



# **INTERSECTION IMPROVEMENTS**

**NW 150<sup>TH</sup> STREET AND LONE OAK DRIVE**

## **PRELIMINARY ENGINEERING REPORT**

**PROJECT TC-0631**

**Prepared for:**  
The City of Oklahoma City

**olsson**

April 2024  
Project No. TC-0631, Task 1



## APPROVAL SHEET

Preliminary Engineering Report – TC-0631

Intersection Improvements of NW 150<sup>th</sup> Street and Lone Oak Drive

Prepared by:

  
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**olsson**

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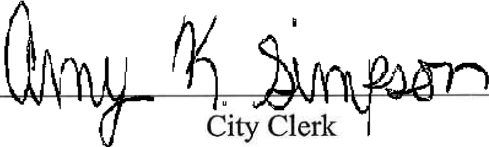


Recommended for Approval:


  
Debbie Miller, PE  
Public Works Director / City Engineer

**APPROVED** by the Council of the City of Oklahoma City this 21<sup>ST</sup> day of

MAY, 20 24.

  
City Clerk



  
Mayor



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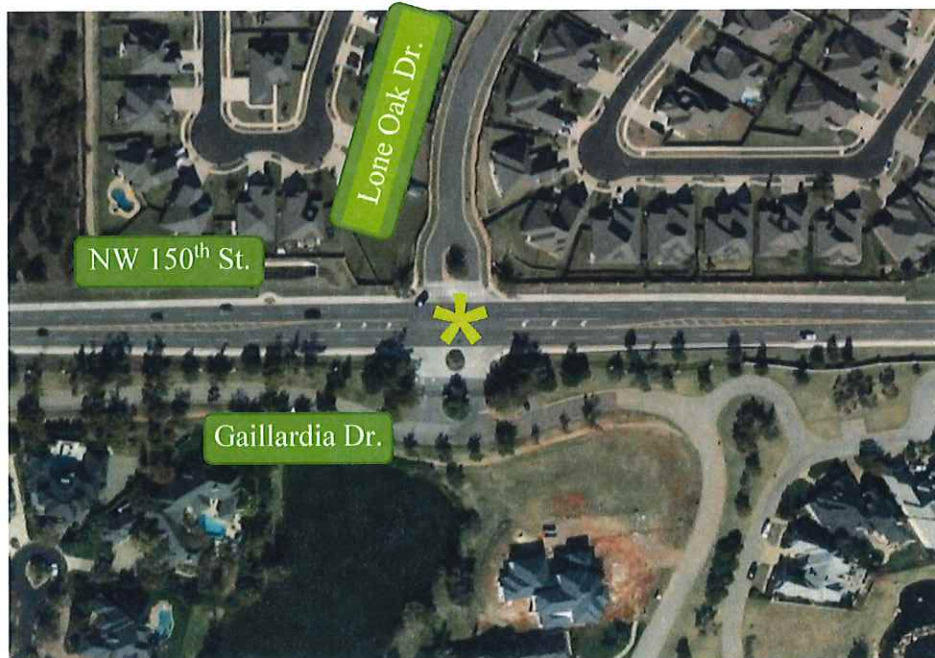


# INTRODUCTION

## Scope

The City of Oklahoma City approved engineering services for the roadway and traffic design services to design traffic signalization and ADA upgrades at the intersection of the ARPA funded project at Lone Oak Drive and NW 150<sup>th</sup> Street. ADA compliant ramps and landings will be provided for pedestrian crossings on all four legs of the intersection. There are existing ramps crossing Lone Oak Drive (the north leg) which meet ADA criteria and will be preserved. Six total ADA ramps will be designed and installed to provide crossings for NW 150<sup>th</sup> Street and Gaillardia Drive. Crosswalks, ADA ramps, pedestrian pushbuttons, and pedestrian signal heads will be provided for all four intersection crossing movements.

The intersection is currently unsignalized with stop-control only for the north (NW 150<sup>th</sup> Street) and south (Gaillardia Drive) legs. A signal system will be installed including signal mast arm poles controlling each approach, signal controller and cabinet, and Wavetronics radar detection system. Stop line detection will be provided on all four approaches and advanced dilemma zone area detection will be provided for both NW 150<sup>th</sup> Street approaches. Flashing yellow arrow signal heads will be utilized over both left-turn lanes on NW 150<sup>th</sup> Street under protected/permitted left-turn operation. The scope also includes restriping of the intersection.



## Budget

The **fixed limit construction budget** for this project is **\$490,000.**

## Cost Estimate Summary

The design of Lone Oak Drive and NW 150<sup>th</sup> Street has a preliminary construction cost estimate of \$486,966. No right-of-way acquisition or utility relocation appear to be necessary for this project.

## Schedule

The Olsson design team understands that the project schedule is especially critical because this is an ARPA project.

- Final Plan Completion – June 2024
- Begin Construction Date – December 2024
- Construction Completion – March 2025





## Site Plan



The detailed construction plans for the NW 150<sup>th</sup> St and Lone Oak Drive intersection project is included in **Appendix B** of this report.



# BACKGROUND

## Existing Conditions

### Roadway

The City of Oklahoma City designates NW 150<sup>th</sup> Street as a Major Arterial street. The existing roadway has 5-12 ft lanes at the intersection with Lone Oak Drive, including exclusive left-turn lanes with storage lengths of 125 feet each. The existing street is an undivided asphalt-paved facility with curb and gutter. There are no horizontal curves in the vicinity of the intersection. The street is posted at 45 miles per hour and is relatively flat. The pavement width is approximately 60 feet wide with 8-inch tall curb and gutter.

Lone Oak Drive is primarily functioning as a local street servicing the Lone Oak neighborhood. The existing roadway has 2-22 ft lanes and is an undivided asphalt street. The street is posted at 25 miles per hour and is relatively flat. There are no horizontal curves, and 8-inch tall curb and gutter is present on both sides.

Gaillardia Drive is the south leg of this intersection which serves an entrance to the Gaillardia neighborhood. This entrance is gated and is accessed by residents and guests of residents only.

### Survey

The project area was surveyed in the February of 2024. The survey included full topographic survey, boundary survey, and utility locates. Available as-builts for the project area were collected through an open records request and through the City's Open Data Portal.

### Traffic

The existing NW 150<sup>th</sup> St corridor carries an annual average daily traffic (AADT) volume of 14,500 (2022) vehicles per day.

The intersection is currently unsignalized with stop-control only for the north (NW 150<sup>th</sup> Street) and south (Gaillardia Drive) legs. NW 150<sup>th</sup> Street currently flows freely.

## UTILITIES

**There are currently no identified utility relocations required to accommodate this project, but additional utility coordination is necessary as detailed below.**

A 12" DIP waterline main runs along the south side of NW 150<sup>th</sup> St located approximately 28' from the centerline Survey. Currently the waterline is under the roadway curbline. This waterline crosses NW 150<sup>th</sup> approximately 118' from the centerline of Lone Oak Drive and follows the right-of-way line towards the north at an offset of 10'.

There is an existing 8" sewerline located on the south side of NW 150<sup>th</sup> St outside of project limits.

A 12" ONG steel gas line runs along the south side of NW 150<sup>th</sup> St located approximately 58' from centerline Survey. This gas line is outside of project limits.

A 1 ½" AT&T Fiber Optic cable runs along the south side of NW 150<sup>th</sup> St located approximately 29' from the centerline Survey. The utility potholes done by Sidewinder Utility Locators indicates this cable has been cut and abandoned.

A 2" AT&T Fiber Optic PVC line runs along the north side of NW 150<sup>th</sup> St located approximately 44' from the CL Survey. Coordination with AT&T will be required to ensure proposed mast arm poles meet clearance requirements.

Overhead power lines run along the north side of NW 150<sup>th</sup> St approximately 45' from CL Survey. Coordination with OG&E will be required to ensure proposed mast arm poles meet clearance requirements. There is also communication underbuilt on these poles. Coordination will be required to ensure clearance requirements are met.

A COX TUG line is present in the north east quadrant of the intersection. No potholes were done on this TUG line but according to the atlas provided, it does not appear to be in conflict with the proposed mast arm pole. Further coordination needed.





## **RIGHT-OF-WAY**

**There are currently no apparent right-of-way impacts to accommodate this intersection improvement project.**

The existing right-of-way along NW 150<sup>th</sup> St is 100 feet total (50 feet on either side of the centerline survey).

The existing right-of-way along Lone Oak Drive and Gaillardia Drive varies, but all four corners contain bumped-out corner clips. Gaillardia Homeowners Association (HOA) has approved preliminary design and granted necessary access for construction.

All proposed pedestrian ramps, mast arm poles, and pedestrian poles are able to be constructed within existing right-of-way.



## **COST ESTIMATE**

The detailed construction cost estimate for the NW 150<sup>th</sup> St and Lone Oak Drive intersection project is included in **Appendix A** of this report. Estimates include Roadway, Traffic, and Miscellaneous Items as summarized below.

### Summary of Construction Costs:

Roadway Items (Earthwork, ADA Ramps, Sidewalk, etc.)	\$51,081
Traffic Signal Items (Traffic & Pedestrian Signal Improvements)	\$348,420
Misc. Items (Traffic Control, Signing, Striping, Mobilization, etc.)	\$87,465
<b>Total Construction Cost</b>	<b>\$486,966</b>

## **APPENDIX A**

### Detailed Preliminary Cost Estimate



# OPINION OF PROBABLE COST (OPC)

TC-0631: NW 150th St and Lone Oak Dr

60% SUBMITTAL

4/19/2024

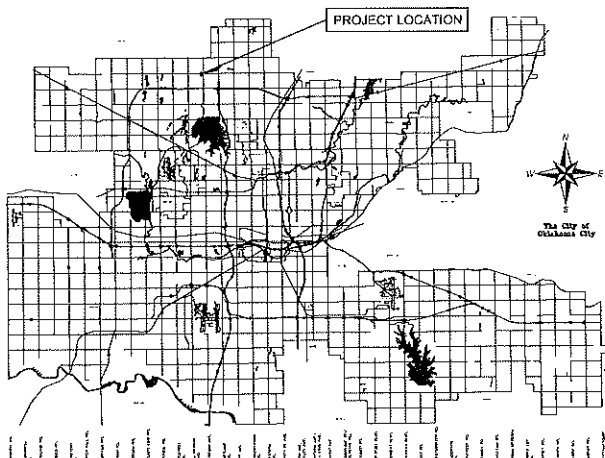
Roadway Items		Quantity	Unit	Unit Cost	Item Cost
200-00	UNCLASSIFIED EXCAVATION	0	CY	\$15.00	\$0.00
202-00	BORROW	50	CY	\$45.00	\$2,250.00
305-00	CURB AND GUTTER(2'-8")(8" BARRIER)	214	LF	\$45.00	\$9,630.00
710-01	E.P.S. OPTICAL DETECTOR	2	EA	\$1,000.00	\$2,000.00
710-02	E.P.S. 2 CHANNEL PHASE DETECTOR	1	EA	\$3,700.00	\$3,700.00
710-03	OPTICAL DETECTOR CABLE	425	LF	\$5.00	\$2,125.00
711-00	VEHICLE ACTUATED TRAFFIC SIGNAL CONTROL ASSEMBLY	1	LSUM	\$26,000.00	\$26,000.00
713-08	2" TRAFFIC SIGNAL CONDUIT (TRENCHED)	200	LF	\$21.00	\$4,200.00
713-09	2" TRAFFIC SIGNAL CONDUIT (BORED)	50	LF	\$35.00	\$1,750.00
713-10	3" TRAFFIC SIGNAL CONDUIT (TRENCHED)	60	LF	\$24.00	\$1,440.00
713-11	3" TRAFFIC SIGNAL CONDUIT (BORED)	500	LF	\$40.00	\$20,000.00
714-01	TWO CONDUCTOR SHIELDED CABLE	50	LF	\$4.00	\$200.00
714-04	(5) CONDUCTOR TRAFFIC SIGNAL ELECTRICAL CABLE	4,000	LF	\$4.00	\$16,000.00
714-05	(7) CONDUCTOR TRAFFIC SIGNAL ELECTRICAL CABLE	300	LF	\$6.50	\$1,950.00
714-06	(21) CONDUCTOR TRAFFIC SIGNAL ELECTRICAL CABLE	500	LF	\$7.00	\$3,500.00
714-10	(1/CONDUCTOR)(AWG NO. 6) ELECTRICAL CONDUCTOR	350	LF	\$5.00	\$1,750.00
714-11	(1/CONDUCTOR)(AWG NO. 10) ELECTRICAL CONDUCTOR	1,750	LF	\$3.00	\$5,250.00
715-01	THREE (3) SECTION TRAFFIC SIGNAL HEAD	8	EA	\$1,200.00	\$9,600.00
715-02	FOUR (4) SECTION TRAFFIC SIGNAL HEAD	2	EA	\$1,650.00	\$3,300.00
717-00	PEDESTRIAN SIGNAL HEAD	8	EA	\$800.00	\$6,400.00
722-00	PEDESTRIAN PUSH BUTTON AND SIGN	8	EA	\$1,250.00	\$10,000.00
724-33	POLE & SPECIFIED 25' MAST ARM(S) & LUM. ARM (INSTALLED)	1	EA	\$16,000.00	\$16,000.00
724-34	POLE & SPECIFIED 45' MAST ARM(S) & LUM. ARM (INSTALLED)	1	EA	\$16,000.00	\$16,000.00
724-35	POLE & SPECIFIED 45' MAST ARM	1	EA	\$20,000.00	\$20,000.00
724-36	POLE & SPECIFIED 50' MAST ARM(S) & LUM. ARM (INSTALLED)	1	EA	\$20,000.00	\$20,000.00
724-68	PEDESTAL POLE W/ 10-FT MOUNTING HEIGHT	7	EA	\$1,200.00	\$8,400.00
725-00	STRUCTURAL CONCRETE	29	CY	\$1,200.00	\$34,800.00
725-01	REINFORCING STEEL	4,046	LBS	\$2.50	\$10,115.00
726-00	PULL BOX TYPE II	4	EA	\$1,200.00	\$4,800.00
727-00	ROADWAY LUMINAIRE	3	EA	\$20.00	\$60.00
729-00	SHEET ALUMINUM SIGNS	98.5	SF	\$10.00	\$985.00
729-01	REMOVAL OF EXISTING SIGNS	2	EA	\$100.00	\$200.00
729-02	MAST ARM MOUNTED SIGNS	89	SF	\$55.00	\$4,895.00
733-00	SQUARE STEEL SIGN POST	52	LF	\$20.00	\$1,040.00
735-00	TRAFFIC STRIPE (MULTI-POLYMER) (4" WIDE)	4,372	LF	\$1.50	\$6,558.00
735-01	TRAFFIC STRIPE (MULTI-POLYMER) (12" WIDE)	257	LF	\$4.00	\$1,028.00
735-02	TRAFFIC STRIPE (MULTI-POLYMER) (24" WIDE)	605	LF	\$8.00	\$4,840.00
736-00	TRAFFIC STRIPE (MULTI-POLY) (ARROW) (SINGLE)	7	EA	\$150.00	\$1,050.00
736-01	TRAFFIC STRIPE (MULTI-POLY) (ARROW) (DOUBLE)	1	EA	\$200.00	\$200.00
742-00	REMOVE TRAFFIC STRIPE (4" WIDE)	6,583	LF	\$3.00	\$19,749.00
744-04	RADAR VEHICLE DETECTION FOR 3-WAY INTERSECTION	1	EA	\$75,000.00	\$75,000.00
801-00	CONSTRUCTION STAKING	1	LSUM	\$15,000.00	\$15,000.00
802-00	CONSTRUCTION TRAFFIC CONTROL	1	LSUM	\$8,000.00	\$8,000.00
809-00	MOBILIZATION	1	LSUM	\$30,000.00	\$30,000.00
810-00	CLEARING AND GRUBBING	1	LSUM	\$9,000.00	\$9,000.00
811-00	STRUCTURE REMOVAL (TRAFFIC SIGNAL EQUIPMENT)	1	LSUM	\$18,000.00	\$18,000.00
812-01	REMOVE CURB AND GUTTER	226	LF	\$15.00	\$3,390.00



812-07	SAWCUT PAVEMENT	261	LF	\$8.00	\$2,088.00
812-08	REMOVAL OF SIDEWALK	126	SY	\$40.00	\$5,040.00
819-01	ADJUST EXISTING STRUCTURE (WATER VALVE)	1	EA	\$200.00	\$200.00
823-00	SIDEWALK	74	SY	\$70.00	\$5,180.00
823-01	DRIVEWAY (WIDTH VARIES)	22	SY	\$80.00	\$1,760.00
830-00	ADA CURB RAMP (8")	6	EA	\$850.00	\$5,100.00
830-01	TACTILE MARKERS/TRUNCATED DOMES	71	SY	\$75.00	\$5,325.00
840-00	SOLID SLAB SODDING	179	SY	\$6.00	\$1,074.00
900-02	SILT SOCK	2	EA	\$250.00	\$500.00
900-04	FILTER FABRIC SILT FENCE-COMPLETE IN PLACE	136	LF	\$4.00	\$544.00
<b>Total Construction Cost</b>					<b>\$486,966.00</b>
<b>City Fixed-Limit Cost</b>					<b>\$490,000.00</b>

## **APPENDIX B**

60% Plan Set

[illegible]

TC-0631  
INTERSECTION IMPROVEMENTS  
NW 150TH ST & LONE OAK DR

## TRAFFIC MANAGEMENT

4. WORK ZONE PERMIT MUST BE OBTAINED FROM THE TRAFFIC MANAGEMENT DIVISION AT LEAST TWO (2) WORKING DAYS PRIOR TO START OF WORK AND/OR PLACING OR REMOVING ANY BARRIERS OR MODIFYING EXISTING TRAFFIC CONTROL DEVICES. EMAIL: [workzones@caltrans.ca.gov](mailto:workzones@caltrans.ca.gov). TO OBTAIN AN APPLICATION, THE CONTRACTOR IS RESPONSIBLE FOR THE PROPOSED REPLACEMENT AND/OR REPAIRS OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT MARKINGS THAT WILL CONFLICT WITH THE PROPOSED WORK.

## STORM WATER QUALITY

1. A SANITARY PERMIT MUST BE OBTAINED BEFORE A WORK ORDER IS RELEASED.

2. ALL LAND DISTURBING ACTIVITIES INSIDE OR OUTSIDE MUST OBTAIN A LAND DISTURBING ACTIVITY PERMIT WITH THE CITY OF CHANDLER CITY STORMWATER QUALITY MANAGEMENT DIVISION. ADDITIONALLY, CONSTRUCTION ACTIVITIES THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE (1) ACRE OR LESS THAN ONE (1) ACRE IF THEY ARE PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT TOTALS AT LEAST ONE (1) ACRE MUST OBTAIN AUTHORIZATION TO DISCHARGE STORMWATER UNDER THE CDDCS CONSTRUCTION GENERAL PERMIT OR (1)

- 3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.

4. A COPY OF EROSION CONTROL SITE PLAN MUST ALWAYS BE ON SITE AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST.

PRELIMINARY  
PLAN SET  
APRIL 2024

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

ONE CALL UTILITY LOCATION NUMBER

840-5032  
1-800-922-6543

This number is to be used for information on the location of all underground utilities. Contact the number on the location of the utilities specified in the plans prior to any excavation.

PREPARED BY:

**olsen**

03/09/94  
COURT OF APPEALS 2412  
EXP. 03/02/95  
11200 Brownlee, Lexington, KY 40502  
Dr. 606-253-0114  
FAX 606-243-4000

BRISTANTY MCANALLY, P.E., NO. 31799  
REGISTERED PROFESSIONAL ENGINEER IN KENTUCKY



The City of  
**OKLAHOMA CITY**  
Public Works Department

DAVID HOLT *Mayor*

#### COMMITTEE MEMBERS

BRADLEY CARTER	WARD
JAMES COOPER	WARD
BARBARA PECK	WARD
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CRAB FREEMAN	CITY MANAGER
DEBORAH K. MILLER, P.E.	CITY ENGINEER

4/SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	PAY ITEM NOTES
4	EROSION CONTROL PLAN
5	EROSION CONTROL DETAILS
6	PLAN SHEET
7	REMOVAL PLAN
8	TRAFFIC SIGNAL PLAN
9	TRAFFIC SIGNAL SEQUENCING
10	TRAFFIC SIGNAL SKIN DETAIL
11	TRAFFIC SIGNAL DETECTION DETAIL (RADAR)
12	TRAFFIC SIGNAL AND STAFFING PLAN
5021	SURVEY DATA SHEET

OKC PUBLIC WORKS DEPT. STANDARD DETAILS #B23.032	
D-260C	P/C CONCRETE PAVING SPECIAL DETAILS
D-500	STANDARD TYPE-C SECTIONS UTILITY LAINEOUS DETAILS
D-104A	ADA CURB RAMP DETAILS ARTERIAL STREETS
D-700C	ADA CURB RAMP DETAILS ARTERIAL STREETS
D-200C	ADA CURB RAMP DETAILS RESIDENTIAL STREETS COMMERCIAL DRIVE
D-700D	ADA CURB RAMP DETAILS
D-800B	STANDARD DETAILS

## 9/5/2024

## NY 121252

10.2.2019 12:55:00 - 075001021-07496-A\49-Dealing with the Information Security TC-063-WATES.0620

- ### GENERAL NOTES

- ### GENERAL EVENT NOTES

- CONSTRUCTION ACTIVITIES THAT RESULT IN LAND DISTURBANCE OF EQUALS TO OR GREATER THAN ONE (1) ACRE, OR LESS THAN ONE (1) ACRE IF THEY ARE PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT TOTALS AT LEAST ONE (1) ACRE MUST OBTAIN A PERMIT FROM ODE (FORM 600-072-0) FOR A STORY WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. THIS MEANS THAT LAND DISTURBANCE OF ONE (1) ACRE OR MORE MUST PERMIT WITH ODE AND THE CITY OF GILKINSON CITY STORY WATER QUALITY.

Wagon	10	NORTHWEST LONE GARDEN OREGON COUNTY  GENERAL NOTES  Date: 10-23-81 Page: 2
Dune	26	
Cave	31	
Logging	30	
Stream	35	



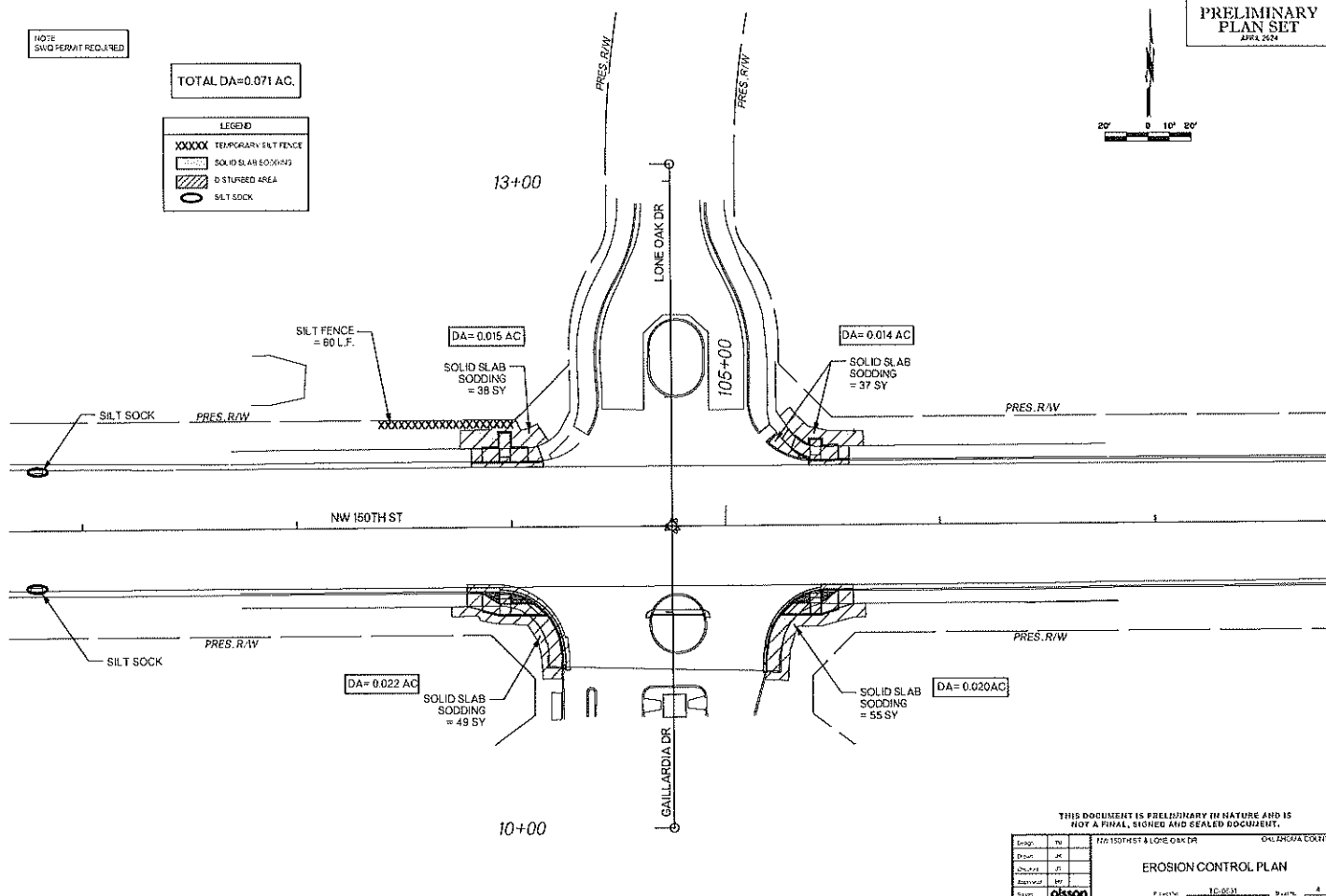
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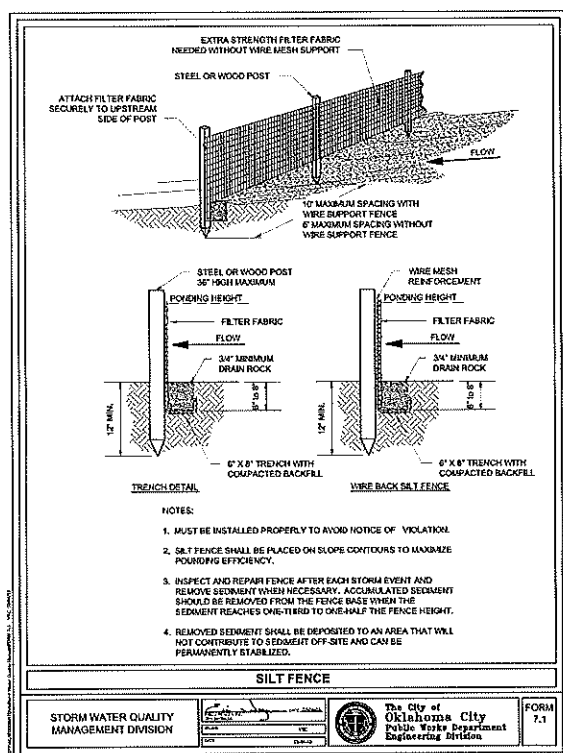
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Date	20		
Case No.	11		
App. No.	20		
Case	11		

PAY ITEM NOTES

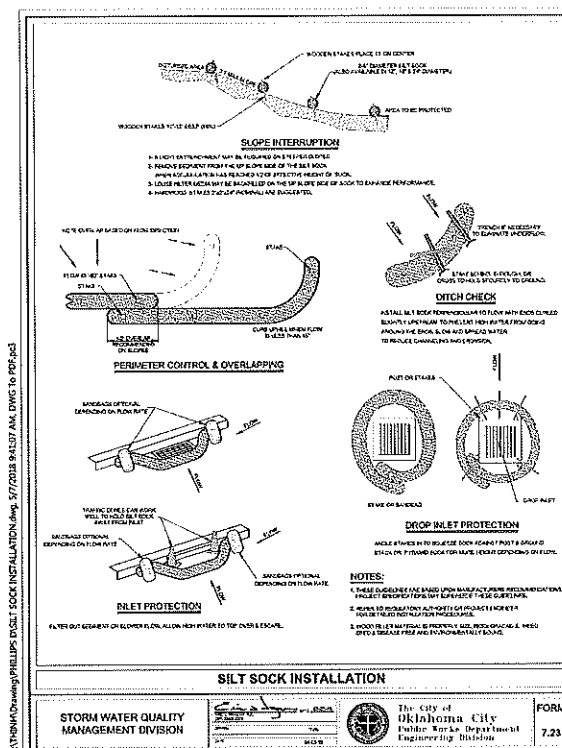
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- OXC Stormwater BMP Manual 55

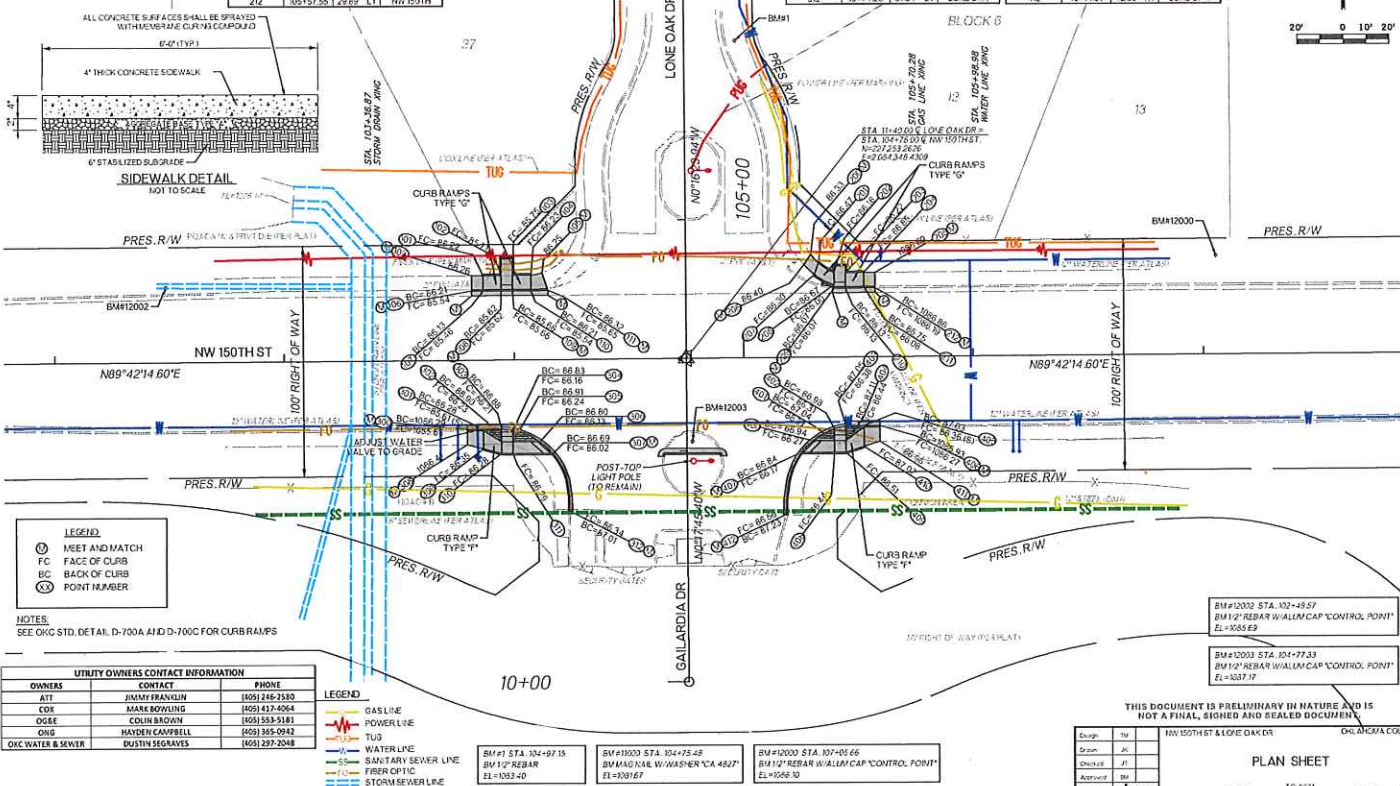


--- OTC Stormwater BMP Manual 77

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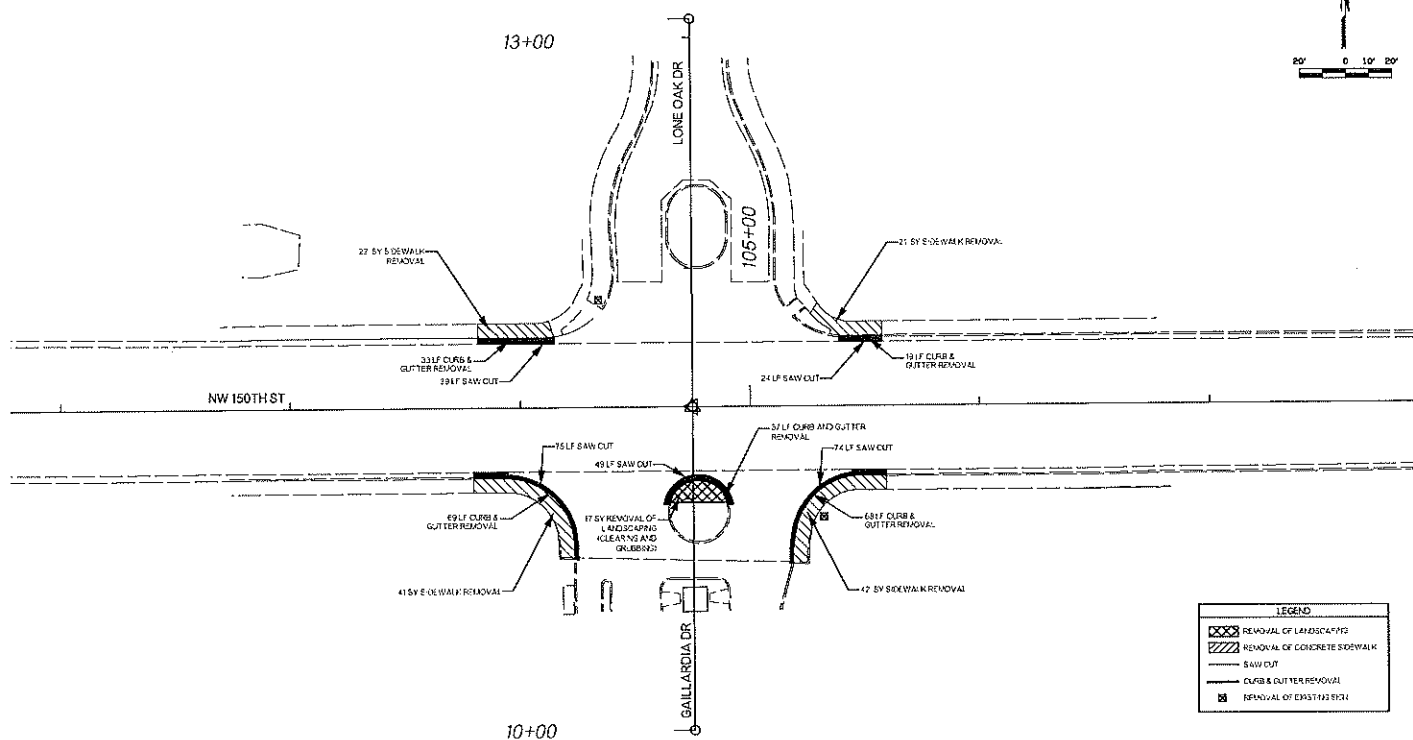
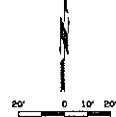
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Drawn	JL	
Checked	PL	
Approved	BR	
Scale	AS SHOWN	

SW QUADRANT				SE QUADRANT			
POINT NO	STATION	OFFSET	ALIGNMENT	POINT NO	STATION	OFFSET	ALIGNMENT
800	103+04.2	1.28	RTW N50.01E	401	103+04.2	1.28	RTW N50.01E
801	103+04.2	1.28	RTW N50.01E	402	103+32.1	35.22	RTW N50.01E
802	103+04.2	1.28	RTW N50.01E	403	103+32.1	35.22	RTW N50.01E
803	103+04.2	1.28	RTW N50.01E	404	103+32.1	35.22	RTW N50.01E
804	103+04.2	1.28	RTW N50.01E	405	103+32.1	35.22	RTW N50.01E
805	103+04.2	1.28	RTW N50.01E	406	103+32.1	35.22	RTW N50.01E
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832	103+04.2	1.28	RTW N50.01E	433	103+32.1	35.22	RTW N50.01E
833	103+04.2	1.28	RTW N50.01E	434	103+32.1	35.22	RTW N50.01E
834	103+04.2	1.28	RTW N50.01E	435	103+32.1	35.22	RTW N50.01E
835	103+04.2	1.28	RTW N50.01E	436	103+32.1	35.22	RTW N50.01E
836	103+04.2	1.28	RTW N50.01E	437	103+32.1	35.22	RTW N50.01E
837	103+04.2	1.28	RTW N50.01E	438	103+32.1	35.22	RTW N50.01E
838	103+04.2	1.28	RTW N50.01E	439	103+32.1	35.22	RTW N50.01E
839	103+04.2	1.28	RTW N50.01E	440	103+32.1	35.22	RTW N50.01E
840	103+04.2	1.28	RTW N50.01E	441	103+32.1	35.22	RTW N50.01E
841	103+04.2	1.28	RTW N50.01E	442	103+32.1	35.22	RTW N50.01E
842	103+04.2	1.28	RTW N50.01E	443	103+32.1	35.22	RTW N50.01E
843	103+04.2	1.28	RTW N50.01E	444	103+32.1	35.22	RTW N50.01E
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857	103+04.2	1.28	RTW N50.01E	458	103+32.1	35.22	RTW N50.01E
858	103+04.2	1.28	RTW N50.01E	459	103+32.1	35.22	RTW N50.01E
859	103+04.2	1.28	RTW N50.01E	460	103+32.1	35.22	RTW N50.01E
860	103+04.2	1.28	RTW N50.01E	461	103+32.1	35.22	RTW N50.01E
861	103+04.2	1.28	RTW N50.01E	462	103+32.1	35.22	RTW N50.01E
862	103+04.2	1.28	RTW N50.01E	463	103+32.1	35.22	RTW N50.01E
863	103+04.2	1.28	RTW N50.01E	464	103+32.1	35.22	RTW N50.01E
864	103+04.2	1.28	RTW N50.01E	465	103+32.1	35.22	RTW N50.01E
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877	103+04.2	1.28	RTW N50.01E	478	103+32.1	35.22	RTW N50.01E
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894	103+04.2	1.28	RTW N50.01E	495	103+32.1	35.22	RTW N50.01E
895	103+04.2	1.28	RTW N50.01E	496	103+32.1	35.22	RTW N50.01E
896	103+04.2	1.28	RTW N50.01E	497	103+32.1	35.22	RTW N50.01E
897	103+04.2	1.28	RTW N50.01E	498	103+32.1	35.22	RTW N50.01E
898	103+04.2	1.28	RTW N50.01E	499	103+32.1	35.22	RTW N50.01E
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## 1

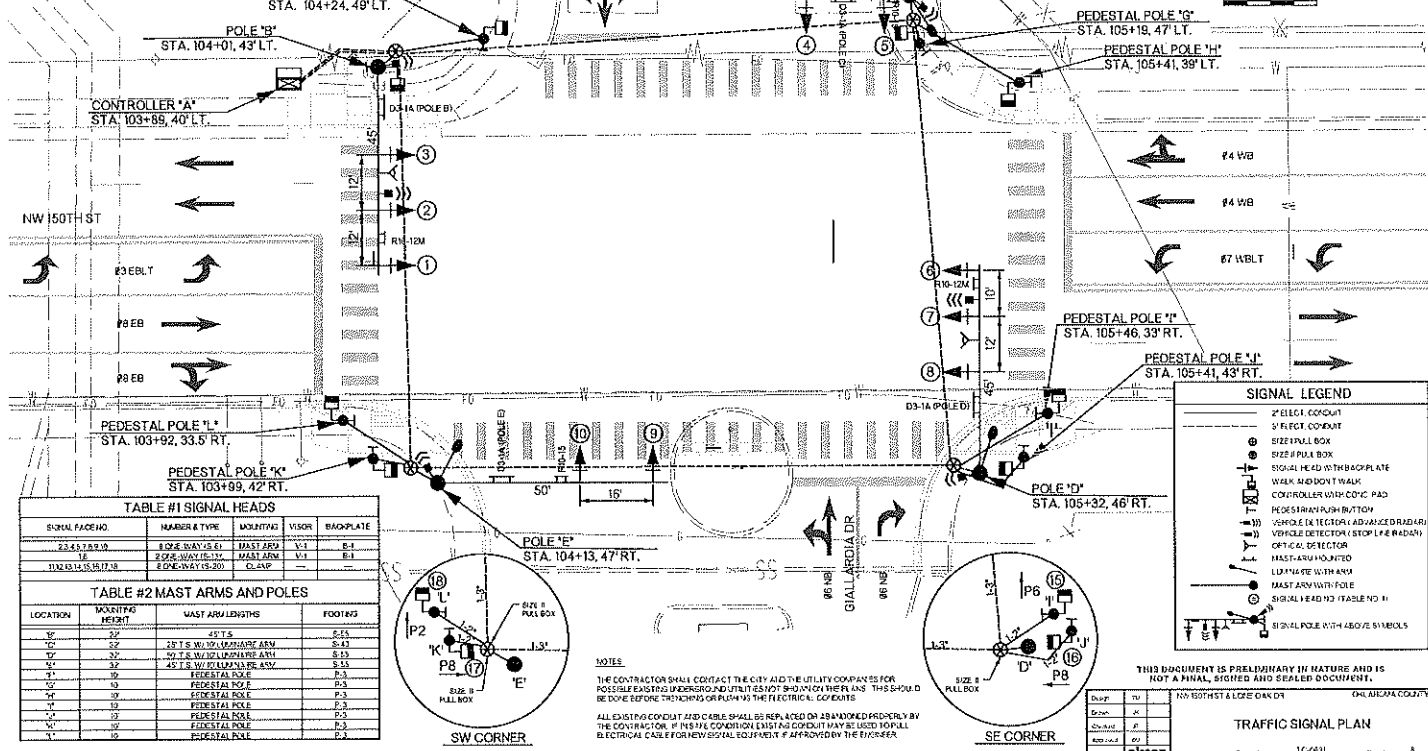


THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

NOT A FINAL, SIGNED AND SEALED DOCUMENT.			
Design	TU	2201 150TH ST & LONE OAK DR	OAKLAND & COUNTY
Drawn	JK	REMOVAL PLAN	
Checked	JK		
Reviewed	DN		
Exam	1503		
Project No.		TC-6631	Sheet No. 7

REMOVAL PLAN

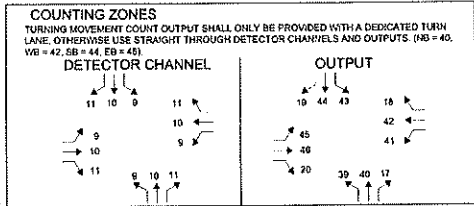
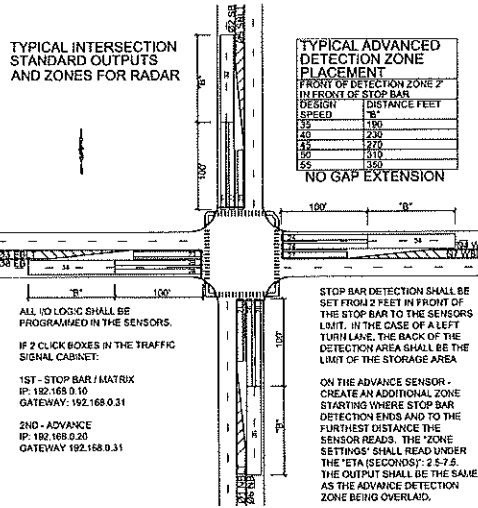
PC-1112 IC-6631





Design	Tr	NW 150TH ST & LORE OAK DR	OGLALOMA COUNTY
Drawn	AK	TRAFFIC SIGNAL SIGN DETAIL	
Checked	JL		
Approved	DN		
Issued	olsson		
		Project No.	TC-0631
		Sheet No.	10





**TYPICAL RADAR DETECTOR CHANNEL AND OUTPUT SETTINGS**

PHASE	DETECTION		COUNTING		DESCRIPTION
	DETECTOR CHANNEL	OUTPUT	DETECTOR CHANNEL	OUTPUT	
1	1	22	10	19	SB STOP BAR
2	2	23	11	20	SB STOP BAR RIGHT TURN
3	3	24	-	-	SB ADVANCE
4	4	25	-	-	SB ADVANCE 'ETA' SETTING
5	5	26	8	43	SB STOP BAR LEFT TURN
6	6	27	9	44	WB STOP BAR
7	7	28	10	45	WB STOP BAR RIGHT TURN
8	8	29	11	46	WB ADVANCE
9	9	30	-	-	WB ADVANCE 'ETA' SETTING
10	10	31	9	41	WB STOP BAR LEFT TURN
11	11	32	10	42	NB STOP BAR
12	12	33	11	43	NB STOP BAR RIGHT TURN
13	13	34	-	-	NB ADVANCE
14	14	35	-	-	NB ADVANCE 'ETA' SETTING
15	15	36	9	41	NB STOP BAR LEFT TURN
16	16	37	10	42	EB STOP BAR
17	17	38	11	43	EB STOP BAR RIGHT TURN
18	18	39	-	-	EB ADVANCE
19	19	40	-	-	EB ADVANCE 'ETA' SETTING
20	20	41	9	43	EB STOP BAR LEFT TURN

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

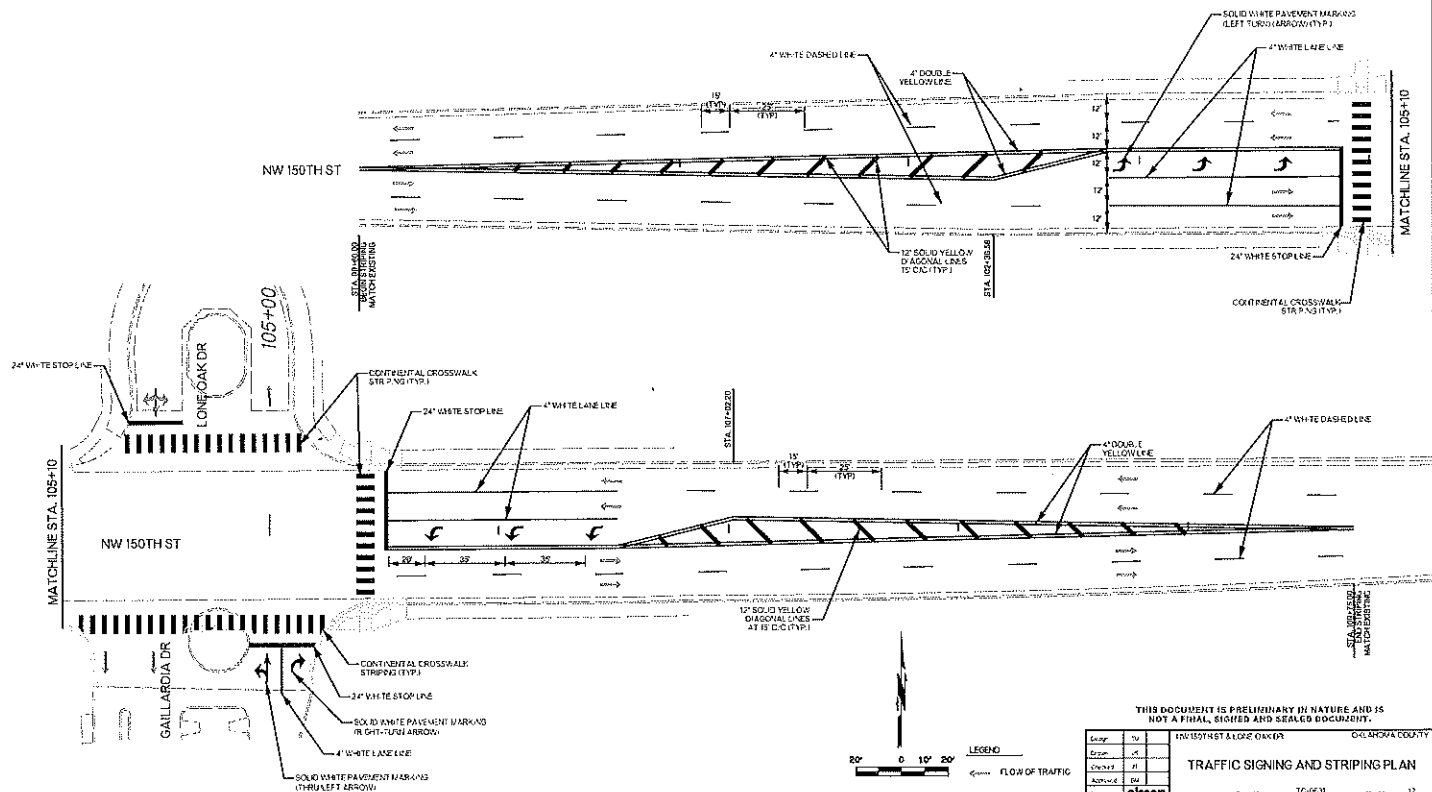
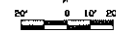
Group	Yes	NO NORTHWEST & LOS OAKS	OKLAHOMA COUNTY
Drawn	Yes	TRAFFIC SIGNAL DETECTION DETAIL (RADAR)	
Checked	Yes		
Approved	Yes		
Scale	As Shown	Project No.	1C-0631

4/2/2024

12:00 PM

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PRELIMINARY  
PLAN SET  
APRIL 2024



THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL SIGNED AND SEALED DOCUMENT.

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LEGEND

12-0431-105-10

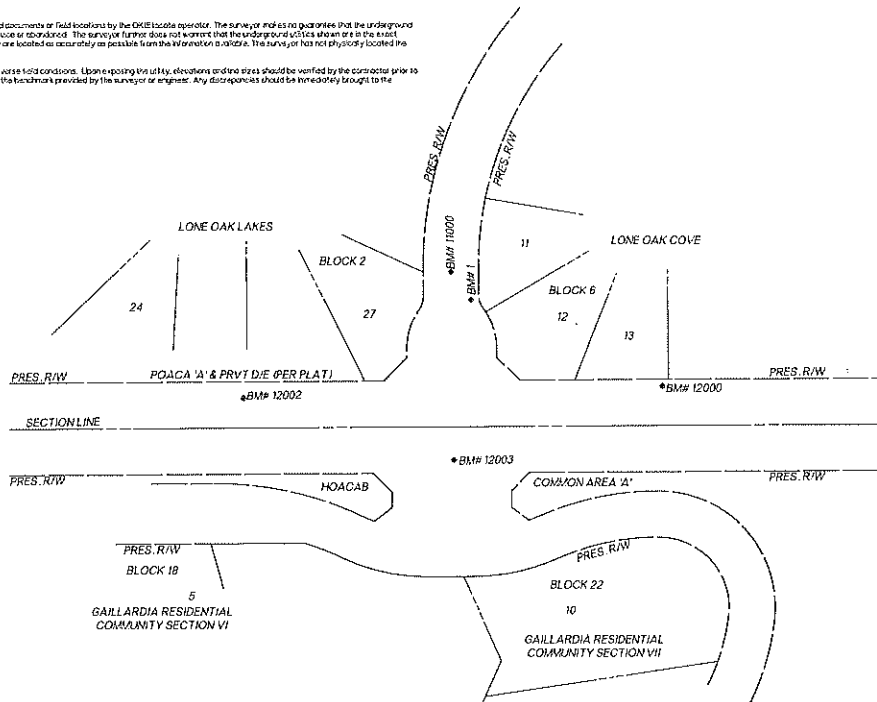
CHANDLER COUNTY

TRAFFIC SIGNING AND STRIPING PLAN

Project No. 12-0431

Sheet No. 12

*Utility elevations and sizes may have been measured under adverse field conditions. Upon exposing this utility, elevations and line sizes should be verified by the contractor prior to construction. Contractor should verify critical elevations using the benchmark provided by the surveyor or engineer. Any discrepancies should be immediately brought to the engineer's and the owner's attention.*



City	TU	15711 ST & LOPE DIA DR	OKLAHOMA COUNTY
County	OK		
Section	31	SURVEY DATA SHEET	
Assessed	1998		
Owner	Olsson	Page 1 of 1	TC-0631 6031

# **PRELIMINARY ENGINEERING REPORT**

The City of Oklahoma City

April 2024

Project No. TC-0631, Task 1



The City of  
**OKLAHOMA CITY**

**olsson**