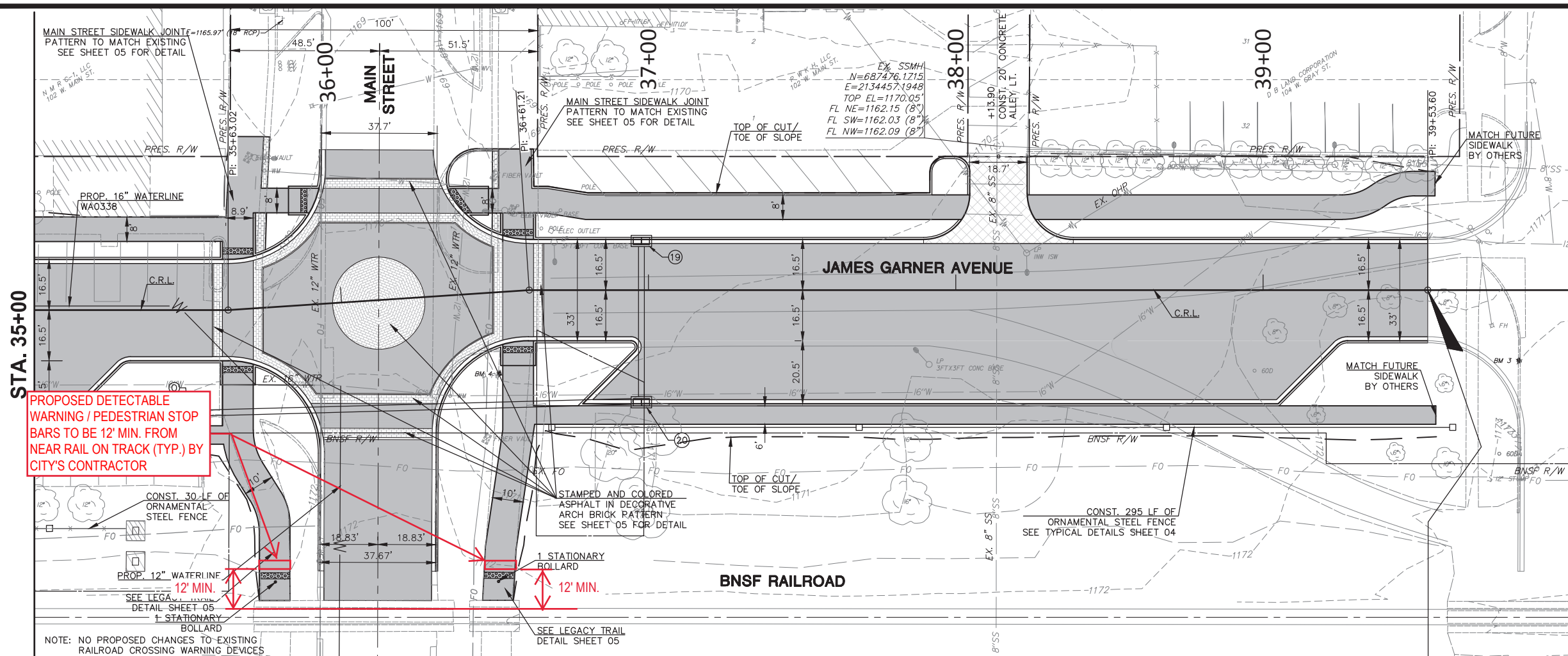
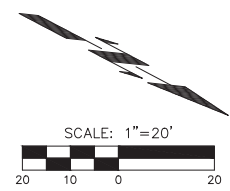




COWAN GROUP ENGINEERING
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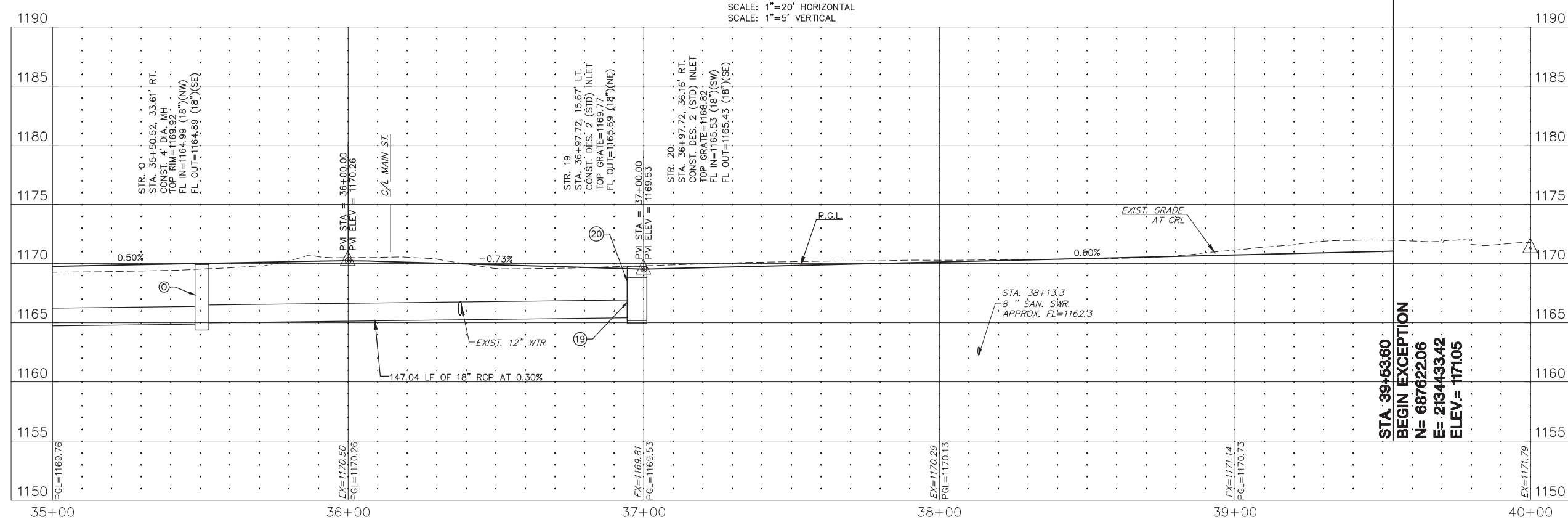


PROPOSED DETECTABLE WARNING / PEDESTRIAN STOP BARS TO BE 12" MIN. FROM NEAR RAIL ON TRACK (TYP.) BY CITY'S CONTRACTOR

LEGEND	
	ASPHALT PAVEMENT
	MILL & OVERLAY
	CONCRETE DRIVEWAY
	SIDEWALK
	TRUNCATED DOMES
	ORNAMENTAL FENCE

JAMES GARNER AVENUE

SCALE: 1"=20' HORIZONTAL
 SCALE: 1"=5' VERTICAL



**STA. 39+53.60
 BEGIN EXCEPTION
 N= 687622.06
 E= 2134433.42
 ELEV= 1171.05**

JAMES GARNER AVE. STREET IMPROVEMENTS

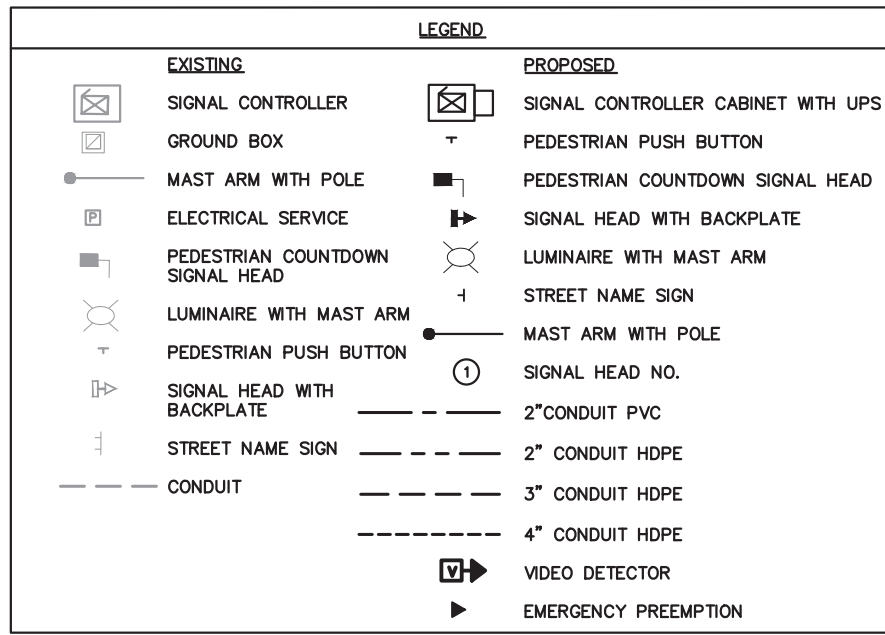
**EXHIBIT A - CROSSING LAYOUT
 E. MAIN STREET - DOT 012203N
 BNSF RED ROCK SUBDIVISION, MILEPOST 401.770 MA**

PLAN & PROFILE (6 OF 9)

DESIGNED BY	SKF
DRAWN BY	HMH
REVIEWED BY	SKF
PROJECT NUMBER	19-822
DATE	2/2/2024

REVISIONS	

SHEET NUMBER **43**



NOTES:

- THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING TRAFFIC SIGNAL CABINET AND COMPONENTS, CONSISTENT WITH THE CITY OF NORMAN STANDARDS:
 - ECONOLITE P44 TS2 TYPE 1 TRAFFIC SIGNAL CONTROLLER CABINET
 - ECONOLITE COBALT CONTROLLER WITH EOS PLATFORM
 - TESCO CLASS 22-40 BATTERY BACKUP
 - ECONOLITE RAILROAD GATE DOWN PANEL
- THE CONTRACTOR SHALL CONTACT THE CITY AND UTILITY COMPANIES FOR POSSIBLE UNDERGROUND EXISTING UTILITIES NOT SHOWN ON THE PLANS. THIS SHOULD BE DONE BEFORE TRENCHING OR INSTALLING ELECTRICAL CONDUITS.
- THE CONTRACTOR SHALL INSTALL ADA ACCESSIBLE AUDIBLE PEDESTRIAN PUSH BUTTONS STATIONS, ADA COMPLIANT SIDEWALKS, AND ADA COMPLIANT BARRIER FREE PEDESTRIAN CURB RAMP PER THE PLANS.
- VIDEO VEHICLE DETECTION WILL BE PROVIDED FOR THIS INTERSECTION. THE DETECTOR LOOPS SHOWN ON THE PAVEMENT ARE SHOWN ONLY TO DEPICT THE AREAS OF DETECTION FOR THE VIDEO DETECTION UNITS ALONG WITH THE PHASES THAT EACH VIDEO DETECTOR UNIT WILL CALL.
- THE POLE ENLARGEMENT DETAIL IS PROVIDED FOR INFORMATION PURPOSES ONLY. THE PLACEMENT OF THE PEDESTRIAN PUSH BUTTONS AND SIGNAL HEADS SHALL BE INSTALLED ON THE POLES SUCH THAT THE SIGNAL HEADS ARE VISIBLE FROM THE CROSSWALK AND THE PUSH BUTTONS ARE ACCESSIBLE FROM THE ADJACENT SIDEWALK. THE HANDHOLD SHALL NOT CONFLICT WITH THE PUSH BUTTON LOCATIONS AS SHOWN.
- OPTICAL DETECTORS SHALL BE MOUNTED 5' ABOVE THE MAST ARM.
- POLE B SHALL HAVE A BLACK BREAKER BOX SUBSIDIARY TO THE INSTALLATION OF THE POLE AND MAST ARM ASSEMBLY.
- FOR RAIL GRADE CROSSING TRAFFIC SIGNAL PREEMPTION, A SINGLE BREAK CROSSING ACTIVE (XR) CIRCUIT WITH SIMULTANEOUS PREEMPTION IS REQUESTED.
- VOLTAGE FOR THE PREEMPTION INTERCONNECT CIRCUIT SHALL BE 28 VDC MAXIMUM. CONTRACTOR SHALL VERIFY THAT THE INTERCONNECTION VOLTAGE DOES NOT EXCEED THIS MAXIMUM.

PROPOSED GROUND BOX TO BE 17"X30"X12", AND QUANTIFIED AS TYPE II GROUND BOX

TABLE 1 - PROPOSED SIGNAL HEADS

SIGNAL HEAD NUMBER	STATUS	NUMBER & TYPE	MOUNTING	VISOR	BACKPLATE
1,2,5,6,7,10,11	I	7 - ONEWAY (S-6)	MAST ARM	V-1	B-2
4,8,12,13,14,15	I	6 - ONEWAY (S-20)	BOLT	---	---
9	I	1 - ONEWAY (S-13)L	MAST ARM	V-1	B-2

TABLES 2 - PROPOSED MAST ARMS AND POLES

LOCATION	STATUS	MOUNTING HT.	MAST ARM LENGTHS	FOUNDATION
A	I	32'	35' T.S. & 10' LUM.	S-40
B	I	32'	45' T.S. & 10' LUM.	S-40
C	I	32'	30' T.S. & 10' LUM.	S-40
D	F	32'	30' T.S. & 10' LUM.	FUTURE
E	I	10'	PED. POLE	P-3
F	I	10'	PED. POLE	P-3
G	I	10'	PED. POLE	P-3
H	I	10'	PED. POLE	P-3
I	I	10'	PED. POLE	P-3
J	I	10'	PED. POLE	P-3

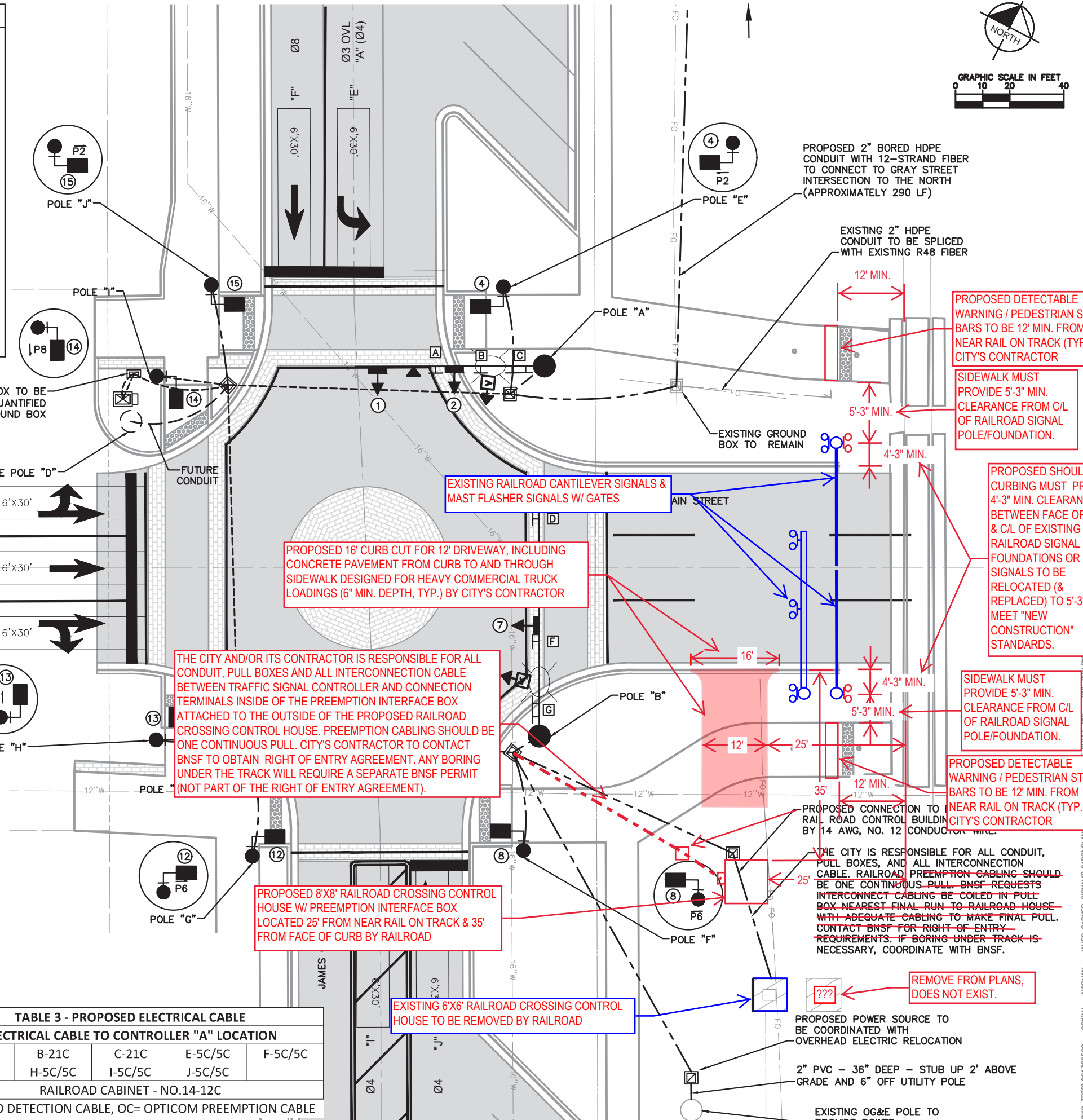
TABLE 3 - PROPOSED ELECTRICAL CABLE

ELECTRICAL CABLE TO CONTROLLER "A" LOCATION

A-21C	B-21C	C-21C	E-5C/5C	F-5C/5C
G-5C/5C	H-5C/5C	I-5C/5C	J-5C/5C	

RAILROAD CABINET - NO.14-12C

VC=VIDEO DETECTION CABLE, OC= OPTICOM PREEMPTION CABLE



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11/30/2023

LUKE A. SCHMIDT
 28691
 OKLAHOMA

JAMES GARNER AVE. STREET IMPROVEMENTS

EXHIBIT A - CROSSING LAYOUT
 D. MAIN STREET - DOT 012203N
 E. MAIN STREET - DOT 012203N
 NORM BNSF RED ROCK SUBDIVISION, MILEPOST 401.770

TRAFFIC SIGNAL LAYOUT

DESIGNED BY: LAS
 DRAWN BY: DCM
 REVIEWED BY: LAS
 PROJECT NUMBER: 061309500
 DATE: 11/30/2023

REVISIONS:

SHEET NUMBER: 66