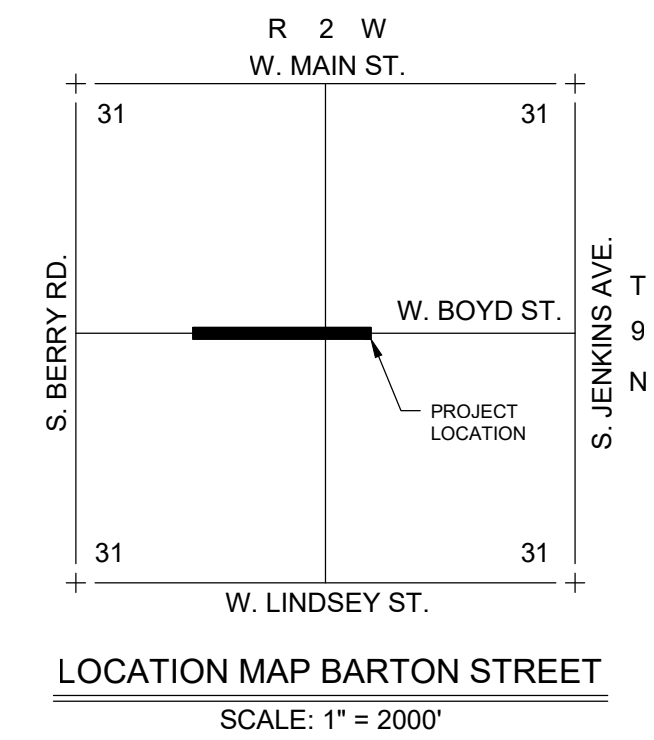


W. BOYD STREET STORM SEWER PIPE REPLACEMENT

FROM S. PICKARD AVE. TO COLLEGE AVE.
A PART OF THE SW,SE,NW,NE/4, SECTION 31, T9N, R2W, I.M.
NORMAN, CLEVELAND COUNTY, OKLAHOMA



PROJECT LOCATION
STORM SEWER PIPE
REPLACEMENT - W. BOYD ST.

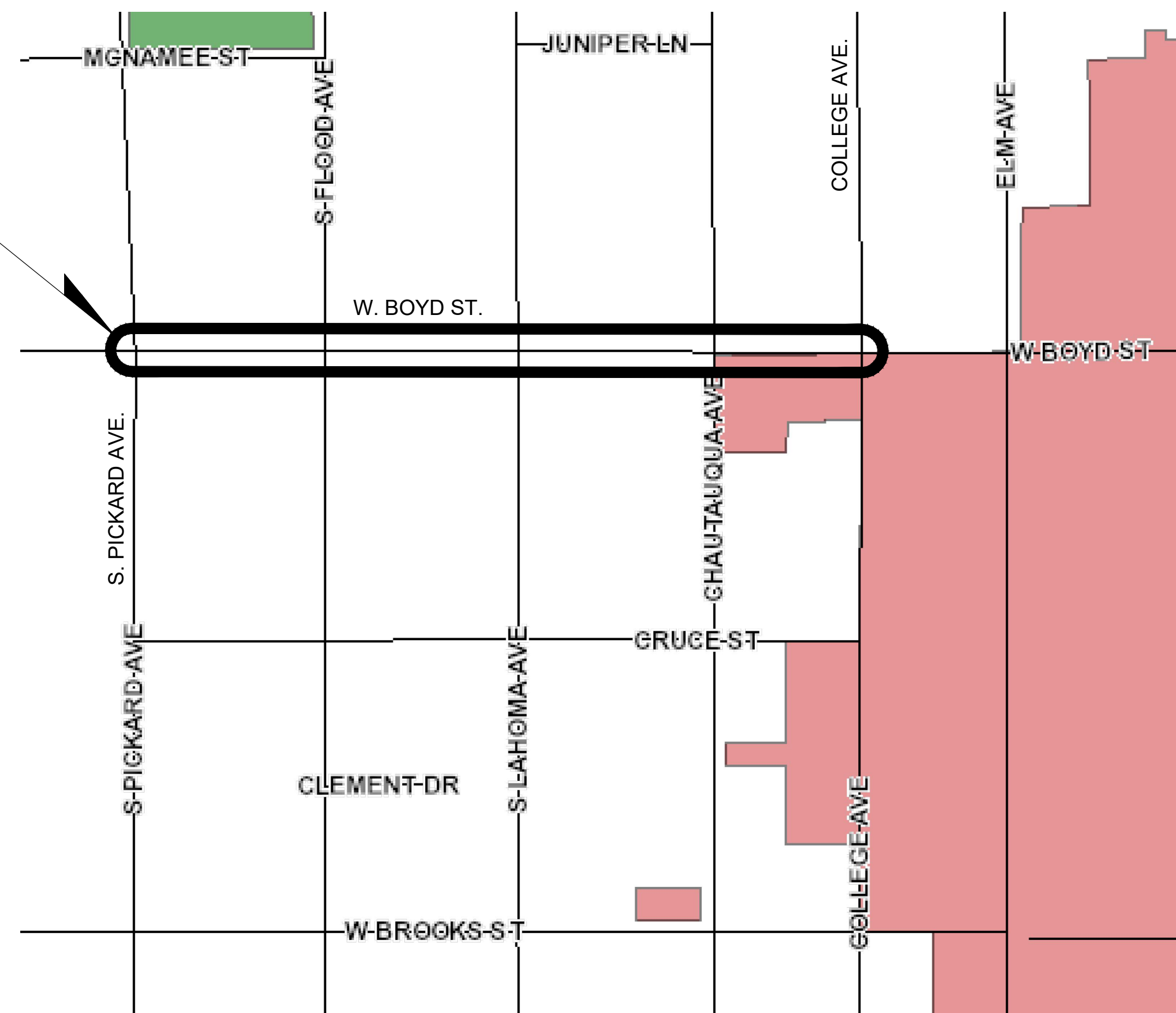
SURVEY CONTROL

POINT 500,
NORTHING - 683868.3840, EASTING - 2131850.7880
ELEV. - 1152.0090
#3 REBAR w/ CAP

POINT 501
NORTHING - 683908.5600, EASTING - 2131876.6200
ELEV. - 1152.7900
X CUT IN CURB

LEGEND (EXISTING SYMBOLS)

SYMBOLS	LINEWORK
⊕	BENCHMARK
○	FOUND IRON PIPE/REBAR
⊙	PRIMARY CONTROL/SET MONUMENT
●	FOUND MONUMENT/ROW
⊠	AIR CONDITIONER
⊠ ARV	AIR RELEASE VALVE
⊠	ELECTRIC BOX/PEDESTAL
⊠	ELECTRIC JUNCTION BOX
⊠	ELECTRIC METER
⊠	ELECTRIC TRANSFORMER
⊠ FDC	FIRE DEPARTMENT CONNECTION
⊠ FH	FIRE HYDRANT
⊠ GM	GAS METER
⊠ GV	GAS VALVE
○	GUARD POST
⊠ LP	LIGHT POLE
⊠ PP	POWER POLE
⊠	SANITARY MANHOLE
○ CO	SANITARY SEWER CLEANOUT
⊠	SIGN
⊠	SPRINKLER HEAD
⊠	TELEPHONE PEDESTAL
⊠	TV PEDESTAL
⊠	WATER FAUCET
⊠ WM	WATER METER
⊠ WV	WATER VALVE
⊠	DOWN GUY
⊠	STORM SEWER MANHOLE
⊠	STORM SEWER PIPE
⊠	DROP/CURB INLET
⊠	GRATED INLET
⊠	TREE
⊠	TREE TO BE REMOVED
---	EASEMENT
---	CURB
---	INTERMEDIATE CONTOUR -1206
---	INDEX CONTOUR -1205
---	SANITARY SEWER LINE (SPECIFY SIZE & TYPE) SS
---	GAS LINE C
---	WATER LINE (SPECIFY SIZE & TYPE) W
---	UNDERGROUND TELEPHONE UGT
---	UNDERGROUND ELECTRIC UGE
---	OVERHEAD ELECTRIC OHE
---	UNDERGROUND TELEVISION UGTV
---	OVERHEAD TELEVISION OHTV
---	CHAIN LINK FENCE
---	WOOD FENCE
---	BARBED WIRE FENCE
---	FIBER OPTIC FO
---	RIGHT OF WAY
---	ROAD CENTERLINE



SHEET NUMBER	DESCRIPTION
C-001	COVER
C-101	QUANTITIES & GENERAL NOTES
C-102	SUMMARY TABLES
C-103	DRAINAGE CALCULATIONS BOYD ST
C-104	STORM WATER MANAGEMENT PLAN
C-105	DRAINAGE MAP
C-106	EX STORM P&P BOYD(1)
C-107	EX STORM P&P BOYD(2)
C-108	EX STORM P&P BOYD(3)
C-201	REMOVAL PLAN BOYD ST (1)
C-202	REMOVAL PLAN BOYD ST (2)
C-203	PROP STORM SEWER P&P BOYD ST. (1)
C-204	PROP STORM SEWER P&P BOYD ST. (2)
C-205	PROP STORM SEWER P&P BOYD ST. (3)
C-206	EXISTING SANITARY SEWER
C-207	SANITARY SEWER RE-ALIGNMENT
C-208	MILL & OVERLAY PLAN (1)
C-209	PAVING BOYD ST. (1)
C-210	PAVING BOYD ST. (2)
C-211	STRIPING PLAN (1)
C-212	STRIPING PLAN (2)
C-213	CONST PHASE (1)
C-214	CONST PHASE (2)
C-215	DETOUR - BOYD ST. PHASE 1
C-216	DETOUR - BOYD ST. PHASE 2
C-217	DETOUR - BOYD ST. PHASE 3
C-218	DETOUR - BOYD ST. PHASE 4
C-501	EROSION CONTROL NOTES & DETAILS
C-502	EROSION CONTROL PLAN
C-219	TYPICAL SECTIONS



Michael Williams
10-29-2024

CITY OF NORMAN STANDARD DRAWINGS

SANITARY SEWER	WATER	STORM SEWER	ROADWAY
SS-01	W-01	SD-01	ST-01
SS-02	W-09C	SD-05	ST-02
SS-04A	W-13	SD-06	ST-03
SS-04B		SD-07	ST-10
SS-04C			ST-11
			ST-15
			ST-20
			ST-21
			ST-24
			ST-29
			ST-33



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PROJECT NO: 23606900
ISSUE DATE: 11/14/2024
CONTACT: M. WILLIAMS
GC by: M. LOVE
GC Date:

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COVER

C-001

SUMMARY OF REMOVAL									
STATION RANGE	REMOVAL OF 18" CMP	REMOVAL OF 30" CMP	REMOVAL OF CURB	REMOVAL OF ASPHALT PAVEMENT	REMOVAL OF CHANNEL WALL	SAWING PAVEMENT	MANHOLE REMOVAL	DRIVEWAY REMOVAL	MILL & OVERLAY
	LF	LF	LF	SY	SY	LF	EA	EA	SY
W. BOYD STREET									
STA. 10+00.00 TO STA. 26+82	1750	40	152			3700			7557
STA. 10+21			10						
STA. 10+21 TO STA. 26+82				1313					
STA. 10+00					10				
STA. 11+48.23								1	
STA. 12+96.81								1	
STA. 11+24.72 TO STA. 13+31.59							5		
Total	1750	40	162	1313	10	3700	5	2	7557

SUMMARY OF SURFACING					
STATION RANGE	STABILIZED SUBGRADE (5% LIME)	P.C. CONCRETE FOR PAVEMENT	SUPERPAVE TYPE "55" ASPHALT FOR PAVEMENT	6" BARRIER CURB	TYPE "A" AGGREGATE
	CY	CY	CY	LF	CY
W. BOYD STREET					
STA. 14+59.75 TO STA. 35+63.81	323				
STA. 10+00.00 TO STA. 10+13.37		2			
STA. 10+00.00 TO STA. 35+63.81			148		
STA. 10+00.00 TO STA. 35+63.81					
STA. 10+00.00 TO STA. 35+63.81				10	
STA. 10+00.00 TO STA. 35+63.81					740
TOTALS	323	2	148	10	740

SUMMARY OF SIGNING			
LOCATION	DESCRIPTION	(PL) REMOVAL OF EXISTING SIGNS	(PL) REMOVE AND RESET EXISTING
		EA	EA
STATION	OFFSET		
W. BOYD STREET			
STA. 11+08	21.22' RT	W11-2	1
STA. 11+99	23.42' RT	R2-1	1
TOTALS			2

SUMMARY OF TRAFFIC CONTROL				
STATION RANGE	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	DRUMS	TYPE III BARRICADES	(PL) PORTABLE LONGITUDINAL BARRIER
	SD	SD	SD	SD
W. BOYD STREET				
STA. 10+00.00 TO STA. 35+63.81	5040			
STA. 10+00.00 TO STA. 35+63.81		1200		
STA. 10+00.00 TO STA. 35+63.81			1200	
STA. 10+00.00 TO STA. 35+63.81				15000
TOTAL	5040	1200	1200	15000

SUMMARY OF DRIVEWAYS						
LOCATION		TYPE	RADIUS	LENGTH	WIDTH	6" CONCRETE DRIVEWAY
STATION	SIDE		FT	FT	FT	SY
W. BOYD STREET						
STA. 11+48.23	RESIDENTIAL	CONCRETE	15	16	22	17
STA. 12+96.81	RESIDENTIAL	CONCRETE	25	15	32	26
TOTALS						43

SUMMARY OF PAVEMENT MARKING					
STATION RANGE	TRAFFIC STRIPE (THERMOPLASTIC) (24 INCH WIDE)	TRAFFIC STRIPE (THERMOPLASTIC) (6 INCH WIDE)	TRAFFIC STRIPE (THERMOPLASTIC) (4 INCH WIDE)	LEFT TURN ARROW	ONLY
	WHITE	WHITE	YELLOW	WHITE	WHITE
	LF	LF	LF	EA	EA
W. BOYD STREET					
STA. 10+00.00 TO STA. 26+82	360	710	2750	2	1
TOTALS	360	710	2750	2	1

**W. BOYD STREET
STORM SEWER
REPLACEMENT**

FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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CONTACT: M.WILLIAMS
QC BY: M.LOVE
QC DATE:

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SUMMARY TABLES

STORMWATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: BEGINNING AT S. PICKARD AVE. AND W. BOYD ST. EXTENDING EAST 1675'
TO COLLEGE AVE. AND W. BOYD ST.

PROJECT DESCRIPTION: STORMWATER PIPE REPLACEMENT.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1. PLACE TEMPORARY SEDIMENT CONTROL DEVICES AT ALL OFF SITE DRAINAGE LOCATIONS.
2. PERFORM CLEARING & GRUBBING OPERATIONS, PRESERVING ANY EXISTING VEGETATION NOT IMPEDING CONSTRUCTION.
3. REMOVE AND STOCKPILE TOPSOIL.
4. ADD ADDITIONAL TEMPORARY SEDIMENT CONTROL DEVICES AND MAINTAIN AS NEEDED.
5. AS GRADING PROCEEDS, PLACE TEMPORARY MULCHING OR PERMANENT GRASS DEPENDING ON ULTIMATE SLOPES.
6. AS PERMANENT GRASSING IS ESTABLISHED (70% COVER), REMOVE TEMPORARY SEDIMENT CONTROL DEVICES.

AREA TO BE DISTURBED: 0.30 AC

OFFSET AREA TO BE DISTURBED:
 (FOR CONTRACTOR USE)

WEIGHTED RUNOFF COEFFICIENT:

BEFORE CONSTRUCTION: 0.95
 AFTER CONSTRUCTION: 0.95

NAME OF RECEIVING WATERS: IMHOFF CREEK

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE CHARACTERISTICS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER FOR OVER 21 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- TEMPORARY BRUSH SEDIMENT BARRIERS
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY BALE BARRIERS
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- SANDBAG BERMS
- ROCK FILTER DAMS
- TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH LINER PROTECTION
- TEMPORARY DIVERSION CHANNELS
- RIP RAP
- TEMPORARY STREAM CROSSINGS
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- INLET SEDIMENT FILTER
- STABILIZED CONSTRUCTION EXIT

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

All erosion and sediment controls will be maintained in good working order from the beginning of construction until an acceptable vegetative cover is established. Inspection by the Contractor and any necessary repairs shall be performed once every 7 calendar days and within 24 hours after any storm event greater than 0.5 inches (1.25 cm) as recorded by a non-freezing rain gauge to be located on site. Potentially erodible areas, drainageways, material storage, structural devices, construction entrances and exits along with erosion and sediment control locations are examples of sites that need to be inspected.

WASTE MATERIALS:

Proper management and disposal of construction waste material is required by the Contractor. Materials include stockpiles, surplus, debris and all other by-products from the construction process. Practices include disposal, proper materials handling, spill prevention and cleanup measures. Controls and practices shall meet the requirements of all Federal, State and Local agencies.

HAZARDOUS MATERIALS:

Proper management and disposal of hazardous waste materials is required. The Contractor is responsible for following manufacturer's recommendations, State and Federal regulations to ensure correct handling, disposal, spill prevention and cleanup measures. Examples include but are not limited to: paints, acids, cleaning solvents, chemical additives, concrete curing compounds and contaminated soils.

GENERAL NOTES:

A Stormwater Pollution Prevention Plan (SW3P) is required to comply with the Oklahoma Pollution Discharge Elimination Systems (OPDES) regulations. This plan is initiated during the design phase, confirmed in the pre-work meetings and available on the job site along with copies of the Notice of Intent (NOI) forms that have been filed with the Oklahoma Department of Environmental Quality (ODEQ). The plan must be kept current with up-to-date amendments during the progression of the project. The basic goal of stormwater management is to improve water quality by reducing pollutants in storm water discharges. Runoff from construction sites has a potential for pollution due to exposed soils and the presence of hazardous materials used in the construction process. The prevention of soil erosion, containment of hazardous materials and/or the interception of these pollutants before leaving the construction site are the best practices for controlling stormwater pollution.

The following Subsections of ODOT's Standard Specifications book should be noted:

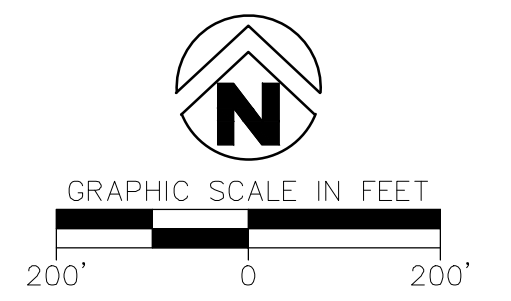
- 103.05 Bonding Requirements
- 104.10 Final Cleaning Up
- 104.14 Contractor's Responsibility for Work
- 106.08 Storage of Materials
- 107.01 Laws To Be Observed
- 107.15 Stormwater Management
- 220.01 - 05 Temporary Erosion, Sedimentation and Stormwater Pollution Prevention and Control

In addition:

ODOT Special Provision 220-1 Management of Erosion Sedimentation, and Stormwater Pollution Prevention and Control.

"ODEQ General Permit (OKR10) for Storm Water Discharges From Construction Activities within the State of Oklahoma." ODEQ, Water Quality Division, September 13, 2007.

DESIGN		STORM SEWER REPLACEMENT	CLEVELAND COUNTY
DETAIL		STORMWATER MANAGEMENT PLAN	
CHECK		FOR W. BOYD STREET	
SQUAD	CTA		
ENGR.			



**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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CONTACT: M.WILLIAMS
QC by: M.LOVE
QC Date:

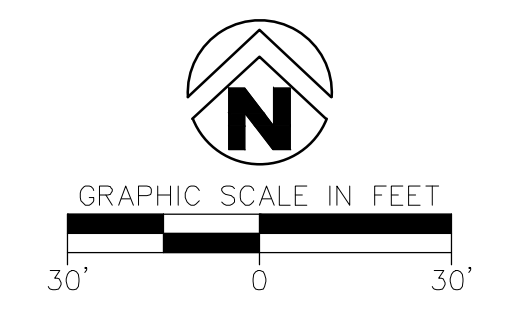
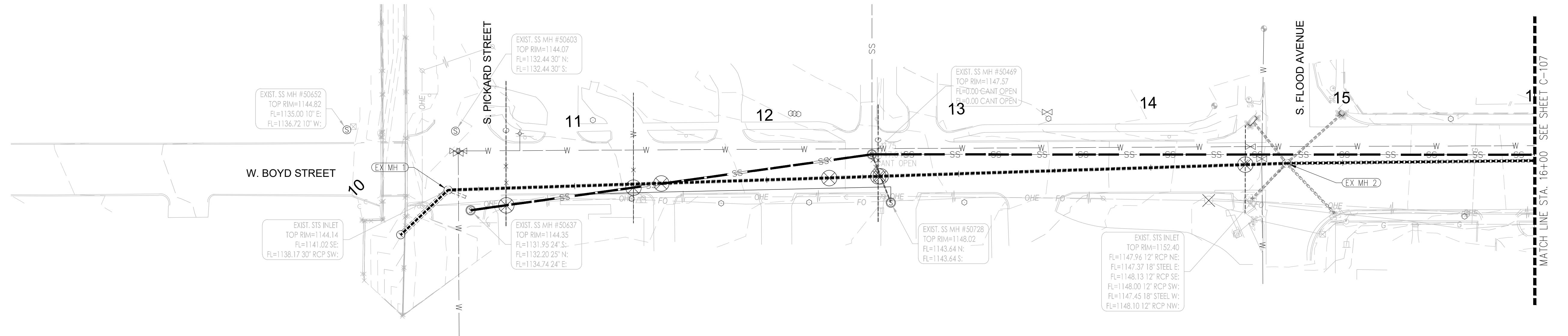
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DRAINAGE MAP



**W. BOYD ST.
BASIN
28.44 AC.**

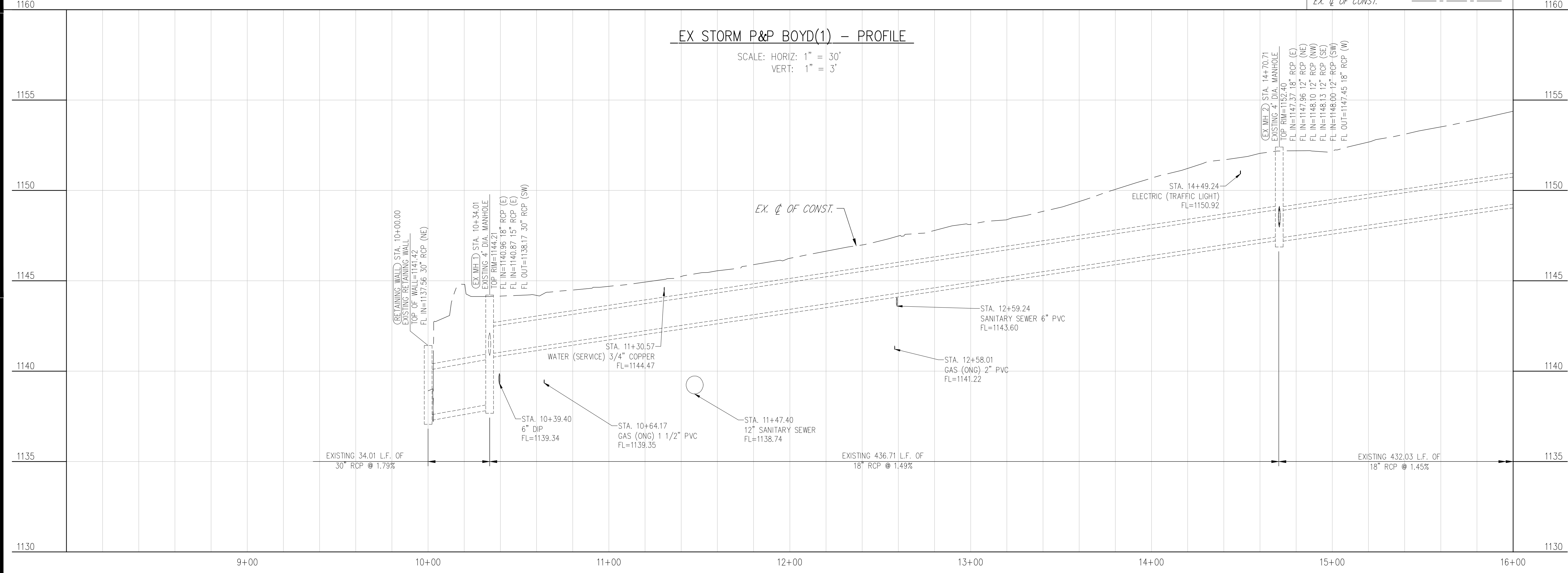


EX STORM P&P BOYD(1) - PLAN

LEGEND	
UTILITY CROSSING (SEE PROFILE)	(X)
SANITARY SEWER LINE	SS
PROP GROUND	---
EX. ϕ OF CONST.	- - - -

EX STORM P&P BOYD(1) - PROFILE

SCALE: HORIZ: 1" = 30'
VERT: 1" = 3'



Key Plan

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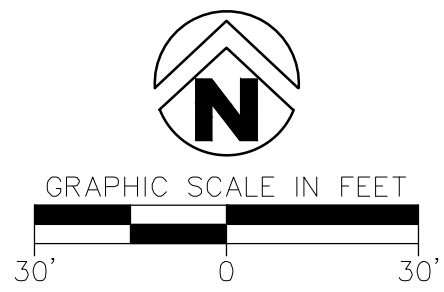
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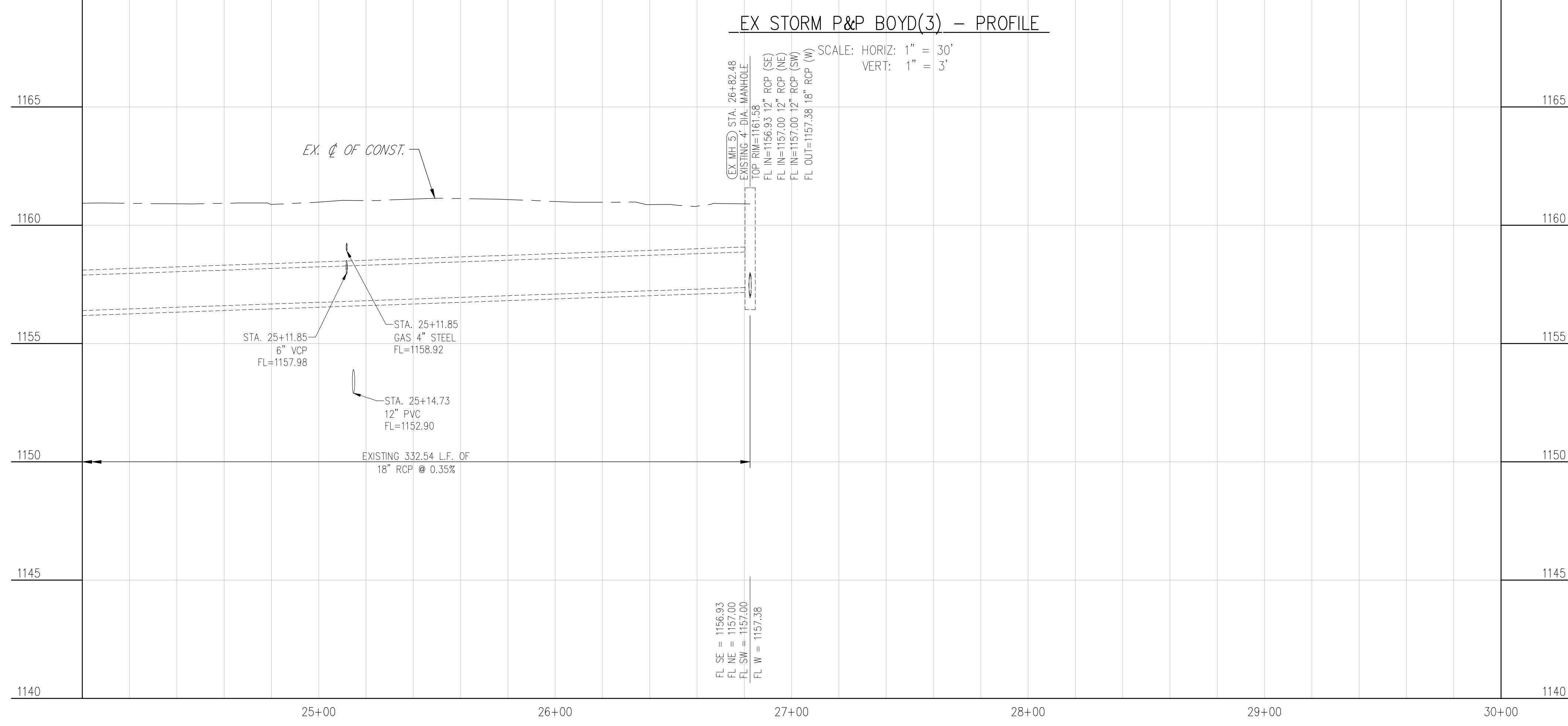
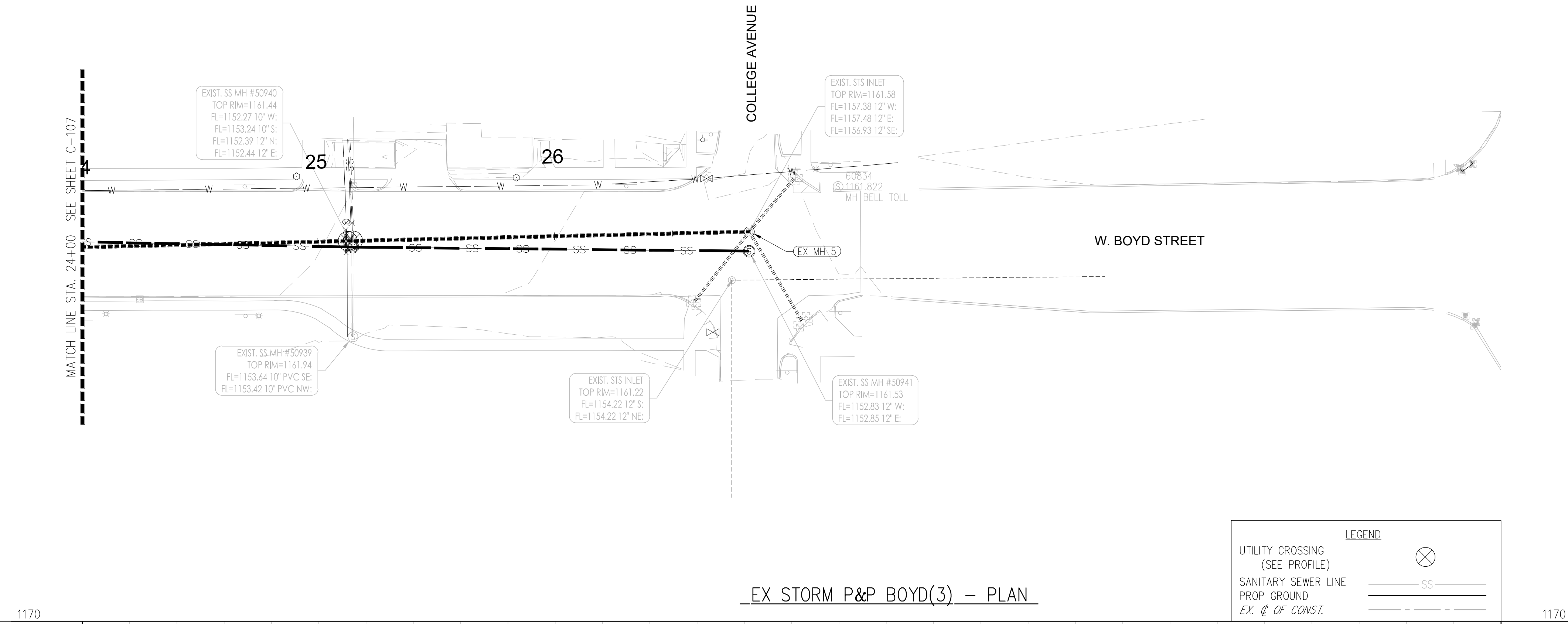
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EX STORM P&P BOYD(1)

C-106
30" STORM SEWER REPLACEMENT

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**W. BOYD STREET
STORM SEWER
REPLACEMENT**
 FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK



Key Plan

No.	Description	Date

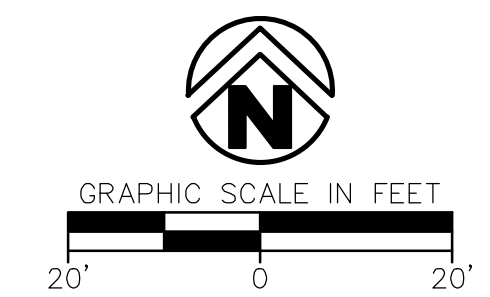
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 QC DATE:

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 EX STORM P&P BOYD(3)

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**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

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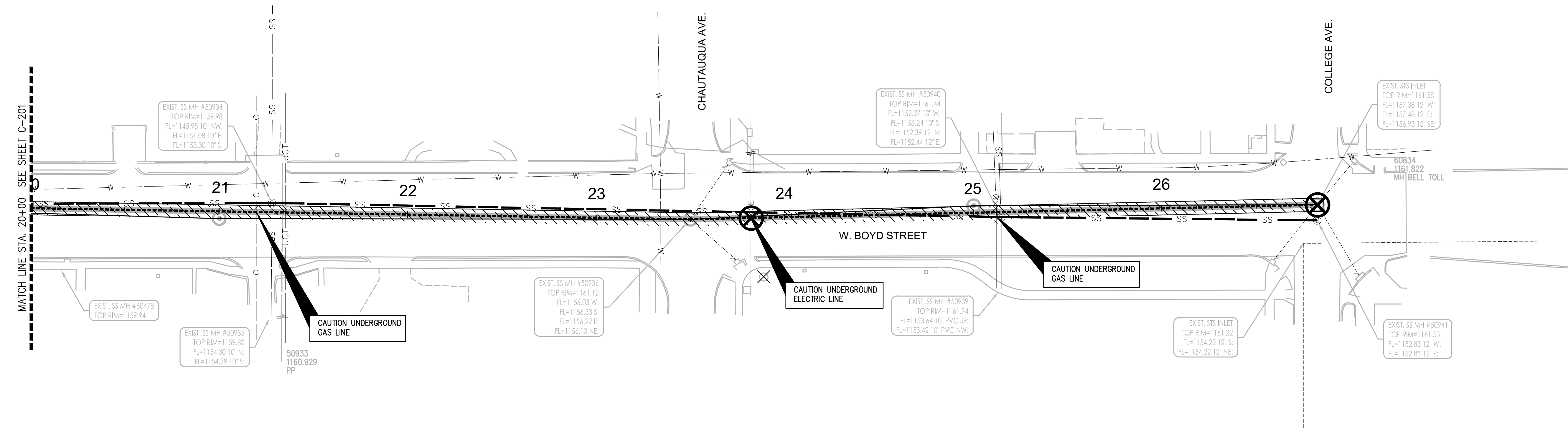
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 QC DATE:



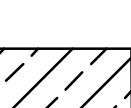
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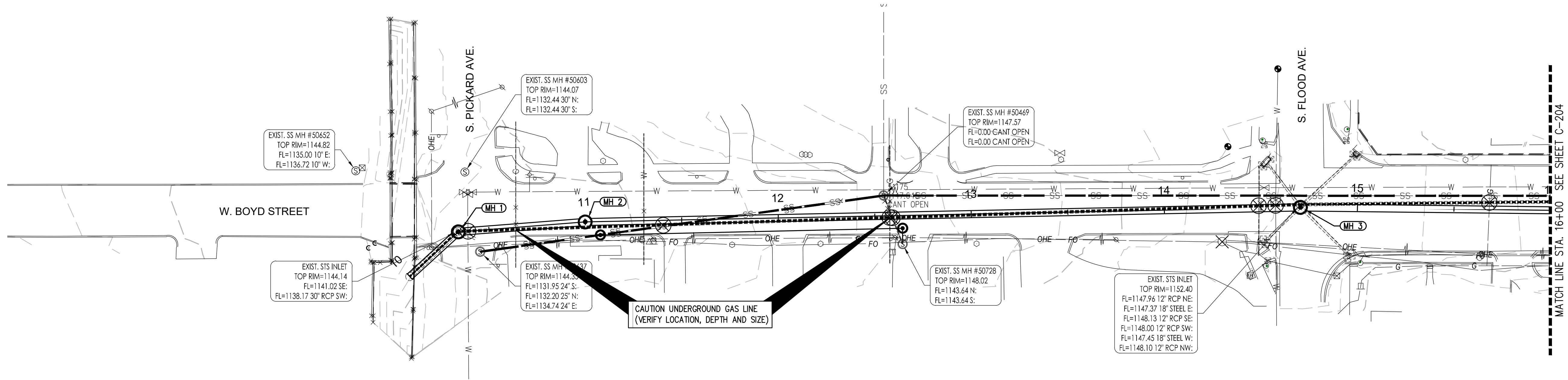
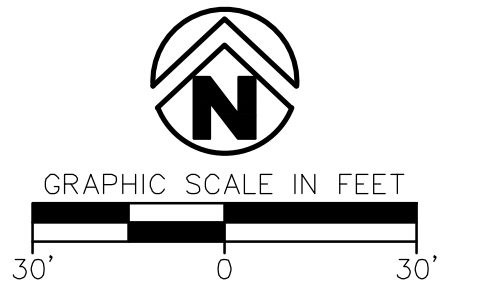
REMOVAL PLAN BOYD ST (2)

C-202

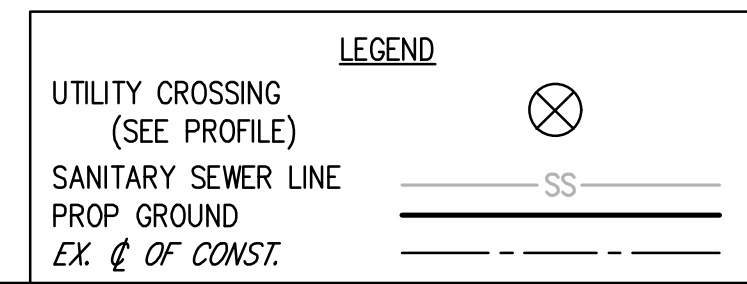


LEGEND	
	- MANHOLE REMOVAL
	- PIPE REMOVAL
	- PAVEMENT REMOVAL

SAWCUT PAVEMENT (LINEAR FEET)	PAVEMENT REMOVAL (SQ. YARDS)	18" RCP REMOVAL (LINEAR FEET)	MANHOLE REMOVAL (EACH)
1385	533	684	2

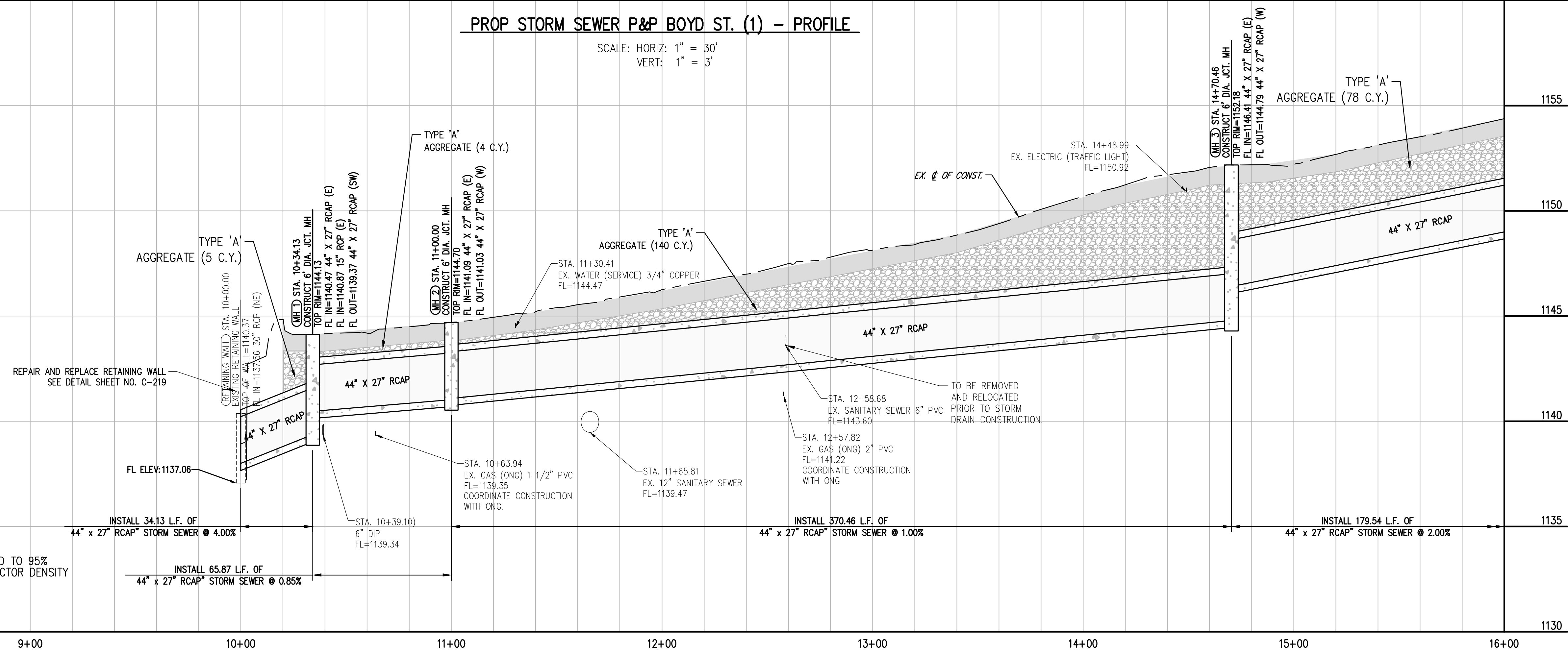


PROP STORM SEWER P&P BOYD ST. (1) - PLAN



PROP STORM SEWER P&P BOYD ST. (1) - PROFILE

SCALE: HORIZ: 1" = 30'
VERT: 1" = 3'



NOTES:
FILL COMPACTED TO 95%
STANDARD PROCTOR DENSITY

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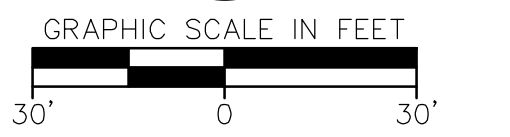
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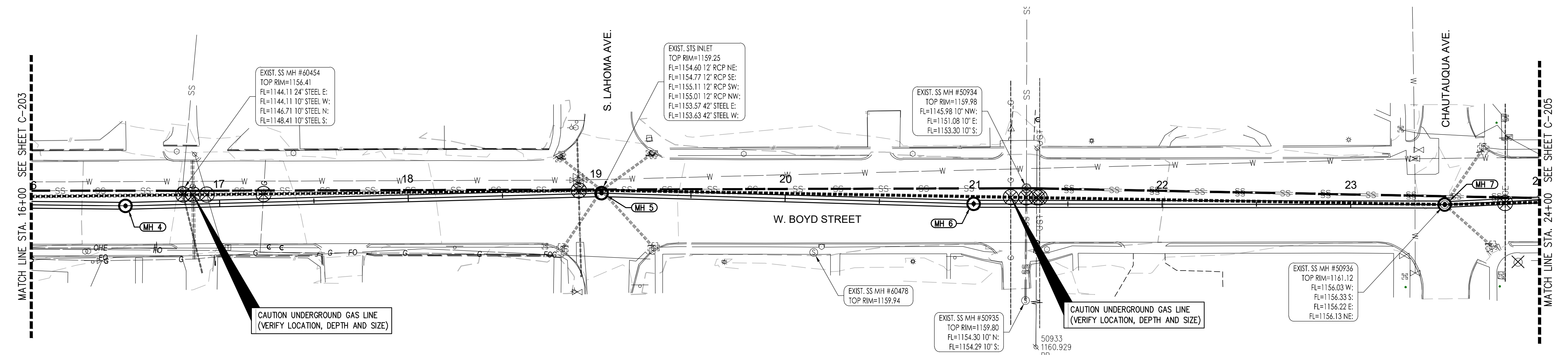
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PROP STORM SEWER P&P
BOYD ST. (1)

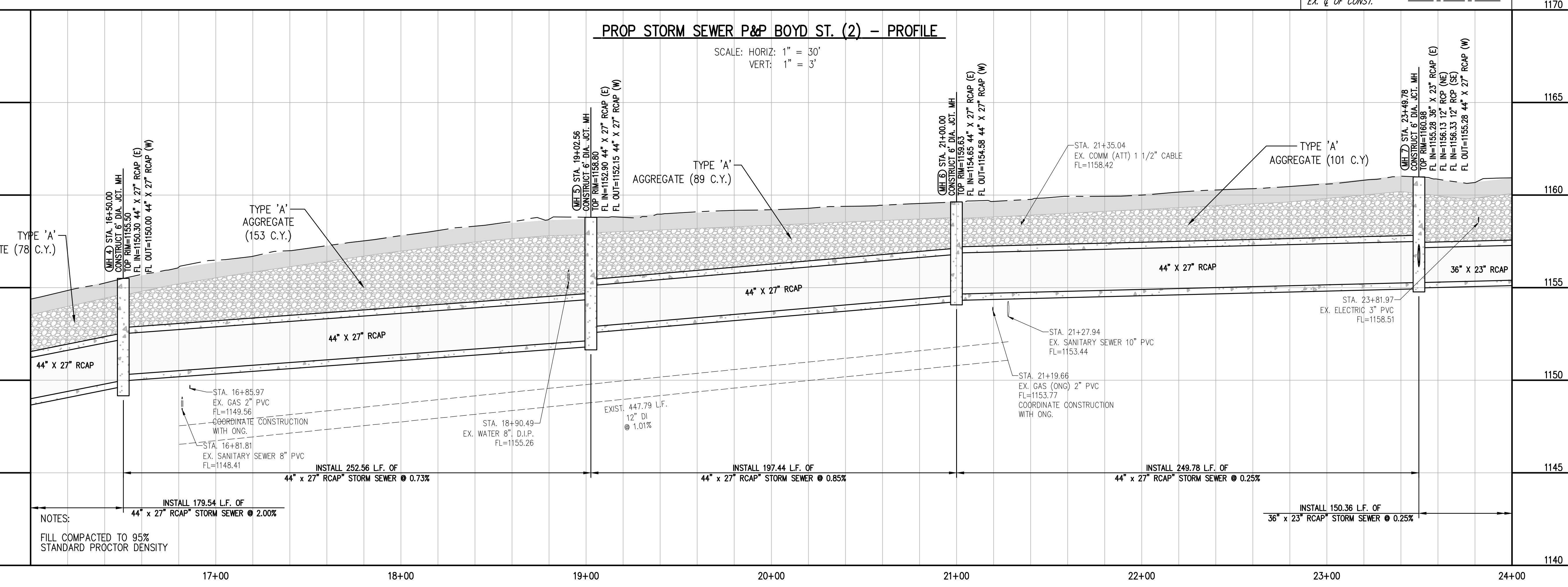


W. BOYD STREET
STORM SEWER
REPLACEMENT
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK



PROP STORM SEWER P&P BOYD ST. (2) - PLAN

LEGEND	
UTILITY CROSSING (SEE PROFILE)	⊗
SANITARY SEWER LINE	SS
PROP GROUND EX. OF CONST.	---



PROP STORM SEWER P&P BOYD ST. (2) - PROFILE

SCALE: HORIZ: 1" = 30'
VERT: 1" = 3'

NOTES:
FILL COMPACTED TO 95%
STANDARD PROCTOR DENSITY

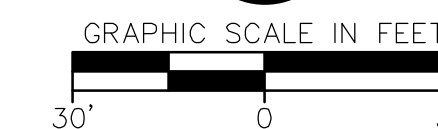
No.	Description	Date

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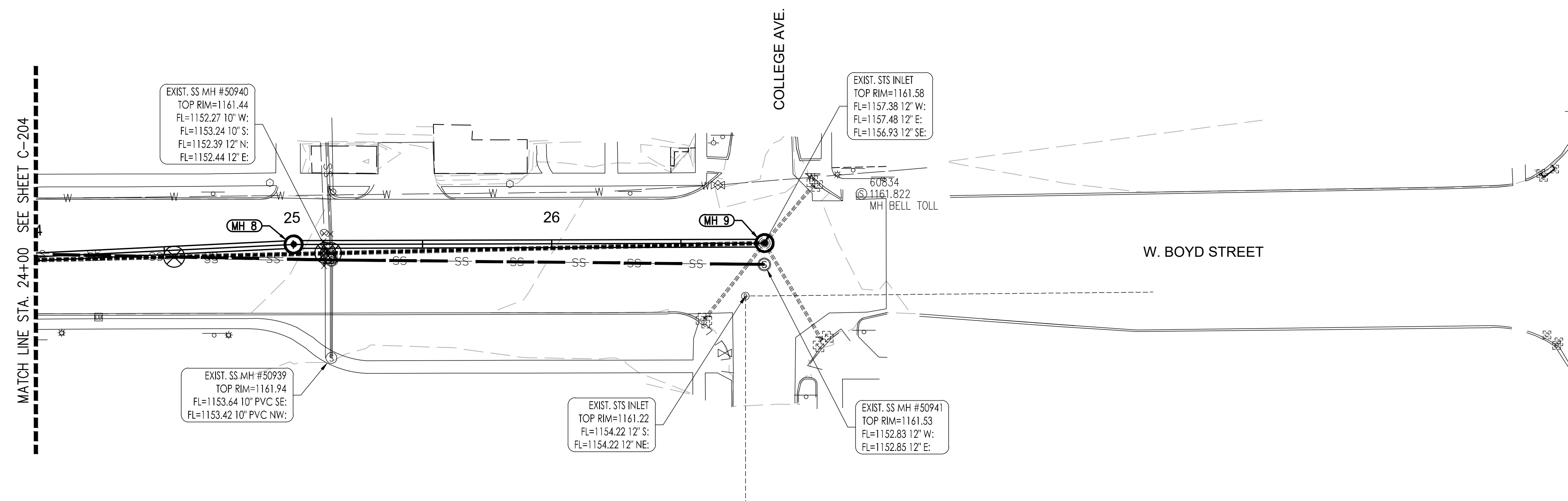
PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M. WILLIAMS
DCC BY: M. LOVE
DCC DATE:

ISSUED FOR
CONSTRUCTION

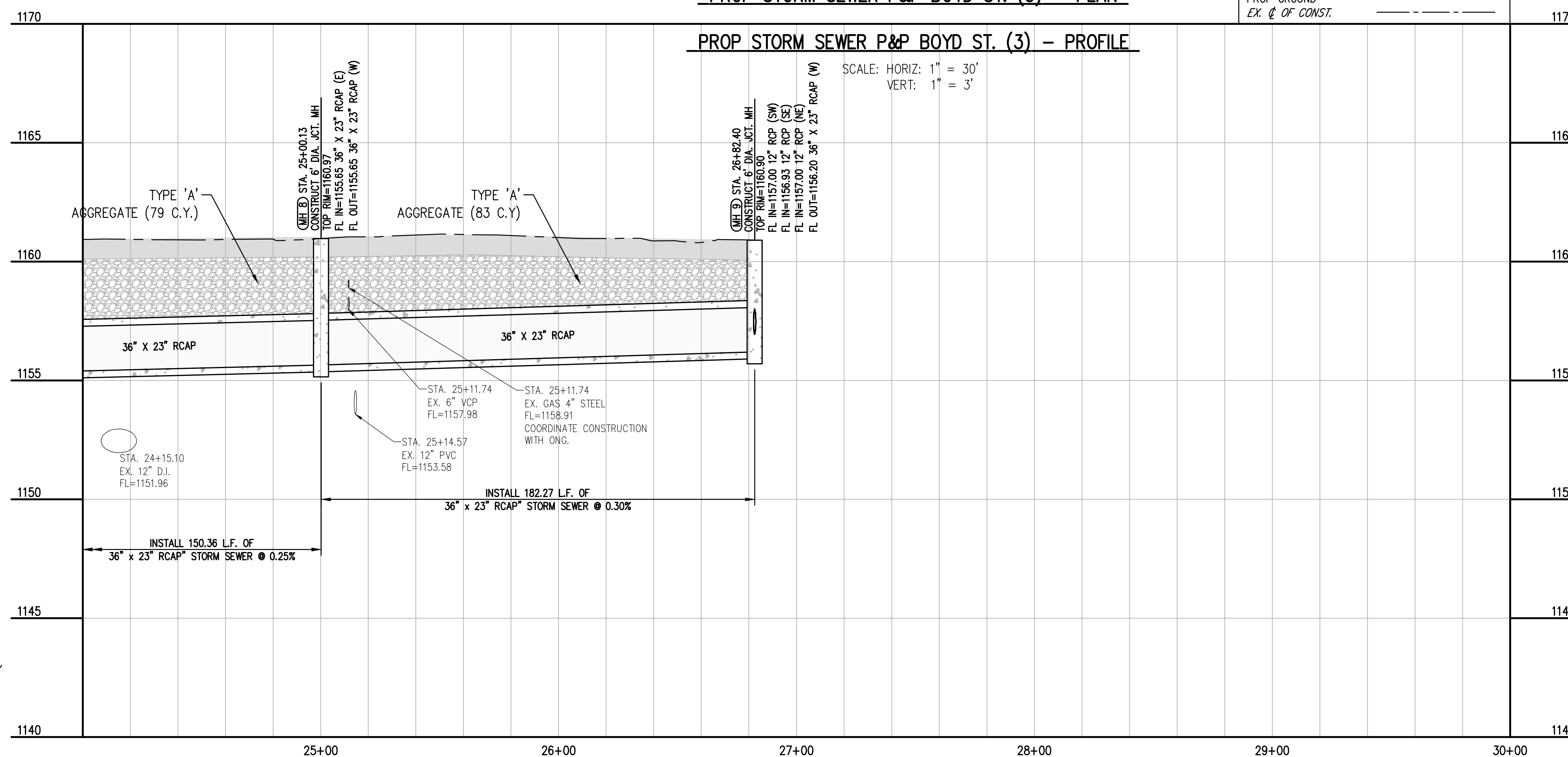
PROP STORM SEWER P&P
BOYD ST. (2)



W. BOYD STREET
STORM SEWER
REPLACEMENT
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK



PROP STORM SEWER P&P BOYD ST. (3) - PLAN



PROP STORM SEWER P&P BOYD ST. (3) - PROFILE

NOTES:
FILL COMPACTED TO 95%
STANDARD PROCTOR DENSITY

No.	Description	Date

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PROJECT NO: 23606900
ISSUE DATE: 1/4/2024
CONTACT: M. WILLIAMS
GC by: M. LOVE
GC Date:

ISSUED FOR
CONSTRUCTION

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PROP STORM SEWER P&P
BOYD ST. (3)

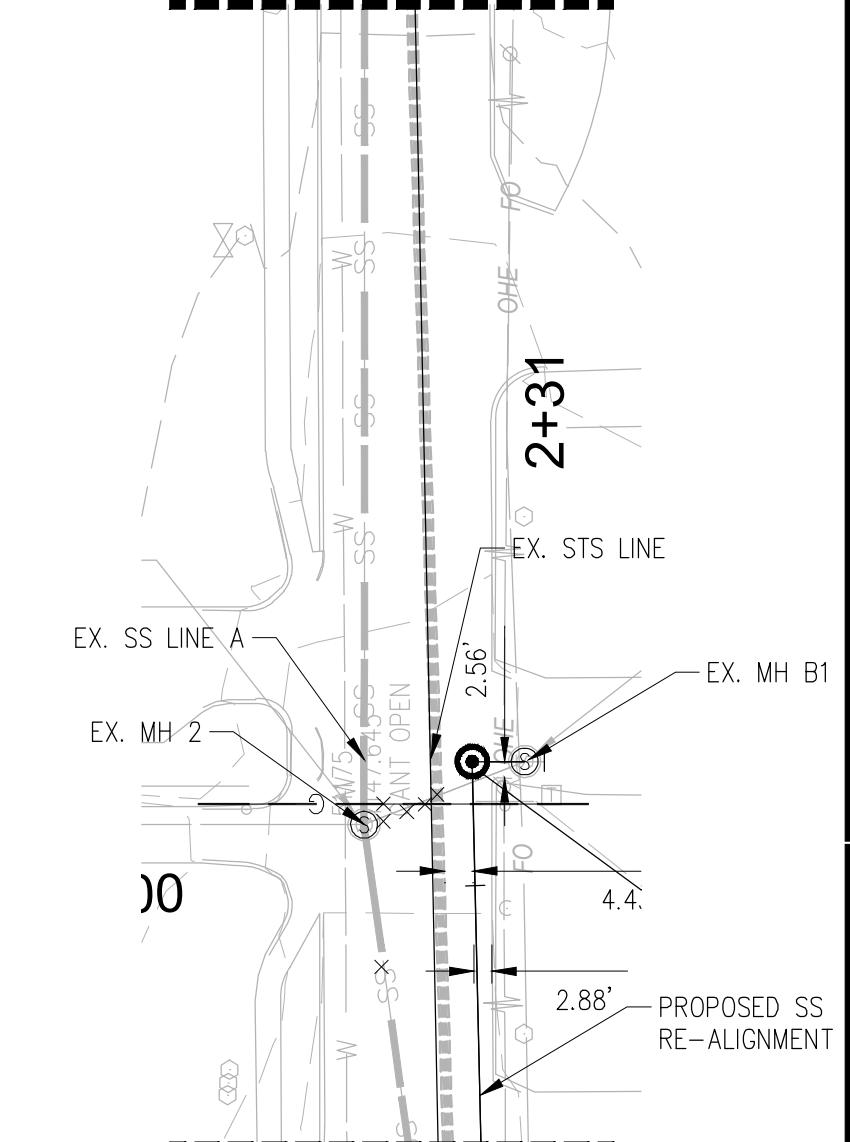
C-205



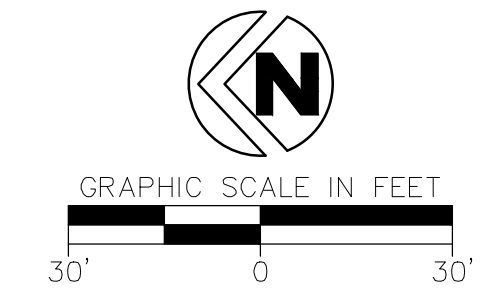
CERTIFICATE OF AUTHORIZATION:
CA 973 (PE/S) EXPIRES 6/30/2026

EX SANITARY SEWER BOYD LINE B – PLAN

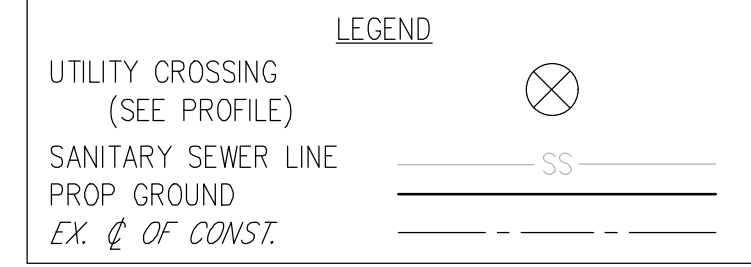
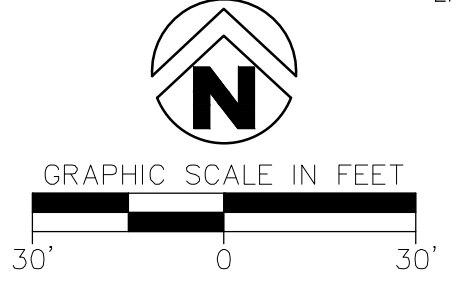
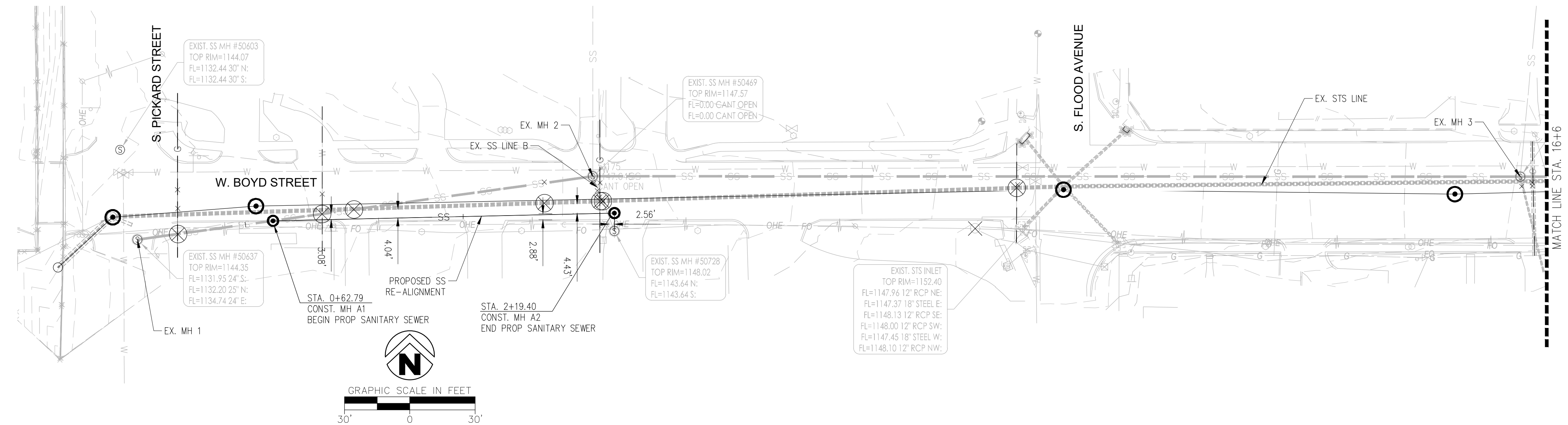
MATCH LINE STA. 13+39.00 SEE THIS SHEET



MATCH LINE STA. 11+60.00 SEE THIS SHEET

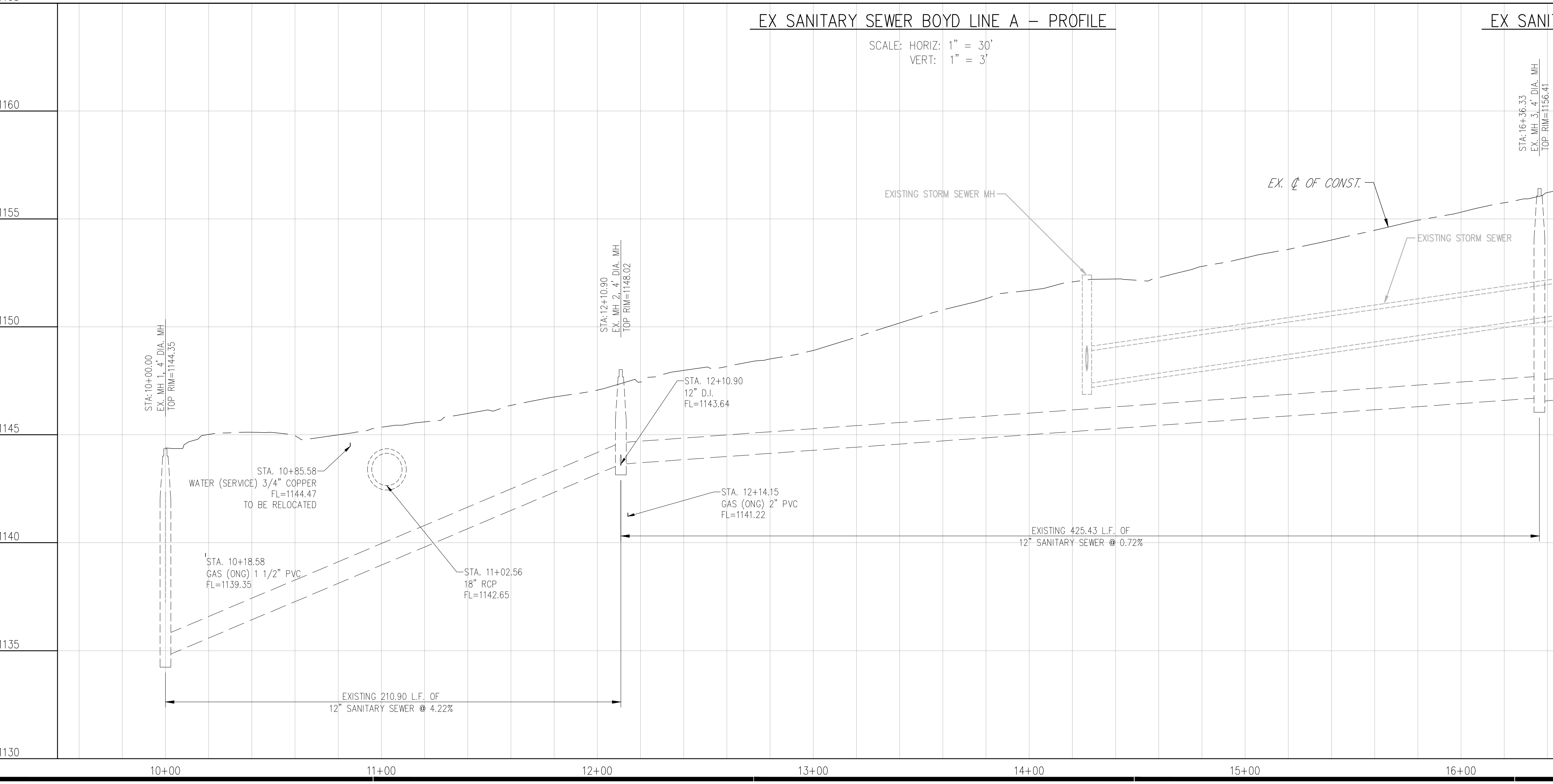


EX SANITARY SEWER BOYD LINE A – PLAN



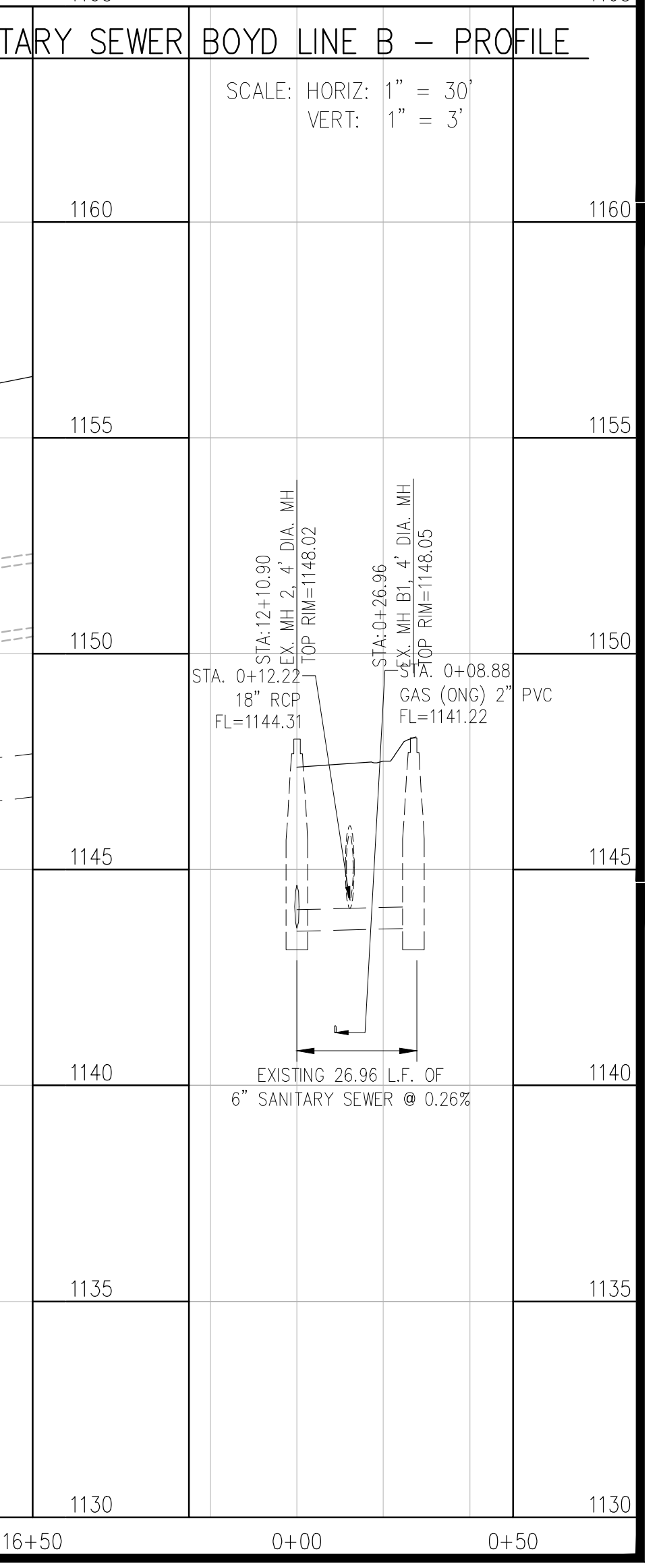
EX SANITARY SEWER BOYD LINE A – PROFILE

SCALE: HORIZ: 1" = 30'
VERT: 1" = 3'



EX SANITARY SEWER BOYD LINE B – PROFILE

SCALE: HORIZ: 1" = 30'
VERT: 1" = 3'



W. BOYD STREET STORM SEWER REPLACEMENT

FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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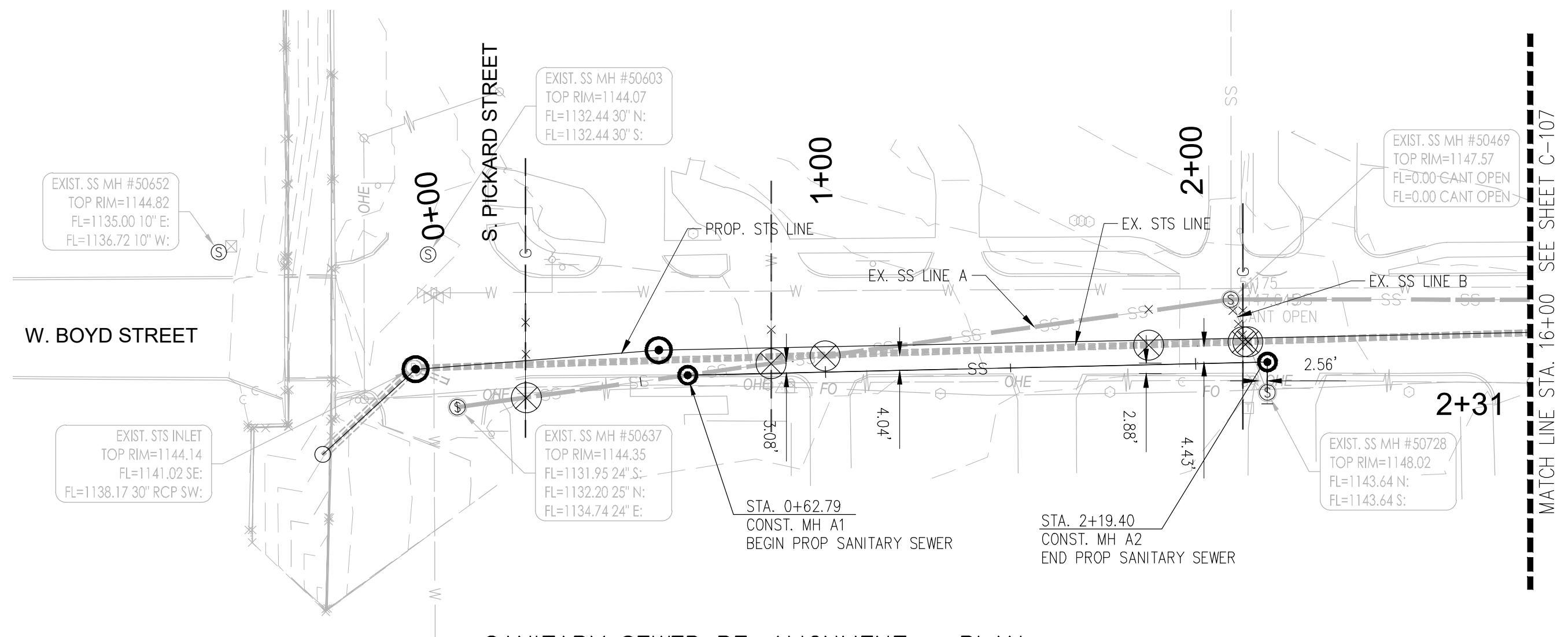
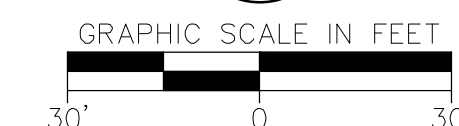
PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M. WILLIAMS
QC BY: M. LOVE
QC DATE:

**ISSUED FOR
CONSTRUCTION**

EXISTING SANITARY
SEWER LINE A & B

C-206
30" STORM SEWER REPLACEMENT

DRAWING: C:\DRAWING\ENR\WFA\PROJECTS\2024\30" STORM SEWER REPLACEMENT\30" STORM SEWER REPLACEMENT\SSR_PLAN_A.dwg
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SANITARY SEWER RE-ALIGNMENT - PLAN

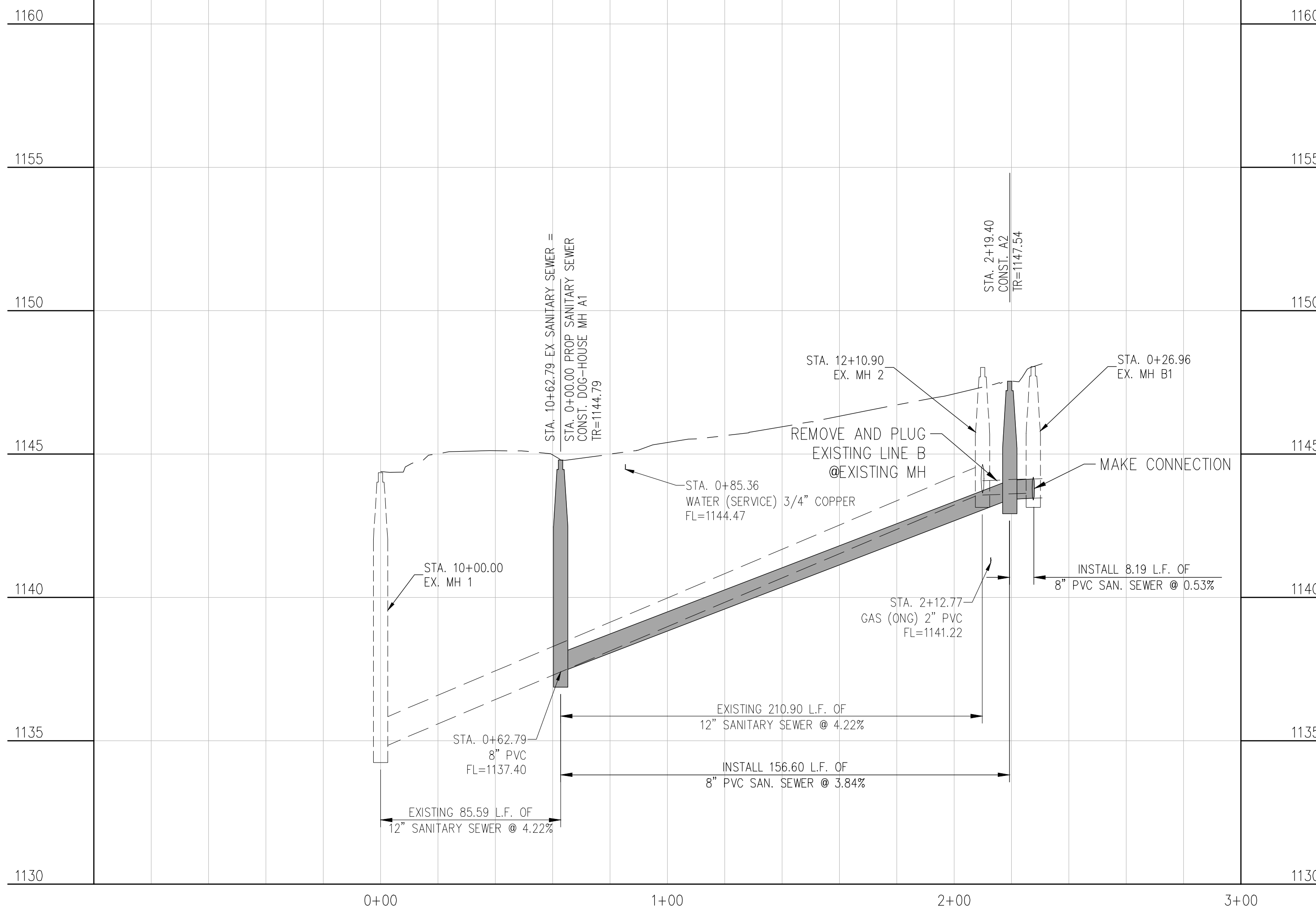
LEGEND	
UTILITY CROSSING (SEE PROFILE)	
SANITARY SEWER LINE	
PROP. GROUND	
EX. @ OF CONST.	

**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

1165

SANITARY SEWER RE-ALIGNMENT - PROFILE

SCALE: HORIZ: 1" = 30'
VERT: 1" = 3'



Key Plan

No.	Description	Date

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PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M.WILLIAMS
QC by: M.LOVE
QC Date:

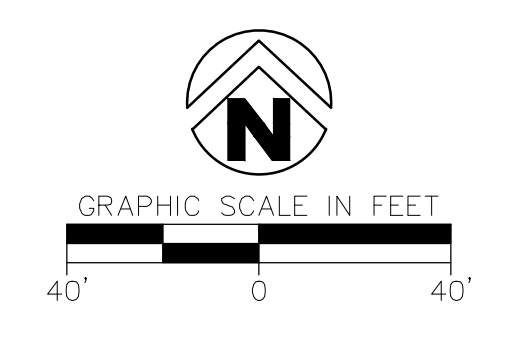
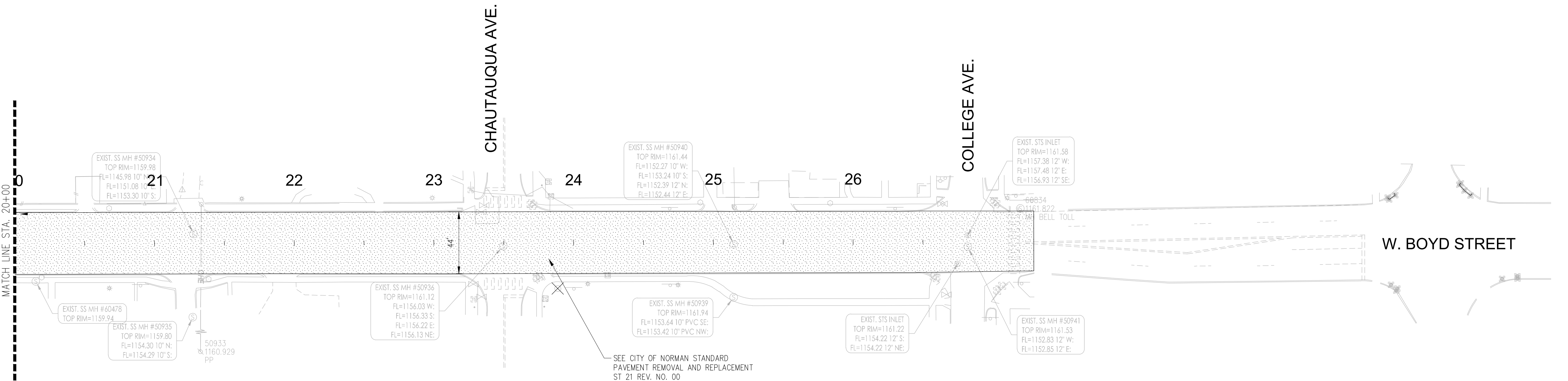
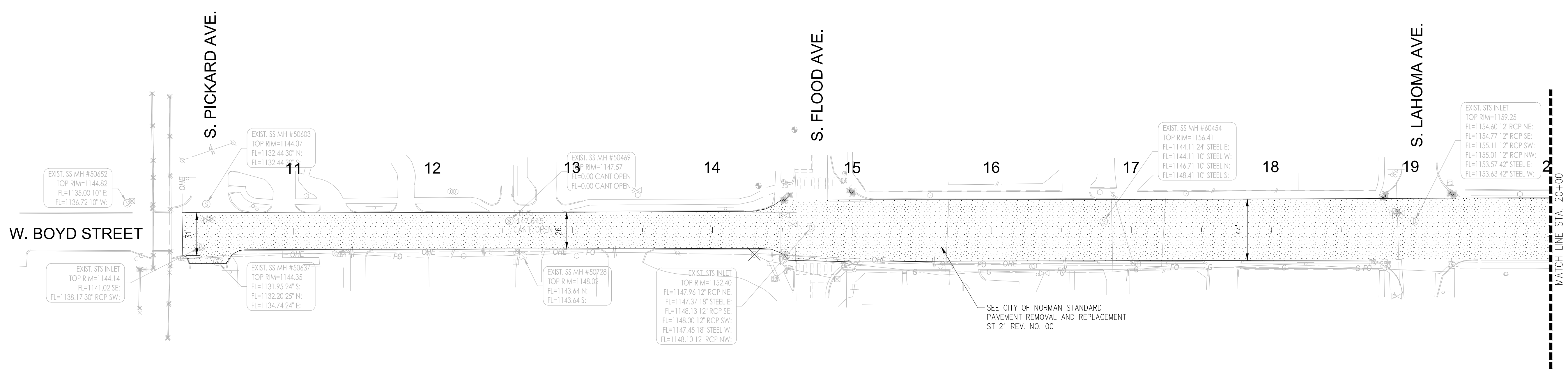
**ISSUED FOR
CONSTRUCTION**

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**SANITARY SEWER
RE-ALIGNMENT**

C-207

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PLOTTER: HP PLOTTER
SCALE: 1" = 30'

LIMITS OF MILL & OVERLAY



**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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PROJECT NO: 2360900
ISSUE DATE: 1/4/2024
CONTACT: M.WILLIAMS
QC BY: M.LOVE
QC Date: _____

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**MILL & OVERLAY PLAN (1)
ADD ALTERNATE**

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NOTE: 2" OVERLAY SHALL
EXTEND TO GUTTER LIMITS

2" MILL & OVERLAY -



GRAPHIC SCALE IN FEET
20' 0 20'

**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M. WILLIAMS
QC by: M. LOVE
QC Date:

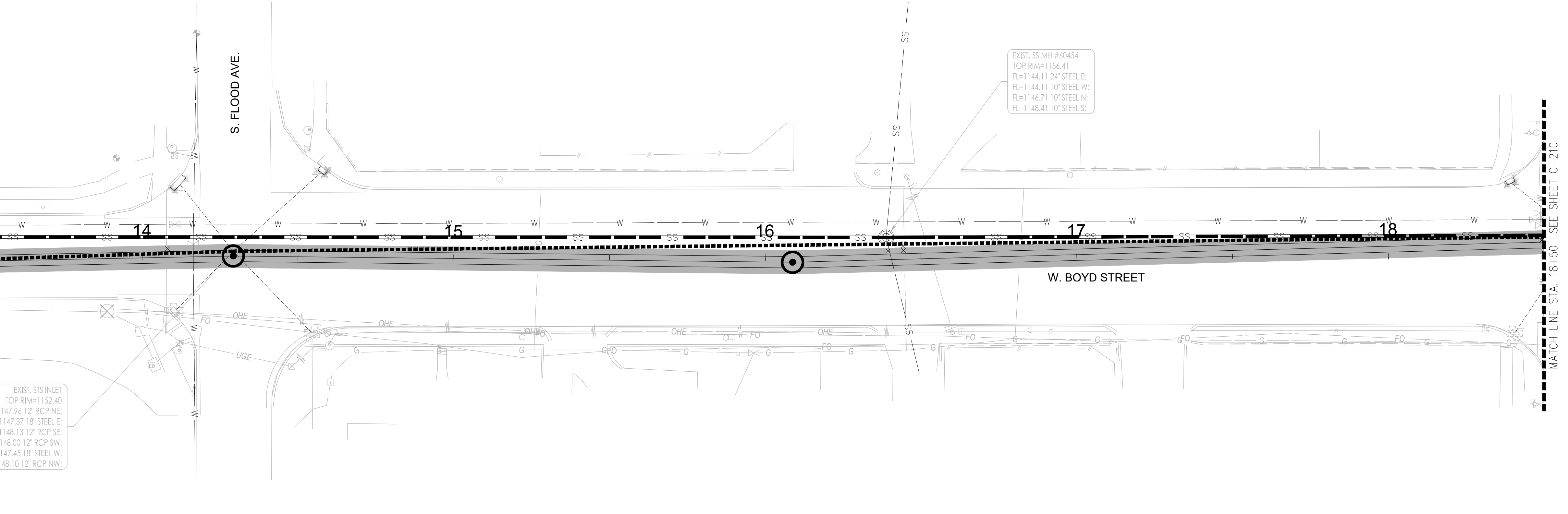
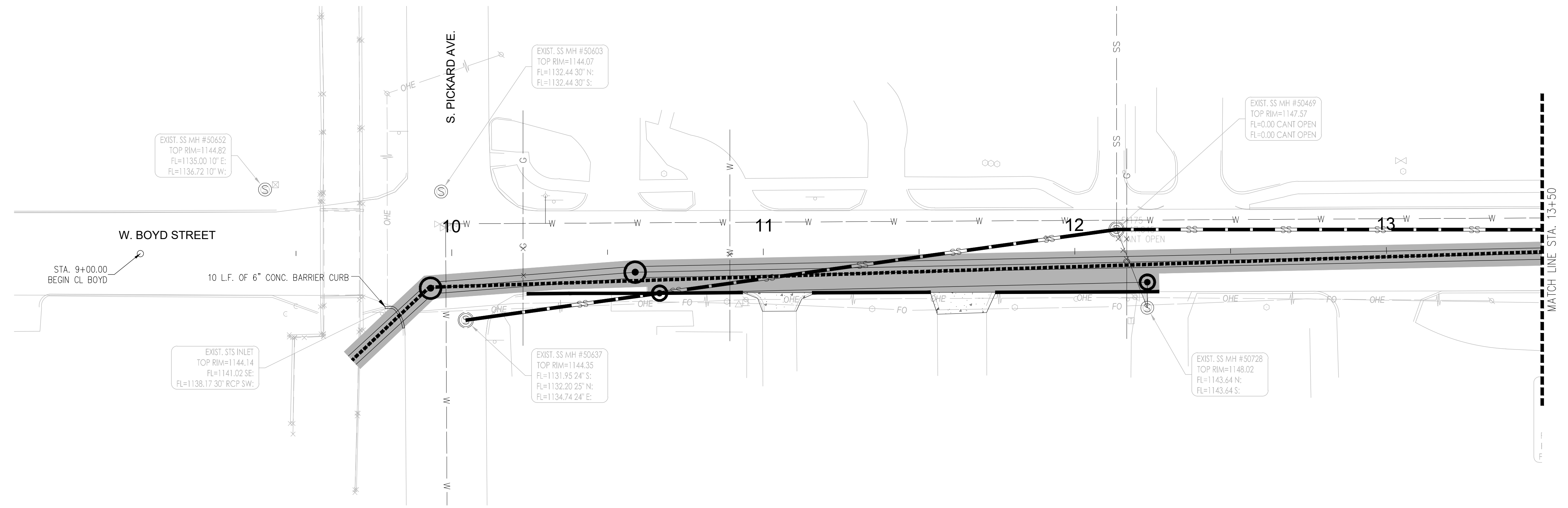
**ISSUED FOR
CONSTRUCTION**

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PAVING BOYD ST. (1)

C-209

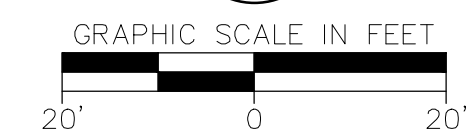
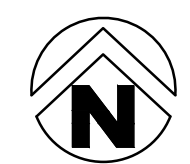
30" STORM SEWER REPLACEMENT

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LEGEND

REPAIR CURB & GUTTER	▬
REPAIR SIDEWALK PAVEMENT	▨
REPAIR ASPHALT PAVEMENT	■
REPAIR CONCRETE PAVEMENT	▩



**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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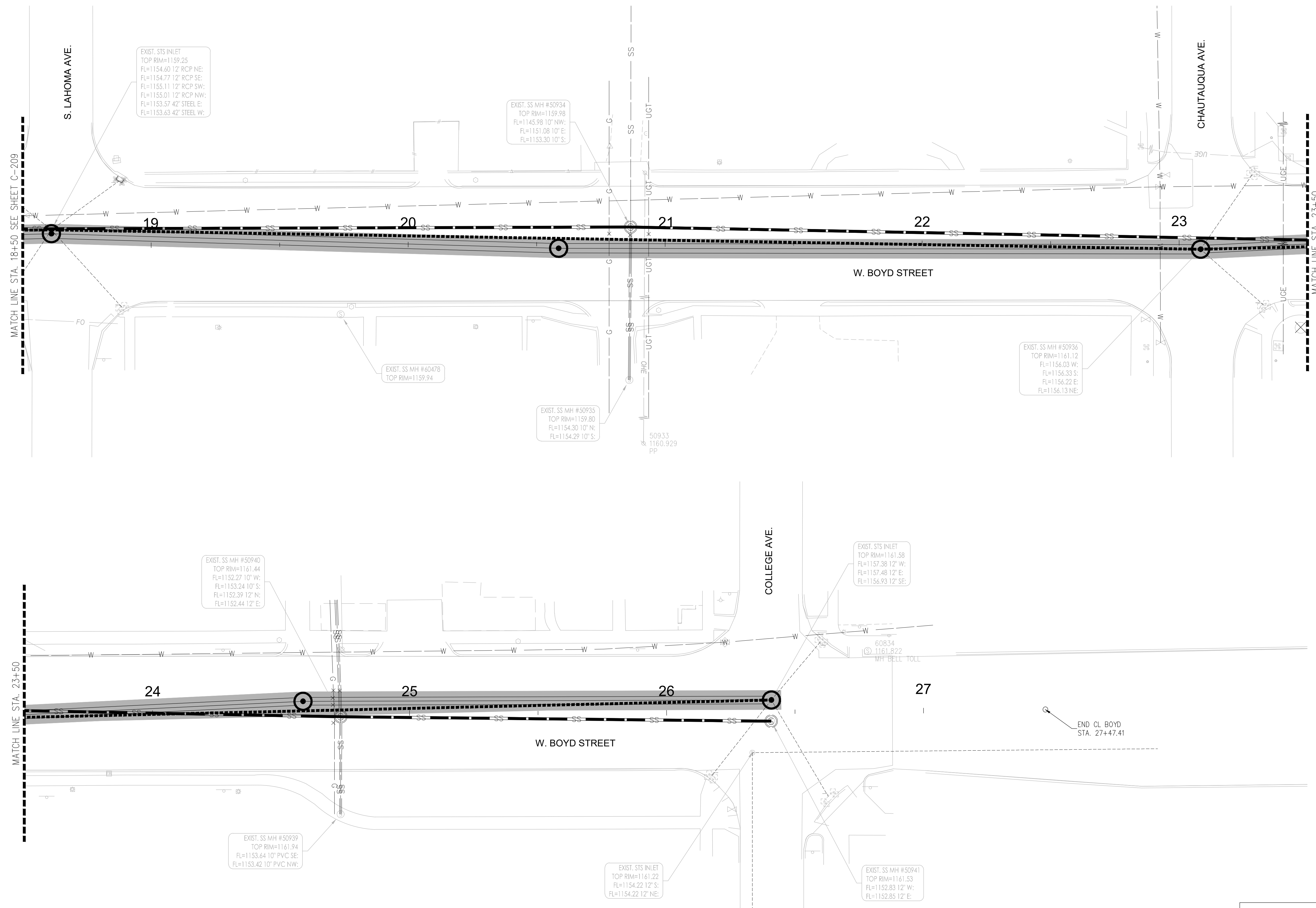
PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M. WILLIAMS
QC by: M. LOVE
QC Date:

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PAVING BOYD ST. (2)

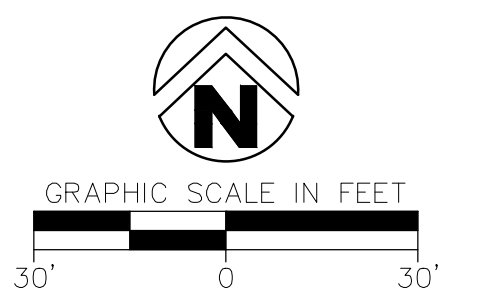
C-210



LEGEND

REPAIR CURB & GUTTER	
REPAIR SIDEWALK PAVEMENT	
REPAIR ASPHALT PAVEMENT	
REPAIR CONCRETE PAVEMENT	

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**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

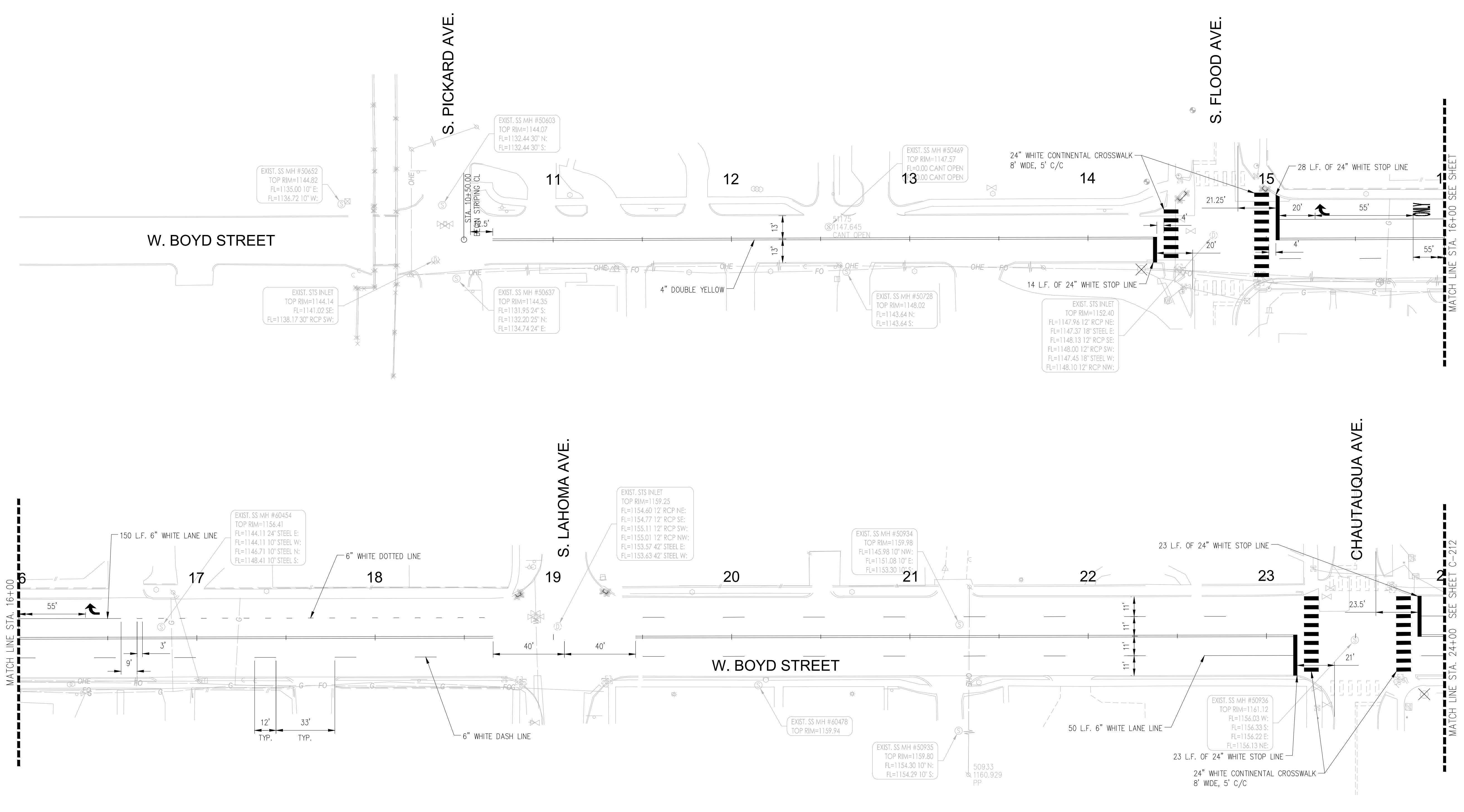
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PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M. WILLIAMS
QC by: M. LOVE
QC Date:

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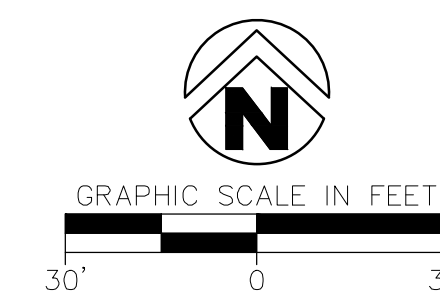
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STRIPING PLAN (1)



STRIPING QUANTITY SUMMARY				
ITEM NO.	ITEM	UNIT		
855(A)	TRAFFIC STRIPE (PLASTIC) (6" WHITE)	L.F.		552
855(A)	TRAFFIC STRIPE (PLASTIC) (8" WHITE)	L.F.		0
855(A)	TRAFFIC STRIPE (PLASTIC) (12" WHITE)	L.F.		0
855(A)	TRAFFIC STRIPE (PLASTIC) (24" WHITE)	L.F.		360
855(A)	TRAFFIC STRIPE (PLASTIC) (24" WHITE) (YIELD)	EA.		0
855(A)	TRAFFIC STRIPE (PLASTIC) (4" YELLOW)	L.F.		2235
855(A)	TRAFFIC STRIPE (PLASTIC) (8" YELLOW)	L.F.		0
855(A)	TRAFFIC STRIPE (PLASTIC) (12" YELLOW)	L.F.		0
855(B)	TRAFFIC STRIPE (ARROW)	EA.		2
855(B)	TRAFFIC STRIPE (WORD)	EA.		1
854(B)	TRAFFIC STRIPE SYMBOL, WORDS, ETC.	EA.		0

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**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

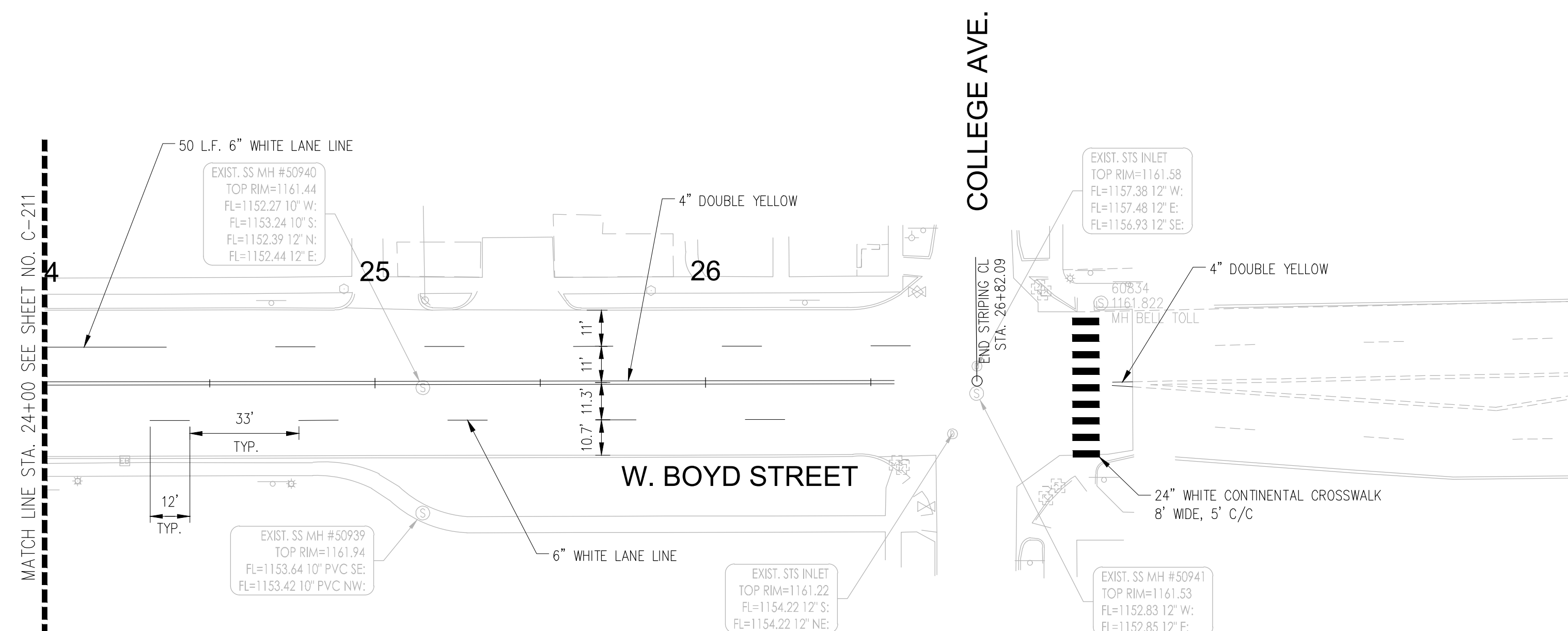
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PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M.WILLIAMS
QC BY: M.LOVE
QC Date:

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CONSTRUCTION**
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STRIPING PLAN (2)

C-212



STRIPING QUANTITY SUMMARY			
ITEM NO.	ITEM	UNIT	
855(A)	TRAFFIC STRIPE (PLASTIC) (6" WHITE)	L.F.	158
855(A)	TRAFFIC STRIPE (PLASTIC) (8" WHITE)	L.F.	0
855(A)	TRAFFIC STRIPE (PLASTIC) (12" WHITE)	L.F.	0
855(A)	TRAFFIC STRIPE (PLASTIC) (24" WHITE)	L.F.	72
855(A)	TRAFFIC STRIPE (PLASTIC) (24" WHITE) (YIELD)	EA.	0
855(A)	TRAFFIC STRIPE (PLASTIC) (4" YELLOW)	L.F.	530
855(A)	TRAFFIC STRIPE (PLASTIC) (8" YELLOW)	L.F.	0
855(A)	TRAFFIC STRIPE (PLASTIC) (12" YELLOW)	L.F.	0
855(B)	TRAFFIC STRIPE (ARROW)	EA.	0
855(B)	TRAFFIC STRIPE (WORD)	EA.	0
854(B)	TRAFFIC STRIPE SYMBOL, WORDS, ETC.	EA.	0

60" & 72" STORM SEWER REPLACEMENT FOR

N. FINDLAY AVE. FROM ROBINSON ST. TO ACRES ST. & BARTON ST. FROM SHORERIDGE AVE. TO 24th AVE. S.W. CITY OF NORMAN, OK

Key Plan

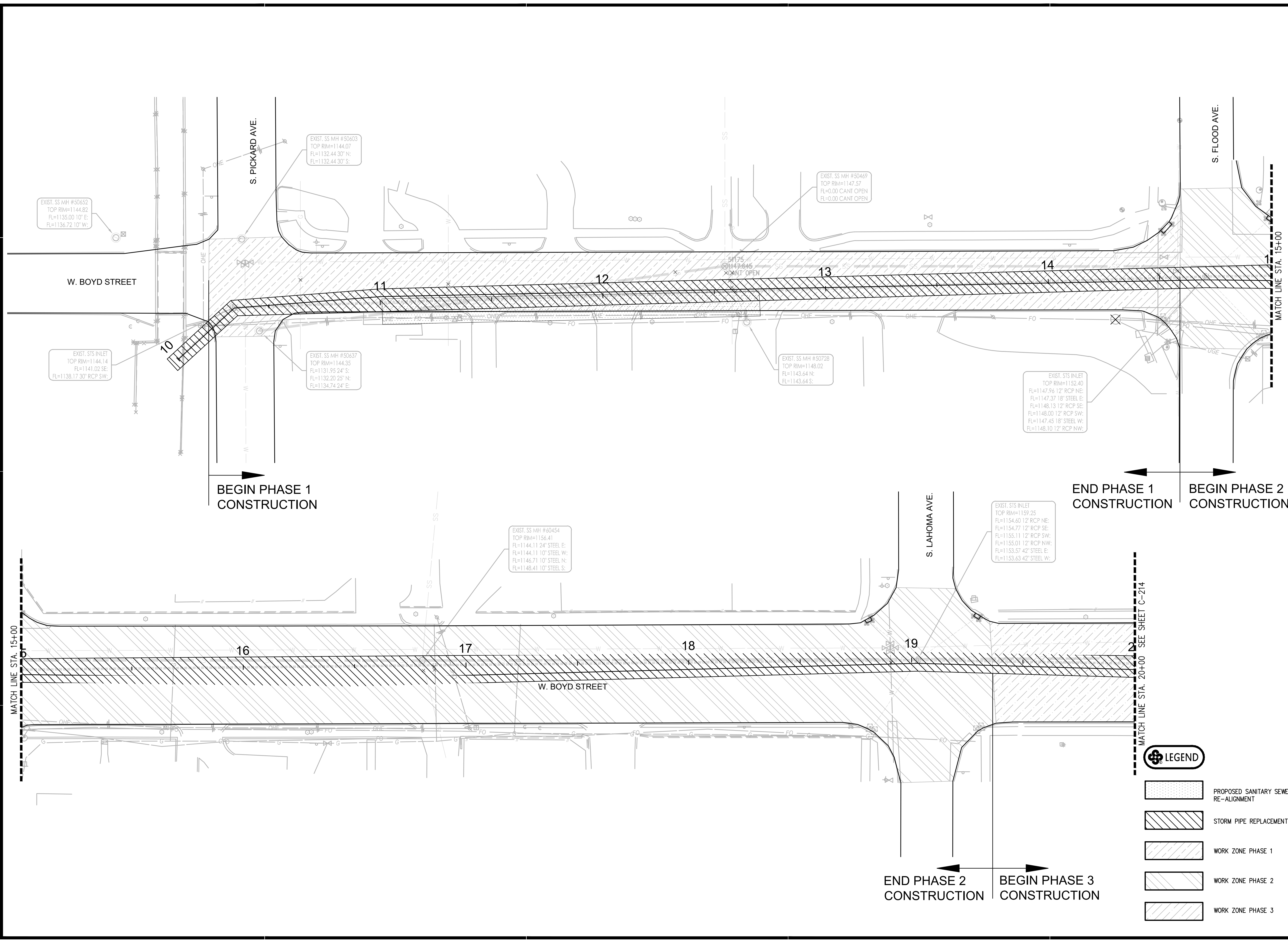
No.	Description	Date

No.	Description	Date

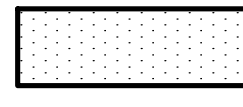
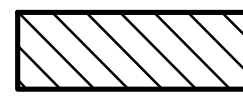



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PROJECT NO: 2360900
ISSUE DATE: 07/18/23
CONTACT: M. WILLIAMS
CC by: M. LOVE
CC Date:

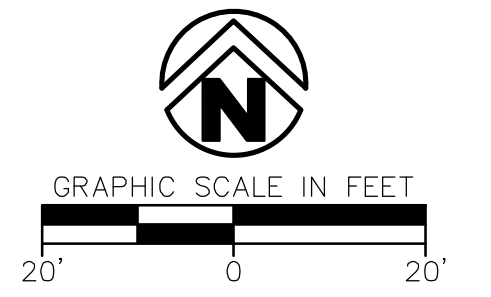
ISSUED FOR CONSTRUCTION
CONST PHASE (1)
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LEGEND

-  PROPOSED SANITARY SEWER RE-ALIGNMENT
-  STORM PIPE REPLACEMENT
-  WORK ZONE PHASE 1
-  WORK ZONE PHASE 2
-  WORK ZONE PHASE 3

DRAWING C:\CORPORATE\PROJECTS\INFRASTRUCTURE\NORMAN\W. BOYD STREET STORM SEWER REPLACEMENT\CONSTRUCTION PHASING.DWG
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60" & 72" STORM SEWER REPLACEMENT FOR
N. FINDLAY AVE. FROM ROBINSON ST. TO ACRES ST. & BARTON ST. FROM SHORERIDGE AVE. TO 24th AVE. S.W. CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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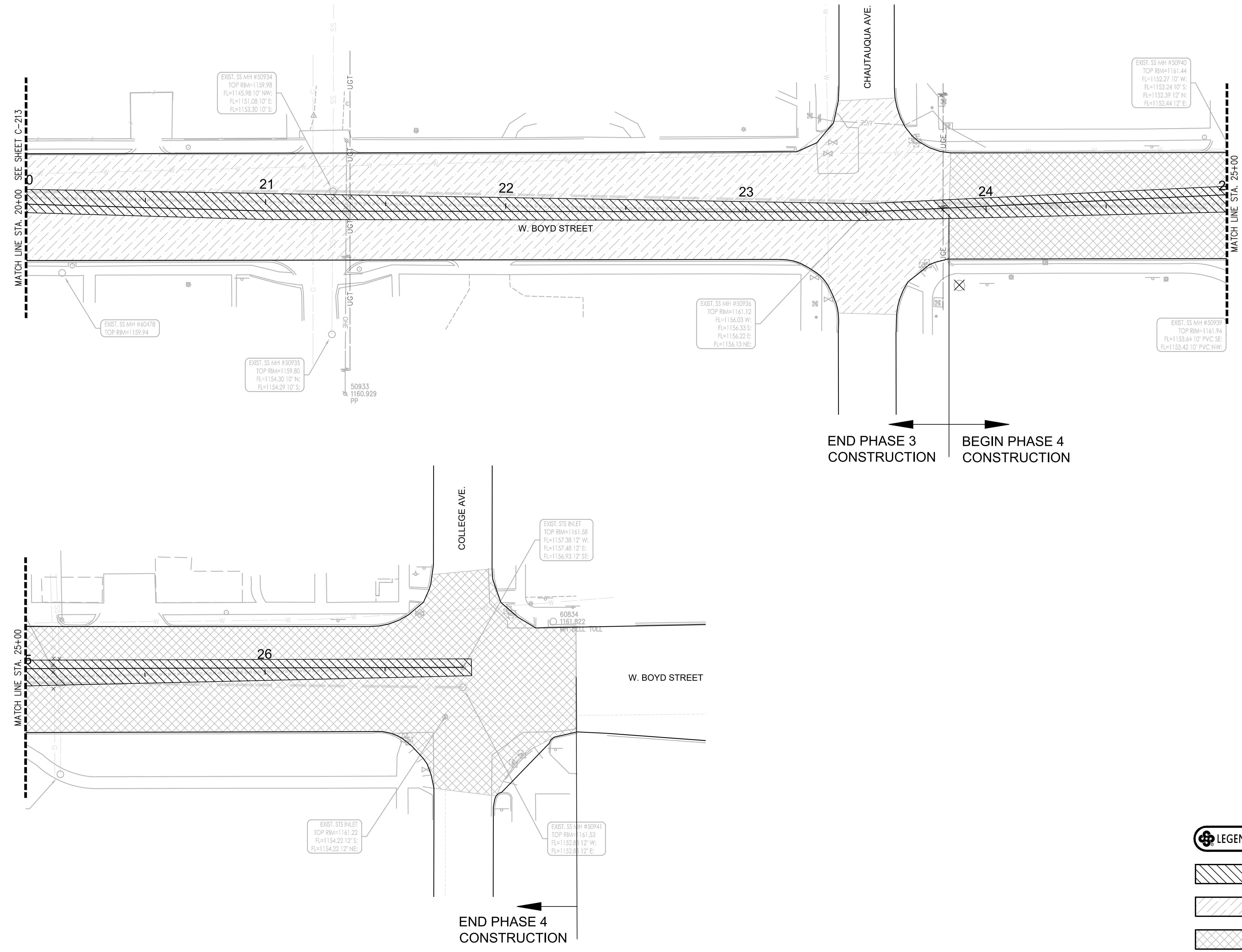
PROJECT NO: 23606900
ISSUE DATE: 07/18/23
CONTACT: M.WILLIAMS
DC BY: M.LOVE
QC DATE:

ISSUED FOR CONSTRUCTION

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CONST PHASE (2)

C-214

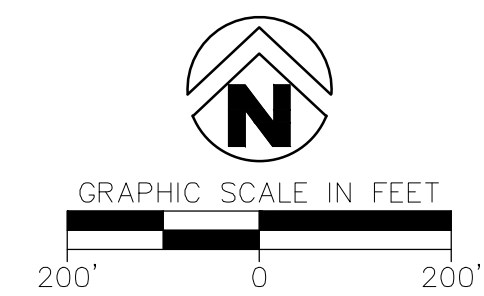
30" STORM SEWER REPLACEMENT



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PLOTTER: PLOT04 (PLOTTER) PLT04 (PLOTTER) ON: 0480 COPY 0011

LEGEND

- STORM PIPE REPLACEMENT
- WORK ZONE PHASE 3
- WORK ZONE PHASE 4



**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

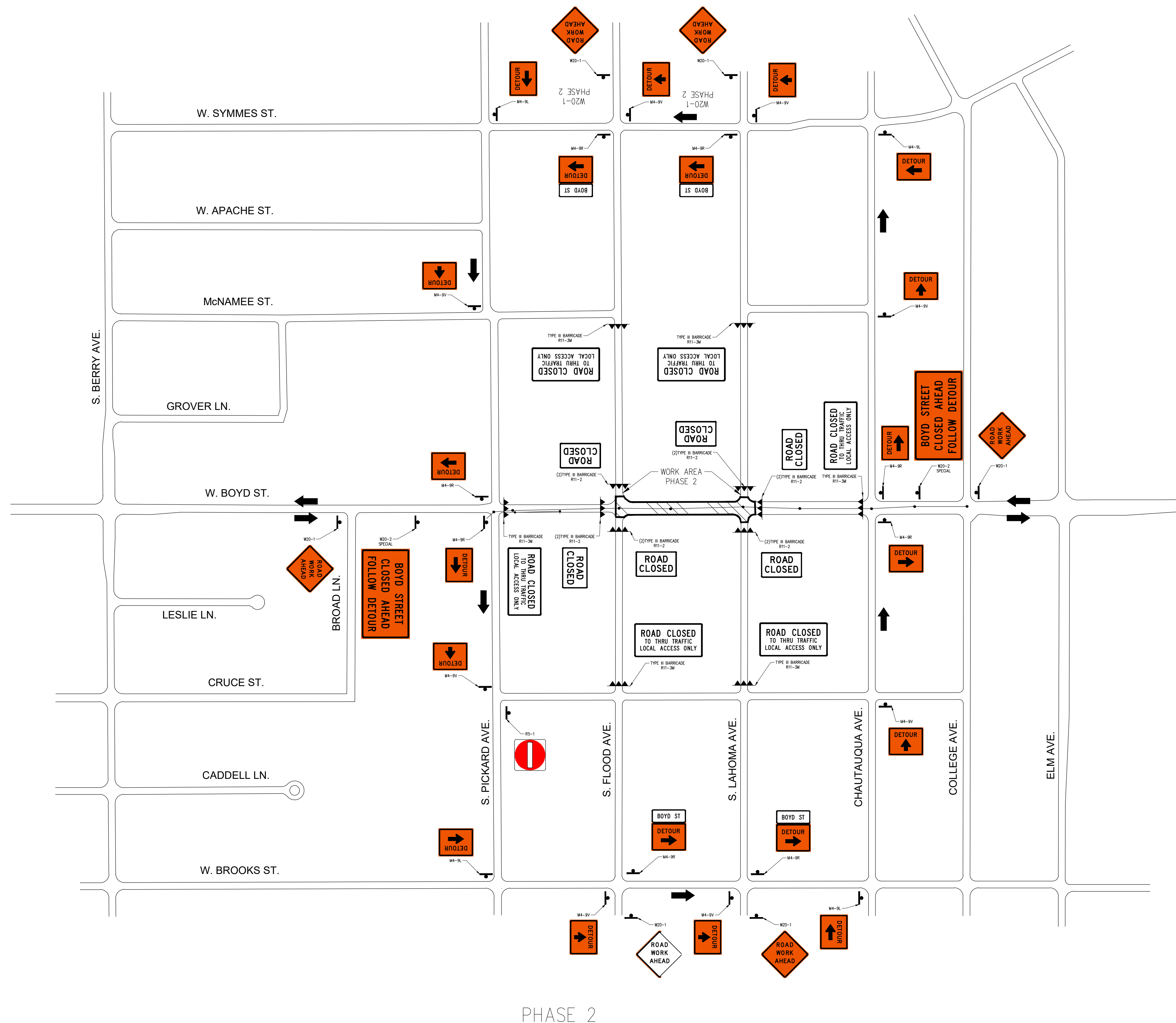
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PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M. WILLIAMS
QC BY: M. LOVE
QC DATE:

ISSUED FOR
CONSTRUCTION

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**DETOUR - BOYD ST.
PHASE 2**

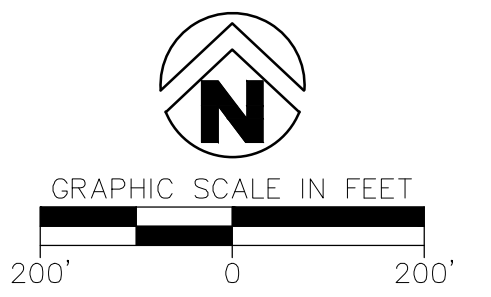
C-216



PHASE 2

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CERTIFICATE OF AUTHORIZATION:
CA 973 (PE/LS) EXPIRES 6/30/2026



**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

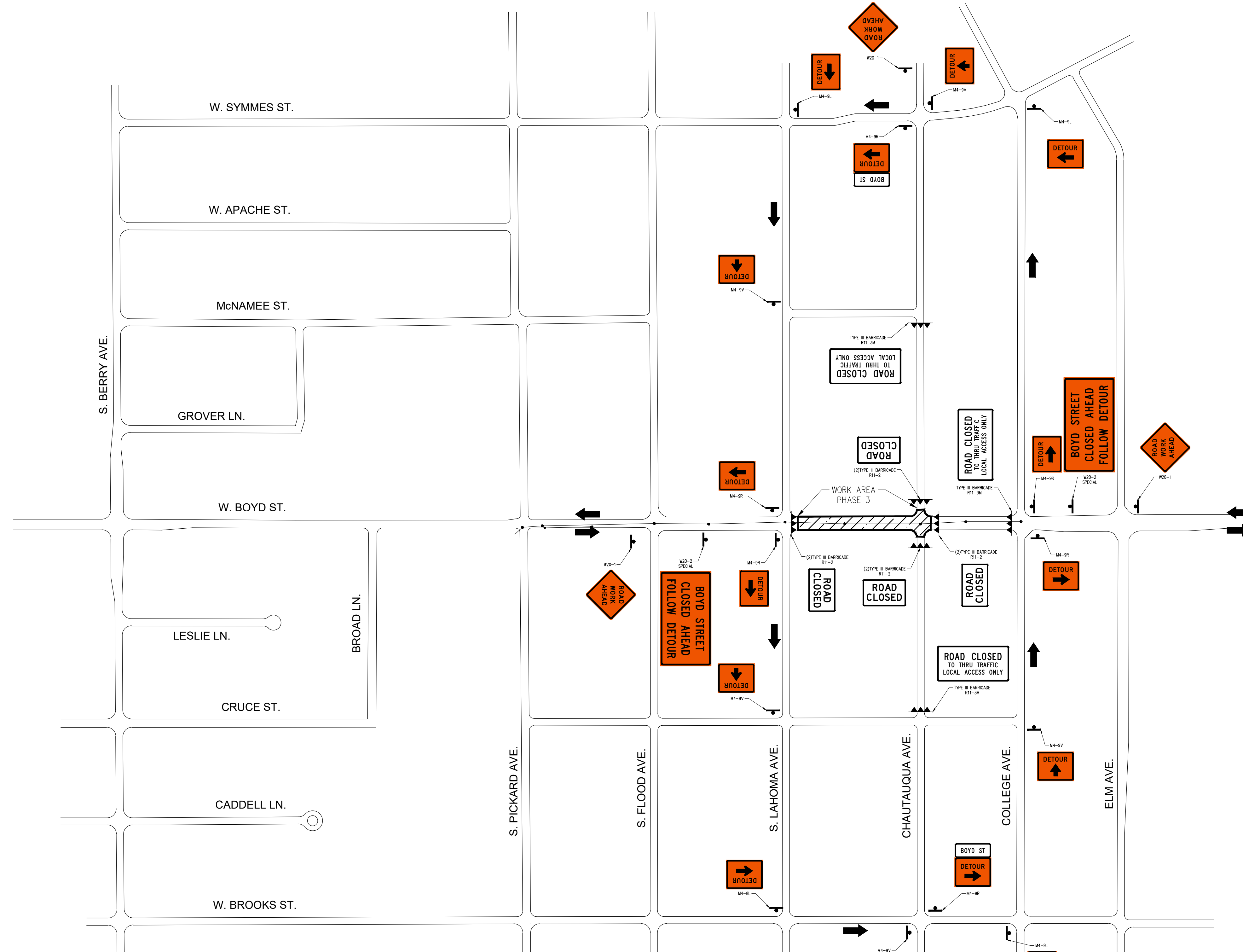
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PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M. WILLIAMS
QC BY: M. LOVE
QC DATE:

ISSUED FOR
CONSTRUCTION

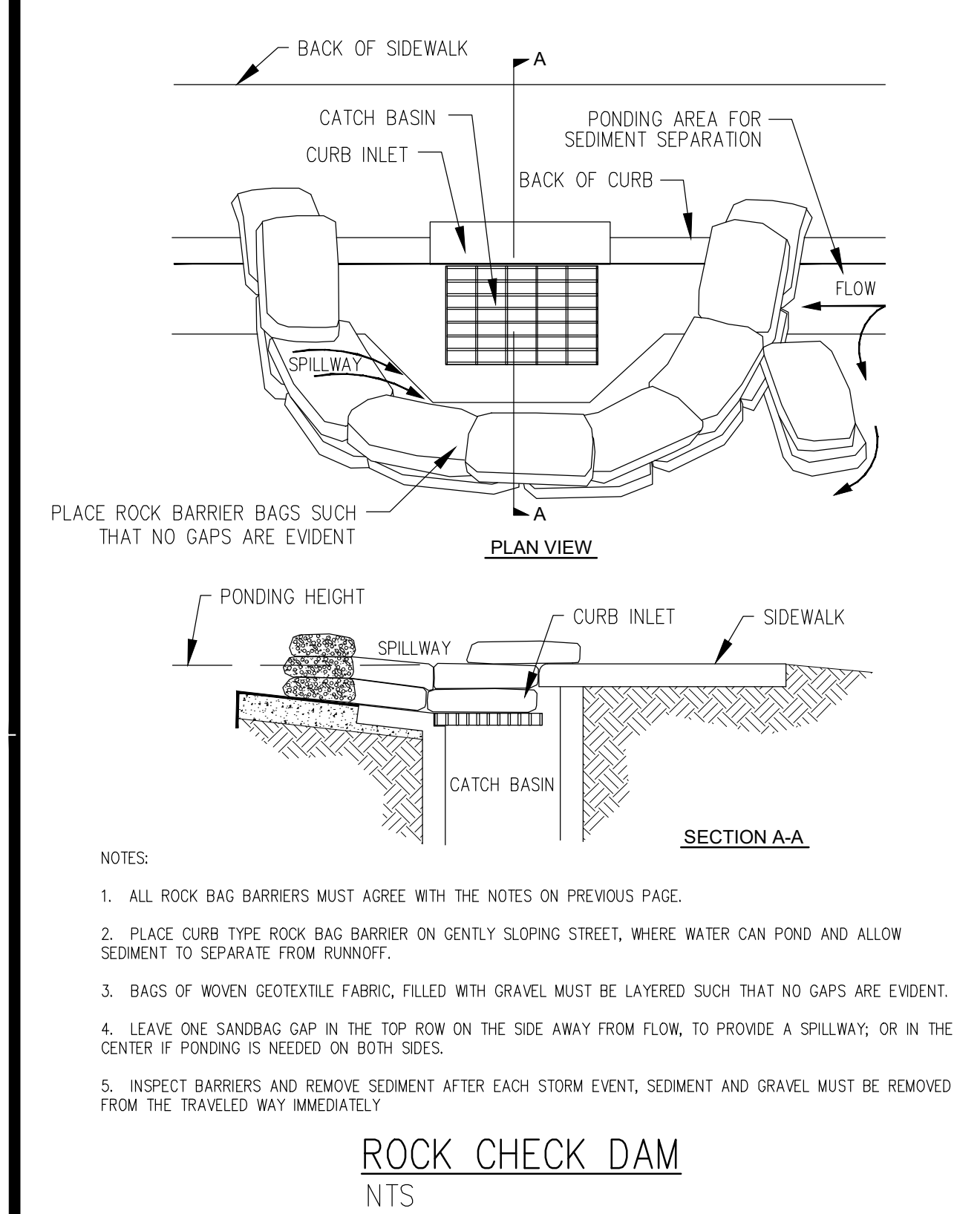
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**DETOUR - BOYD ST.
PHASE 3**

C-217

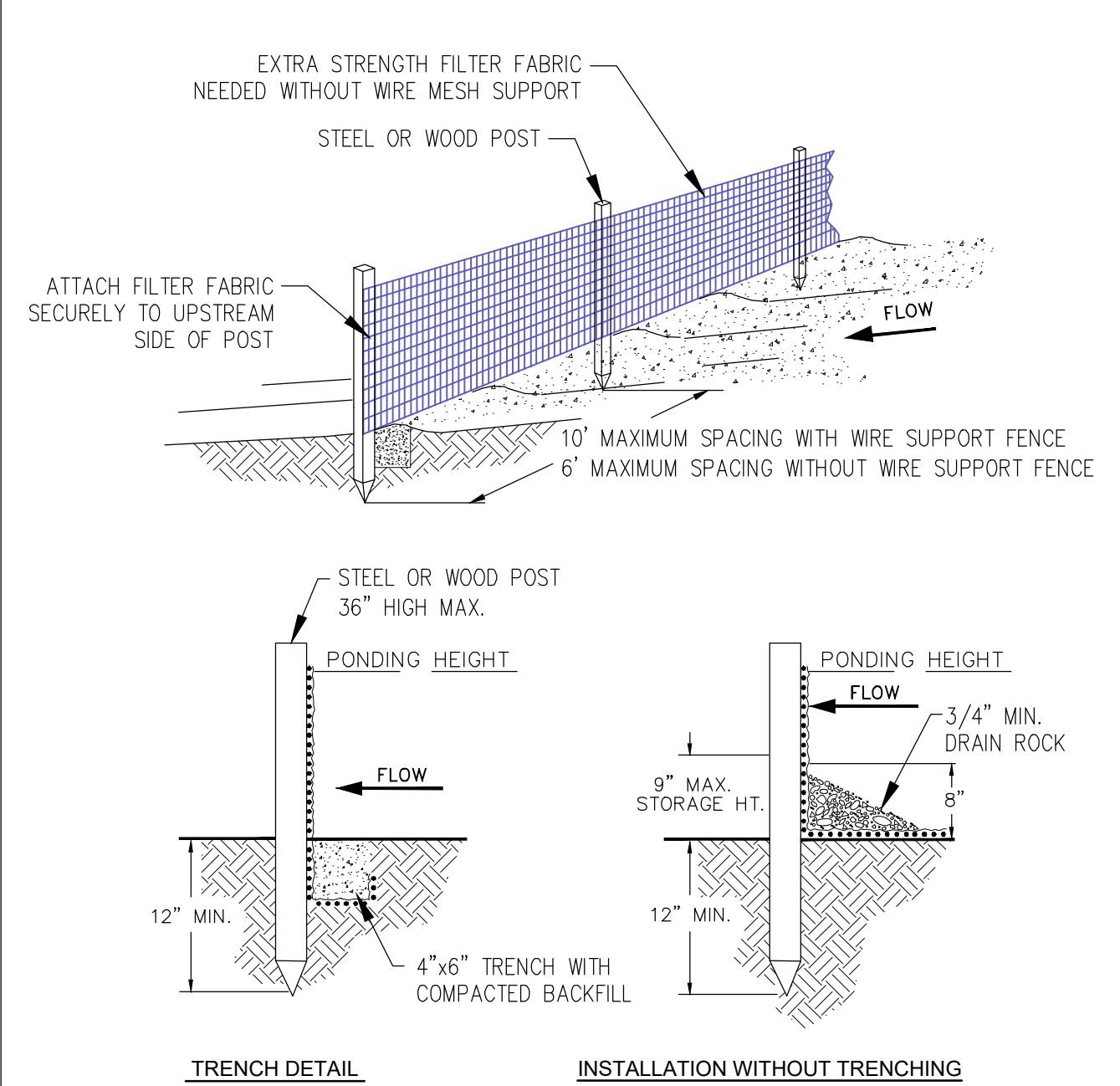


PHASE 3

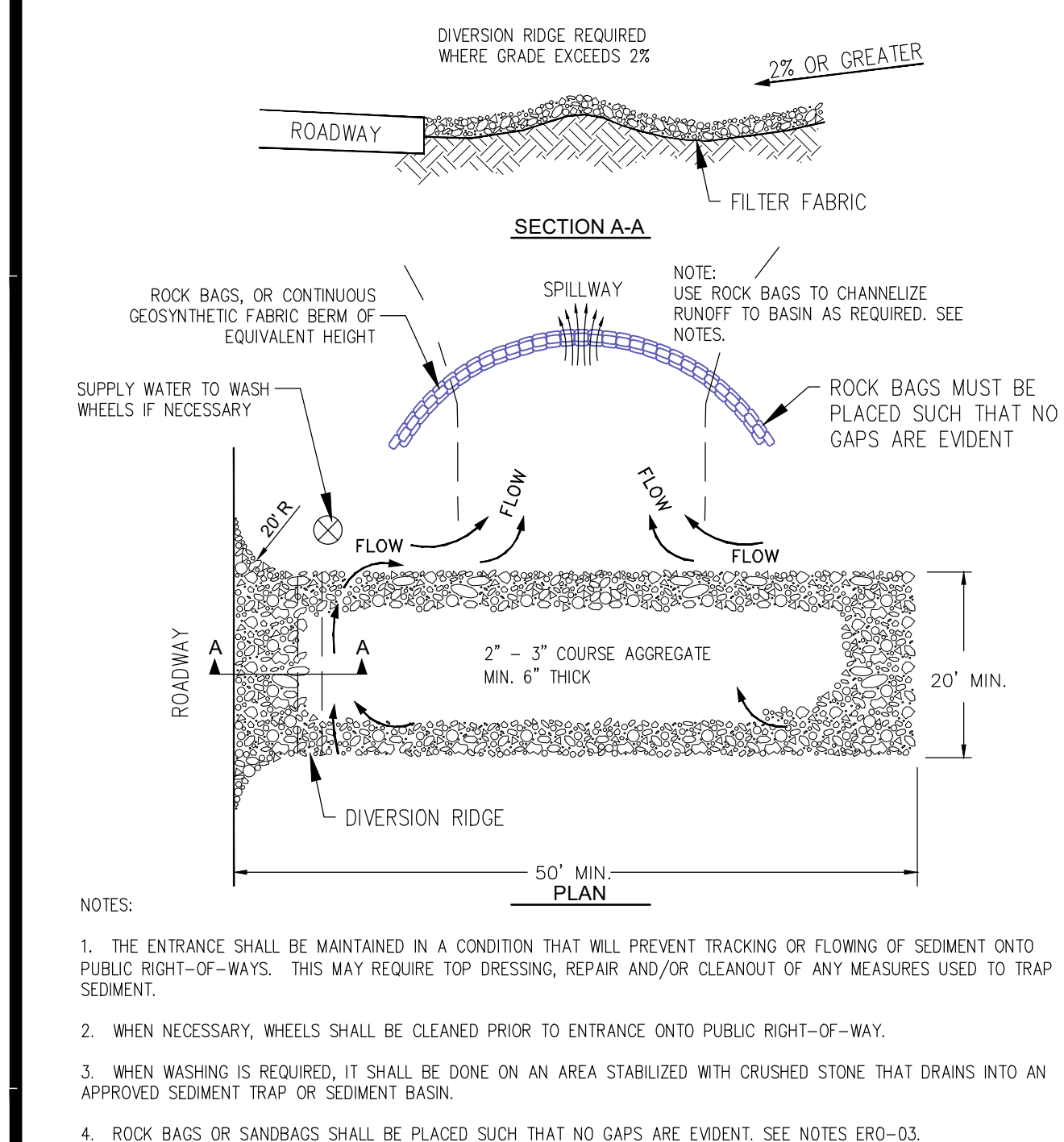
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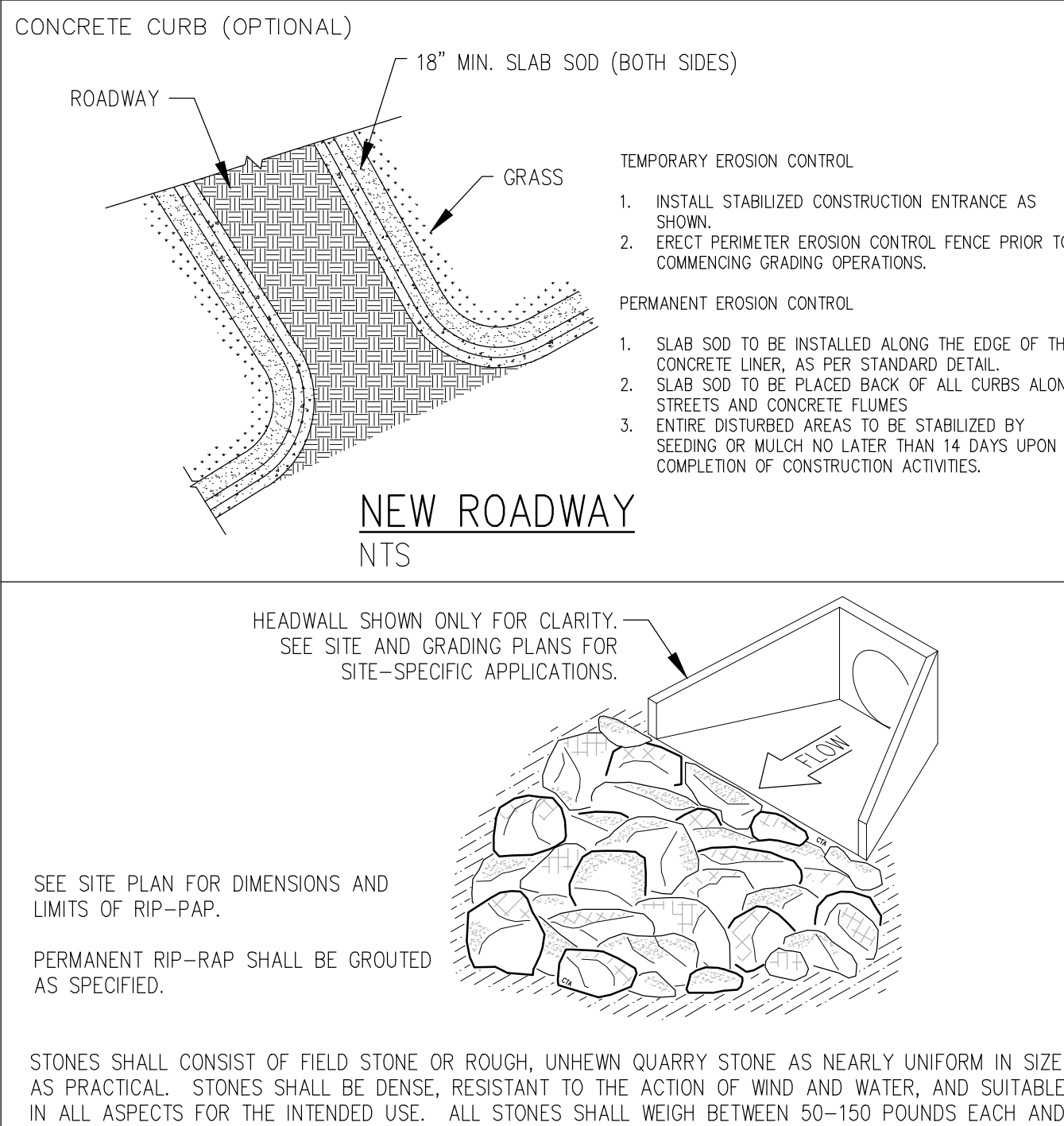
ROCK CHECK DAM
NTS



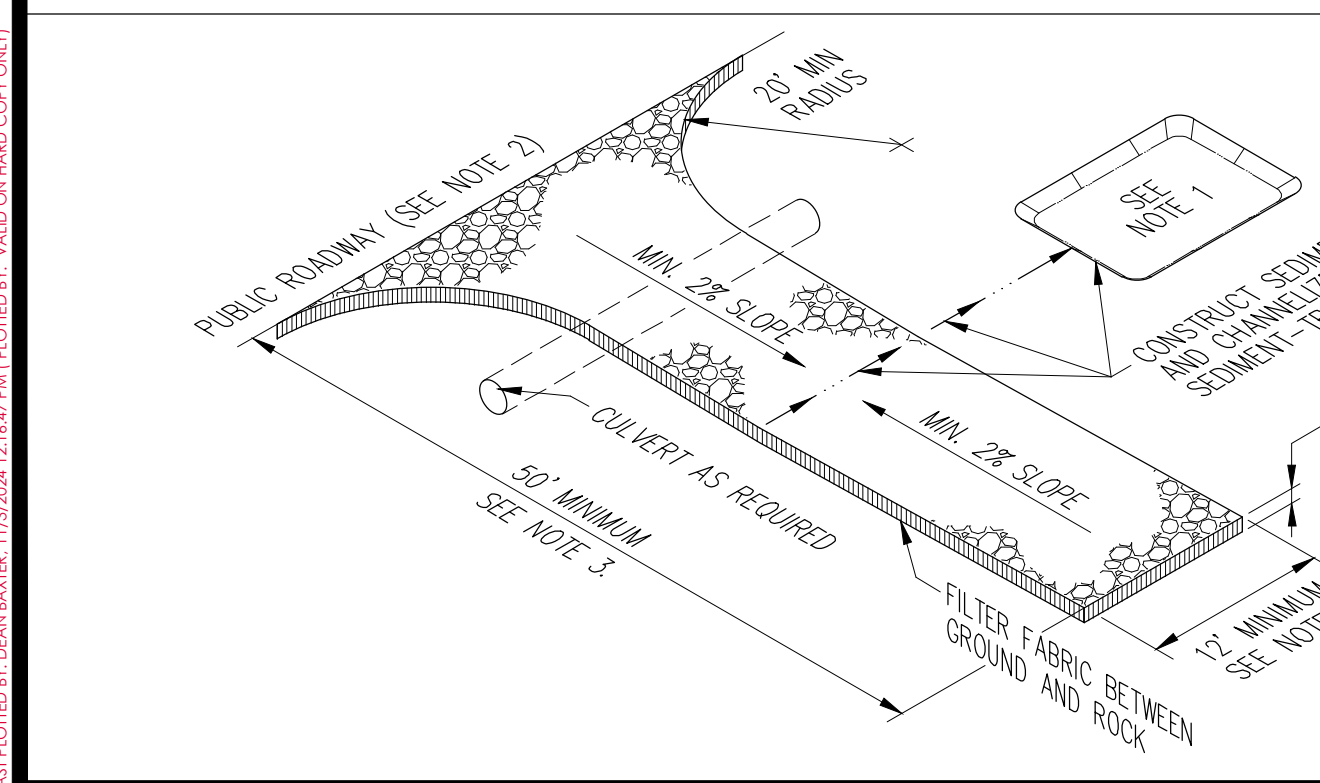
SILT FENCE INSTALLATION DETAILS
NTS



ROCK CONSTRUCTION ENTRANCE DETAIL
NTS



RIP-RAP SLOPE PROTECTION
NTS



STABILIZED CONSTRUCTION EXIT (ENTRANCE)
NTS

- PHASE I**
1. INSTALL STABILIZED CONSTRUCTION ENTRANCES/EXITS. PREPARE TEMPORARY PARKING AND STORAGE AREAS. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASH-OUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC.; DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGES IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
 2. CONSTRUCT THE SILT FENCES ON THE SITE.
 3. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS.
 4. HALT ALL ACTIVITIES AND CONTACT THE CIVIL ENGINEER CONSULTANT TO PERFORM INSPECTION OF BMPs. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORM WATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND-DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
 5. CLEAR AND GRUB THE SITE.
 6. START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
 7. BEGIN GRADING THE SITE.
- PHASE II**
1. TEMPORARILY SEED DENUDED AREAS.
 2. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
 3. INSTALL RIP-RAP AROUND OUT STRUCTURES.
 4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
 5. PREPARE SITE FOR PAVING.
 6. PAVE SITE.
 7. INSTALL INLET PROTECTION DEVICES.
 8. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
 9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IF SITE IS STABILIZED.

GENERAL EROSION NOTES:

A. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING (SITE MAP), THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN THE SPECIFICATIONS SECTION 312800 (EROSION AND SEDIMENTATION CONTROL), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND THE STATE OF OKLAHOMA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMP) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AND APPLICABLE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.

E. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON THE SITE AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

G. GENERAL CONTRACTOR SHALL DENOTE THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, AND AREA FOR PORTABLE FACILITIES, OFFICE TRAILERS AND TOILET FACILITIES.

H. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE AND EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS AND LEAKS.

J. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM-BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

K. RUBBISH, TRASH, GARBAGE, LITTER OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM BEING BLOWN OR WASHED OFF-SITE.

L. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN AND SWPPP SHALL BE INITIATED AS SOON AS POSSIBLE.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS SHALL BE TEMPORARY SEED.

N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

O. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCE/EXIT IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES EXIT ONTO THE PUBLIC ROADS. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF-SITE.

P. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

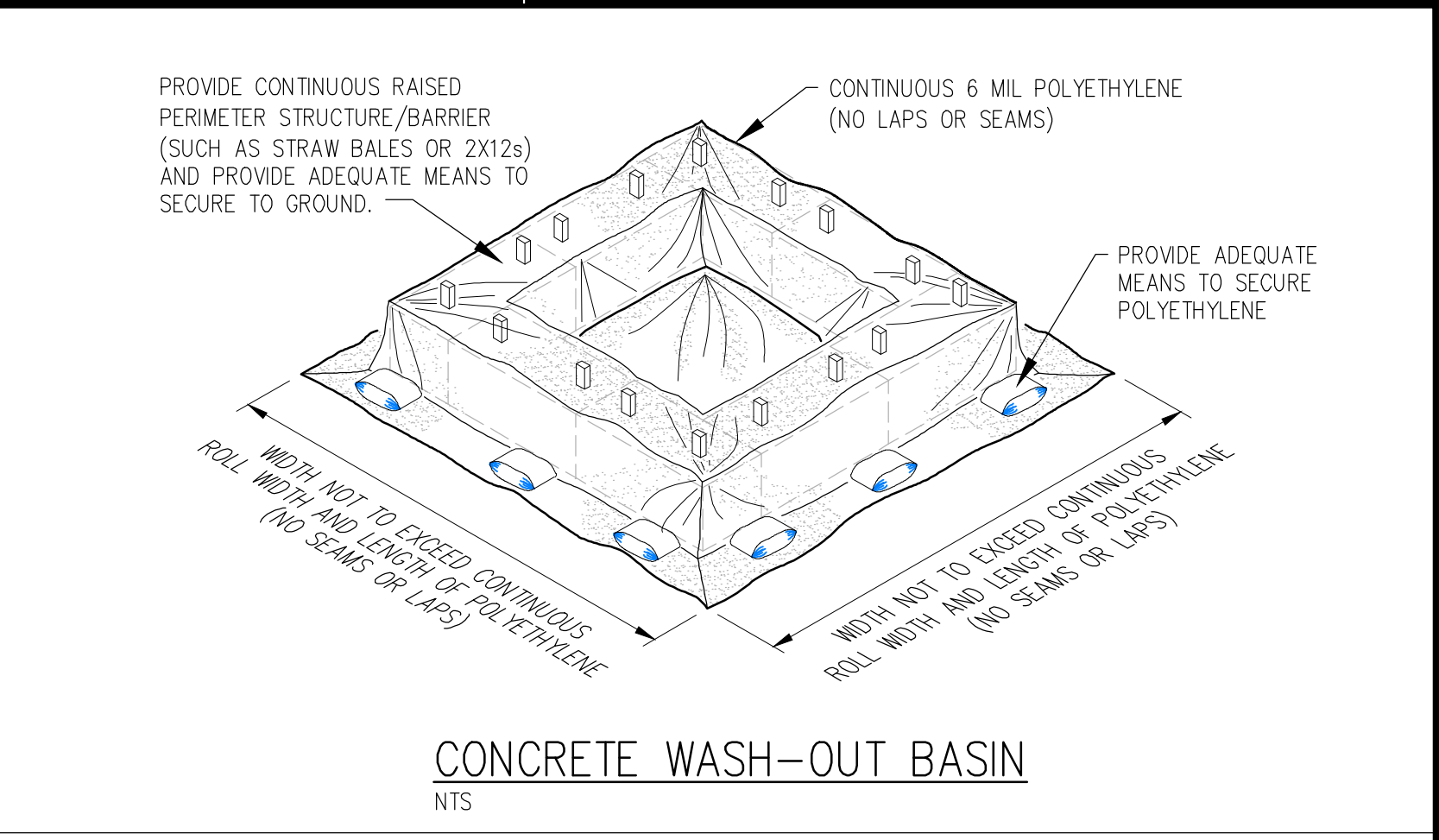
Q. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

R. ON-SITE AND OFF-SITE STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH THE GENERAL PERMIT.

S. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO PREVENT EROSION.

U. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.



CONCRETE WASH-OUT BASIN
NTS

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
ROUGH GRADE / SEDIMENT CONTROL																			
TEMPORARY CONTROL MEASURES																			
STRIP & STOCKPILE TOPSOIL																			
STORM FACILITIES																			
TEMPORARY CONSTRUCTION ROADS																			
FOUNDATION / BUILDING CONSTRUCTION																			
SITE CONSTRUCTION																			
PERMANENT CONTROL STRUCTURES																			
FINISH GRADING																			
LANDSCAPING/SEED/FINAL STABILIZATION																			

ACREAGE SUMMARY

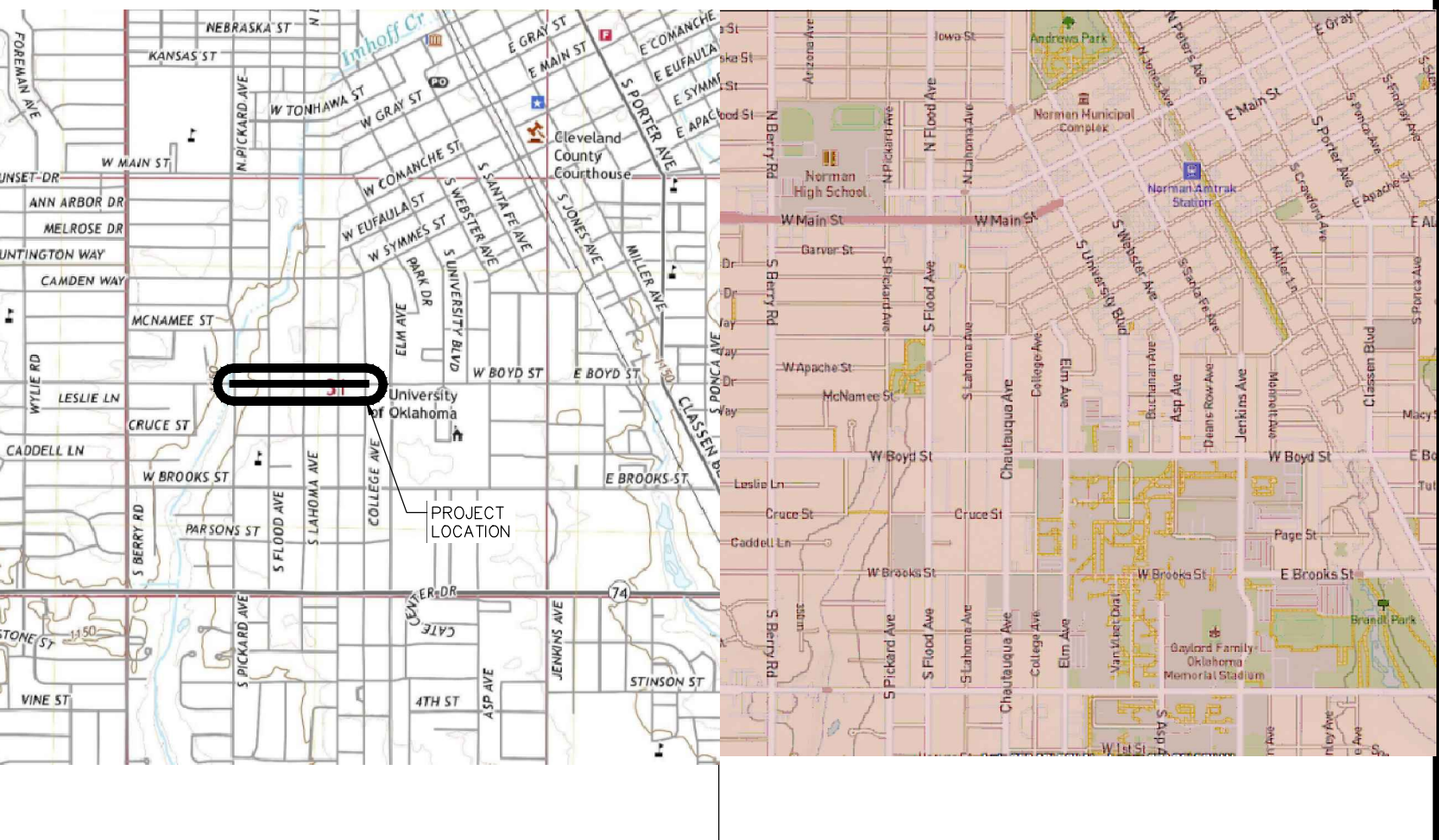
IMPERVIOUS AREA	2.49 ACRES
SEEDDED AREA	0.01 ACRES
TOTAL DISTURBED	2.5 ACRES

DEVELOPER/OWNER:
ENTER DEVELOPER INFORMATION

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

T.B.M.
ENTER BENCHMARK INFORMATION



300 Pointe Parkway Blvd.
Yukon, Oklahoma 73099

Crafton Tull
architecture | engineering | surveying
405.787.6270 | 405.787.6276

CERTIFICATE OF AUTHORIZATION:
CA 973 (PEAS) EXPIRES 6/30/2026

**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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PROJECT NO: 23606900
ISSUE DATE: 11/4/2024
CONTACT: M.WILLIAMS
QC BY: M.LOVE
QC DATE:

**ISSUED FOR
CONSTRUCTION**

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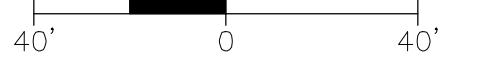
EROSION CONTROL NOTES & DETAILS

C-501

30" STORM SEWER REPLACEMENT



GRAPHIC SCALE IN FEET



**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

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ISSUE DATE: 11/4/2024
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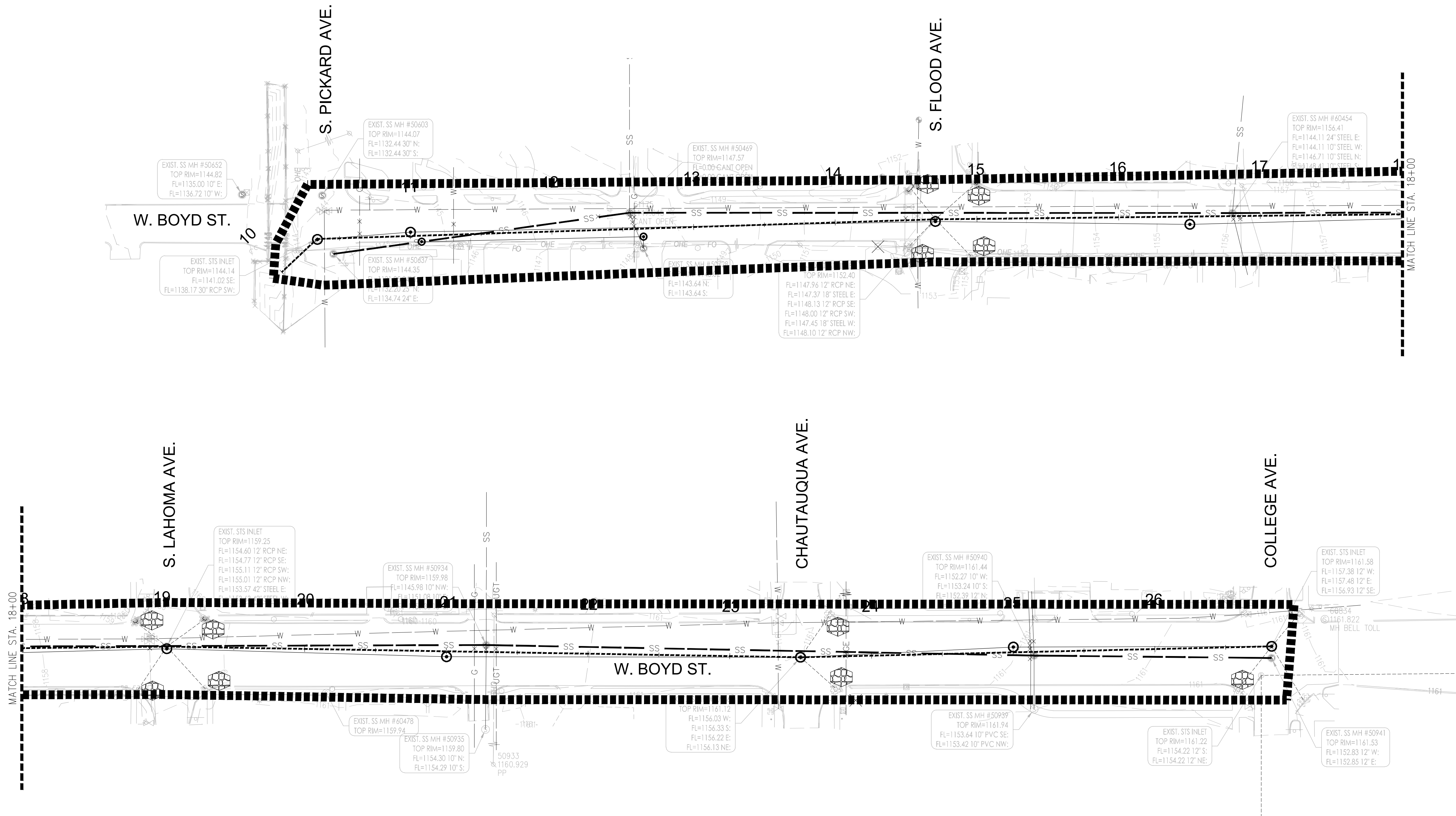
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EROSION CONTROL PLAN

C-502

30" STORM SEWER REPLACEMENT



LEGEND

	TEMPORARY PARKING AND STORAGE
	ROCK CHECK DAM
	TEMPORARY STONE CONSTRUCTION EXIT
	EROSION BARRIER
	LIMITS OF DISTURBANCE
	CONCRETE WASH-OUT BASIN

**NOTE: EROSION BARRIER MAY INCLUDE
SILT FENCE, ROCK BAGS, TRIANGULAR
SILT DIKE OR 50 FT. ESTABLISHED
VEGETATIVE BARRIER.**

DRAWING: C:\236069\23606900\30" STORM SEWER REPLACEMENT\240113\DWG\240113_01\30" STORM SEWER REPLACEMENT.dwg
DATE PLOTTED: 11/14/2024 10:21:10 AM
PLOTTER: HP DESIGNJET T1500

**W. BOYD STREET
STORM SEWER
REPLACEMENT**
FROM S. PICKARD AVE.
TO COLLEGE AVE.
CITY OF NORMAN, OK

Key Plan

No.	Description	Date

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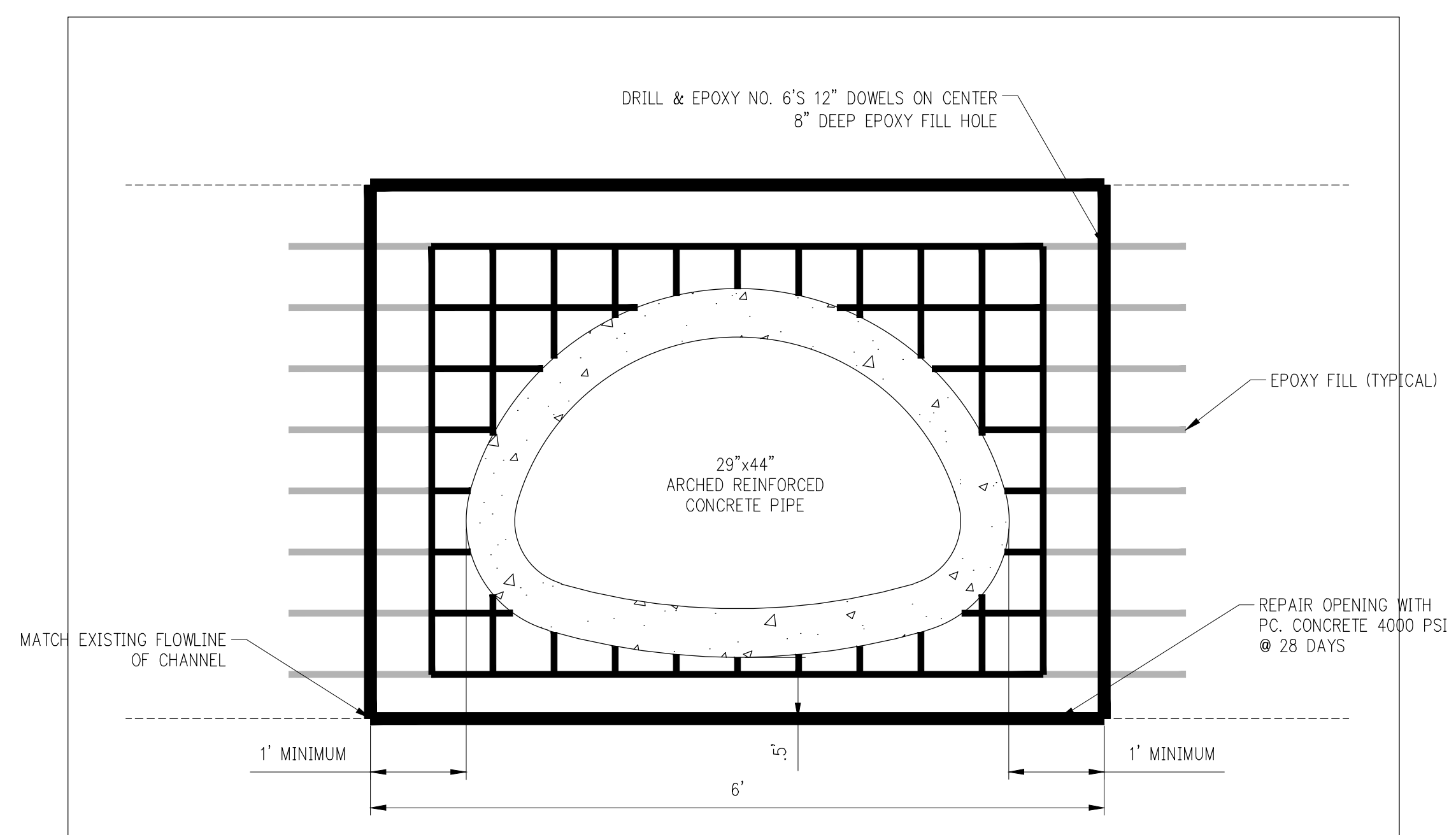
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ISSUE DATE: 11/14/2024
CONTACT: M.WILLIAMS
QC BY: M.LOVE
QC DATE:

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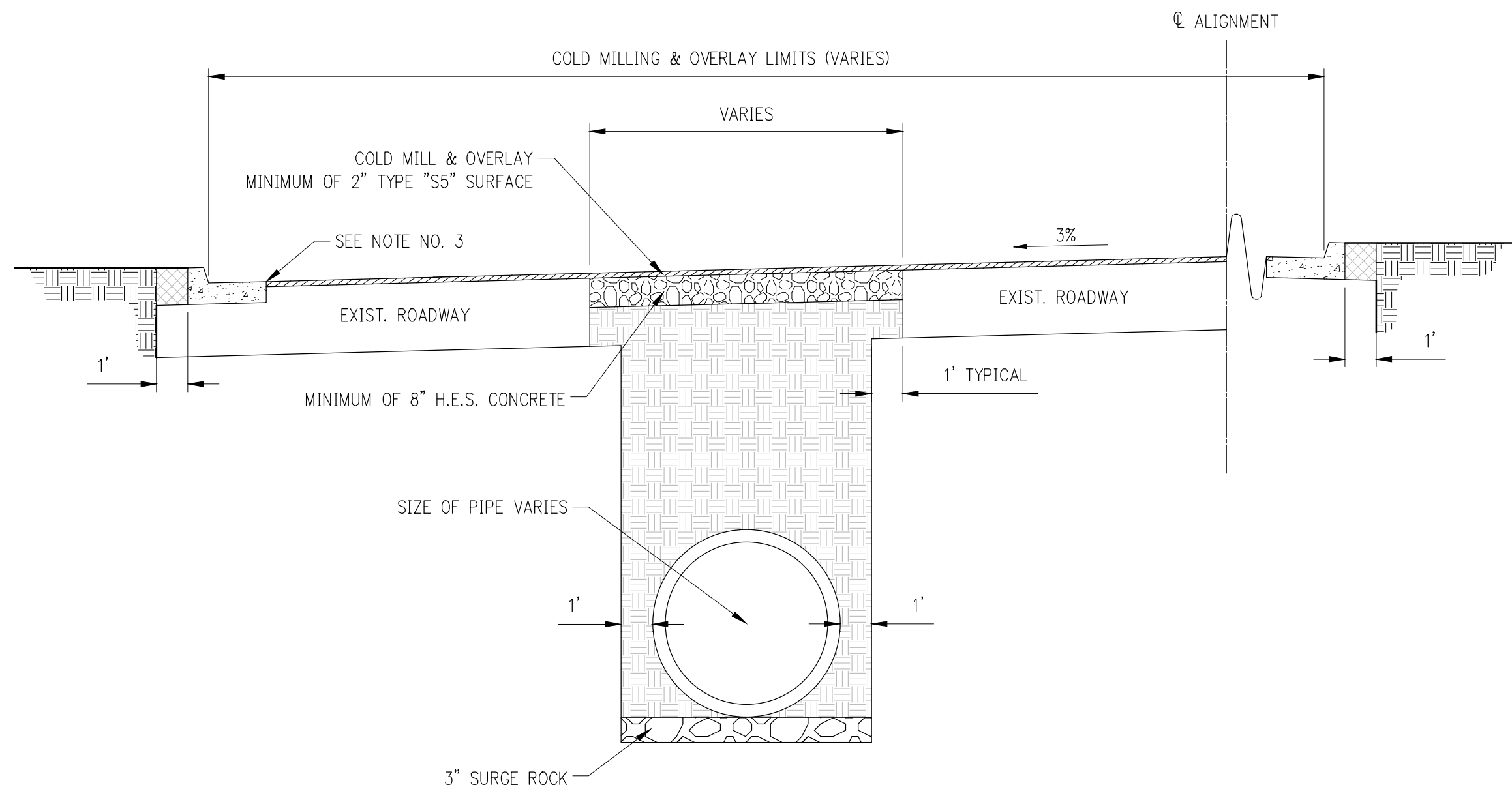
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TYPICAL SECTIONS

C-219



REMOVAL AND REPAIR OF CHANNEL RETAINING WALL
NTS

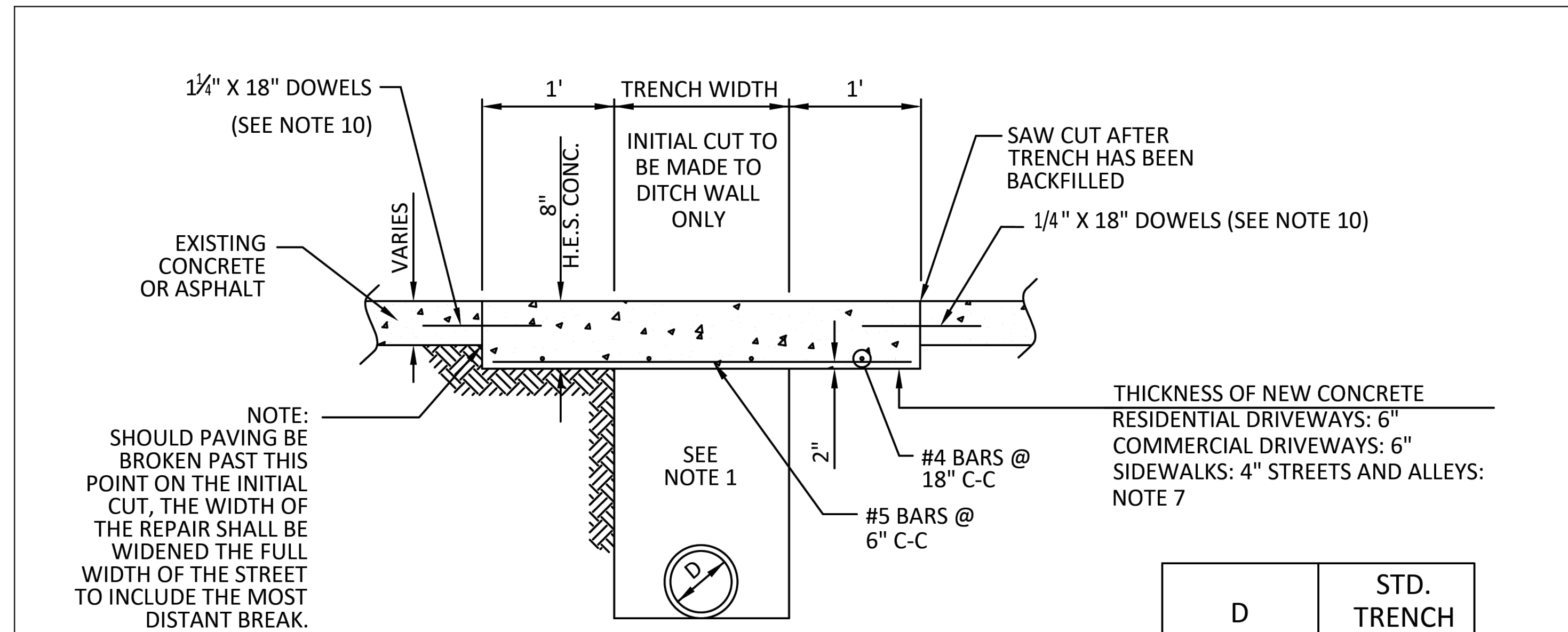


TYPICAL COLD MILL & OVERLAY
NTS

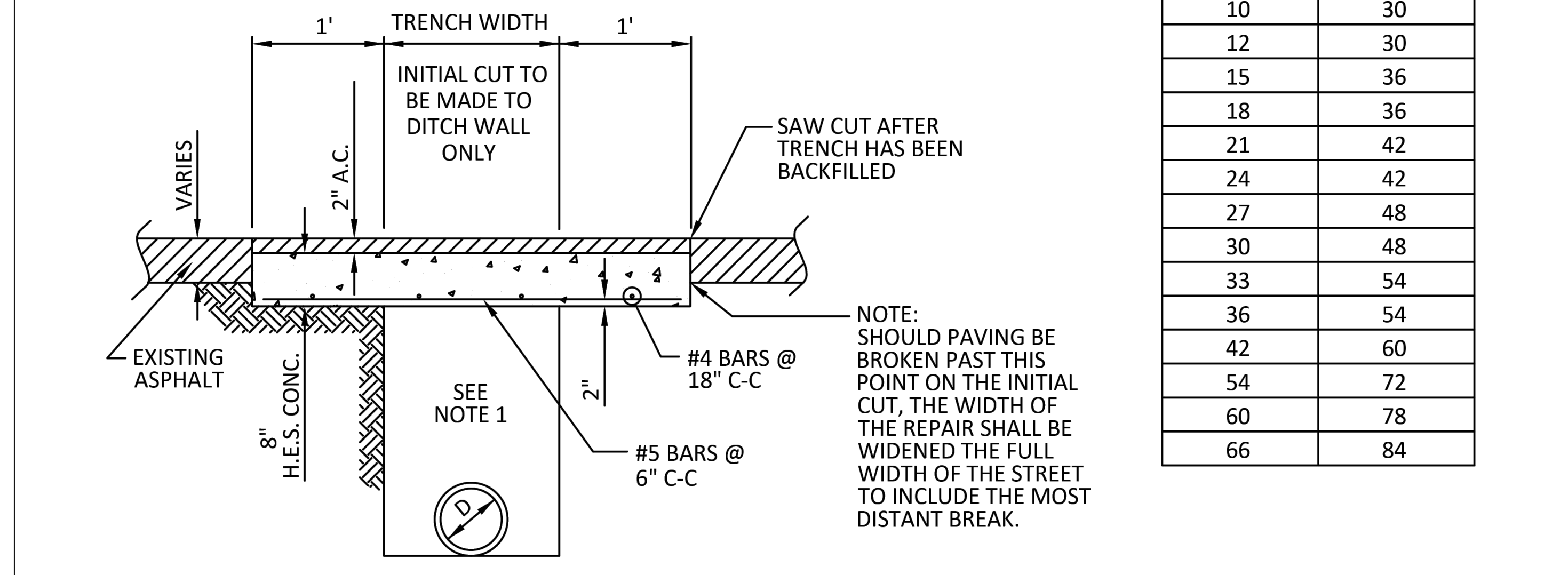
- NOTE:
- PAVING SECTION SHOWN IS MINIMUM ALLOWED. STREET PAVING SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY'S "ENGINEERING DESIGN CRITERIA".
 - DOWELS REQUIRED FOR PCC PAVING 8" THICK, OR GREATER, IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 2304.4.A.
 - ASPHALT SURFACE SHALL BE 1" ABOVE EDGE OF CONCRETE GUTTER. THE GUTTER MAY BE REDUCED TO 5/8" TO ACCOMMODATE THIS REQUIREMENT.
 - PAVEMENT SECTION TO BE SUPER-ELEVATED AT ROADWAY CURVES.

TABLE-4: MINIMUM NEW FLEXIBLE-PAVEMENT THICKNESSES

LAYER TYPE	THICKNESS (INCHES)	MATERIAL TYPE
ASPHALTIC CONCRETE	2.0	S5 (PG 70-28 OK)
CONCRETE	8.0	H.E.S. CONCRETE
BACKFILL	TO TOP OF PIPE	TYPE A AGGREGATE
SUBGRADE	PER DEWATERING REQ.	3" SURGE ROCK



CONCRETE PAVEMENT



ASPHALT PAVEMENT

- NOTES:**
- ALL PUBLIC ROADS AND DRIVE CROSSINGS ARE TO BE BACKFILLED WITH ODOT 703.01 TYPE A AGGREGATE BASE OR FLOWABLE FILL.
 - REMOVE AND REPLACE PAVEMENT TO NEAREST JOINT IF PROPOSED SAW CUT IS LESS THAN 3' FROM JOINT.
 - NO PAYMENT WILL BE MADE FOR REPLACEMENT OF PAVEMENT OUTSIDE OF STD. PAY WIDTH DUE TO TRENCH EXCAVATION WIDER THAN STANDARD TRENCH WIDTH.
 - PAY QUANTITY WILL INCLUDE REPLACEMENT OF PAVEMENT DUE TO SQUARING OF DIAGONAL CUTS.
 - FOR SERVICE LINES 52" AND SMALLER, THE STD. PAY WIDTH SHALL BE 2.2'.
 - WHERE TRENCH EXCAVATION IS WITHIN 12" OF BACK OF CURB STANDARD NO. GC-02 SHALL APPLY.
 - NEW PCC TO BE 2" THICKER THAN EXISTING PAVING, 8" MINIMUM.
 - CONCRETE SHALL BE 3500 PSI HIGH EARLY STRENGTH CONCRETE PER ODOT 701.01(A).
 - CITY ENGINEER SHALL DECIDE WHICH TYPE OF REPAIR TO MAKE.
 - 1" DIA. BY 18" LONG DOWELS SPACED AT 12" CENTERS ARE REQUIRED IF ADJACENT PAVEMENT IS CONCRETE.
 - REFERENCE THE CURRENT VERSION OF THE CITY'S COMPREHENSIVE TRANSPORTATION PLAN AND ENGINEERING DESIGN CRITERIA FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

PAVEMENT REMOVAL AND REPLACEMENT

CITY ENGINEER APPROVAL:	CITY OF NORMAN, OKLAHOMA		
APPROVAL DATE:	REVISION DATE: 02/2023	REV. NO. 00	DRAWING NO. ST 21

DRAWING: C:\DRAWING\11\11\24\W. BOYD STREET STORM SEWER REPLACEMENT\TYPICAL SECTIONS.DWG
LAST MODIFIED BY: DEAN PARKER 11/14/2024 12:17:07 PM (LOTTED BY: WALKER) (HAND) (COPY) (OK)