

SURVEY CONTROL DATA

- HORIZONTAL / VERTICAL CONTROL:**
CONTROL WAS ESTABLISHED USING CONTROL DATA SHEETS (TUL 11, TUL 9, BA 27) PROVIDED BY THE CITY OF BROKEN ARROW. HORIZONTAL DATUM IS BASED ON THE OKLAHOMA STATE PLANE COORDINATE SYSTEM (NORTH ZONE) NAD 83. VERTICAL DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- BASIS OF BEARINGS:**
BEARINGS ARE BASED ON GRID NORTH (N00°00'00"E) AND DISTANCES ARE GRID DISTANCES.
- SECTION NUMERICAL DESCRIPTION (S-T-R):**
SECTION 11-T18N-R14E OF THE INDIAN MERIDIAN, TULSA COUNTY, OK

DESIGN DATA

CITY OF BROKEN ARROW STREET CLASSIFICATION:
MAJOR RESIDENTIAL STREET
DESIGN SPEED: 30 MPH
POSTED SPEED: 25 MPH

UTILITY CONTACTS

CITY OF BROKEN ARROW, OKLAHOMA ACTING DIRECTOR OF ENGINEERING & CONSTRUCTION, TOM HENDRIX P.E. 485 N. POPLAR AVE BROKEN ARROW, OKLAHOMA 74012 (918) 259-7000 EXT. 5414 (918)259-8453 (FAX)	CITY OF BROKEN ARROW, OKLAHOMA WATER & SEWER, ANTHONY DANIEL 485 N. POPLAR AVE BROKEN ARROW, OKLAHOMA 74012 (918) 259-7000 EXT. 7380 (918) 251-3383 (FAX)
CITY OF BROKEN ARROW, OKLAHOMA STREETS/STORMWATER, STEVE ARANT P.E. 485 N. POPLAR AVE BROKEN ARROW, OKLAHOMA 74012 (918) 259-7000 X7429 (918) 251-3383 (FAX)	OKLAHOMA NATURAL GAS (GOVT RELOCATIONS) ATTN: RANDY STALCUP 5854 EAST 15TH STREET TULSA, OKLAHOMA 74112 (918) 831-8259 (918) 831-8236 (FAX)
COX COMMUNICATIONS ATTN: GARY HAMILTON 11811 E. 51ST STREET TULSA, OK 74145 (918) 286-4666 (918) 286-4018 (FAX)	OKLAHOMA NATURAL GAS (EXISTING CONST.) ATTN: BILL MORGAN P.O. BOX 871 TULSA, OKLAHOMA 74102 (918) 451-3814 (918) 451-0899 (FAX)
WINDSTREAM COMMUNICATION ATTN: GEORGE WHITE 2300 SOUTH 1ST PLACE BROKEN ARROW, OKLAHOMA 74012 (918) 451-3431 (918) 451-1865 (FAX)	AEP / PSO ATTN: LONNY D. HICKS 5223 S GARNETT ROAD TULSA, OK 74147 (918) 250-8211 (918) 247-8466 (FAX)

CONVENTIONAL SYMBOLS

---	SECTION LINES
---	PROPERTY LINES
PRES. R/W	RIGHT-OF-WAY - EXISTING
R/W	RIGHT-OF-WAY - PROPOSED
X	FENCES
— —	OVERHEAD ELECTRIC LINES
—T—	OVERHEAD TELEPHONE LINES
—SS—	SANITARY SEWERS
—G—	GAS LINES
—W—	WATER LINES
—TUG—	UNDERGROUND TELEPHONE LINES
—PUG—	UNDERGROUND ELECTRIC
—FO—	FIBER OPTIC
—	PROPOSED ROAD
—	ASPHALT - EXISTING
—	CONCRETE - EXISTING
—	DIRT/GRAVEL - EXISTING
—	CURB - EXISTING
—	FLOWLINE
—	STORM SEWER - EXISTING
—	STORM SEWER - PROPOSED
---730---	EXISTING CONTOUR
---730---	PROPOSED CONTOUR
—	WATER SERVICE CONNECTION

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FUNDING SOURCE : 2008 & 2011 GENERAL OBLIGATION FUND



CITY OF
BROKEN ARROW
Where opportunity lives

DALLAS STREET IMPROVEMENTS

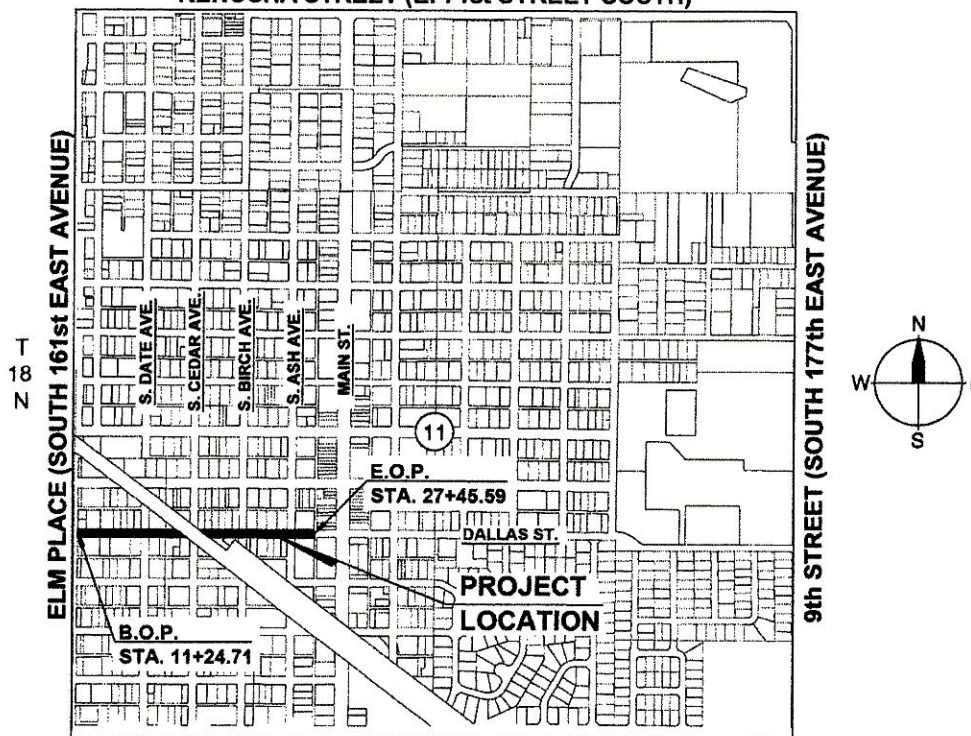
FROM ELM PLACE TO ALLEY EAST OF ASH AVENUE

BROKEN ARROW, OKLAHOMA

PROJECT NUMBER ST1307

R-14-E

KENOSHA STREET (E. 71st STREET SOUTH)



HOUSTON STREET (EAST 81st STREET SOUTH)

PROJECT LENGTH 1,621.9 FT 0.31 MI.

PROJECT EXCEPTION STA. 18+47.52 TO STA. 18+64.43

PROJECT LOCATION SECTION 11, T-18-N, R-14-E, TULSA COUNTY

ENGINEERING & CONSTRUCTION DEPARTMENT

485 NORTH POPLAR AVENUE

P.O. BOX 610, BROKEN ARROW, OK 74013

CITY OF BROKEN ARROW STANDARD CONSTRUCTION SPECIFICATIONS, AUGUST 19, 1999,
SHALL GOVERN ALL CONSTRUCTION AS SUPPLEMENTED BY OKLAHOMA STANDARD
SPECIFICATION FOR HIGHWAY CONSTRUCTION, APPROVED BY THE DEPARTMENT OF
TRANSPORTATION 2009.

BEFORE YOU DIG! CALL OKIE 1-800-522-6543



UTILITIES LOCATION SHOWN ON PLANS WERE OBTAINED FROM INFORMATION PROVIDED BY UTILITY SYSTEM OWNER IN CONJUNCTION WITH EXISTING PHYSICAL FEATURES VISIBLE AT THE TIME OF THE TOPOGRAPHIC SURVEY. LOCATIONS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

INDEX OF SHEETS

DESCRIPTION	SHEET
TITLE SHEET	1
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CITY OF BROKEN ARROW COUNCIL

MAYOR.....	CRAIG THURMOND
VICE MAYOR.....	RICHARD CARTER
MEMBER.....	JILL NORMAN
MEMBER.....	JOHNNIE PARKS
MEMBER.....	MIKE LESTER

APPROVED

Thomas M. Moton, Jr. DATE 6/12/14
THOMAS M. MOTON, JR.
CITY MANAGER

RECOMMENDED FOR APPROVAL

Thomas D. Hendrix, P.E. DATE 6/12/14
THOMAS D. HENDRIX, P.E.
ACTING DIRECTOR OF ENGINEERING & CONSTRUCTION

Steve Arant DATE 6/12/14
STEVE ARANT, P.E.
DIRECTOR OF STREETS/STORMWATER

Anthony Daniel DATE 6-12-14
ANTHONY DANIEL
DIRECTOR OF UTILITIES

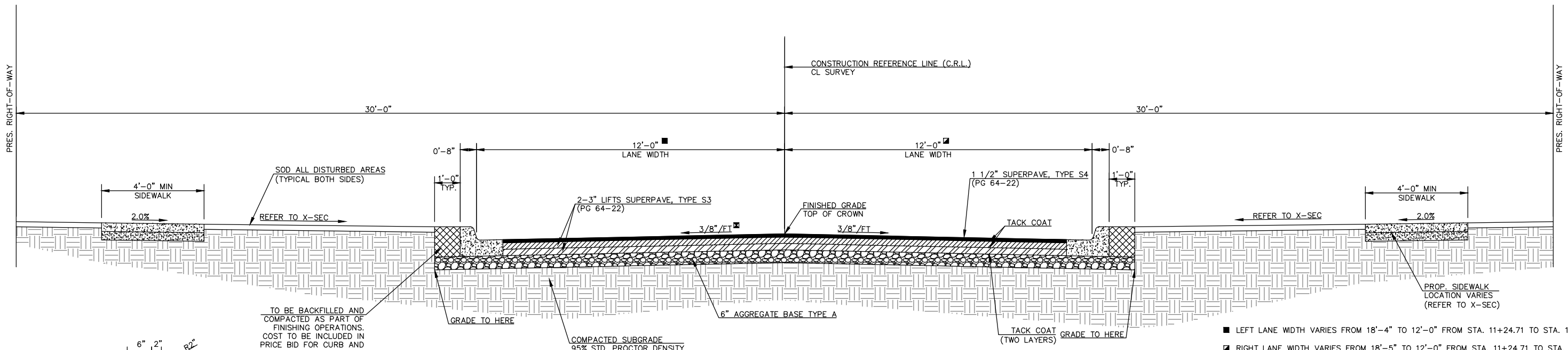
PREPARED BY



JEFF COWAN, P.E.
ENGINEER OF RECORD



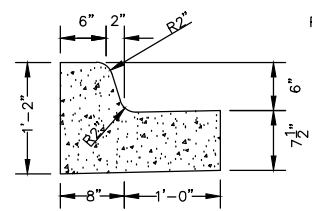
COWAN GROUP ENGINEERING, LLC
437 W. WILSHIRE BLVD., SUITE A
OKLAHOMA CITY, OK 73116
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WWW.COWANGROUP.CO
CA# 6414 EXPIRES 6/30/14



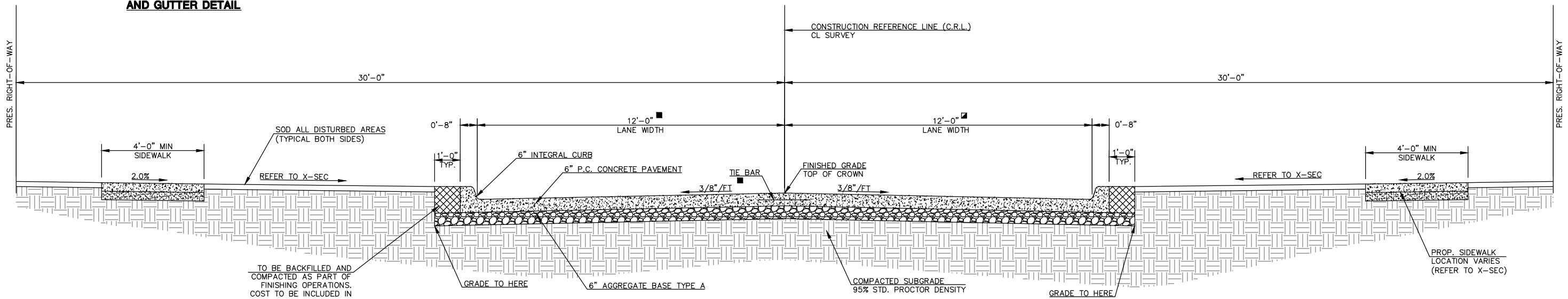
ALTERNATE NO. 1 - ASPHALT PAVEMENT SECTION

STA. 11+24.71 TO STA. 18+15.73
 STA. 18+15.73 TO STA. 18+99.73 (REFER TO INTERSECTION DETAIL, SHEET NO. 11)
 STA. 18+99.73 TO STA. 26+43.89

- LEFT LANE WIDTH VARIES FROM 18'-4" TO 12'-0" FROM STA. 11+24.71 TO STA. 12+04.87
- RIGHT LANE WIDTH VARIES FROM 18'-5" TO 12'-0" FROM STA. 11+24.71 TO STA. 13+04.68
- CROSS SLOPE VARIES FROM AN EXISTING 2.3% TOWARDS THE CROWN TO 3/8"/FT AWAY FROM CROWN FROM STA. 11+24.71 TO STA. 13+00.00
- CROSS SLOPE VARIES FROM 3/8"/FT TOWARDS THE CROWN TO 3/8"/FT AWAY FROM CROWN FROM STA. 19+18.69 TO STA. 19+75.95



COMBINED 6" CURB AND GUTTER DETAIL



ALTERNATE NO. 2 - CONCRETE PAVEMENT SECTION

STA. 11+24.71 TO STA. 18+15.73
 STA. 18+15.73 TO STA. 18+99.73 (REFER TO INTERSECTION DETAIL, SHEET NO. 11)
 STA. 18+99.73 TO STA. 26+43.89

NOTES:
 STREET IS CLASSIFIED AS A MAJOR RESIDENTIAL STREET IN ACCORDANCE WITH CITY CRITERIA

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DATE	REVISIONS



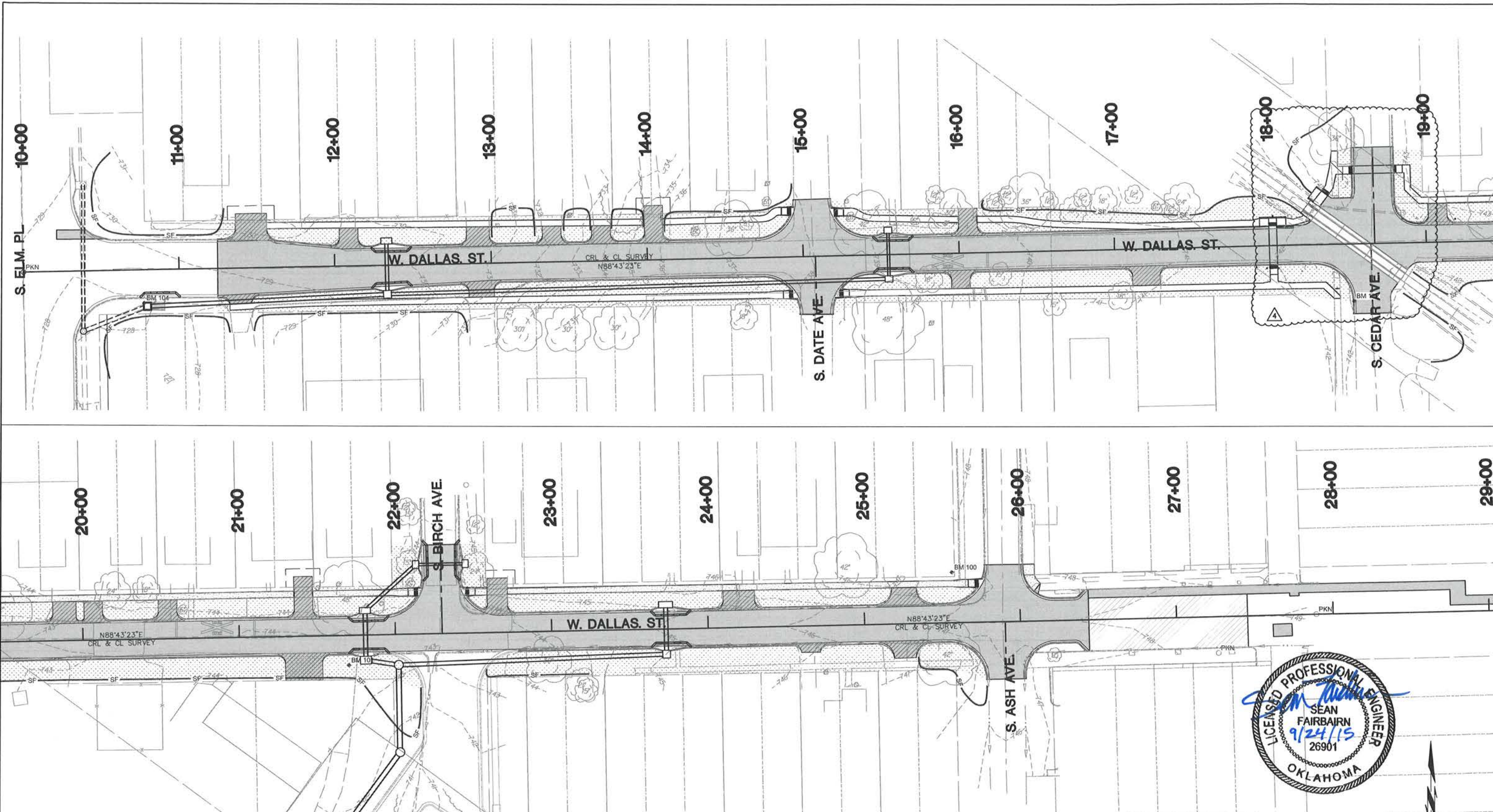
COWAN GROUP ENGINEERING, LLC
 437 W. WILSHIRE BLVD., SUITE A
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DALLAS STREET IMPROVEMENTS
 ELM PL. TO ALLEY EAST OF ASH AVE.

TYPICAL SECTIONS

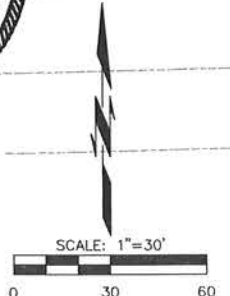
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VERT. N/A	REVIEWED	DATE	APPROVED	DATE
DRAWING NAME:	JDC	05/09/14	JDC	05/09/14
OF	SHEET 4	PROJECT NO.	ST1307	
	OF 25			

G:\Projects\13-159 BA-Dallas Street\Cad\Par\13-159 EROSION CONTROL.dwg, 9/23/2015 - 3:12 PM



LEGEND

	SILT FENCE
	ROCK BAG INLET BARRIER
	SOLID SLAB SOD



DATE	REVISIONS
9/24/15	4 RAILROAD CROSSING ACCESS

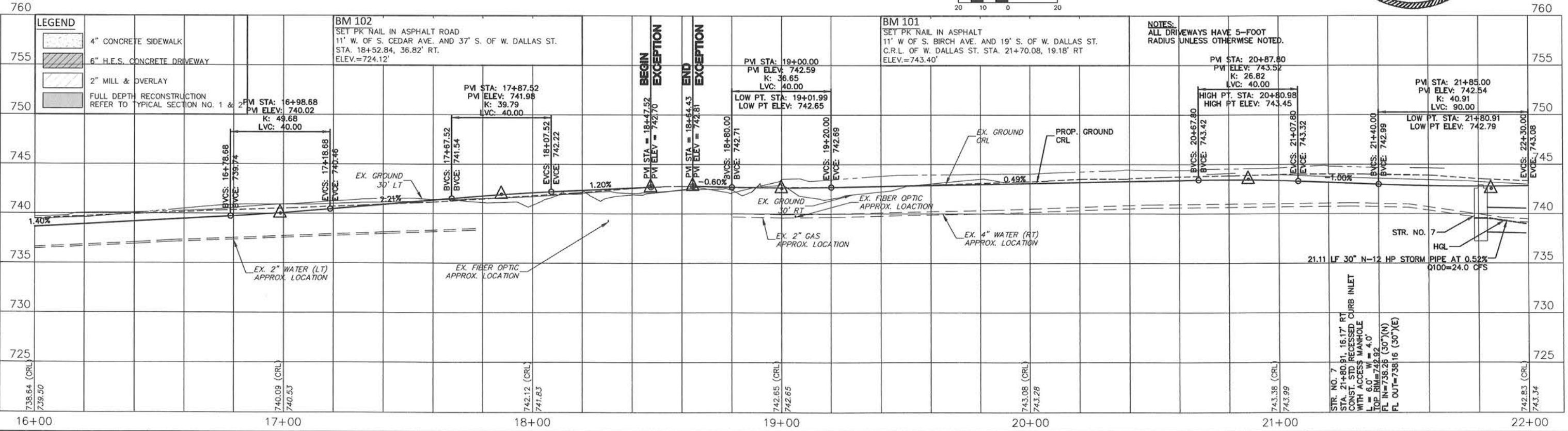
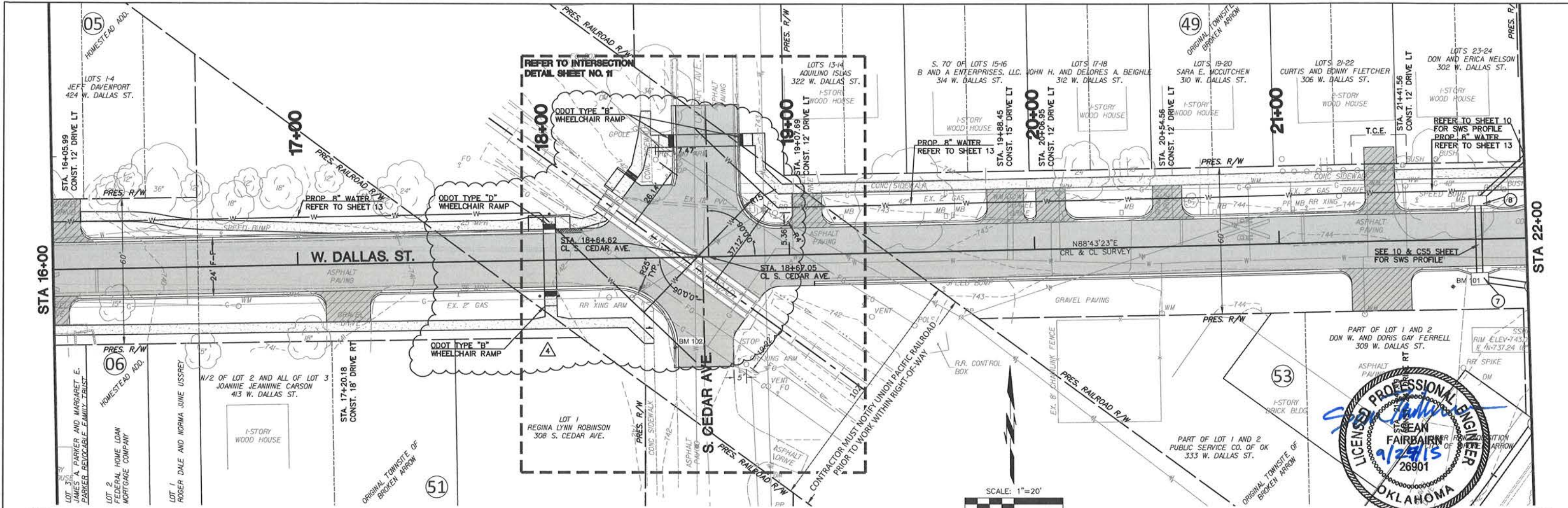


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DALLAS STREET IMPROVEMENTS
 ELM PL. TO ALLEY EAST OF ASH AVE.

EROSION CONTROL PLAN

SCALE:	DESIGN	DATE	DRAFTED	DATE
HORIZ. 1" = 30'	SKF	05/09/14	MDT	05/09/14
VERT. 1" = 30'	REVIEWED	DATE	APPROVED	DATE
DRAWING NAME:	JDC	05/09/14	JDC	05/09/14
SHEET 6	PROJECT NO.	ST1307		
OF 25				



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DATE	REVISIONS
9/24/15	4 RAILROAD CROSSING ACCESS



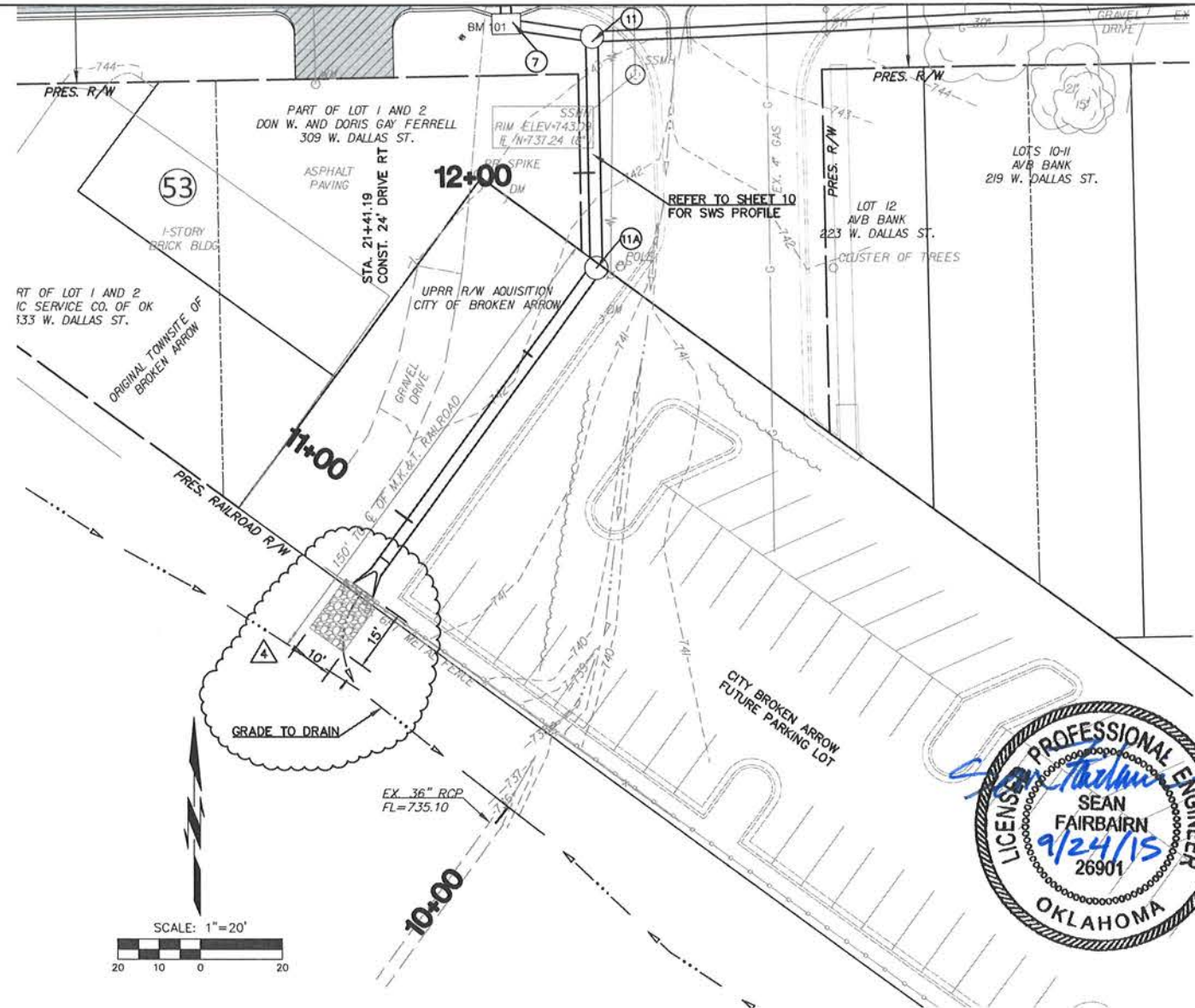
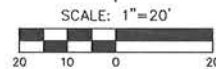
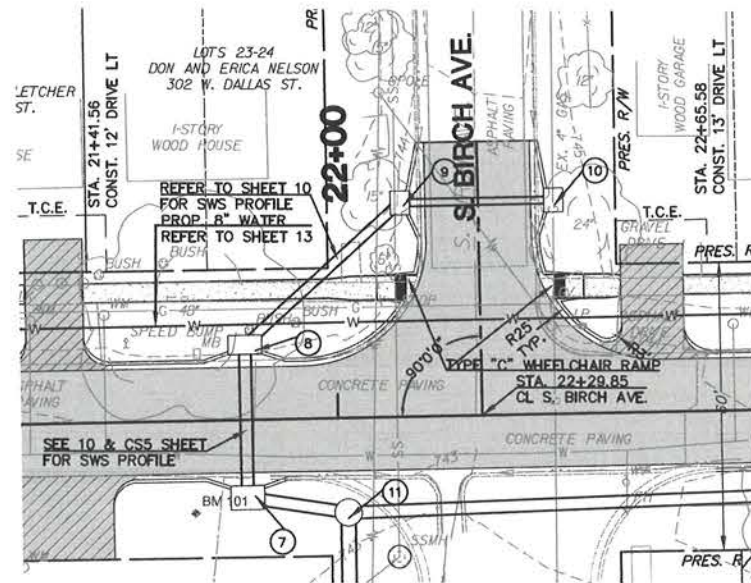
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DALLAS STREET IMPROVEMENTS
 ELM PL. TO ALLEY EAST OF ASH AVE.

PLAN AND PROFILE
 STA. 16+00 TO STA. 22+00

SCALE:	DESIGN	DATE	DRAFTED	DATE
HORIZ. 1"=20'	SKF	05/09/14	MDT	05/09/14
VERT. 1"=5'	REVIEWED	DATE	APPROVED	DATE
DRAWING NAME:	JDC	05/09/14	JDC	05/09/14
SHEET 8	PROJECT NO.	ST1307		
OF 25				

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760					760
755					755
750					750
745					745
740	STR. NO. 11	STR. NO. 7	STR. NO. 8	STR. NO. 9	STR. NO. 10
735					

STR. NO. 11: STA. 22+01.72, 19.74' RT CONST. 5' DIA. MANHOLE TOP RIM=738.05 (30')(E) FL IN=738.05 (30')(W) FL OUT=737.94 (36')(S)
 STR. NO. 7: STA. 21+40.91, 16.17' RT CONST. STD. RECESSED CURB INLET WITH ACCESS MANHOLE L=6.0' W=4.0' TOP RIM=742.92 FL IN=738.26 (30')(N) FL OUT=738.16 (36')(E)
 STR. NO. 8: STA. 21+40.91, 15.67' LT CONST. STD. RECESSED CURB INLET WITH ACCESS MANHOLE L=6.0' W=4.0' TOP RIM=742.92 FL IN=738.92 (24')(NE) FL OUT=738.42 (30')(S)
 STR. NO. 9: STA. 22+15.76, 44.62' LT CONST. STD. RECESSED CURB INLET WITH ACCESS MANHOLE L=4.0' W=4.0' TOP RIM=743.77 FL IN=740.11 (18')(E) FL OUT=739.61 (24')(SW)
 STR. NO. 10: STA. 22+45.45, 44.61' LT CONST. STD. RECESSED CURB INLET L=4.0' W=3.0' TOP RIM=743.77 FL OUT=740.27 (18')(W)

21.11 LF 30" N-12 HP STORM PIPE AT 0.52% Q100=24.0 CFS
 31.84 LF 30" RCP AT 0.50% Q100=21.0 CFS
 43.79 LF 24" N-12 HP STORM PIPE AT 1.58% Q100=5.5 CFS
 31.68 LF 18" RCP AT 0.50% Q100=4.5 CFS

760						760
755						755
750						750
745						745
740						740
735						735

STR. NO. 11A: STA. 12+26.88= STA. 22+01.46, 75.96' RT (CRL) CONST. 5' DIA. MANHOLE TOP RIM=741.58 FL IN=737.25 (36')(N) FL OUT=737.15 (36')(SW)
 STR. NO. 11: STA. 12+26.88= STA. 22+01.72, 19.74' RT (CRL) CONST. 5' DIA. MANHOLE TOP RIM=743.00 FL IN=738.05 (30')(E) FL OUT=738.05 (30')(W) FL OUT=737.54 (36')(S)

EX. 36" RCP FL=735.10
 FL=736.69
 36" PREFAB END SECTION
 91.85 LF 36" N-12 HP STORM PIPE AT 0.50% Q100=42.5 CFS
 56.22 LF 36" N-12 HP STORM PIPE AT 0.52% Q100=42.5 CFS

DATE	REVISIONS
9/24/15	4 STORM WATER REVISIONS



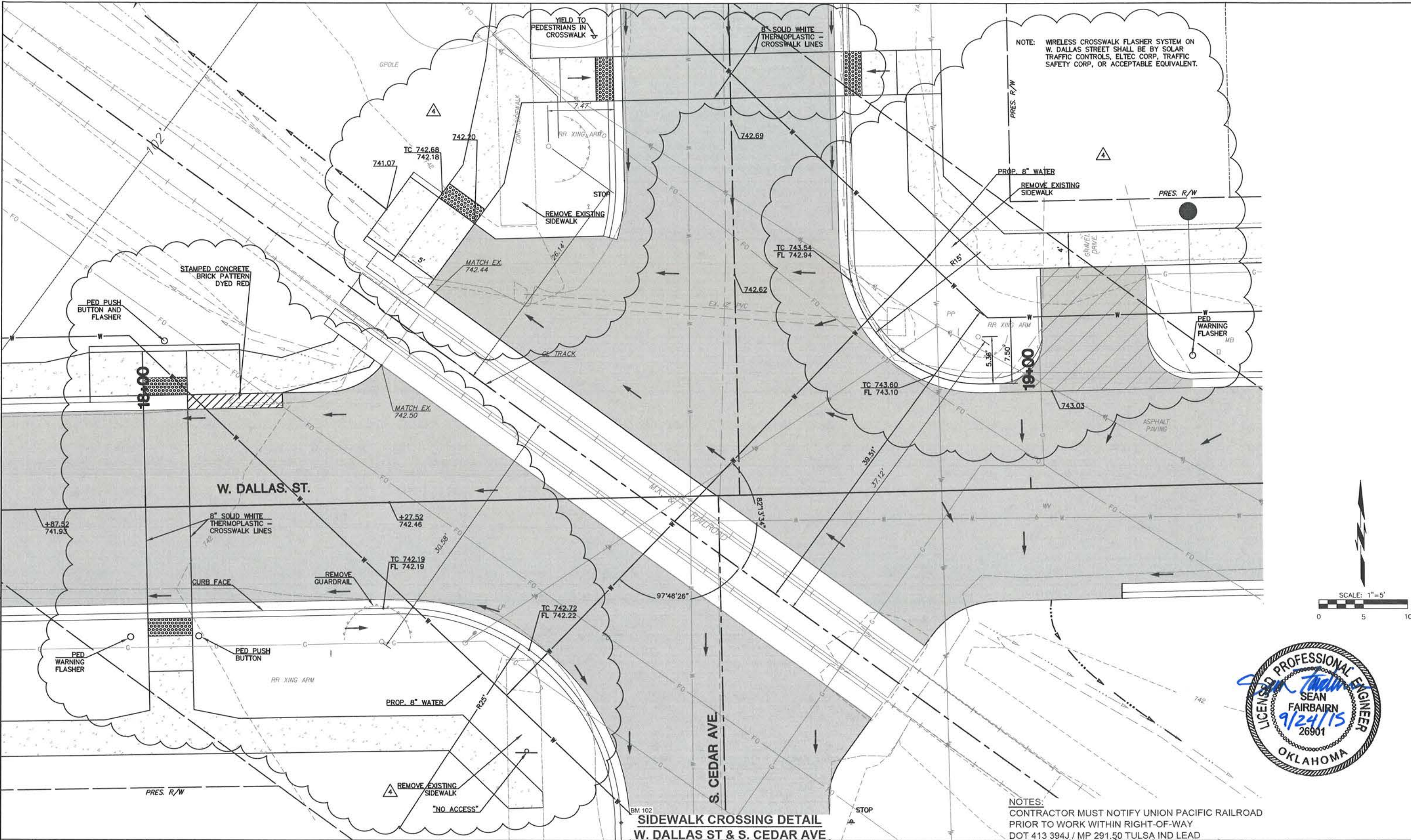
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DALLAS STREET IMPROVEMENTS
 ELM PL. TO ALLEY EAST OF ASH AVE.

STORM WATER SEWER PLAN AND PROFILES

SCALE:	DESIGN	DATE	DRAFTED	DATE
HORIZ. 1"=20'	SKF	05/09/14	MDT	05/09/14
VERT. 1"=5'	REVIEWED	DATE	APPROVED	DATE
DRAWING NAME:	JDC	05/09/14	JDC	05/09/14
SHEET 10 OF 25	PROJECT NO. ST1307			

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NOTE: WIRELESS CROSSWALK FLASHER SYSTEM ON W. DALLAS STREET SHALL BE BY SOLAR TRAFFIC CONTROLS, ELTEC CORP, TRAFFIC SAFETY CORP, OR ACCEPTABLE EQUIVALENT.



NOTES:
CONTRACTOR MUST NOTIFY UNION PACIFIC RAILROAD PRIOR TO WORK WITHIN RIGHT-OF-WAY
DOT 413 394J / MP 291.50 TULSA IND LEAD

**SIDEWALK CROSSING DETAIL
W. DALLAS ST & S. CEDAR AVE**

DATE	REVISIONS
9/24/15	RAILROAD CROSSING ACCESS

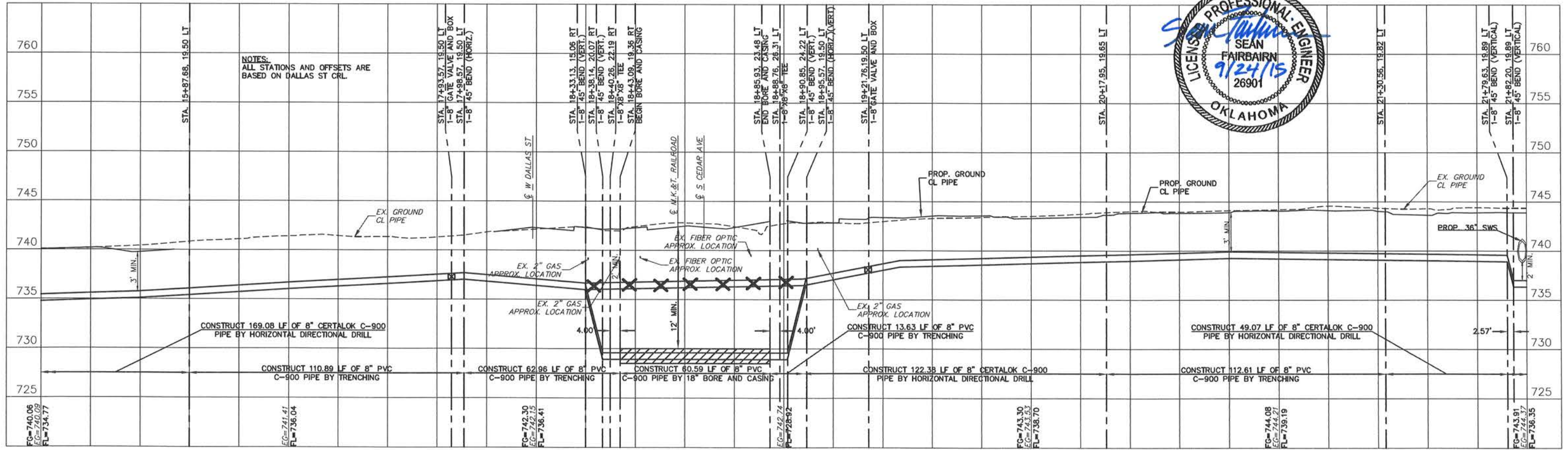
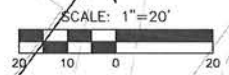
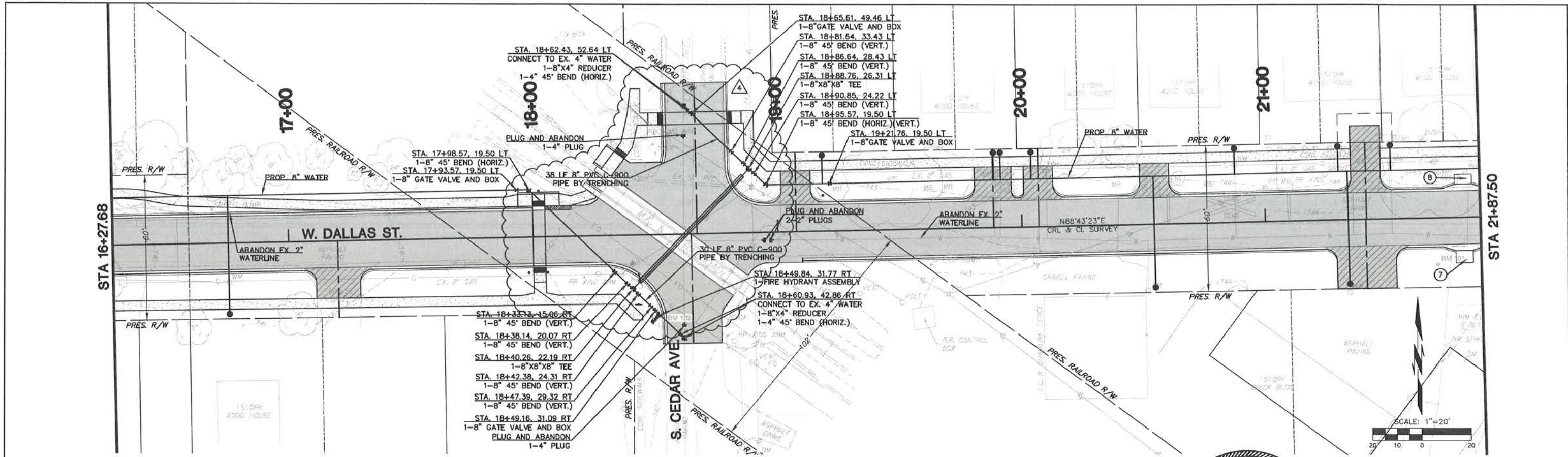


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DALLAS STREET IMPROVEMENTS
ELM PL. TO ALLEY EAST OF ASH AVE.

CEDAR AVENUE INTERSECTION DETAIL

SCALE:	DESIGN	DATE	DRAFTED	DATE
HORZ 1"=5'	SKF	05/09/14	MDT	05/09/14
VERT. N/A	REVIEWED	DATE	APPROVED	DATE
	JDC	05/09/14	JDC	05/09/14
DRAWING NAME:	SHEET 11	PROJECT NO. S11307		
	OF 25			



NOTES:
ALL STATIONS AND OFFSETS ARE
BASED ON DALLAS ST. CRL.

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DATE	REVISIONS
9/24/15	4 RAILROAD CROSSING ACCESS



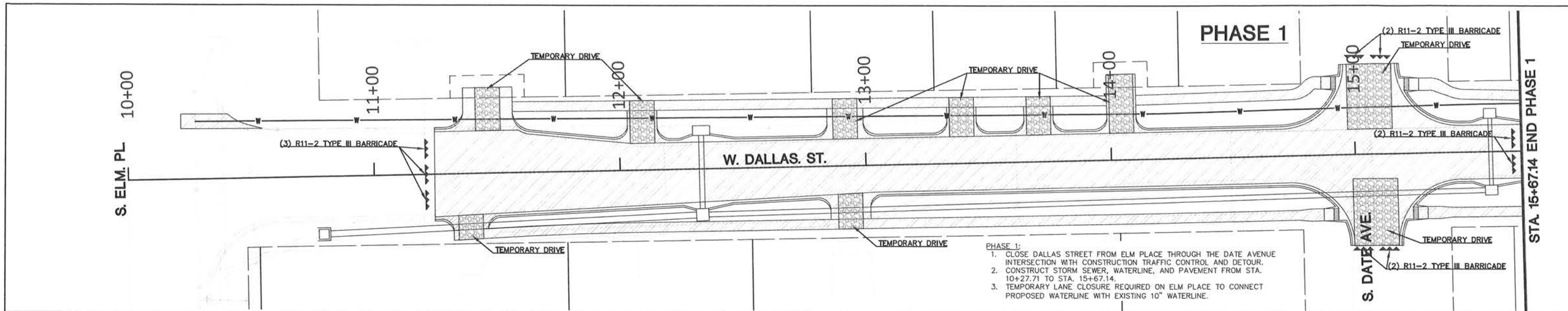
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DALLAS STREET IMPROVEMENTS
ELM PL. TO ALLEY EAST OF ASH AVE.

WATERLINE REPLACEMENT PLAN & PROFILE (2 OF 4)

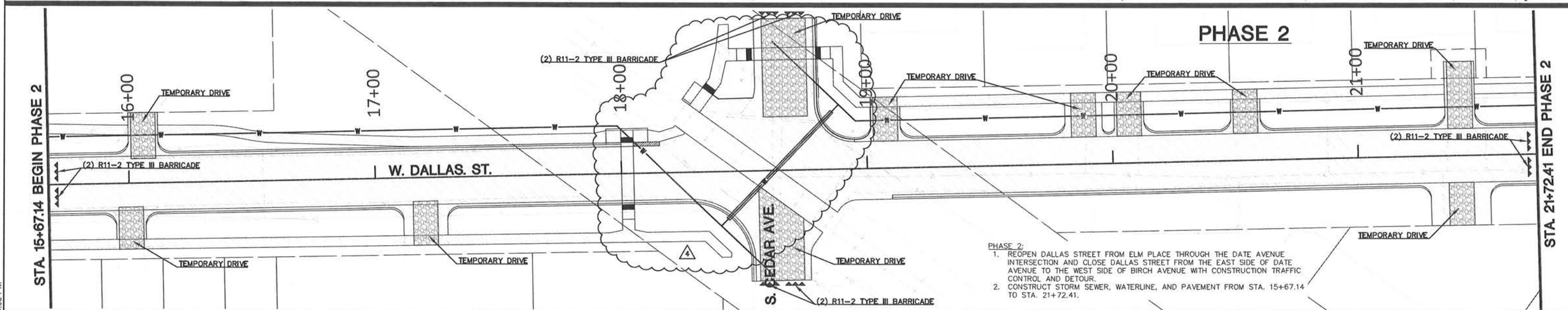
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DRAWING NAME:	SHEET	13	PROJECT NO.	ST1307
	OF	25		

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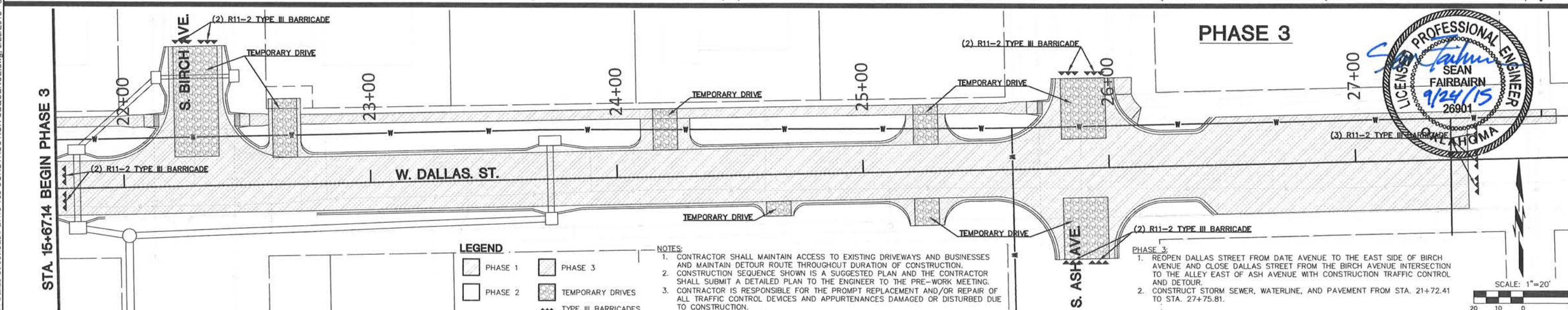
PHASE 1:

1. CLOSE DALLAS STREET FROM ELM PLACE THROUGH THE DATE AVENUE INTERSECTION WITH CONSTRUCTION TRAFFIC CONTROL AND DETOUR.
2. CONSTRUCT STORM SEWER, WATERLINE, AND PAVEMENT FROM STA. 10+27.71 TO STA. 15+67.14.
3. TEMPORARY LANE CLOSURE REQUIRED ON ELM PLACE TO CONNECT PROPOSED WATERLINE WITH EXISTING 10" WATERLINE.



PHASE 2:

1. REOPEN DALLAS STREET FROM ELM PLACE THROUGH THE DATE AVENUE INTERSECTION AND CLOSE DALLAS STREET FROM THE EAST SIDE OF DATE AVENUE TO THE WEST SIDE OF BIRCH AVENUE WITH CONSTRUCTION TRAFFIC CONTROL AND DETOUR.
2. CONSTRUCT STORM SEWER, WATERLINE, AND PAVEMENT FROM STA. 15+67.14 TO STA. 21+72.41.



PHASE 3:

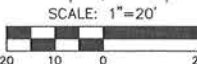
1. REOPEN DALLAS STREET FROM DATE AVENUE TO THE EAST SIDE OF BIRCH AVENUE AND CLOSE DALLAS STREET FROM THE BIRCH AVENUE INTERSECTION TO THE ALLEY EAST OF ASH AVENUE WITH CONSTRUCTION TRAFFIC CONTROL AND DETOUR.
2. CONSTRUCT STORM SEWER, WATERLINE, AND PAVEMENT FROM STA. 21+72.41 TO STA. 27+75.81.

LEGEND

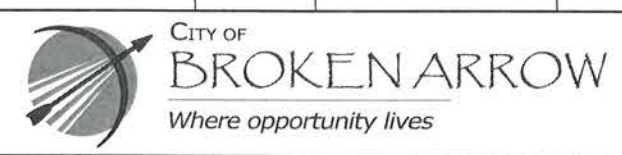
PHASE 1	PHASE 2
PHASE 3	TEMPORARY DRIVES
TYPE III BARRICADES	

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING DRIVEWAYS AND BUSINESSES AND MAINTAIN DETOUR ROUTE THROUGHOUT DURATION OF CONSTRUCTION.
2. CONSTRUCTION SEQUENCE SHOWN IS A SUGGESTED PLAN AND THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN TO THE ENGINEER TO THE PRE-WORK MEETING.
3. CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.



DATE	REVISIONS
9/24/15	4 RAILROAD CROSSING ACCESS



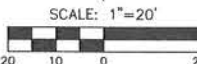
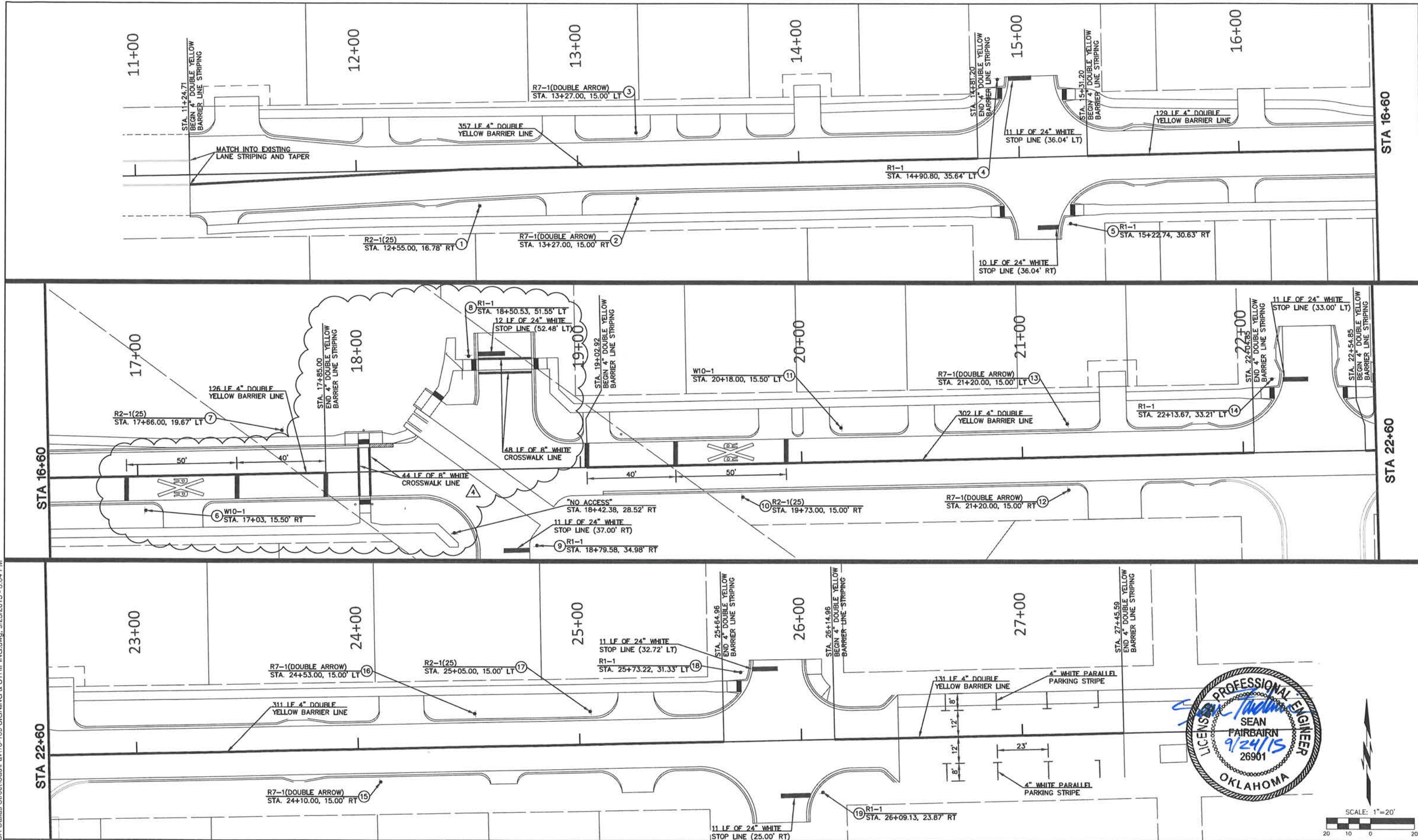
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 437 W. WILSHIRE BLVD., SUITE A
 OKLAHOMA CITY, OK 73116
 405-463-3369 D 405-463-3381 F
 WWW.COWANGROUP.CO
 CA# 6414 EXPIRES 6/30/16

DALLAS STREET IMPROVEMENTS
 ELM PL. TO ALLEY EAST OF ASH AVE.

SUGGESTED CONSTRUCTION SEQUENCING

SCALE:	DESIGN	DATE	DRAFTED	DATE
HORZ. 1" = 20'	SKF	05/09/14	MDT	05/09/14
VERT. 1" = 5'	JDC	05/09/14	JDC	05/09/14
DRAWING NAME:	SHEET	15	PROJECT NO.	ST1307
	OF	25		

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DATE	REVISIONS
9/24/15	4 RAILROAD CROSSING ACCESS



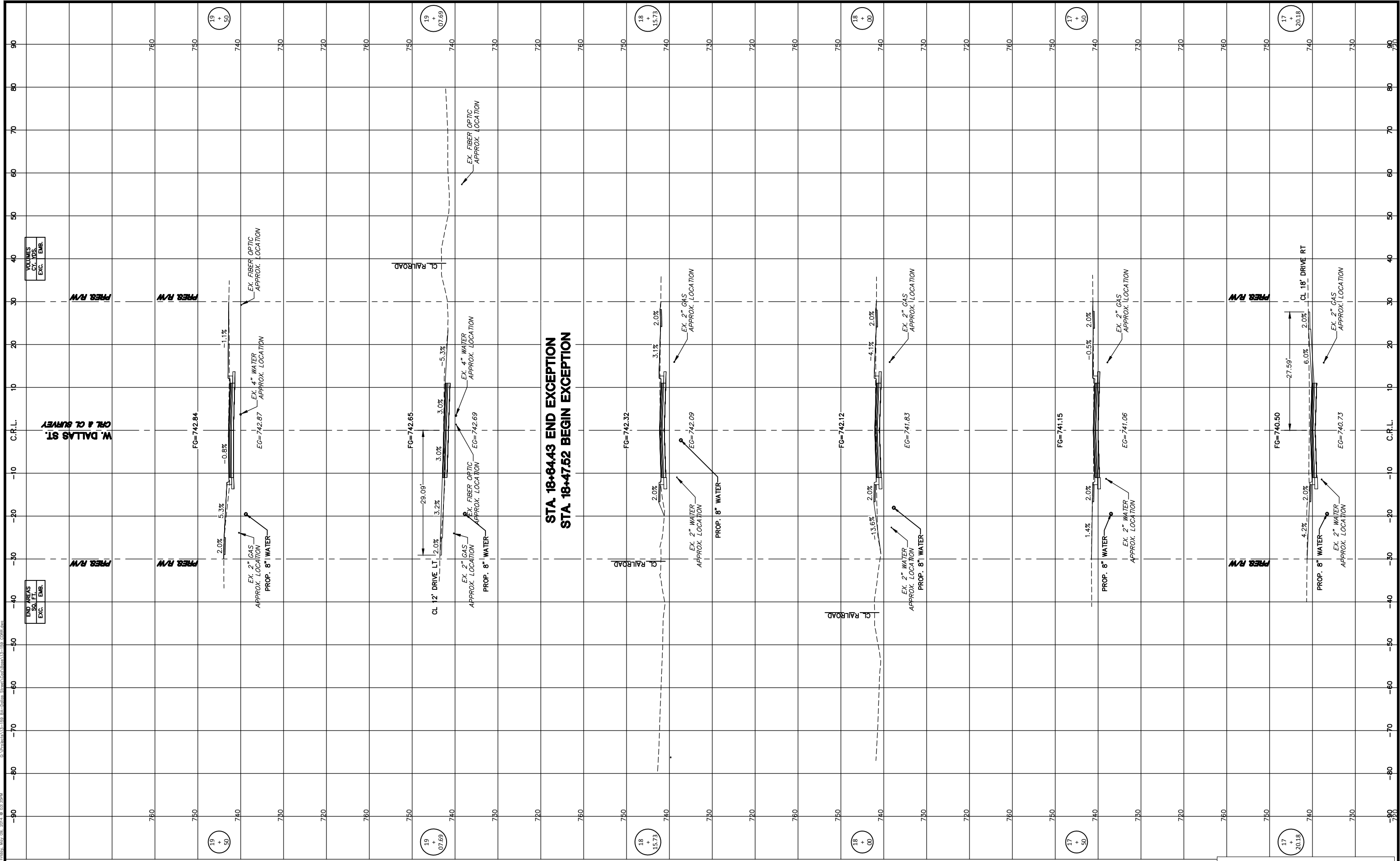
COWAN GROUP ENGINEERING, LLC
 437 W. WILSHIRE BLVD., SUITE A
 OKLAHOMA CITY, OK 73116
 405-463-3369 D 405-463-3381 F
 WWW.COWANGROUP.CO
 CA# 6414 EXPIRES 6/30/16

DALLAS STREET IMPROVEMENTS
 ELM PL. TO ALLEY EAST OF ASH AVE.

SIGNING AND STRIPING PLAN

SCALE:	DESIGN	DATE	DRAFTED	DATE
HORIZ. 1" = 20'	SKF	05/09/14	MDT	05/09/14
VERT. 1" = 5'	JDC	05/09/14	JDC	05/09/14
DRAWING NAME:	SHEET	16	PROJECT NO.	ST1307
	OF	25		

PLOTTED: Friday, May 09, 2014 @ 03:39PM
C:\projects\11-158_BA-Dallas-Stem\Drawings\11-158_CS4.dwg



VOLUMES	
CY. TOS.	EMB.
EXC.	

END AREAS	
SO. FT.	EMB.
EXC.	

W. DALLAS ST.
C.R.L. & CL SURVEY

STA 18+64.43 END EXCEPTION
STA 18+47.52 BEGIN EXCEPTION