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HAMILTON COUNTY

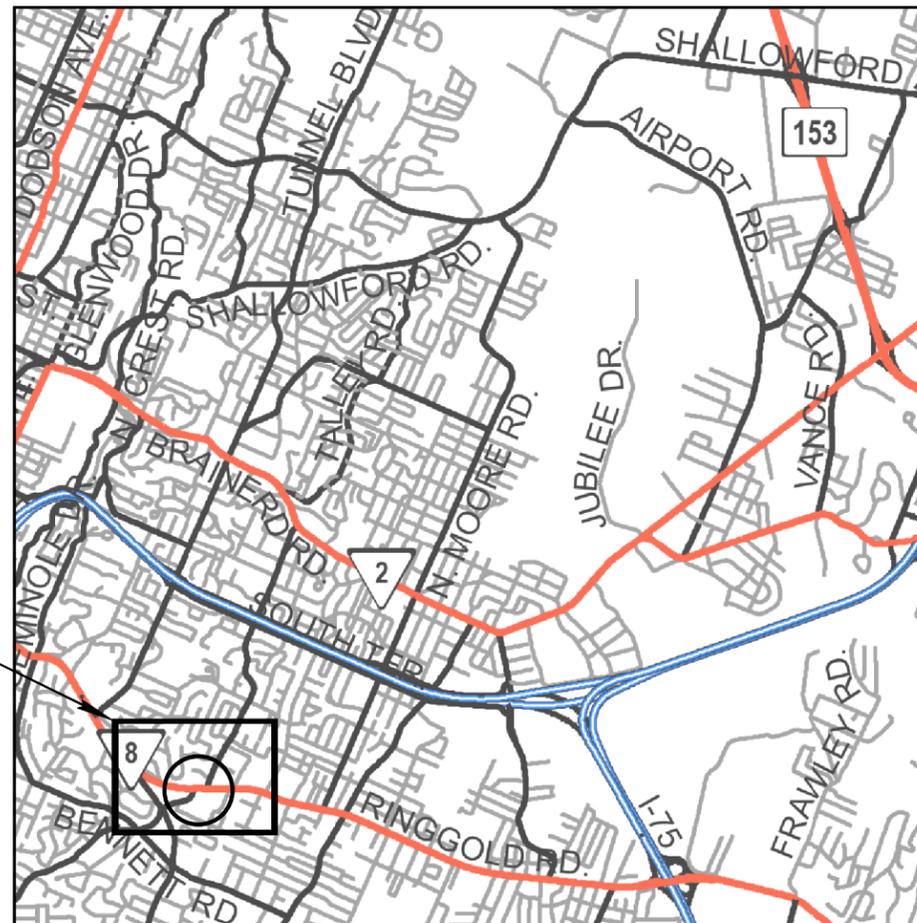
INTERSECTION OF US ROUTE 41 (RINGGOLD ROAD)
AT JOHN ROSS ROAD
EAST RIDGE, TENNESSEE

CONSTRUCTION
TRAFFIC STRAIN POLE RELOCATION

TENN.	YEAR	SHEET NO.
	2023	TS-1
PROJECT NO.	230392	



CITY OF EAST RIDGE, TN



US ROUTE 41 (RINGGOLD ROAD)
JOHN ROSS ROAD
N 2193140
E 242653

SPECIAL NOTES

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2021 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

DESIGNED BY: THOUVENOT, WADE & MOERCHEN, INC.
DESIGNER: STEPHEN MEYER, P.E. CHECKED BY SHEILA KIHLINGER, P.E.

PLANS PREPARED BY:

1208 Pointe Centre Drive, Suite 250
Chattanooga, Tennessee 37421
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www.twm-inc.com



ILLINOIS - MISSOURI - TENNESSEE



SHEET TS-8

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TYPE	YEAR	PROJECT NO.	SHEET NO.
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SIGNAL PLANS INDEX

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TITLE SHEET	TS-1			
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STANDARD ROADWAY DRAWINGS

DWG.	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-1	02-20-20	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
RD-L-2	02-20-20	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	03-01-23	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	02-20-20	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING

DESIGN - TRAFFIC CONTROL

T-WZ-40	03-05-17	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-41	03-05-17	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-42	03-05-17	CENTER LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-51	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 4 OR 5 LANE MAJOR ROUTES.
T-WZ-55	10-29-21	SIDEWALK TRAFFIC CONTROL
T-WZ-FAB1		FLASHING YELLOW ARROW BOARD

STANDARD TRAFFIC OPERATIONS DRAWINGS

DWG.	REV.	DESCRIPTION
SIGNALS		
T-SG-4	06-27-16	SPAN WIRE AND MESSENGER CABLE DETAILS
T-SG-7	10-21-19	SIGNAL HEAD ASSEMBLIES
T-SG-7A	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT APPROACHES WITH NO THROUGH MOVEMENTS
T-SG-7F	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES
T-SG-8	06-27-16	STRAIN POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-9A	07-12-17	MISCELLANEOUS SIGNAL DETAILS
T-SG-11	07-12-17	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION

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**SIGNAL PLANS
INDEX AND STANDARD
TRAFFIC OPERATIONS
DRAWINGS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2023	230392	TS-3

ESTIMATED SIGNAL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
712-01	TRAFFIC CONTROL	LS	1
730-01.04	MODIFICATION OF EXISTING SIGNAL EQUIPMENT	LS	1
730-09.20	SPAN WIRE ASSEMBLY	L.F.	245
730-24.08	FOUNDATION (TRAFFIC STRAIN POLE)	EACH	1

FOOTNOTES	
(1)	TRAFFIC CONTROL SHALL INCLUDE THE COST OF ALL ITEMS INCLUDING BUT NOT LIMITED TO ALL TEMPORARY SIGNS & POSTS, TEMPORARY PAVEMENT MARKINGS (AND REMOVALS), TEMPORARY BARRICADES AND/OR DRUMS AND ALL OTHER ITEMS NEEDED TO PROVIDE WORK ZONE TRAFFIC CONTROL AS REQUIRED IN PLANS AND SPECIFICATIONS.
(2)	MODIFICATION OF EXISTING SIGNAL EQUIPMENT INCLUDES ALL LABOR AND MATERIALS REQUIRED TO PROVIDE A COMPLETE, FUNCTIONING TRAFFIC SIGNAL INSTALLATION, INCLUDING A TENSION RING IN ACCORDANCE WITH MINIMUM SIZE REQUIREMENTS ON STANDARD DRAWINGS. IT ALSO INCLUDES INSTALLATION OF NEW STRAIN POLE PROVIDED BY THE CITY, IN ADDITION TO THE COST OF REMOVAL AND DISPOAL OF THE EXISTING STRAIN POLE AND OTHER VARIOUS ATTACHMENTS ARE INCLUDED.
(3)	SPAN WIRES SHALL MEET MINUMUM SIZE REQUIREMENTS ON STANDARD DRAWINGS.
(4)	FOUNDATION (TRAFFIC STRAIN POLE) SHALL INCLUDE THE MATERIALS AND INSTALLATION INCLUDING DRILLING/EXCAVATION, FORMING, CONCRETE, REINFORCING BARS, GROUNDING ROD AND ATTACHMENTS, REMOVAL OF SPOILS, AND ANY OTHER ITEMS NECESSARY TO PROVIDE A COMPLETE FOUNDATION. ANCHOR BOLTS ARE TO BE PROVIDED BY POLE MANUFACTURER.

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SIGNAL PLANS

ESTIMATED SIGNAL QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2023	230392	TS-4

GENERAL NOTES

MISCELLANEOUS

- (1) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

SIGNING

- (2) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT SIGNS.

SIGNALIZATION

- (3) EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE TDOT "SPECIAL PROVISIONS REGARDING SECTION 730C-TRAFFIC SIGNALS."
- (4) SALVAGEABLE EQUIPMENT SHALL BECOME THE PROPERTY OF THE CITY OF EAST RIDGE AND SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE ENGINEER FOR PICKUP BY THE CITY OF EAST RIDGE.
- (5) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.
- (6) THE CONTRACTOR SHALL CONTACT MIKE AILEY (423-315-5053) A MINIMUM OF TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION.
- (7) ALL INCIDENTAL EQUIPMENT AND MATERIAL REQUIRED FOR THE SUCCESSFUL EXECUTION OF THIS WORK SHALL BE FURNISHED IN 730 ITEMS WHETHER SPECIFICALLY NOTED OR NOT.
- (8) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC., SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (9) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (10) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- (11) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (12) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (13) USE OF BARRICADES, PORTABLE BARRIER RAILS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (14) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH

CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

- (15) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- (23) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.
- (24) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATER OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.
- (25) ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL
- (26) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
- (27) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

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SIGNAL PLANS
GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
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UTILITY NOTES

- (1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THEREFORE, RELIANCE UPON THE TYPE, SIZE, AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION, AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) OR NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.
- (2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
- (3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (4) PRIOR TO SUBMITTING HIS/HER BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.
- (5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF THE PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC AT 1-800-351-1111 WILL BE REQUIRED. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING OR REPLACING AT HIS/HER OWN EXPENSE, ANY EXISTING UTILITIES, PAVEMENT, CONCRETE ITEMS, PIPE, ETC. THAT ARE DAMAGED DURING CONSTRUCTION.
- (6) THE CONTRACTOR SHALL COORDINATE TRAFFIC SIGNAL INTERCONNECT WITH THE CITY OF CHATTANOOGA DEPARTMENT OF TRANSPORTATION.

UTILITY OWNERS

TELEPHONE / INTERNET:

AT&T
PHONE: 423-771-9645

CABLE TV / INTERNET:

COMCAST
PHONE: 800-236-2278

INTERNET:

CENTURY LINK
PHONE: 423-226-1093

GAS:

CHATTANOOGA GAS COMPANY
PHONE: 866-613-4168

SANITARY SEWER:

HAMILTON COUNTY WWTA
PHONE: 423-209-7842

STORM SEWER:

CITY OF EAST RIDGE STREET DEPARTMENT
PHONE: 423-892-3169

ELECTRIC:

ELECTRIC POWER BOARD
PHONE: 423-618-1372

WATER:

TENNESSEE AMERICAN WATER
PHONE: 866-736-6420

TRAFFIC SIGNAL INTERCONNECT:

CITY OF CHATTANOOGA DEPARTMENT OF TRANSPORTATION
PHONE: 423-643-5950

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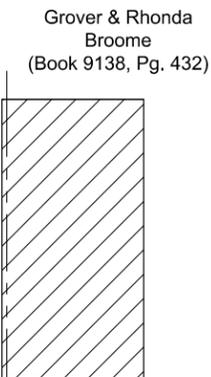
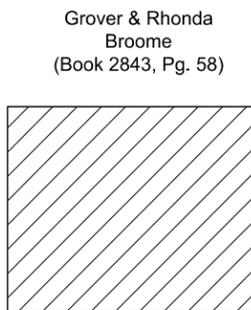
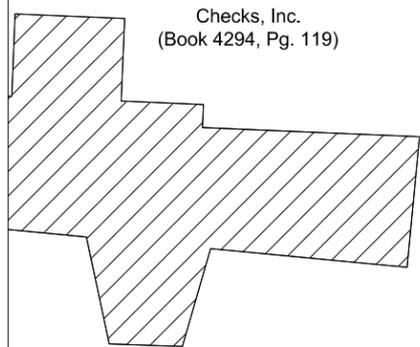
SIGNAL PLANS

**UTILITY NOTES AND
UTILITY OWNERS**

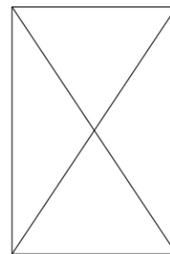
NOTES:

1. SIGNAL HEADS SHOWN IN APPROXIMATE LOCATIONS
2. EXISTING AERIAL UTILITY LINES NOT DETAILED FOR CLARITY

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2023	230392	TS-6



Lot 1, Golden Gallon Store No. 18 Subd. (Plat Bk. 39 Pg. 370)
Grover & Rhonda Broome (Book 3533, Pg. 223)



#4011 Lot 2, Golden Gallon Store No. 18 Subd. (Plat Bk. 39 Pg. 370)
RI TN 1 LLC (Book 6922, Pg. 301)

EXIST. EPB POLE LOCATION (REMOVED BY OTHERS)

EXIST. STRAIN POLE C TO BE REMOVED THIS CONTRACT

EXIST. STRAIN POLE B

EXIST. STRAIN POLE A

EXIST. STRAIN POLE D
EXIST. TRAFFIC CONTROLLER

Lot 1, Entrepreneur Inc. Subd. (Plat Bk. 53 Pg. 8)
Kalpesh & Vaish Patel (Book 7145, Pg. 451)

Lot 2, Entrepreneur Inc. Subd. (Plat Bk. 53 Pg. 8)
Lee Parkway Properties Trust (Book 10355, Pg. 884)

Lot 1, Hamilton County School Subd. (Plat Bk. 92 Pg. 193)
East Ridge Elem. School
Hamilton Co. Dept. Education (Book 779, Pg. 599)

Lot 2, Hamilton County School Subd. (Plat Bk. 92 Pg. 193)
Geannie O'Conner (Book 4036, Pg. 653)



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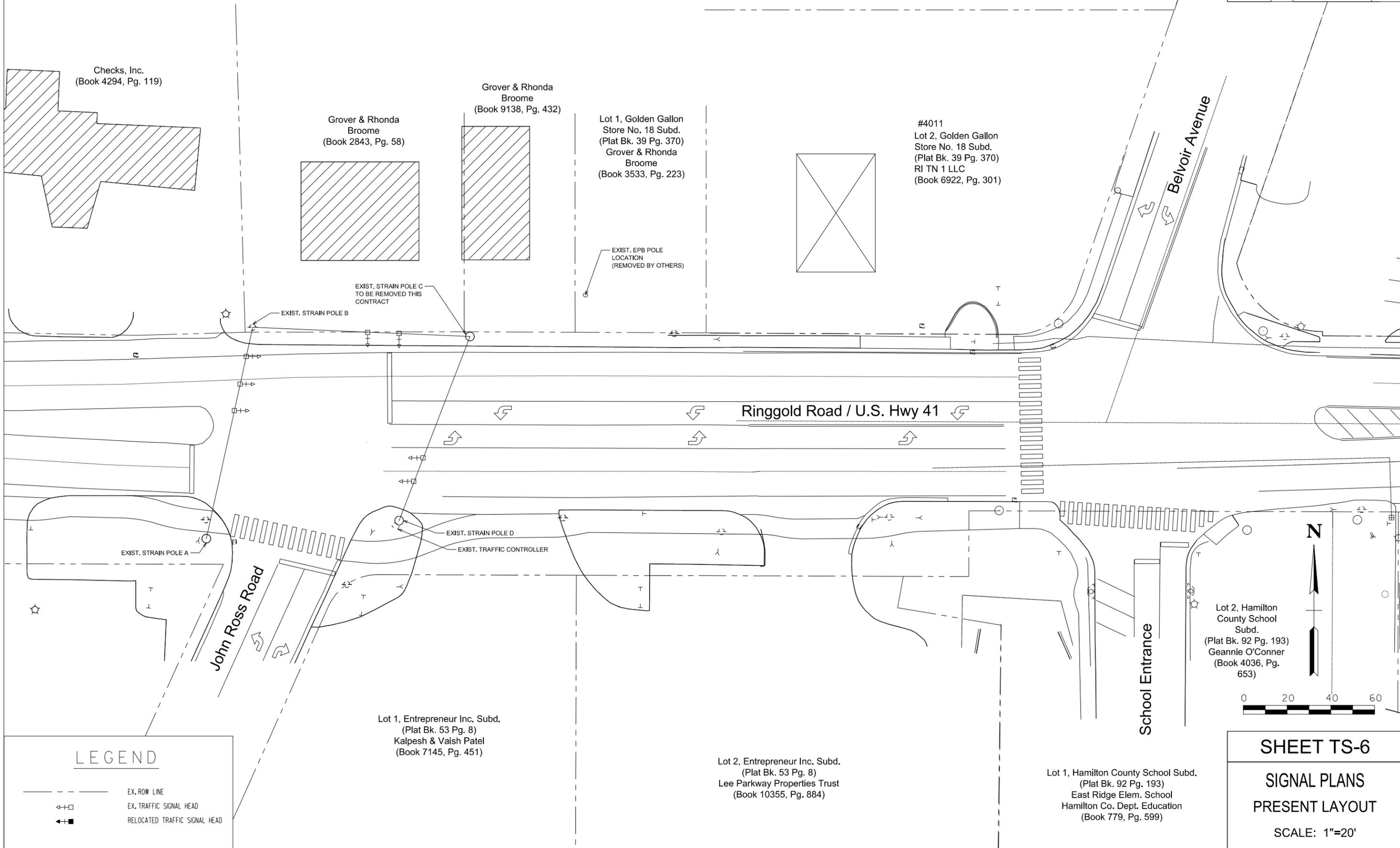
LEGEND

- EX. ROW LINE
- ⊕ EX. TRAFFIC SIGNAL HEAD
- ⊕ RELOCATED TRAFFIC SIGNAL HEAD

SHEET TS-6

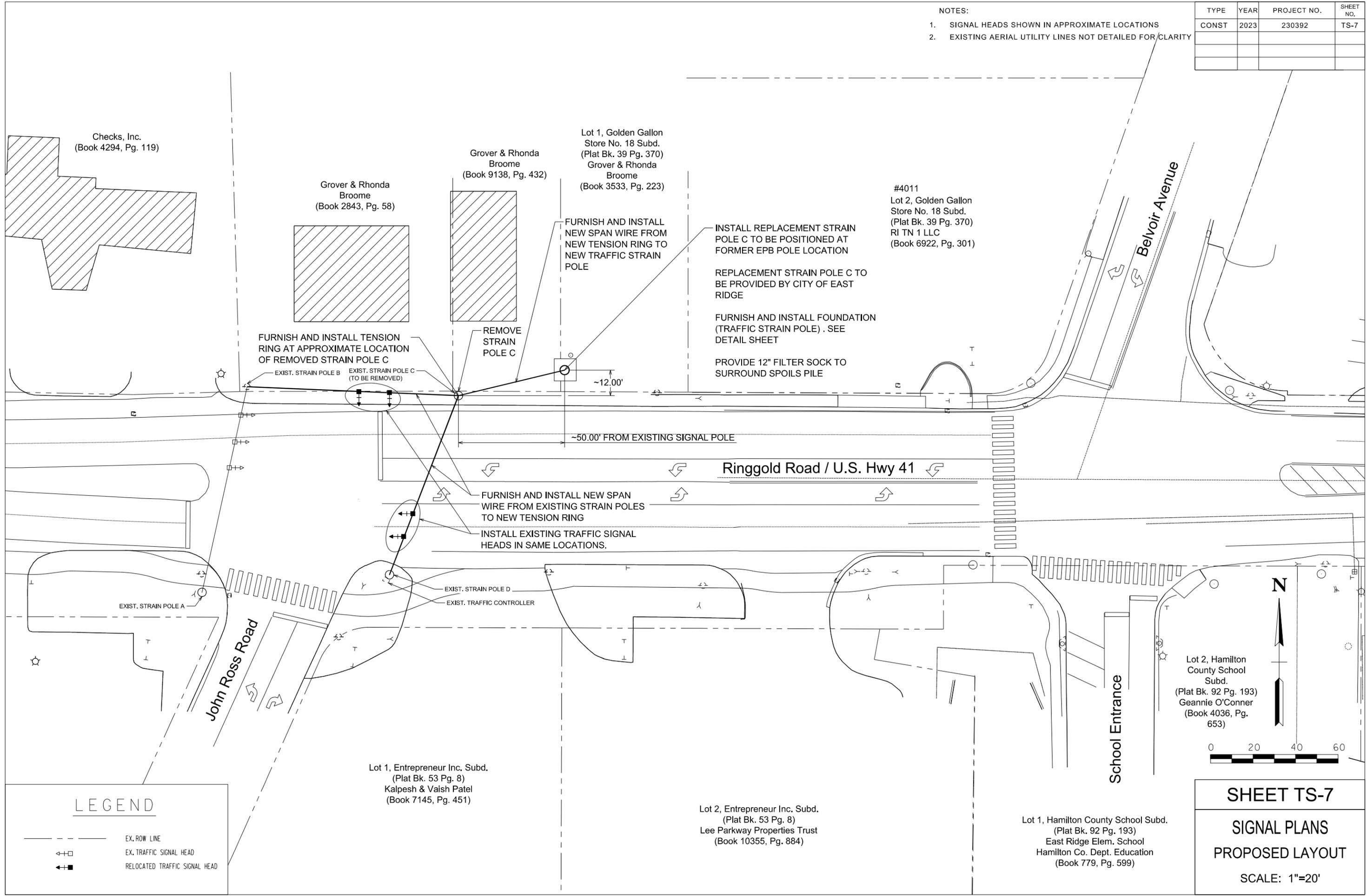
SIGNAL PLANS
PRESENT LAYOUT

SCALE: 1"=20'



- NOTES:
1. SIGNAL HEADS SHOWN IN APPROXIMATE LOCATIONS
 2. EXISTING AERIAL UTILITY LINES NOT DETAILED FOR CLARITY

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CONST	2023	230392	TS-7



Checks, Inc.
(Book 4294, Pg. 119)

Grover & Rhonda
Broome
(Book 2843, Pg. 58)

Grover & Rhonda
Broome
(Book 9138, Pg. 432)

Lot 1, Golden Gallon
Store No. 18 Subd.
(Plat Bk. 39 Pg. 370)
Grover & Rhonda
Broome
(Book 3533, Pg. 223)

#4011
Lot 2, Golden Gallon
Store No. 18 Subd.
(Plat Bk. 39 Pg. 370)
RI TN 1 LLC
(Book 6922, Pg. 301)

FURNISH AND INSTALL TENSION
RING AT APPROXIMATE LOCATION
OF REMOVED STRAIN POLE C

REMOVE
STRAIN
POLE C

FURNISH AND INSTALL
NEW SPAN WIRE FROM
NEW TENSION RING TO
NEW TRAFFIC STRAIN
POLE

INSTALL REPLACEMENT STRAIN
POLE C TO BE POSITIONED AT
FORMER EPB POLE LOCATION

REPLACEMENT STRAIN POLE C TO
BE PROVIDED BY CITY OF EAST
RIDGE

FURNISH AND INSTALL FOUNDATION
(TRAFFIC STRAIN POLE) . SEE
DETAIL SHEET

PROVIDE 12" FILTER SOCK TO
SURROUND SPOILS PILE

Ringgold Road / U.S. Hwy 41

FURNISH AND INSTALL NEW SPAN
WIRE FROM EXISTING STRAIN POLES
TO NEW TENSION RING

INSTALL EXISTING TRAFFIC SIGNAL
HEADS IN SAME LOCATIONS.

EXIST. STRAIN POLE A

EXIST. STRAIN POLE D

EXIST. TRAFFIC CONTROLLER

John Ross Road

School Entrance

Lot 2, Hamilton
County School
Subd.
(Plat Bk. 92 Pg. 193)
Geannie O'Conner
(Book 4036, Pg.
653)

Lot 1, Entrepreneur Inc. Subd.
(Plat Bk. 53 Pg. 8)
Kalpesh & Vaish Patel
(Book 7145, Pg. 451)

Lot 2, Entrepreneur Inc. Subd.
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Lee Parkway Properties Trust
(Book 10355, Pg. 884)

Lot 1, Hamilton County School Subd.
(Plat Bk. 92 Pg. 193)
East Ridge Elem. School
Hamilton Co. Dept. Education
(Book 779, Pg. 599)

LEGEND

- EX. ROW LINE
- ⊕ EX. TRAFFIC SIGNAL HEAD
- ⊕ RELOCATED TRAFFIC SIGNAL HEAD

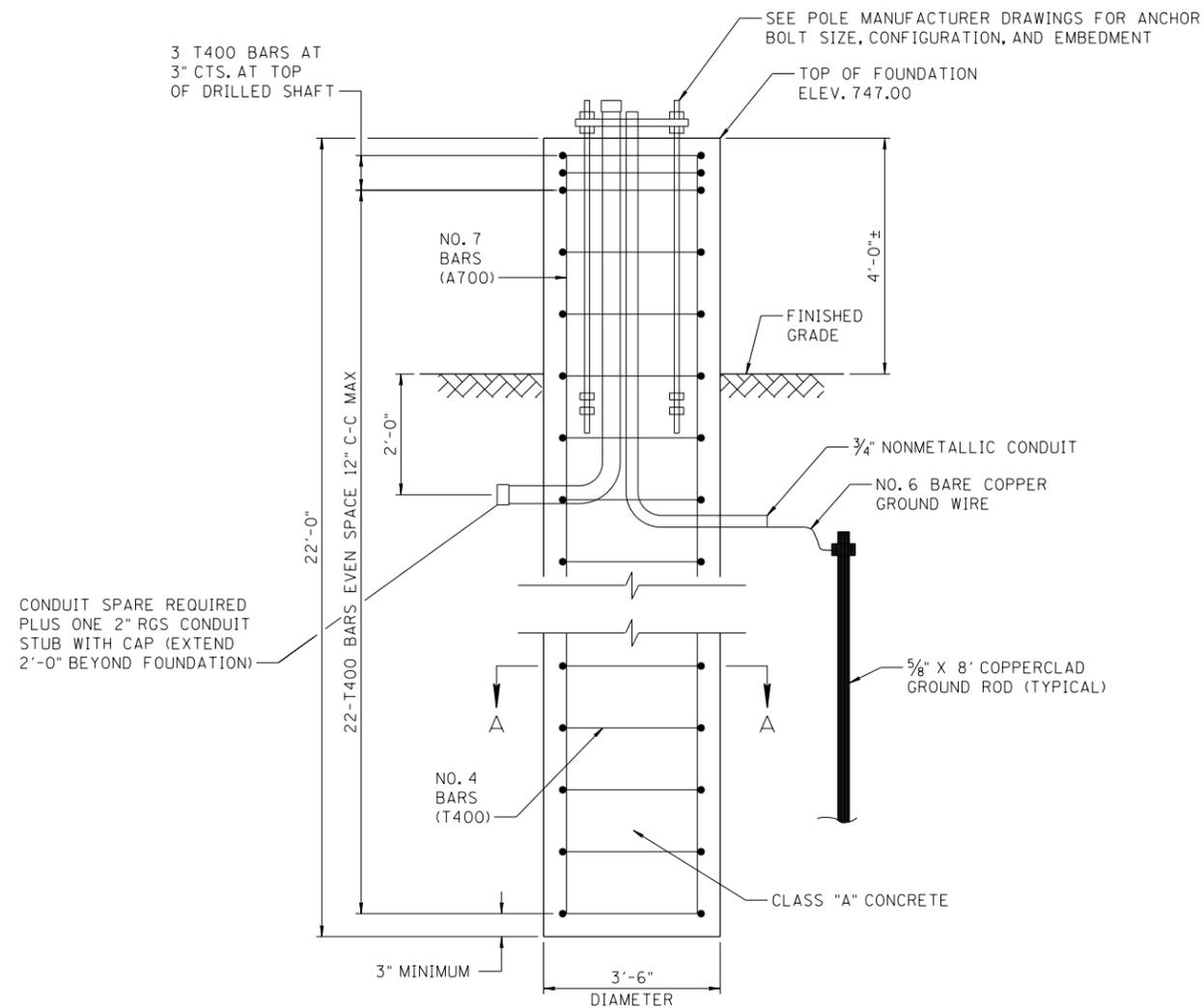
SHEET TS-7

SIGNAL PLANS
PROPOSED LAYOUT

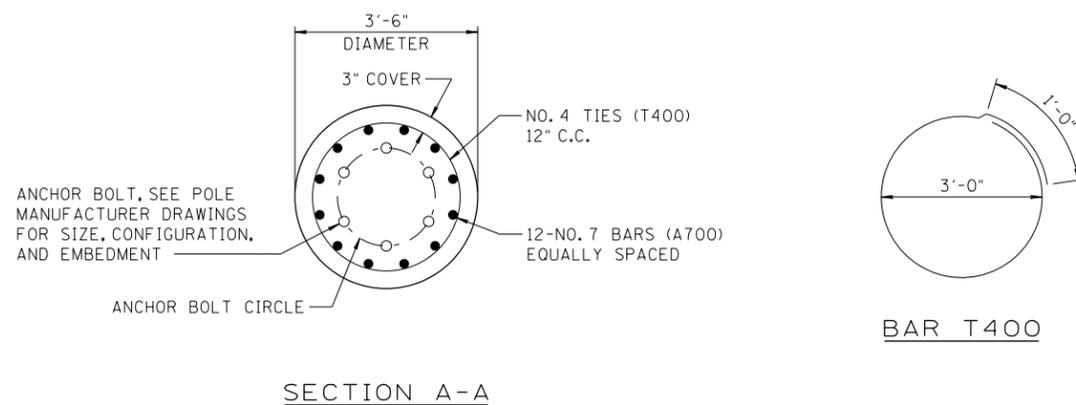
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2023	230392	TS-8



DRILLED SHAFT ELEVATION



GEOTECHNICAL PARAMETERS

THE FOUNDATION DIMENSIONS SHOWN ON THIS SHEET HAVE BEEN DESIGNED WITH THE FOLLOWING ASSUMED SOIL PROPERTIES:

COHESIVE SOILS:
 MINIMUM SHEAR STRENGTH: C = 1.0 KSF
 UNIT WEIGHT OF SOIL: Y = 125 PCF

GRANULAR SOILS:
 MINIMUM ANGLE OF FRICTION: φ = 30°
 UNIT WEIGHT OF SOIL: Y = 125 PCF

BASIS OF DESIGN

2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION

THE DRILLED SHAFT HAS BEEN DESIGNED FOR THE FOLLOWING REACTIONS PROVIDED BY THE POLE MANUFACTURER:

AXIAL: PU = 2,976 LBS
 SHEAR: VU = 10,944 LBS
 BENDING: MU = 182,480 FT-LBS

GENERAL NOTES

1. SEE POLE MANUFACTURER DRAWING NO. 208652-1 DATED 9-19-2023 FOR DETAILS OF STRAIN POLE AND ANCHOR BOLT SIZE, CONFIGURATION, AND EMBEDMENT REQUIREMENTS.
2. THE COST OF ALL FOUNDATION MATERIALS AND INSTALLATION SHALL BE INCLUDED IN THE PRICE BID FOR FOUNDATION (TRAFFIC STRAIN POLE).
3. IF ROCK IS ENCOUNTERED WHILE DRILLING FOR FOUNDATION, NOTIFY THE ENGINEER.
4. ALL STRAIN POLES AND MAST ARM POLES TO HAVE SPARE 2" RGS CONDUIT STUB EXTENDING 24" BEYOND POLE FOUNDATION.
5. ALL CONDUIT BENDS IN POLE FOUNDATION TO BE 6" RADIUS.
6. FINISHED GROUND PROFILE SHOULD DRAIN WATER AWAY FROM FOUNDATION.
7. COLD CONCRETE CONSTRUCTION JOINTS ARE NOT PERMITTED.
8. FOUNDATION DESIGN SHALL BE MODIFIED IN CASES WHERE THE SOIL PARAMETERS VALUES LISTED ABOVE ARE NOT MET.
9. PROVIDE 12" FILTER SOCK SURROUNDING SPOILS PILE. COST INCLUDED IN COST OF FOUNDATION.
10. GROUND ROD AND ATTACHMENTS ARE INCLUDED IN COST OF FOUNDATION.

SHEET TS-8

SIGNAL PLANS
 STRAIN POLE
 FOUNDATION DETAILS