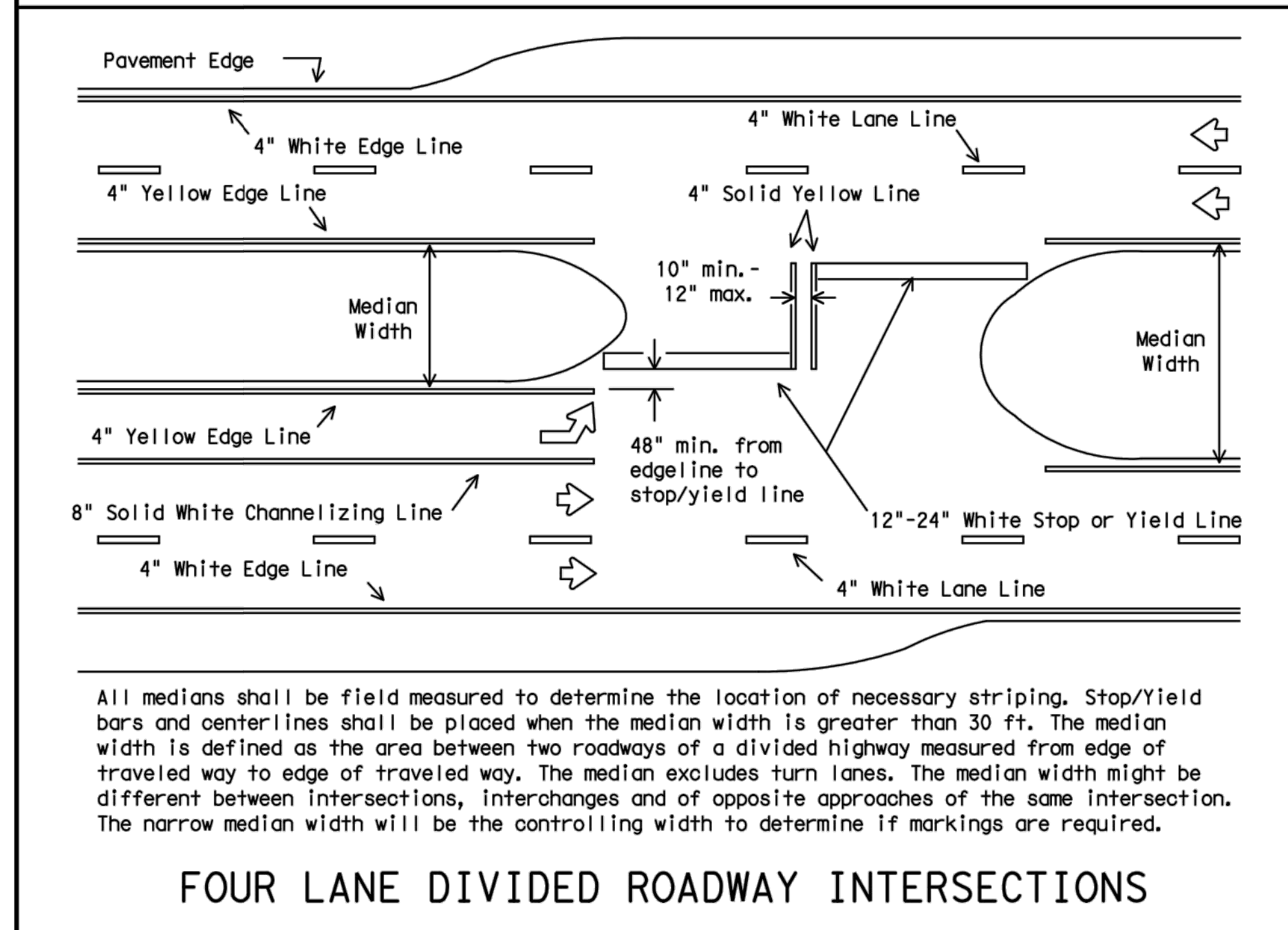
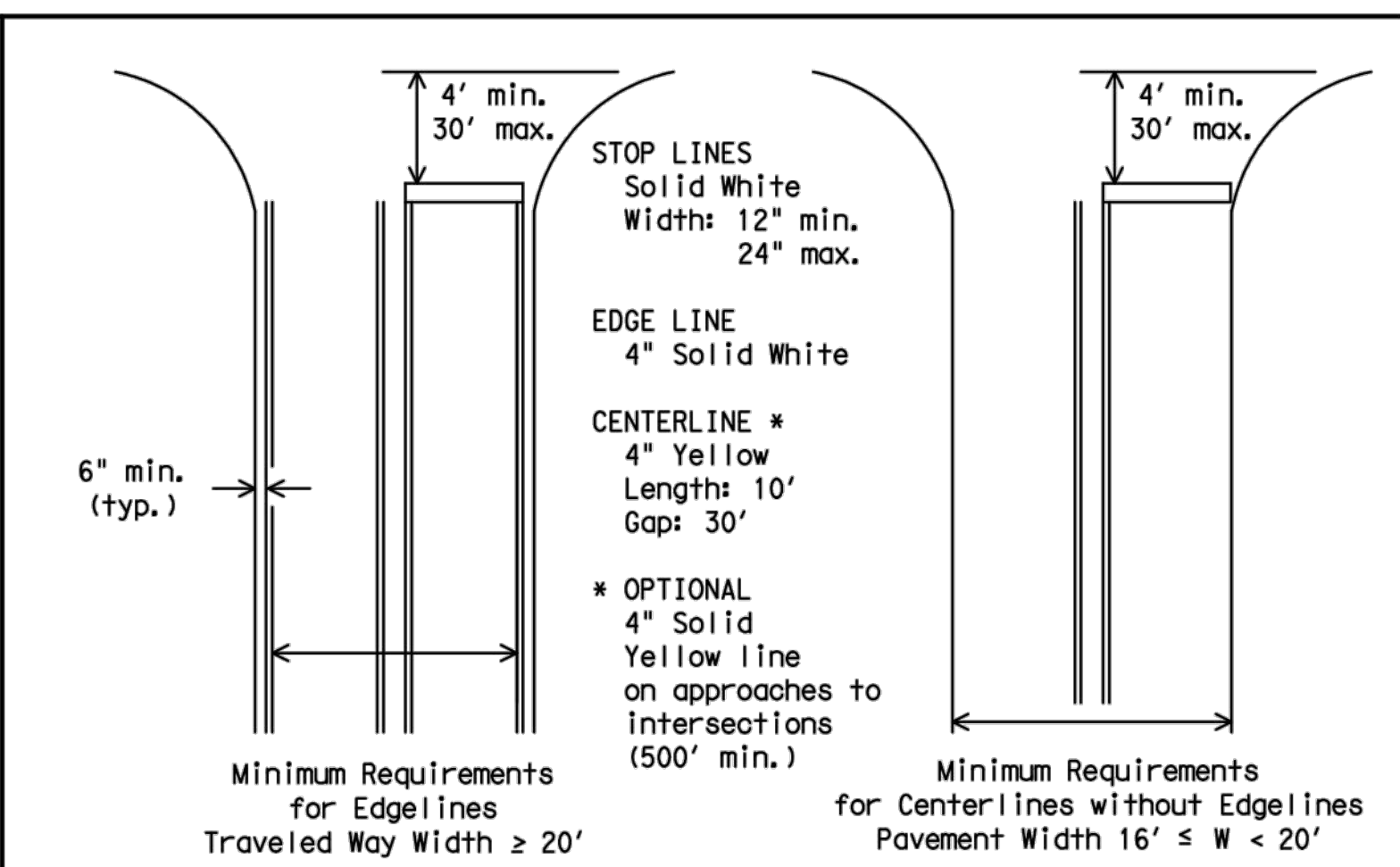
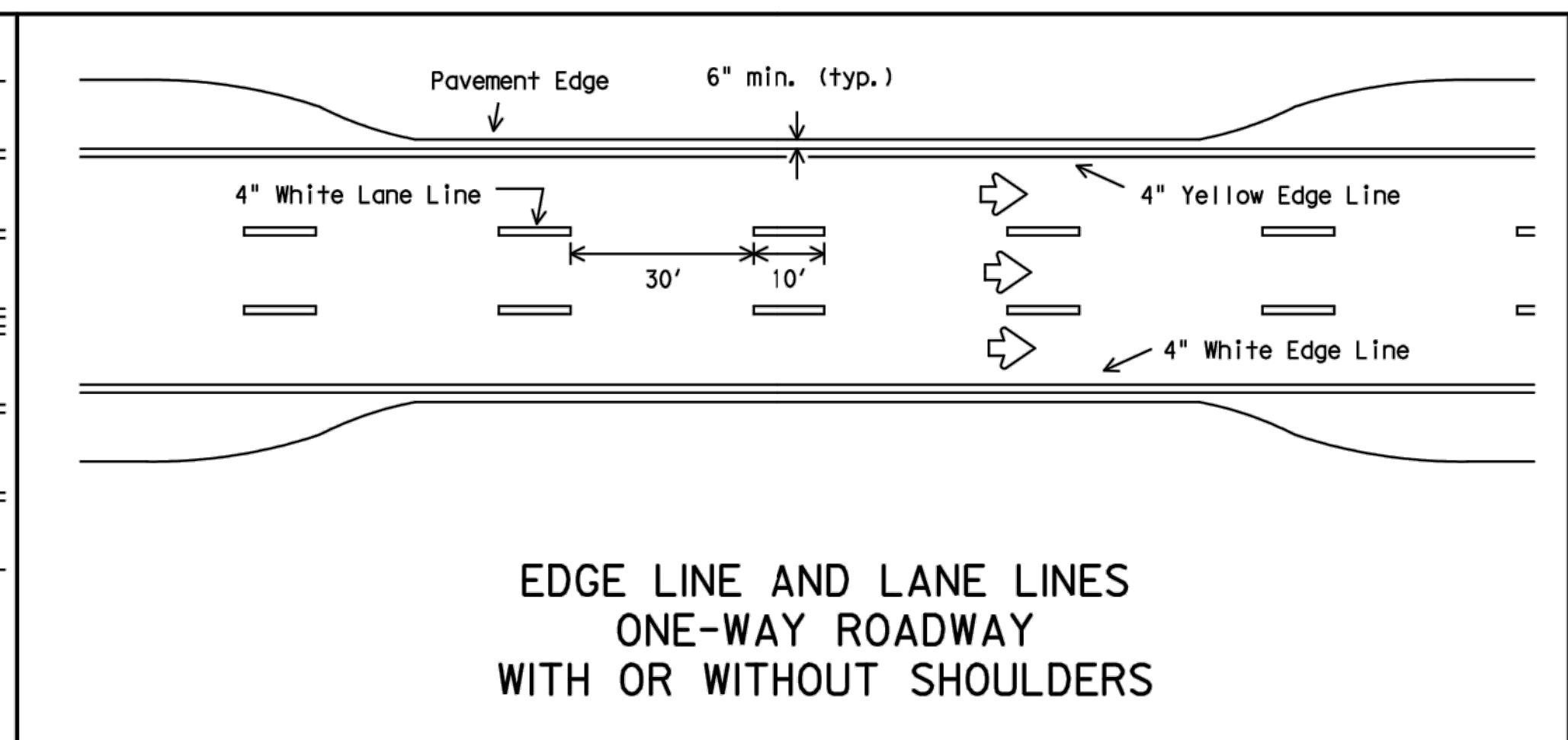
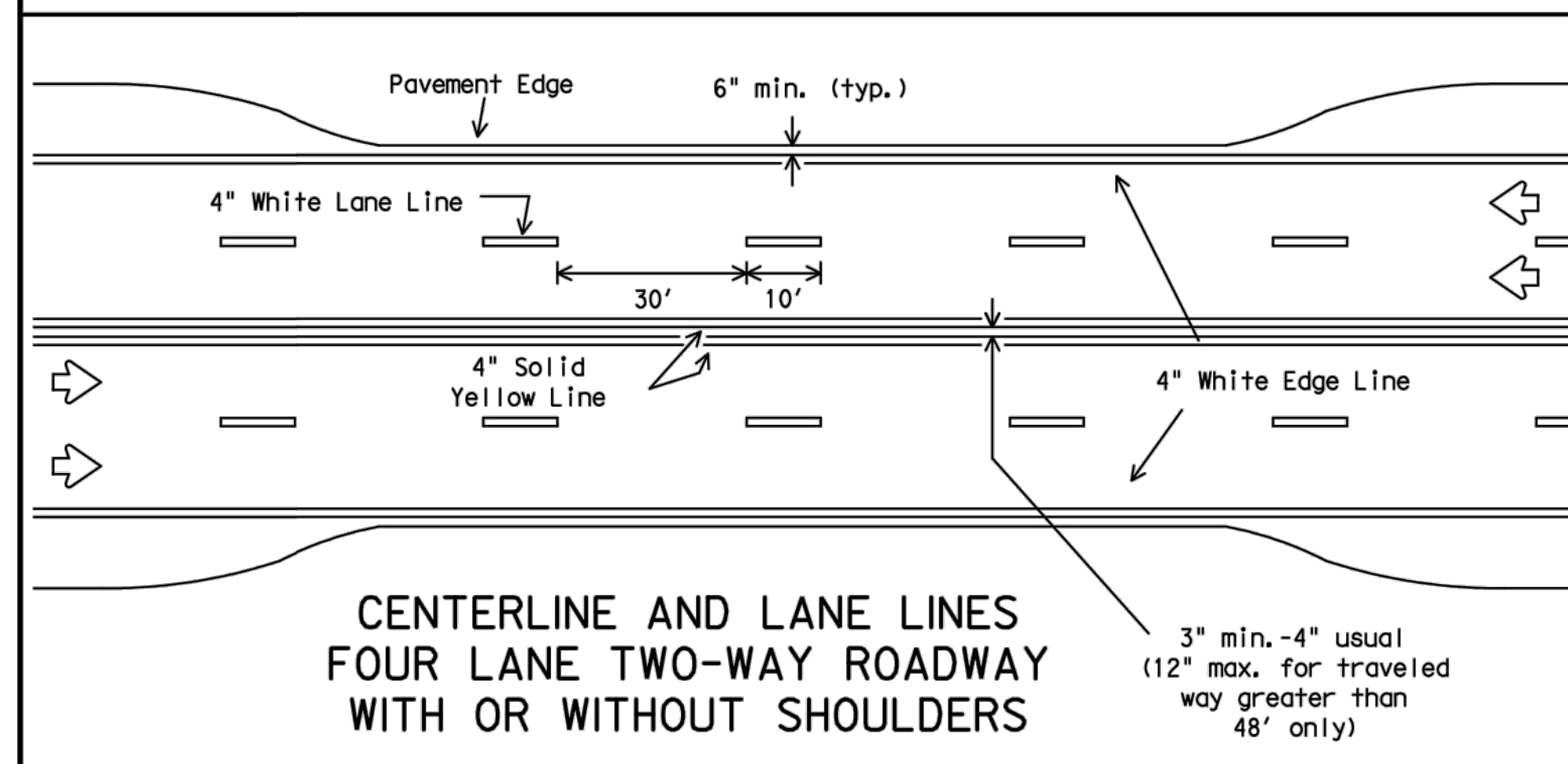
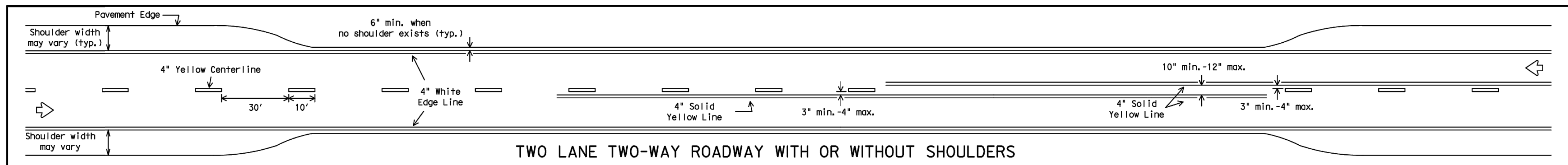
THE CONTRACTOR SHALL PROVIDE A MANIFEST FOR EACH ASPHALT LOAD DELIVERED TO THE PROJECT.

THE CITY MAY PERFORM ADDITIONAL TESTING FOR QUALITY CONTROL.

 <p>CITY OF SAN ANGELO ENGINEERING SERVICES</p> <p>CITY HALL ANNEX 301 W. BEAUREGARD AVE. SAN ANGELO, TX. 76903 (325) 657-4201 www.cosatx.us</p>		<p>DATE</p>
<p>DESCRIPTION</p>	<p>NO</p>	<p>DATE</p>
<p>The Seal appearing on this document was authorized by Russell J. Pehi, P.E. 104795 on 10/26/2018 by Russell J. Pehi, P.E. 104795 on 10/26/2018</p> <p><i>Russell J. Pehi</i></p> 		
<p>ES-03-19</p>	<p>GENERAL NOTES</p> <p>2019 SEALCOAT CONSTRUCTION</p> <p>PROJECT NO: 2018-3-487</p> <p>DESIGN BY: M.G.</p> <p>DRAWN BY: M.T.</p>	<p>N.T.S.</p> <p>10/26/18</p> <p>ARCHIVE NO: R-1918-1</p> <p>SHEET NO: C-001</p> <p>2 OF 10</p>



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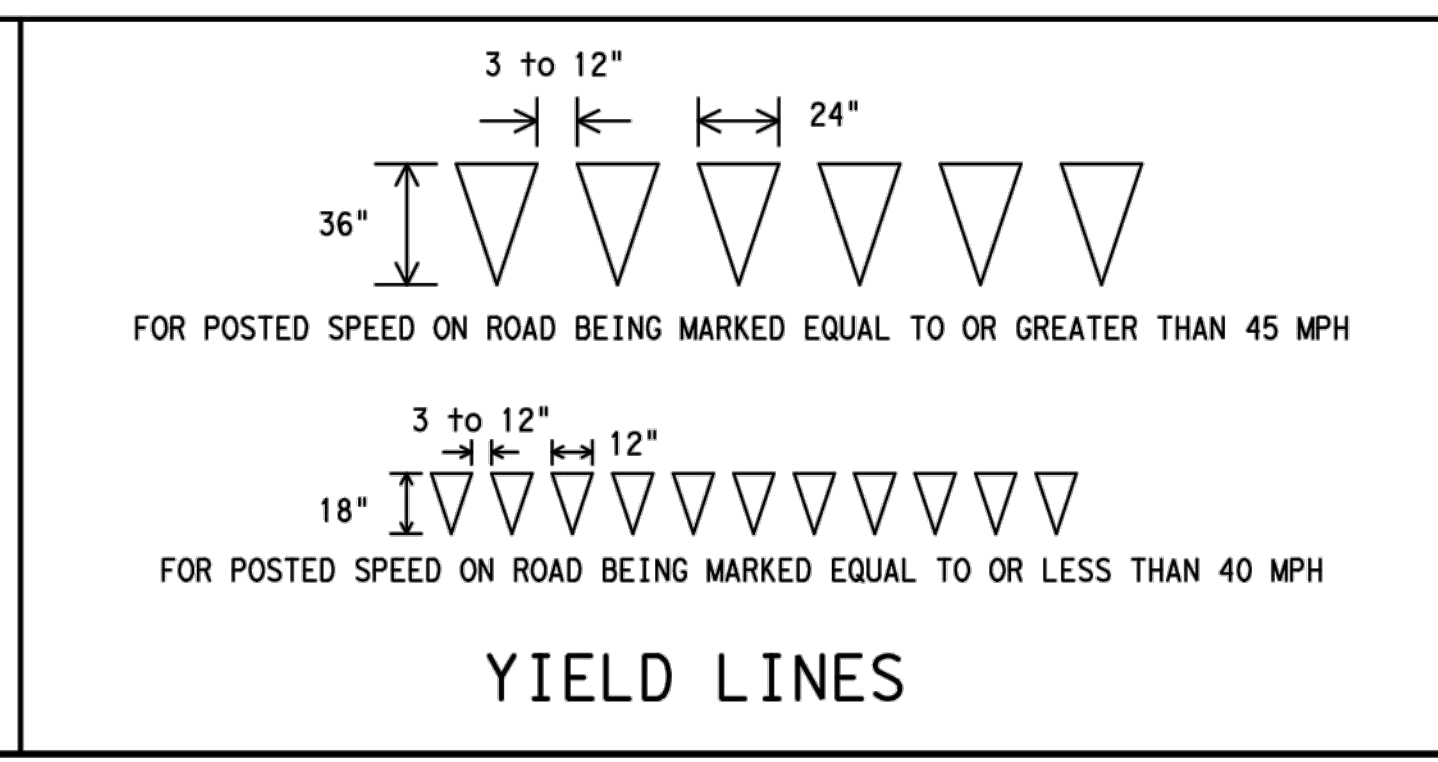


**GENERAL NOTES**

- Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should typically be placed a minimum of 6 inches from the edge of pavement. This distance may vary due to pavement raveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
- The traveled way includes only that portion of the roadway used for vehicular travel and not the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



**GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE**  
Based on Traveled Way and Pavement Widths for Undivided Highways

**TABLE 1 - TYPICAL LENGTH (L)**

Posted Speed	Formula
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$

\* 85th Percentile Speed may be used on roads where traffic speeds normally exceed the posted speed limit. Crosshatching length should be rounded up to nearest 5 foot increment.  
L=Length of Crosshatching (FT.) W=Width of Offset (FT.) S=Posted Speed (MPH)

**EXAMPLES:**

An 8 foot shoulder in advance of a bridge reduces to 4 feet on a 70 MPH roadway. The length of the crosshatching should be:  
 $L = 8 \times 70 = 560$  ft.

A 4 foot shoulder in advance of a bridge reduces to 2 feet on a 40 MPH roadway. The length of the crosshatching should be:  
 $L = 4(40)^2 / 60 = 106.67$  ft. rounded to 110 ft.

Texas Department of Transportation  
Traffic Operations Division

**TYPICAL STANDARD PAVEMENT MARKINGS**  
PM(1)-12

© TxDOT November 1978

REVISIONS	CONT	SECT	JOB	HIGHWAY
8-95 2-12				
5-00				
8-00				
3-03				

SCALE: N.T.S. DATE: 10/26/18 ARCHIVE NO: R-1918-2 SHEET NO. C-002 3 OF 10

CITY OF SAN ANGELO ENGINEERING SERVICES  
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SAN ANGELO, TX. 76903  
(325) 657-4201  
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THE CITY OF SAN ANGELO TEXAS

NO	DESCRIPTION	DATE

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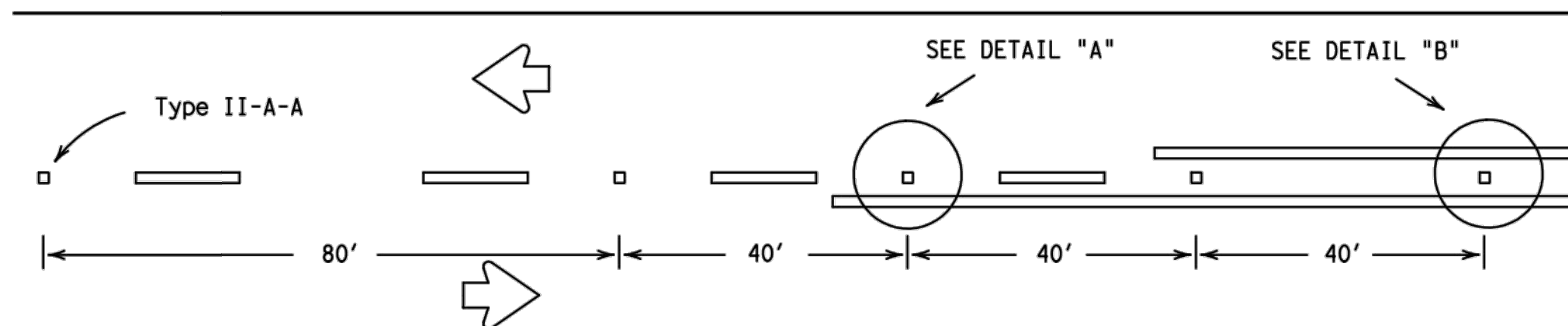
Russell J. Pehl, P.E. REGISTERED PROFESSIONAL ENGINEER

ES-03-19  
DETAIL SHEET - 1  
2019 SEALCOAT CONSTRUCTION  
PROJECT NO: 2018-3-487  
DESIGN BY: M.G.  
DRAWN BY: M.T.

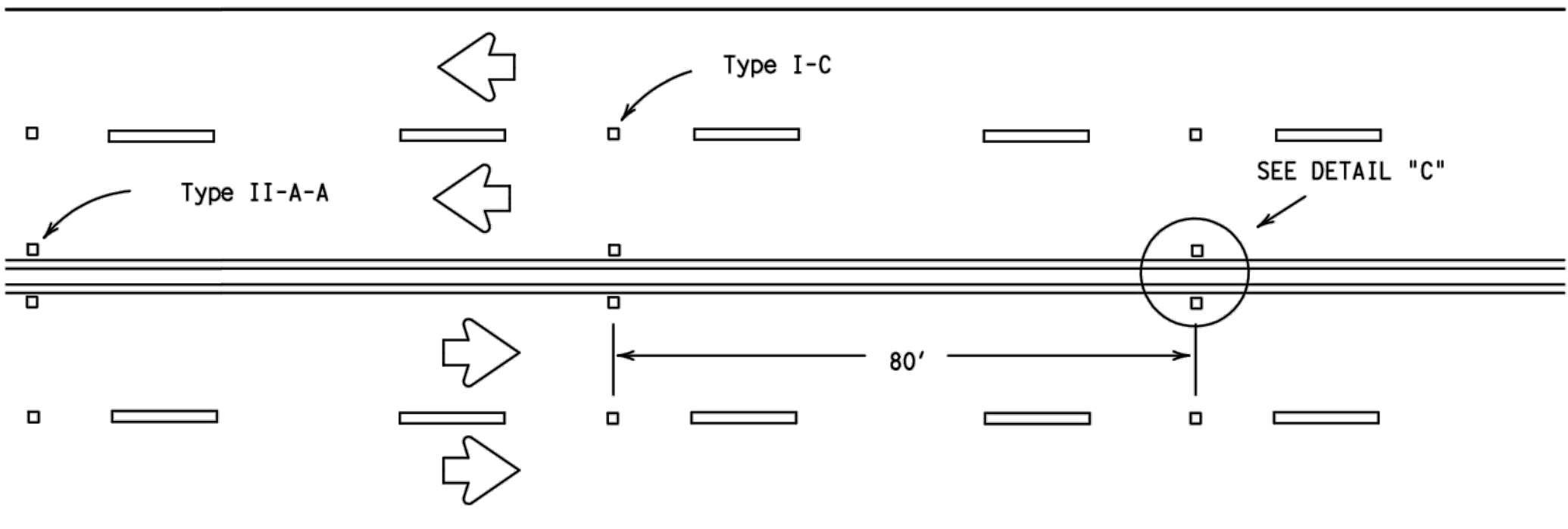


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## REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE

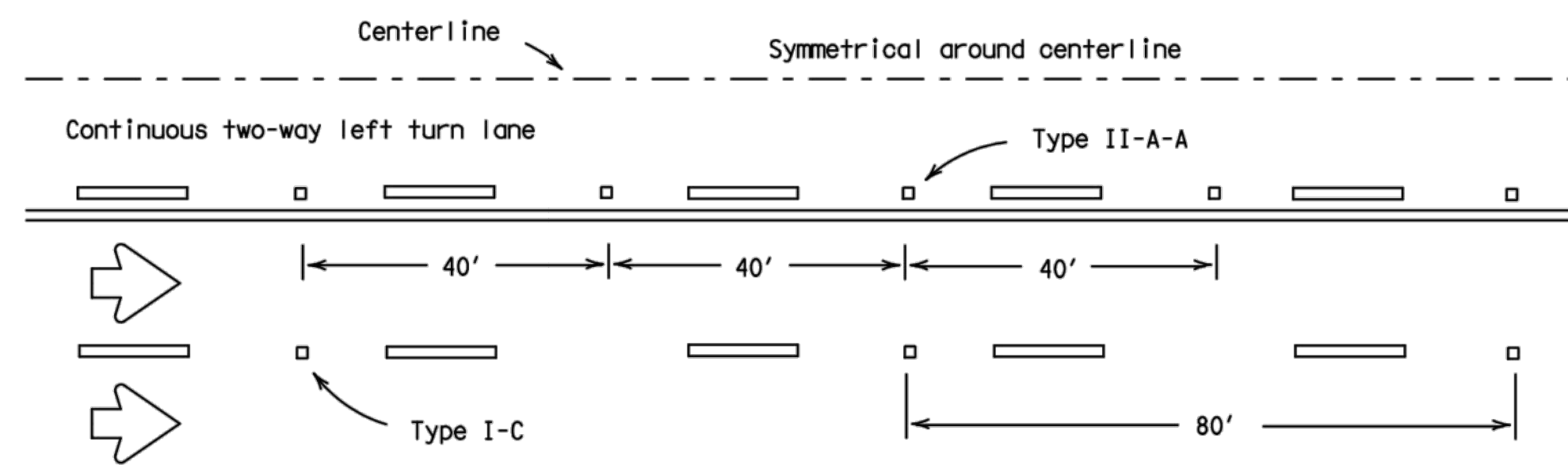


CENTERLINE FOR ALL TWO LANE ROADWAYS

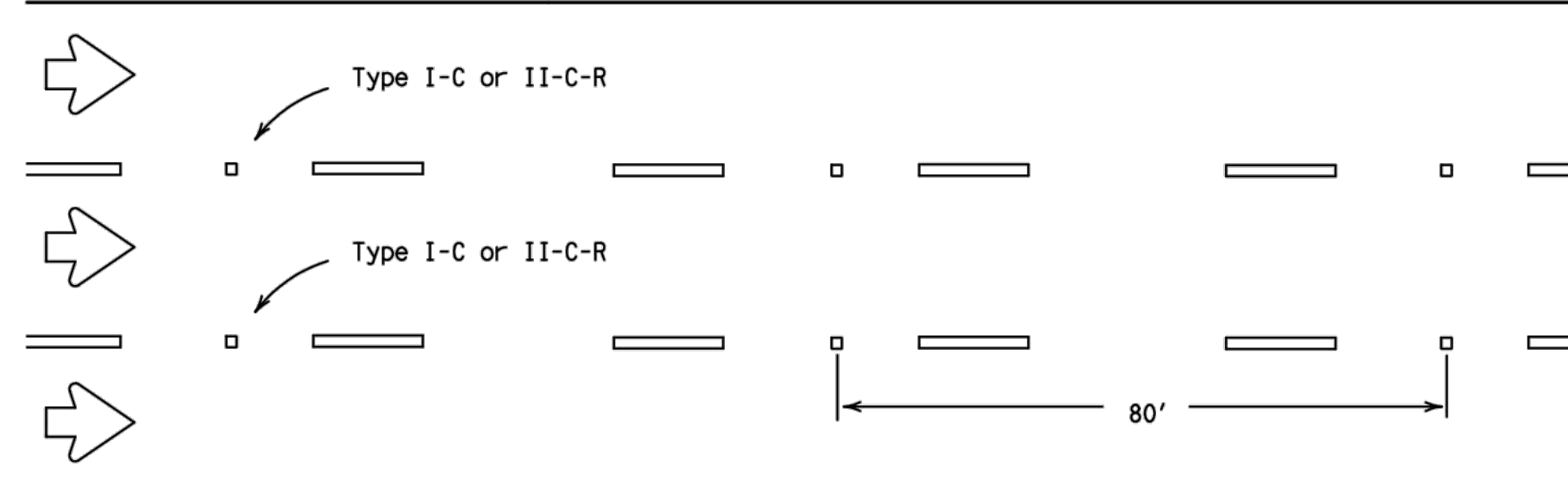


CENTERLINE & LANE LINES FOR FOUR LANE TWO-WAY HIGHWAYS

Raised pavement marker Type I-C, clear face toward normal traffic, shall be placed on 80-foot centers.

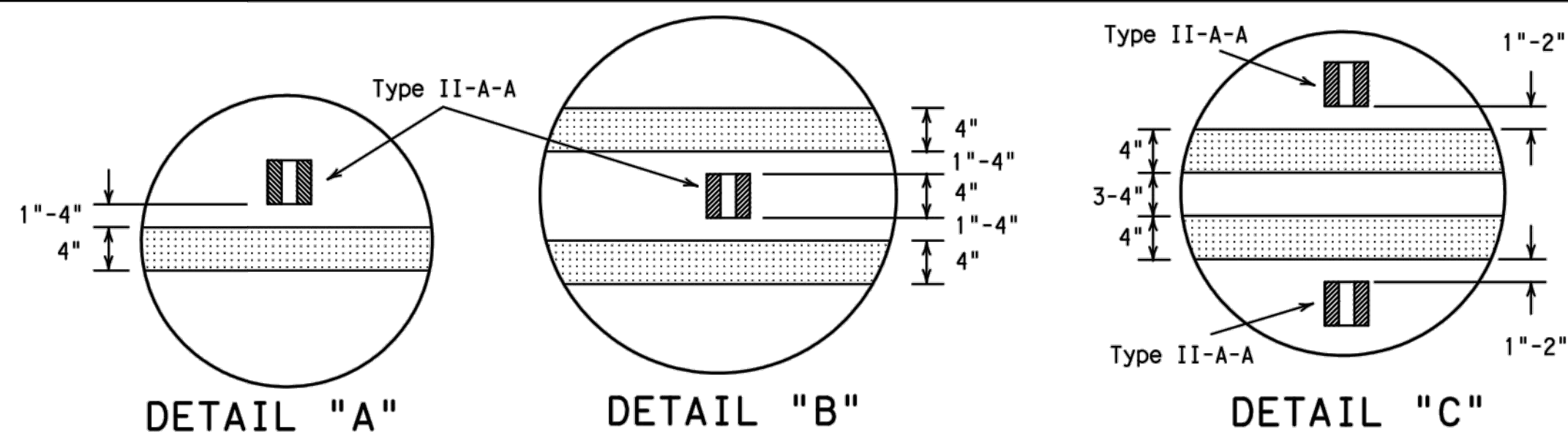


CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE



LANE LINES FOR ONE-WAY ROADWAY (NON-FREEWAY FACILITIES)

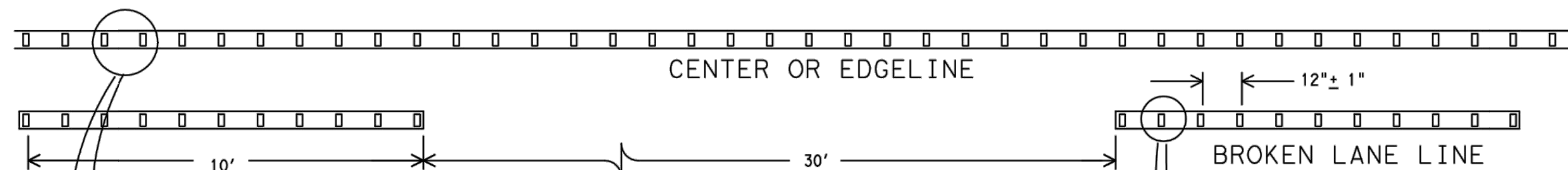
Raised pavement markers Type II-C-R shall have clear face toward normal traffic and red face toward wrong-way traffic.



DETAIL "A"

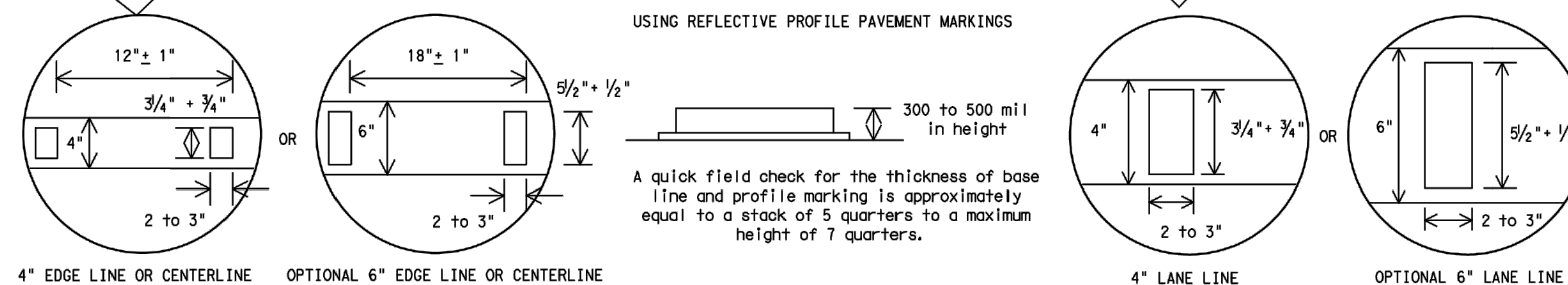
DETAIL "B"

DETAIL "C"



### REFLECTORIZED PROFILE PATTERN DETAIL

USING REFLECTORIZED PROFILE PAVEMENT MARKINGS



**NOTE:**  
Profile markings shall not be placed on roadways with a posted speed limit of 45 MPH or less.

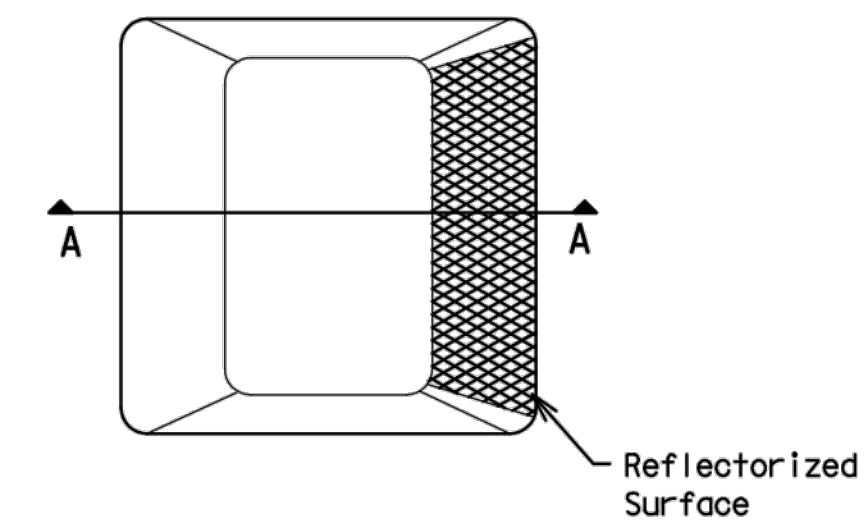
### GENERAL NOTES

- All raised pavement markers placed in broken lines shall be placed in line with and midway between the stripes.
- On concrete pavements the raised pavement markers should be placed to one side of the longitudinal joints.

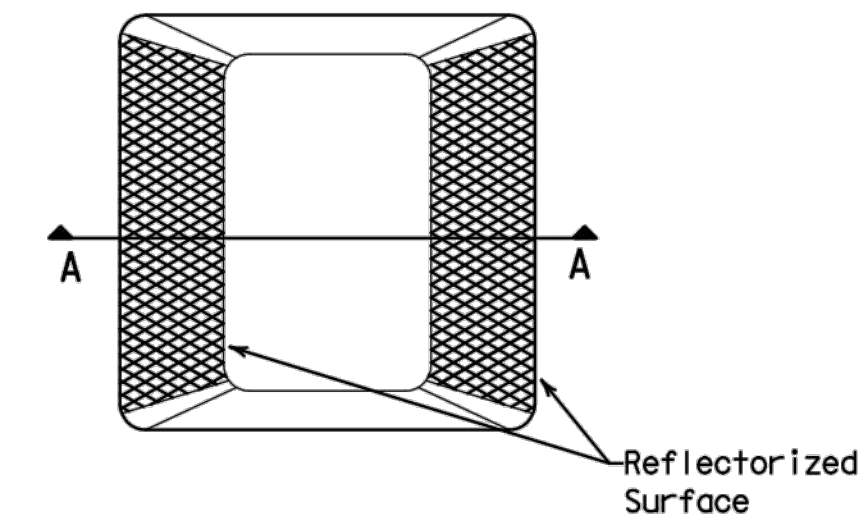
### MATERIAL SPECIFICATIONS

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

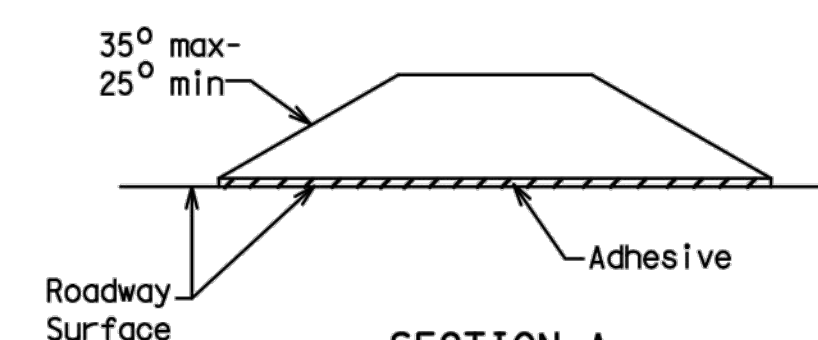
All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



Type I (Top View)



Type II (Top View)



SECTION A

### RAISED PAVEMENT MARKERS

Texas Department of Transportation  
Traffic Operations Division

### POSITION GUIDANCE USING RAISED MARKERS REFLECTORIZED PROFILE MARKINGS

PM(2) - 12

© TxDOT April 1977	DIST	CONTRACT	SECTION	JOB	COUNTY	SHEET NO.
REVISIONS	CONT	SECT	JOB	COUNTY	SHEET NO.	
4-92 2-10						
5-00 2-12						
8-00						
2-08						

22B

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DATE	DESCRIPTION	NO

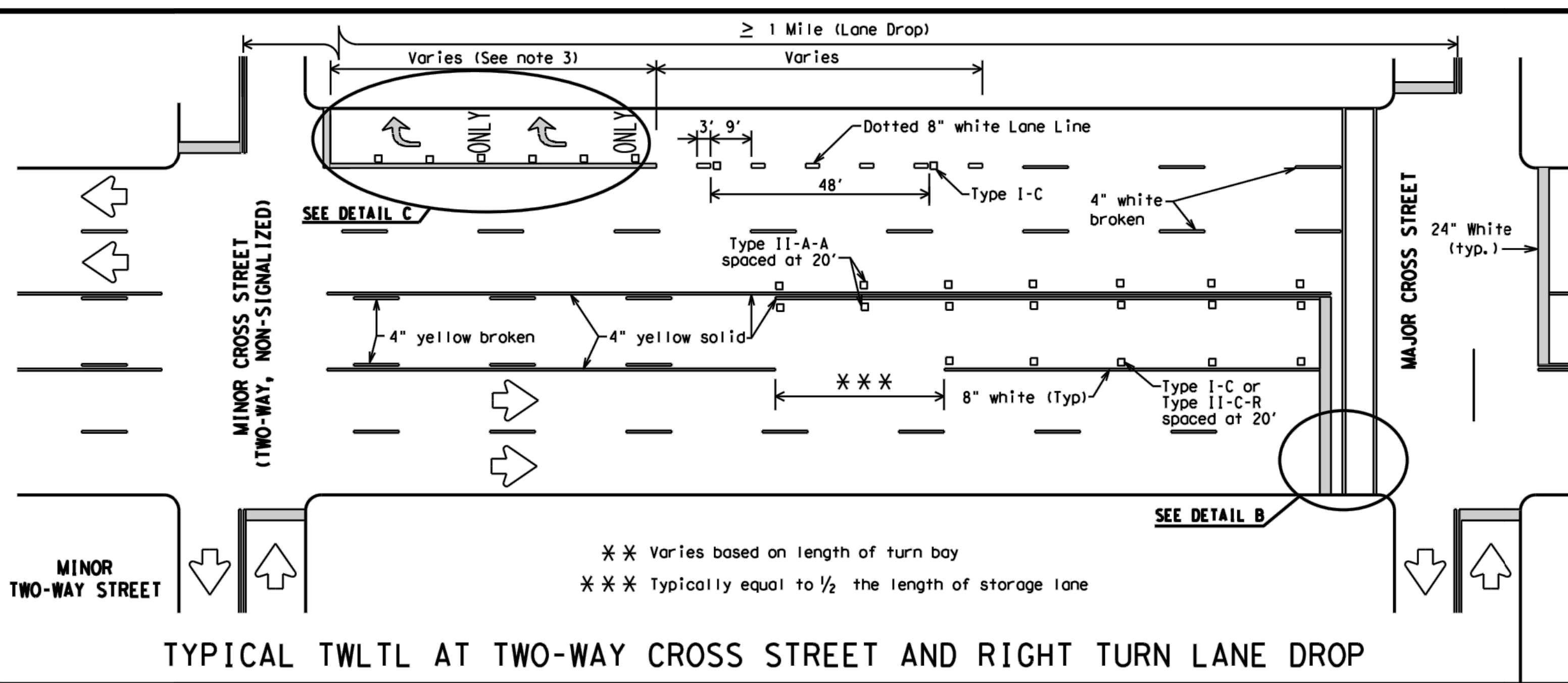
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Russell J. Pehi, P.E.  
Professional Engineer  
04795  
Professional Seal  
Texas State Board of Engineering Examiners

ES-03-19  
DETAIL SHEET - 2  
2019 SEALCOAT CONSTRUCTION  
PROJECT NO: 2018-3-487  
DESIGN BY: M.G.  
DRAWN BY: M.T.

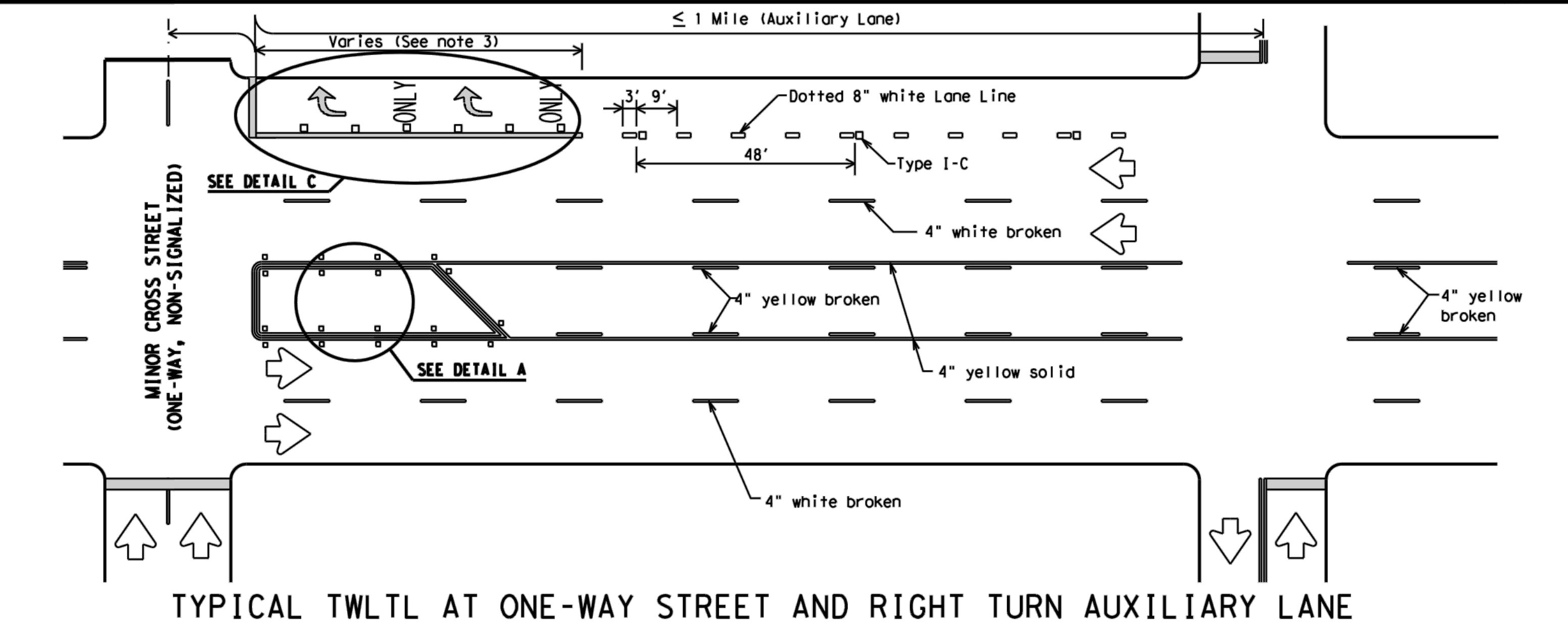
SCALE: N.T.S.  
DATE: 10/26/18  
ARCHIVE NO: R-1918-3  
SHEET NO. C-003  
4 OF 10



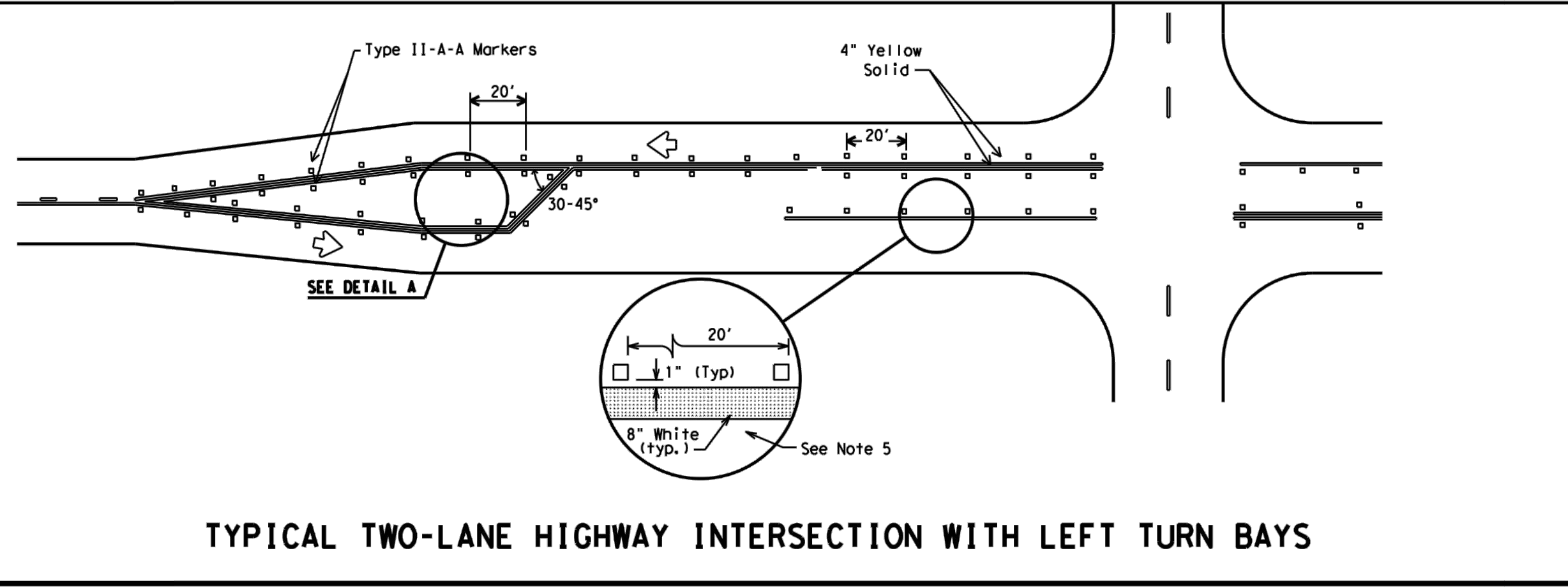
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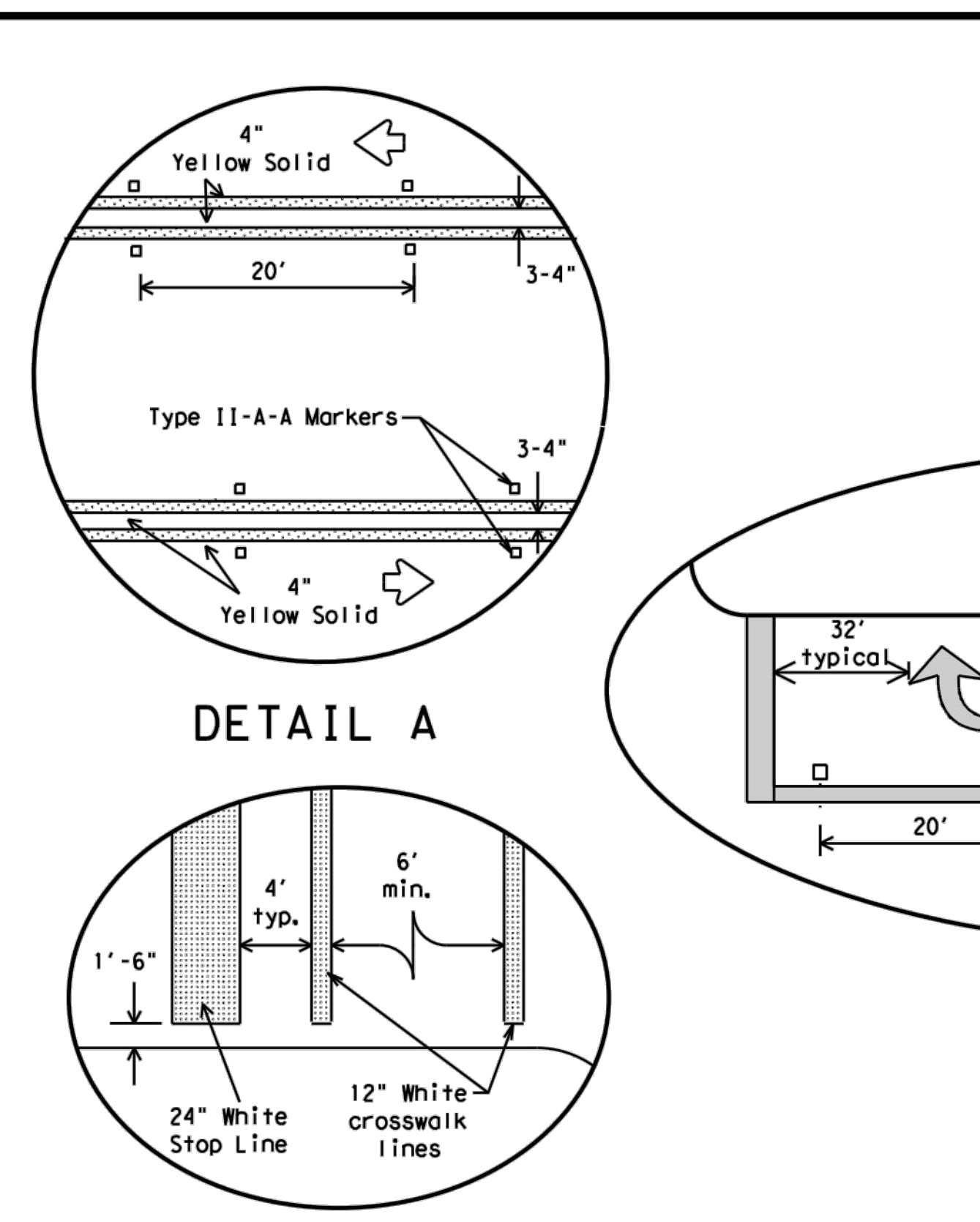
TYPICAL TWLTL AT TWO-WAY CROSS STREET AND RIGHT TURN LANE DROP



TYPICAL TWLTL AT ONE-WAY STREET AND RIGHT TURN AUXILIARY LANE



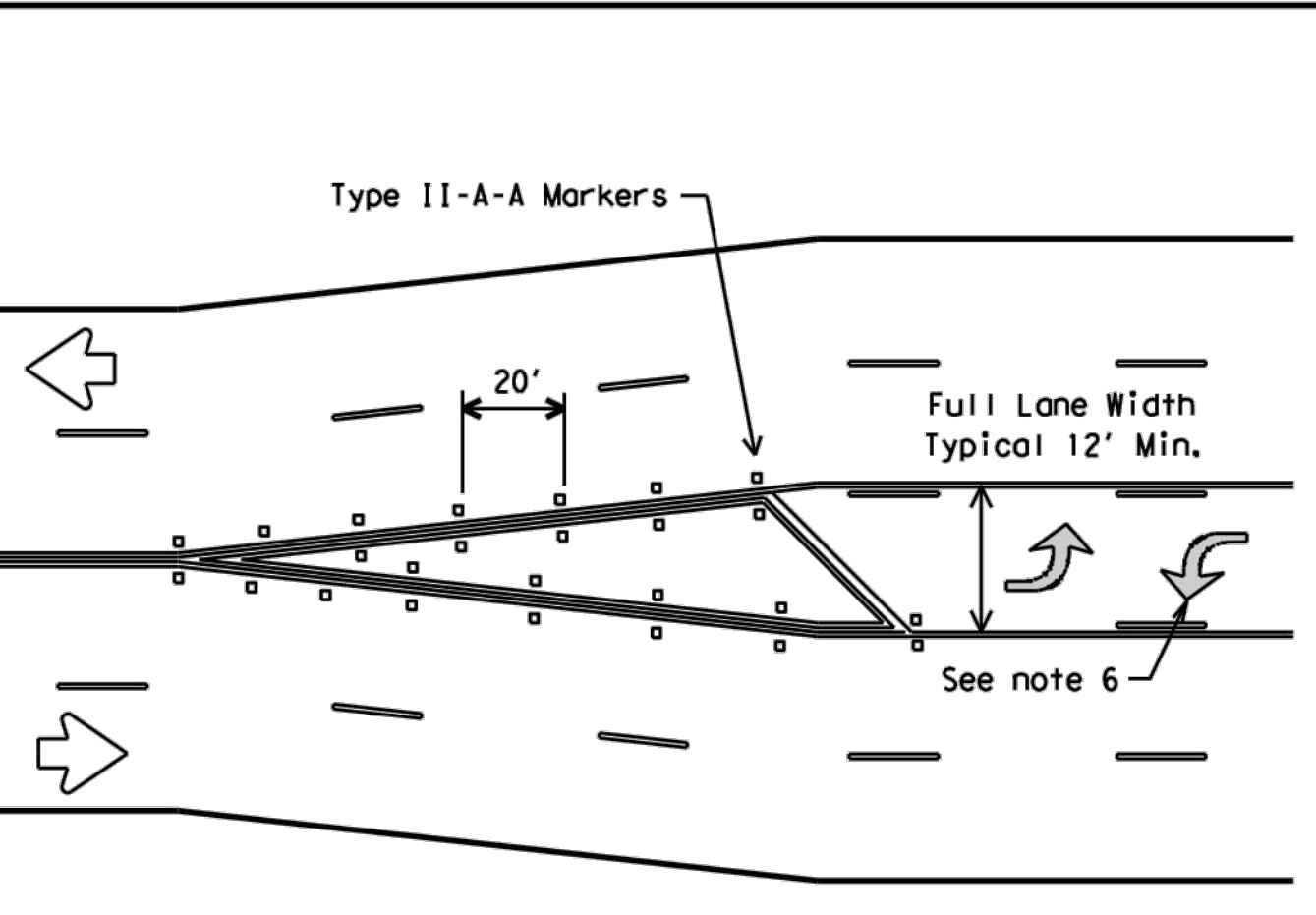
TYPICAL TWO-LANE HIGHWAY INTERSECTION WITH LEFT TURN BAYS



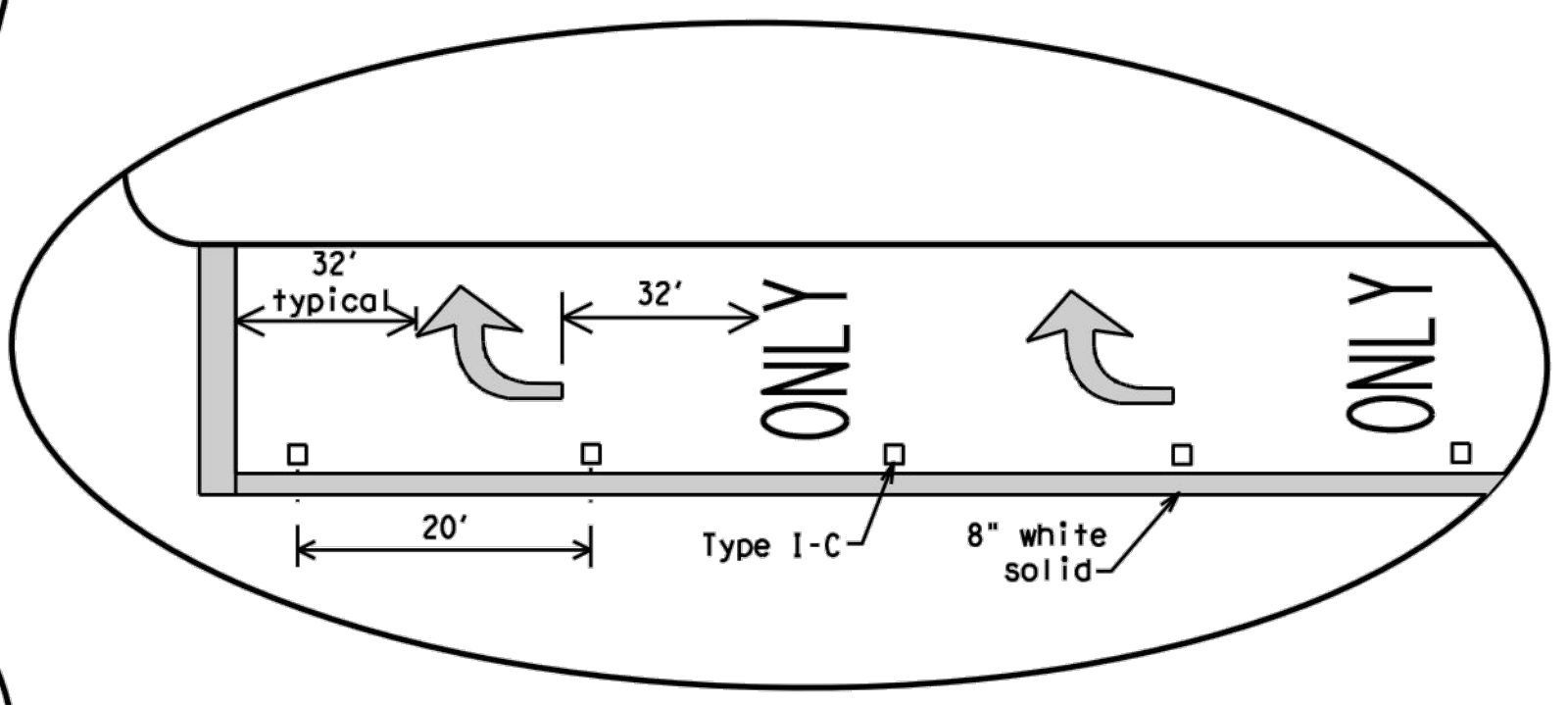
Final placement of Stop Bar and Crosswalk shall be approved by the Engineer in the field.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



TYPICAL TRANSITION FOR TWLTL AND DIVIDED HIGHWAY



DETAIL C

- GENERAL NOTES**
- Refer elsewhere in plans for additional RPM placement and details.
  - Lane use word and arrow markings shall be used where through lanes approaching an intersection become mandatory turn lanes. Lane use word and arrow markings should be used in auxiliary lanes of substantial length. Lane use arrow markings or word and arrow markings may be used in other lanes and turn bays for emphasis. Details for words and arrows as shown in the Standard Highway Sign Designs for Texas.
  - When lane used word and arrow markings are used, two sets of arrows should be used if the length of the bay is greater than 180 feet. When a single lane use arrow or word and arrow marking is used for a short turn lane, it should be located at or near the upstream end of the full-width turn lane.
  - Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used.
  - Raised pavement marker Type I-C with undivided highways, flush medians and two way left turn lanes. Raised pavement marker Type II-C-R with divided highways and raised medians.
  - A two-way left-turn (TWLTL) lane-use arrow pavement marking should be used at or just downstream from the beginning of a two-way left-turn lane within a corridor. Repeating the marking after each intersection or dedicated turn bay is not required unless stated elsewhere in the plans.

**Texas Department of Transportation**  
Traffic Operations Division

**PAVEMENT MARKINGS FOR TWO-WAY LEFT TURN LANES DIVIDED HIGHWAYS AND RURAL LEFT TURN BAYS**  
PM(3)-12

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5-00	2-12	REVISONS	CONT	SECT	JOB	HIGHWAY
8-00						
3-03			DIST	COUNTY		SHEET NO.
2-10						

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NO	DESCRIPTION	DATE

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*Russell J. Pelt*

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DATE:	10/26/18
ARCHIVE NO.:	R-1918-4
SHEET NO.:	C-004
PROJECT NO.:	2018-3-487
DESIGN BY:	M.G.
DRAWN BY:	M.T.
DETAIL SHEET - 3	
2019 SEALCOAT CONSTRUCTION	
ES-03-19	
5 OF 10	



Base Bid General Quantities				
ITEM	CODE	DESCRIPTION	UNITS	EST. QTY.
1	0500 6001	MOBILIZATION(10%)	LS	1
2	0316 6126	AGGR(TY-PB GR-4 SAC-A) or SAC-B (Circle one)	CY	12,332
3	0316 6048	ASPH (AC-20-5TR)	GAL	542,603
4	0666 6006	REFL PAV MRK TY I (W) 4" (BRK) (100MIL)	LF	5,990
5	667 6006	REFL PAV MRK TY I (W) 4" (SLD) (100MIL)	LF	3,336
6	0666 6027	REFL PAV MRK TY I (W) 8" (SLD) (100MIL)	LF	2,857
7	0666 6078	REFL PAV MRK TY I (W)(WORD 'ONLY')(100MIL)	EA	20
8	0666 6123	REFL PAV MRK TY I (Y) 4" (BRK) (100MIL)	LF	5,676
9	0666 6123	REFL PAV MRK TY I (Y) 4" (SLD) (100MIL)	LF	33,575
10	0666 6042	REFL PAV MRK TY I (W) 12" (SLD) (100MIL)	LF	969
11	0666 6045	REFL PAV MRK TY I (W) 18" (SLD) (100MIL)	LF	165
12	0666 6048	REFL PAV MRK TY I (W) 24" (SLD) (100MIL)	LF	989
13	0666 6147	REFL PAV MRK TY I (Y) 24" (SLD) (100MIL)	LF	41
14	666 6105	REFL PAV MRK TY I (W) (BIKE SYMBOL) (100 MIL)	EA	5
15	0666 6105	REFL PAV MRK TY I (W) (BIKE ARROW) (100MIL)	EA	5
16	0666 6054	REFL PAV MRK TY I (W) (ARROW) (100MIL)	EA	13
17	0667 6057	REFL PAV MRK TY I (W) (DBL ARROW) (100MIL)	EA	4
18	0666 6093	REFL PAV MRK TY I (W) (RR XING) (100MIL)	EA	8
19	0672 6007	REFL PAV MRKR TY I-C	EA	1,100
20	0672 6013	REFL PAV MRKR TY II-A-A	EA	1,400
21	0502 6025	BARRICADES, SIGNS, AND TRAFFIC HANDLING	MO	3
22	N/A	TOWING	EA	10

## Striping Data

### Stopbars can be found at the following intersections:

- **Base Bid**
  - o Brown St. & W. 17th St.
    - 15' NBDL of Brown St.
    - 15' SBDL of Brown St.
  - o Childress St. & Webster St. (4-Way Stop)
    - 16' each leg
  - o E. 30th St. & N. Oakes St.
    - 17' WBDL of E. 30th St.
  - o Howard St. & Junius St. (4-Way Stop)
    - 2 x 24' EBDL and WBDL of Junius St.
    - 2 x 18' NBDL and SBDL of Howard St.
  - o Juanita Ave. & Hassell St.
    - 16' EBDL of Juanita St.
  - o N Jefferson St./Forest Park Ave./Webster St.(3-Leg Y Intersection)
    - 14' SBDL of N. Jefferson St.
    - 14' SBDL of Forest Park Ave.
  - o N. Van Buren St. & Edmund St.
    - 21' SBDL of N. Van Buren St.
    - 21' NBDL of N. Van Buren St.
  - o N. Van Buren St. & Junius St.
    - 18' SBDL of N. Van Buren St.
    - 18' NBDL of N. Van Buren St.
  - o N. Van Buren St. & Webster St.
    - 18' SBDL of N. Van Buren St.
    - 18' SBDL of N. Van Buren St.
  - o W. 15th St. & Martin Luther King Dr.
    - 17' EBDL of W. 15th St.
    - 22' WBDL of W. 15th St.
  - o W. 16th St. & Martin Luther King Dr.
    - 25' EBDL of W. 16th St.
    - 25' WBDL of W. 16th St.
  - o W. 17th St. & Martin Luther King Dr.
    - 15' EBDL of W. 17th St.
    - 15' WBDL of W. 17th St.
  - o Wilson St. & N. Van Buren St.
    - 12' EBDL of Wilson St.
    - 12' WBDL of Wilson St.
  - o Stanton St./Field St./Childress St. (5-Way Stop)
    - 12' WBDL of Stanton St.
    - 12' NBDL and SBDL of Field St.
    - 2 x 16' NBDL and SBDL of Childress St.

### - Alternate 1

- o Millbrook Dr. & College Hills Blvd.
  - 26' EBDL of Millbrook Dr.
- o Old Post Rd. & Millbrook Dr.
  - 19' SBDL of Old Post Rd.

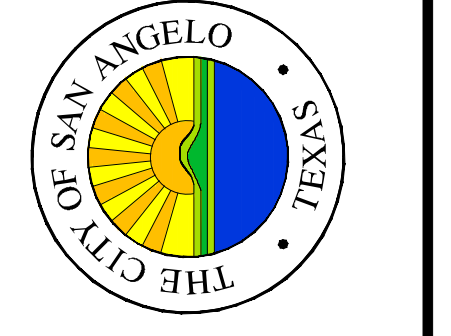
### 2' x 6' Crosswalks can be found at the general locations below:

- **Base Bid**
  - o Brown St. & W. 19th St.
    - 30' @ South Leg (Brown St.)
  - o Brown St. & W. 23rd St.
    - 30' @ North Leg (Brown St.)
  - o Brown St. & W. 24th St.
    - 45' @ West Leg (W. 24th St.)
  - o Volney St. & E. 16th St.
    - 42' @ North Leg (Volney St.)
    - 42' @ East Leg (E. 16<sup>th</sup> St.)
    - 42' @ Midblock towards E. 17th St.
  - o Volney St. & E. 17th St.
    - 42' @ West Leg (E. 17th St.)
    - 30' @ East Leg (E. 17th St.)
  - o N. Chadbourne St. & E. 17th St.
    - 66' @ East Leg (E. 17th St.)
  - o N. Oakes St. & E. 30th St.
    - 30' @ East Leg (E. 30th St.)
    - 30' @ 265' East from N. Oakes
  - o N. Oakes St. & E. 31st St.
    - 30' @ North Leg (N. Oakes St.)
  - o Howard St. & Waco St.
    - 30' @ North Leg (Howard St.)
  - o Hudson St. & W. 19th St.
    - 45' @ South Leg (Hudson St.)
  - o N. Van Buren St. & Edmund Blvd.
    - 30' @ North Leg (N. Van Buren St.)
    - 30' @ South Leg (N. Van Buren St.)
  - o N. Van Buren St. & Wilson St.
    - 30' @ North Leg (N. Van Buren St.)
    - 30' @ South Leg (N. Van Buren St.)
  - o Shelton St. & W. 19th St.
    - 36' @ South Leg (Shelton St.)
  - o N. Van Buren St. & Wilson St.
    - 30' @ East Leg (Wilson St.)

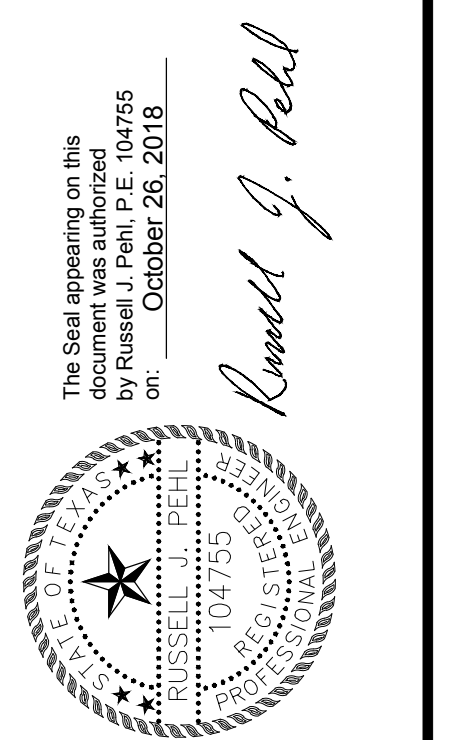
### - Alternate 1

- o Millbrook Dr. & College Hills Blvd.
  - 18' on Pavement of Millbrook Dr.
- o Millbrook Dr. & Forest Trl.
  - 54' @ East Leg (Millbrook Dr.)

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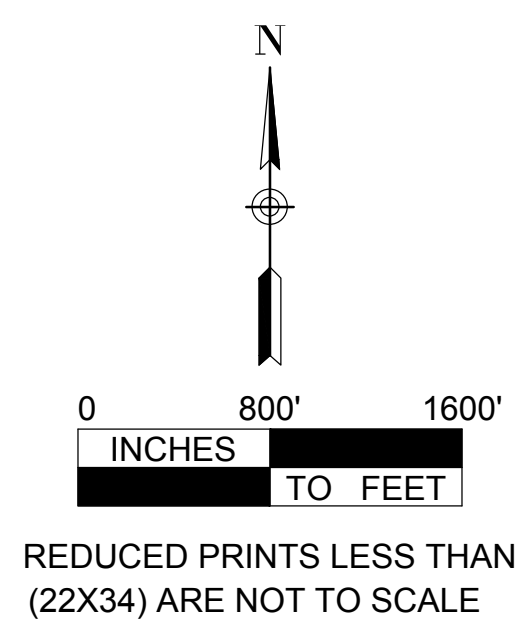
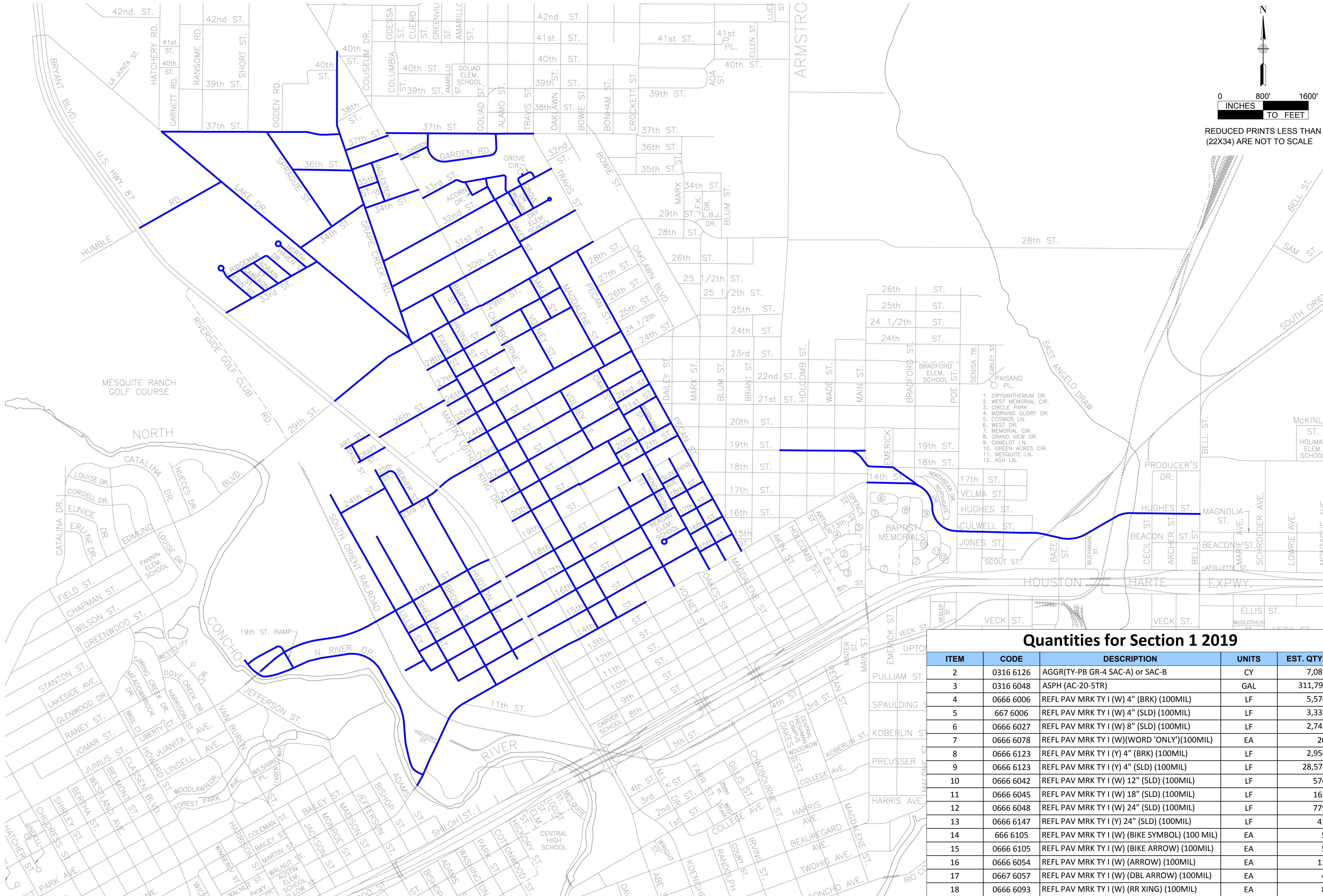
DATE	DESCRIPTION	NO



ES-03-19	ESTIMATED QUANTITIES	2019 SEALCOAT CONSTRUCTION	PROJECT NO: 2018-3-487	DESIGN BY: M.G.	DRAWN BY: M.T.
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SCALE: N.T.S.	DATE: 10/26/18	ARCHIVE NO: R-1918-5	SHEET NO. C-005	6 OF 10
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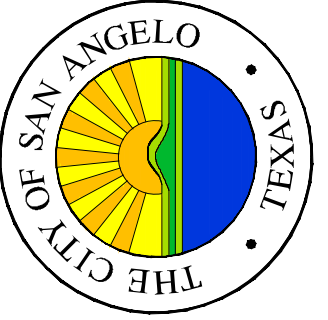


### Quantities for Section 1 2019

ITEM	CODE	DESCRIPTION	UNITS	EST. QTY.
2	0316 6126	AGGR(TY-PB GR-4 SAC-A) or SAC-B	CY	7,087
3	0316 6048	ASPH (AC-20-5TR)	GAL	311,799
4	0666 6006	REFL PAV MRK TY I (W) 4" (BRK) (100MIL)	LF	5,570
5	667 6006	REFL PAV MRK TY I (W) 4" (SLD) (100MIL)	LF	3,336
6	0666 6027	REFL PAV MRK TY I (W) 8" (SLD) (100MIL)	LF	2,745
7	0666 6078	REFL PAV MRK TY I (W)(WORD 'ONLY')(100MIL)	EA	20
8	0666 6123	REFL PAV MRK TY I (Y) 4" (BRK) (100MIL)	LF	2,950
9	0666 6123	REFL PAV MRK TY I (Y) 4" (SLD) (100MIL)	LF	28,574
10	0666 6042	REFL PAV MRK TY I (W) 12" (SLD) (100MIL)	LF	576
11	0666 6045	REFL PAV MRK TY I (W) 18" (SLD) (100MIL)	LF	165
12	0666 6048	REFL PAV MRK TY I (W) 24" (SLD) (100MIL)	LF	779
13	0666 6147	REFL PAV MRK TY I (Y) 24" (SLD) (100MIL)	LF	41
14	666 6105	REFL PAV MRK TY I (W) (BIKE SYMBOL) (100 MIL)	EA	5
15	0666 6105	REFL PAV MRK TY I (W) (BIKE ARROW) (100MIL)	EA	5
16	0666 6054	REFL PAV MRK TY I (W) (ARROW) (100MIL)	EA	11
17	0667 6057	REFL PAV MRK TY I (W) (DBL ARROW) (100MIL)	EA	4
18	0666 6093	REFL PAV MRK TY I (W) (RR XING) (100MIL)	EA	8

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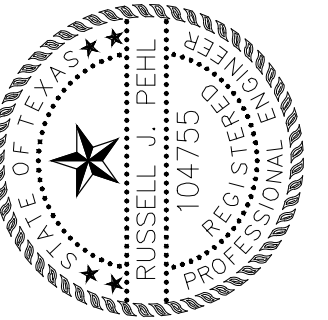


DATE: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

NO: \_\_\_\_\_

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*Russell J. Pehl*

ES-03-19

2019 SEALCOAT PLAN - SECTION 1

2019 SEALCOAT CONSTRUCTION

PROJECT NO: 2018-3-487

SHEET NO. **C-400**

SCALE: 1"=800'

DATE: 10/26/18

ARCHIVE NO: R-1918-6

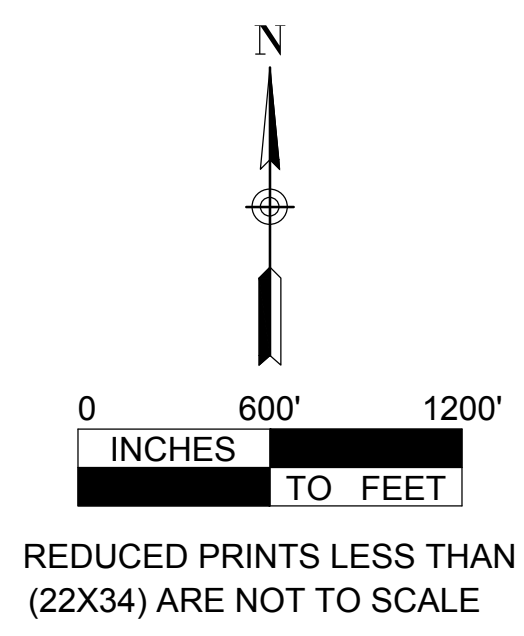
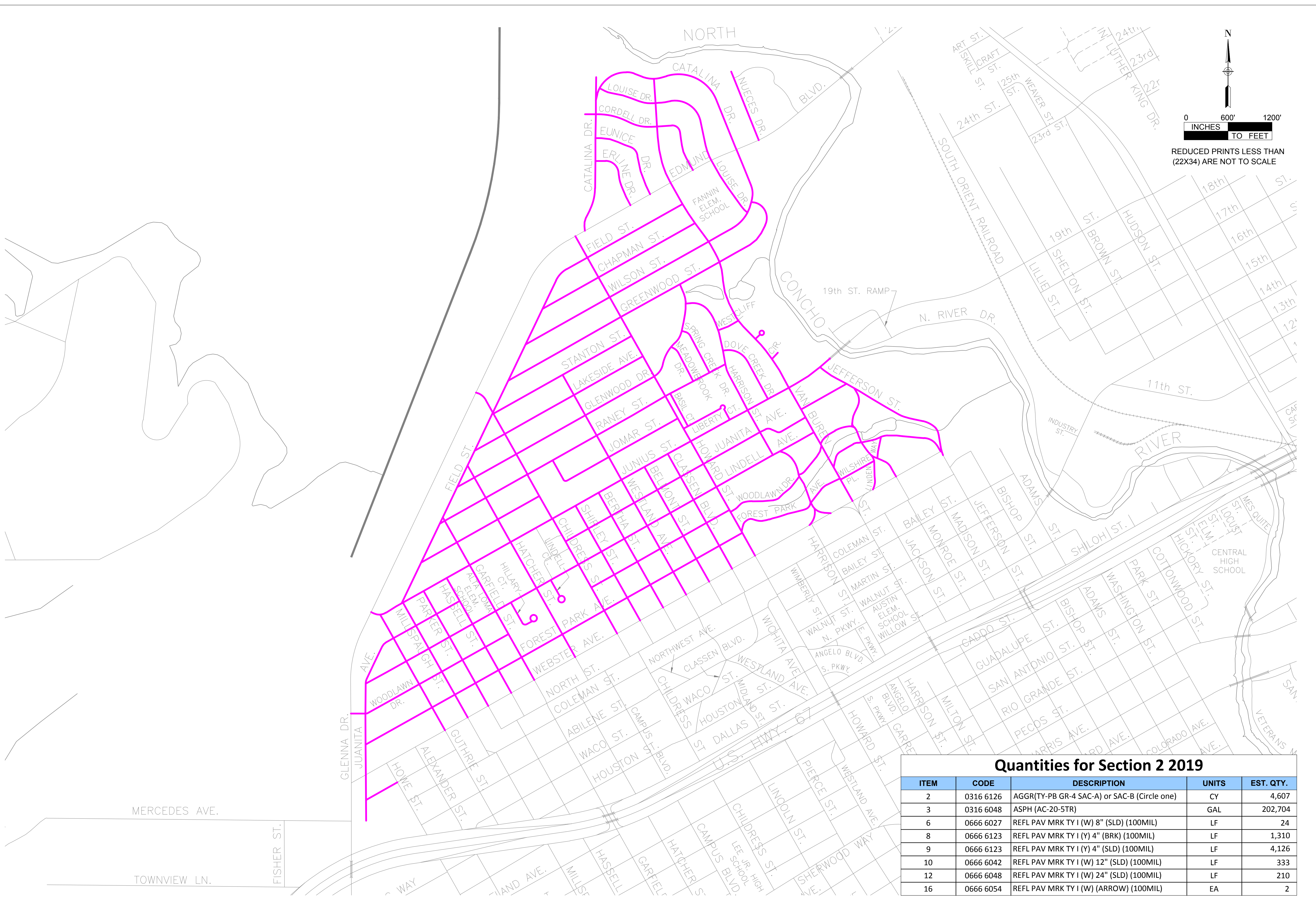
7 OF 10

DRAWN BY: M.T.

DESIGN BY: M.G.

10/26/2018 8:08 AM L:\ENGINEERING\PROJECTS\STREETS\SEALCOAT\2018-3-487 - 2019 SEALCOAT\1 DESIGN\DWG\2019 SEALCOAT.DWG



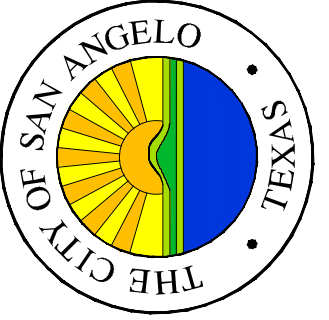


**Quantities for Section 2 2019**

ITEM	CODE	DESCRIPTION	UNITS	EST. QTY.
2	0316 6126	AGGR(TY-PB GR-4 SAC-A) or SAC-B (Circle one)	CY	4,607
3	0316 6048	ASPH (AC-20-5TR)	GAL	202,704
6	0666 6027	REFL PAV MRK TY I (W) 8" (SLD) (100MIL)	LF	24
8	0666 6123	REFL PAV MRK TY I (Y) 4" (BRK) (100MIL)	LF	1,310
9	0666 6123	REFL PAV MRK TY I (Y) 4" (SLD) (100MIL)	LF	4,126
10	0666 6042	REFL PAV MRK TY I (W) 12" (SLD) (100MIL)	LF	333
12	0666 6048	REFL PAV MRK TY I (W) 24" (SLD) (100MIL)	LF	210
16	0666 6054	REFL PAV MRK TY I (W) (ARROW) (100MIL)	EA	2

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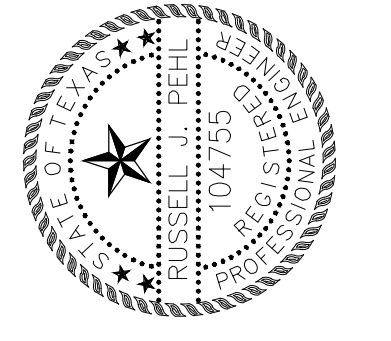


THE CITY OF SAN ANGELO  
TEXAS

DATE	DESCRIPTION	NO

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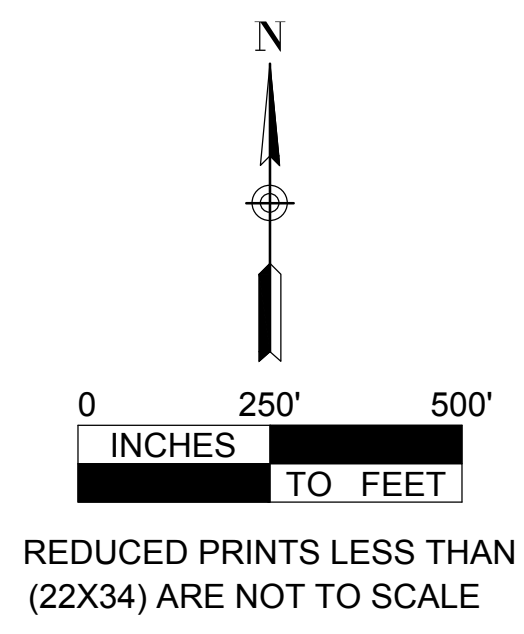
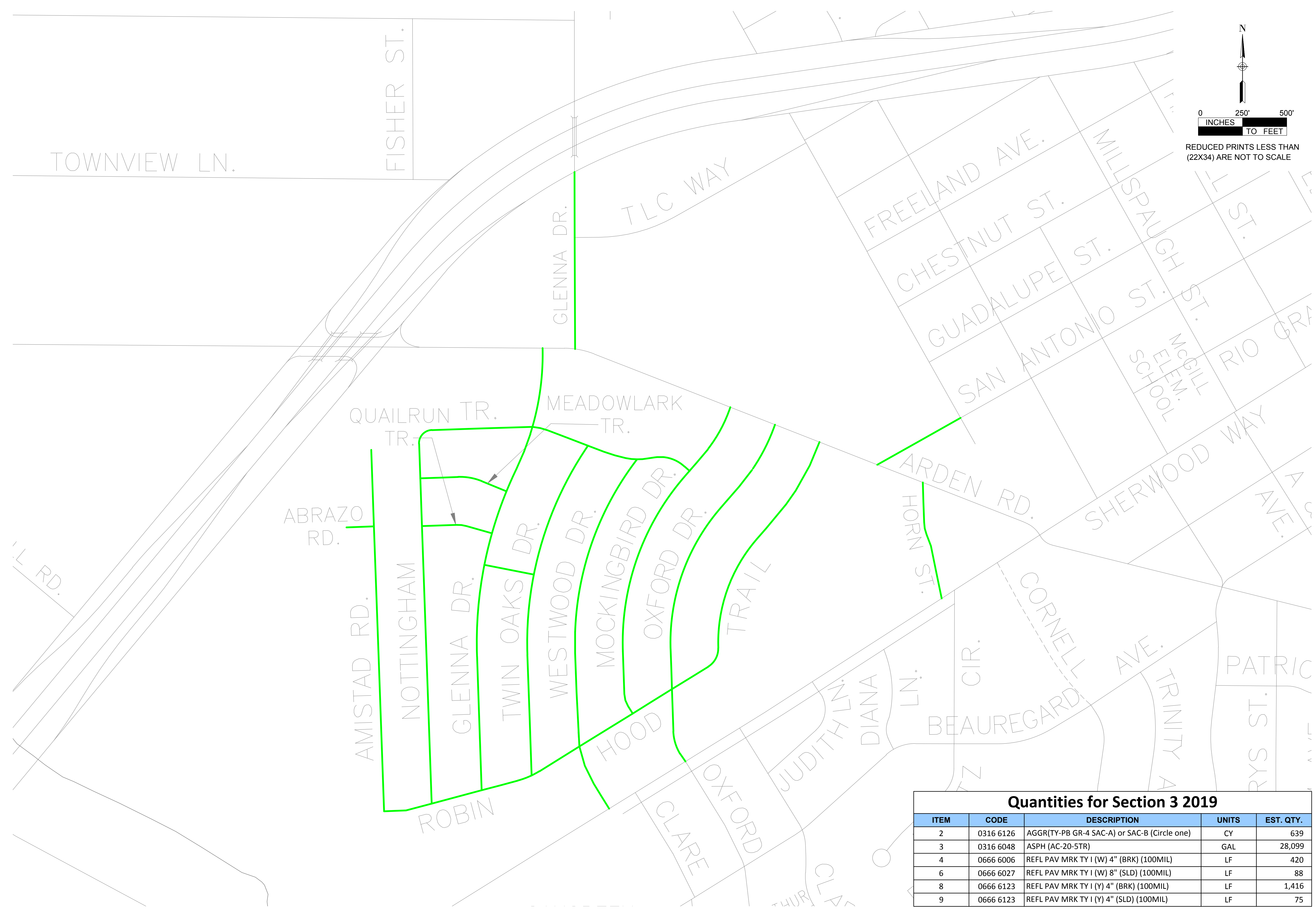
*Russell J. Pehl*



ES-03-19	2019 SEALCOAT PLAN - SECTION 2	DESIGN BY: M.G.	DRAWN BY: M.T.
	2019 SEALCOAT CONSTRUCTION		
	PROJECT NO: 2018-3-487		

SCALE: 1"=600'	DATE: 10/26/18	ARCHIVE NO: R-1918-7	SHEET NO: C-401	8 OF 10
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Quantities for Section 3 2019				
ITEM	CODE	DESCRIPTION	UNITS	EST. QTY.
2	0316 6126	AGGR(TY-PB GR-4 SAC-A) or SAC-B (Circle one)	CY	639
3	0316 6048	ASPH (AC-20-5TR)	GAL	28,099
4	0666 6006	REFL PAV MRK TY I (W) 4" (BRK) (100MIL)	LF	420
6	0666 6027	REFL PAV MRK TY I (W) 8" (SLD) (100MIL)	LF	88
8	0666 6123	REFL PAV MRK TY I (Y) 4" (BRK) (100MIL)	LF	1,416
9	0666 6123	REFL PAV MRK TY I (Y) 4" (SLD) (100MIL)	LF	75

SCALE: 1"=250'

DATE: 10/26/18

ARCHIVE NO: R-1918-8

SHEET NO: C-402

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ES-03-19

2019 SEALCOAT PLAN - SECTION 3

2019 SEALCOAT CONSTRUCTION

PROJECT NO: 2018-3-487

DESIGN BY: M.G.      DRAWN BY: M.T.

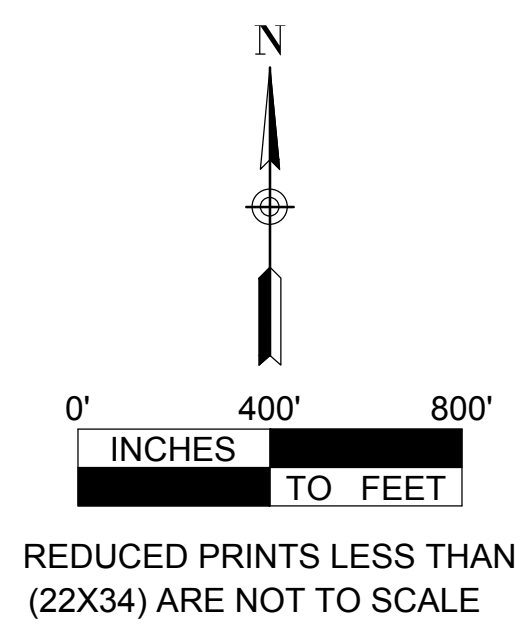
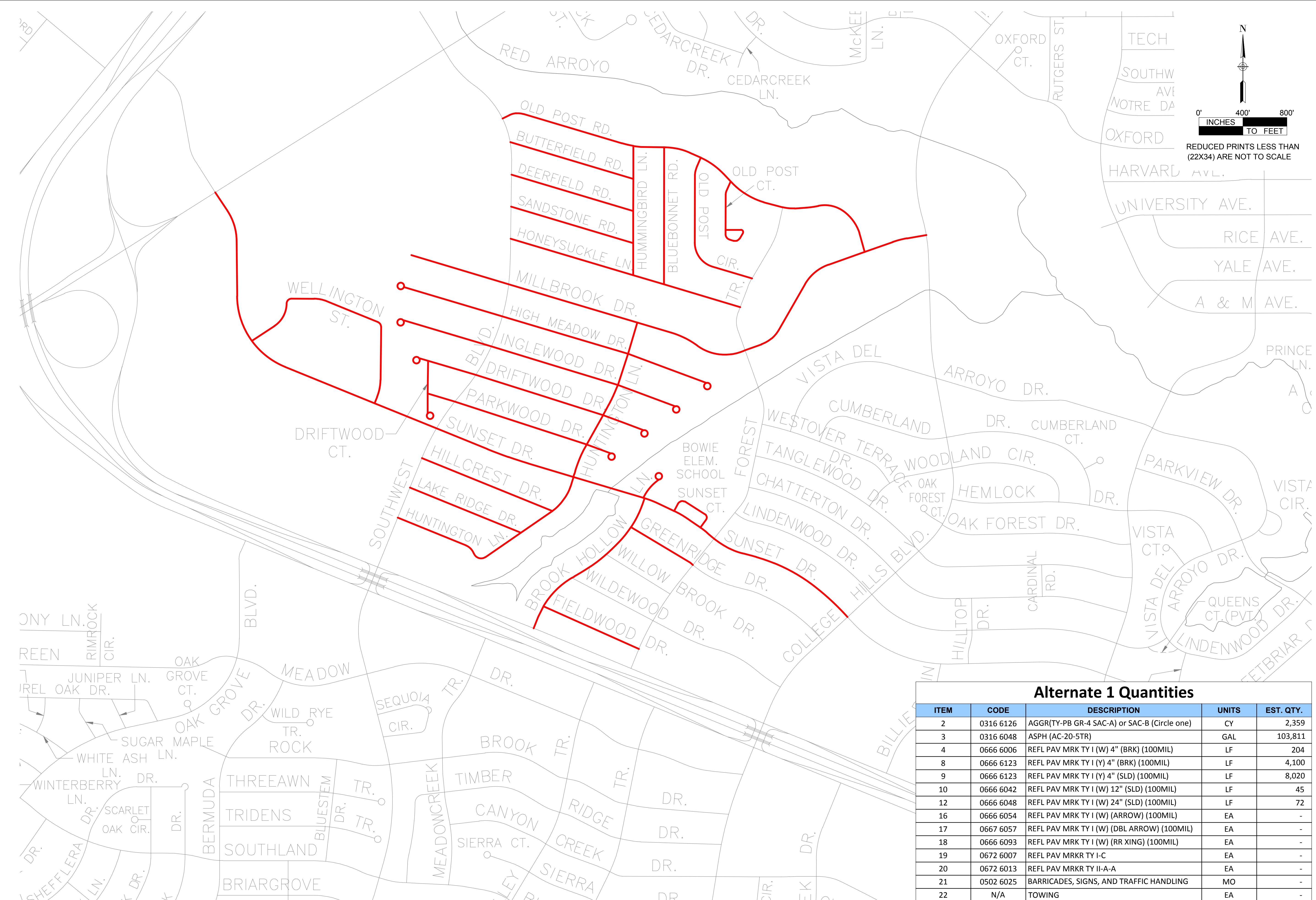
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*Russell J. Pelt*

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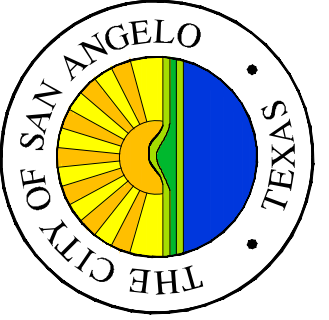




Alternate 1 Quantities				
ITEM	CODE	DESCRIPTION	UNITS	EST. QTY.
2	0316 6126	AGGR(TY-PB GR-4 SAC-A) or SAC-B (Circle one)	CY	2,359
3	0316 6048	ASPH (AC-20-5TR)	GAL	103,811
4	0666 6006	REFL PAV MRK TY I (W) 4" (BRK) (100MIL)	LF	204
8	0666 6123	REFL PAV MRK TY I (Y) 4" (BRK) (100MIL)	LF	4,100
9	0666 6123	REFL PAV MRK TY I (Y) 4" (SLD) (100MIL)	LF	8,020
10	0666 6042	REFL PAV MRK TY I (W) 12" (SLD) (100MIL)	LF	45
12	0666 6048	REFL PAV MRK TY I (W) 24" (SLD) (100MIL)	LF	72
16	0666 6054	REFL PAV MRK TY I (W) (ARROW) (100MIL)	EA	-
17	0667 6057	REFL PAV MRK TY I (W) (DBL ARROW) (100MIL)	EA	-
18	0666 6093	REFL PAV MRK TY I (W) (RR XING) (100MIL)	EA	-
19	0672 6007	REFL PAV MRKR TY I-C	EA	-
20	0672 6013	REFL PAV MRKR TY II-A-A	EA	-
21	0502 6025	BARRICADES, SIGNS, AND TRAFFIC HANDLING	MO	-
22	N/A	TOWING	EA	-

CITY OF SAN ANGELO  
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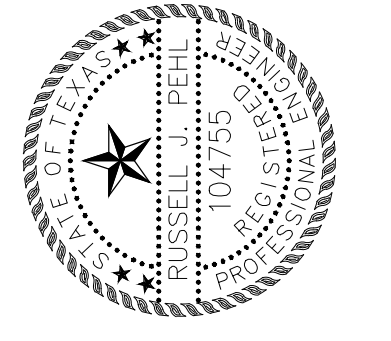
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NO	DESCRIPTION	DATE

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*Russell J. Pehl*

ES-03-19	2019 SEALCOAT PLAN - ALTERNATE - 1	DRAWN BY: M.T.
	2019 SEALCOAT CONSTRUCTION	
	PROJECT NO: 2018-3-487	
	DESIGN BY: M.G.	

SCALE: 1"=400'	DATE: 10/26/18	ARCHIVE NO: R-1918-9	SHEET NO. C-403	10 OF 10
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