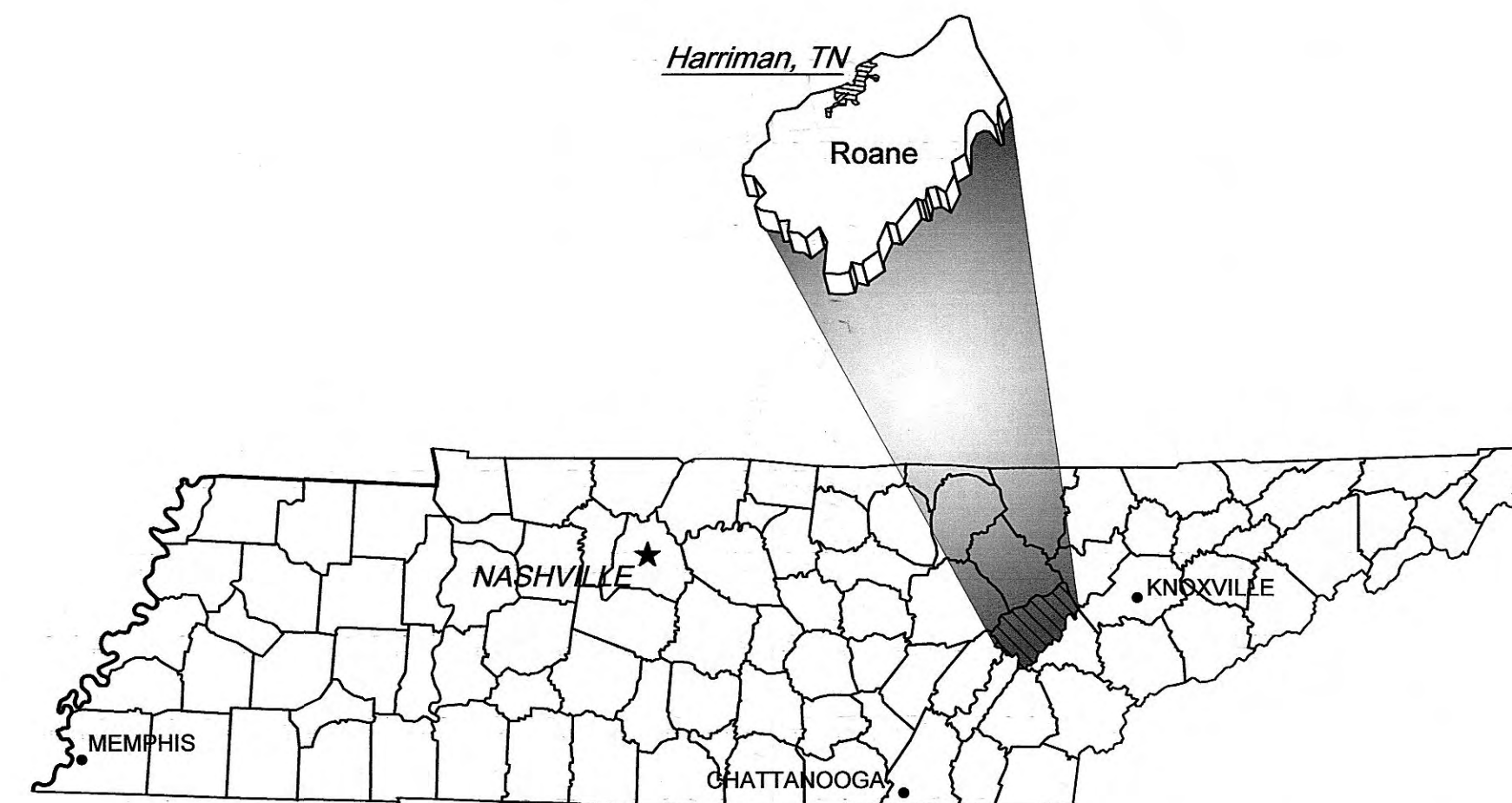


WASTEWATER SYSTEM IMPROVEMENTS SEWER SYSTEM REHABILITATION

CITY OF HARRIMAN, TENNESSEE CONTRACT S12-02



DWG. No.	INDEX OF DRAWINGS
G-0-001	PROJECT LOCATION - SHEET LAYOUT PLAN, LEGENDS AND GENERAL NOTES
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C-0-102	SEWER COLLECTION SYSTEM REHABILITATION PLAN
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C-0-104	SEWER COLLECTION SYSTEM REHABILITATION PLAN
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C-0-107	PROPOSED REPLACEMENT GRAVITY SEWER
C-0-601	SEWER LINE REHABILITATION TABULATION OF WORK
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C-0-503	STANDARD EROSION DETAILS



GRW Engineers, Inc.
Engineers, Architects, Planners

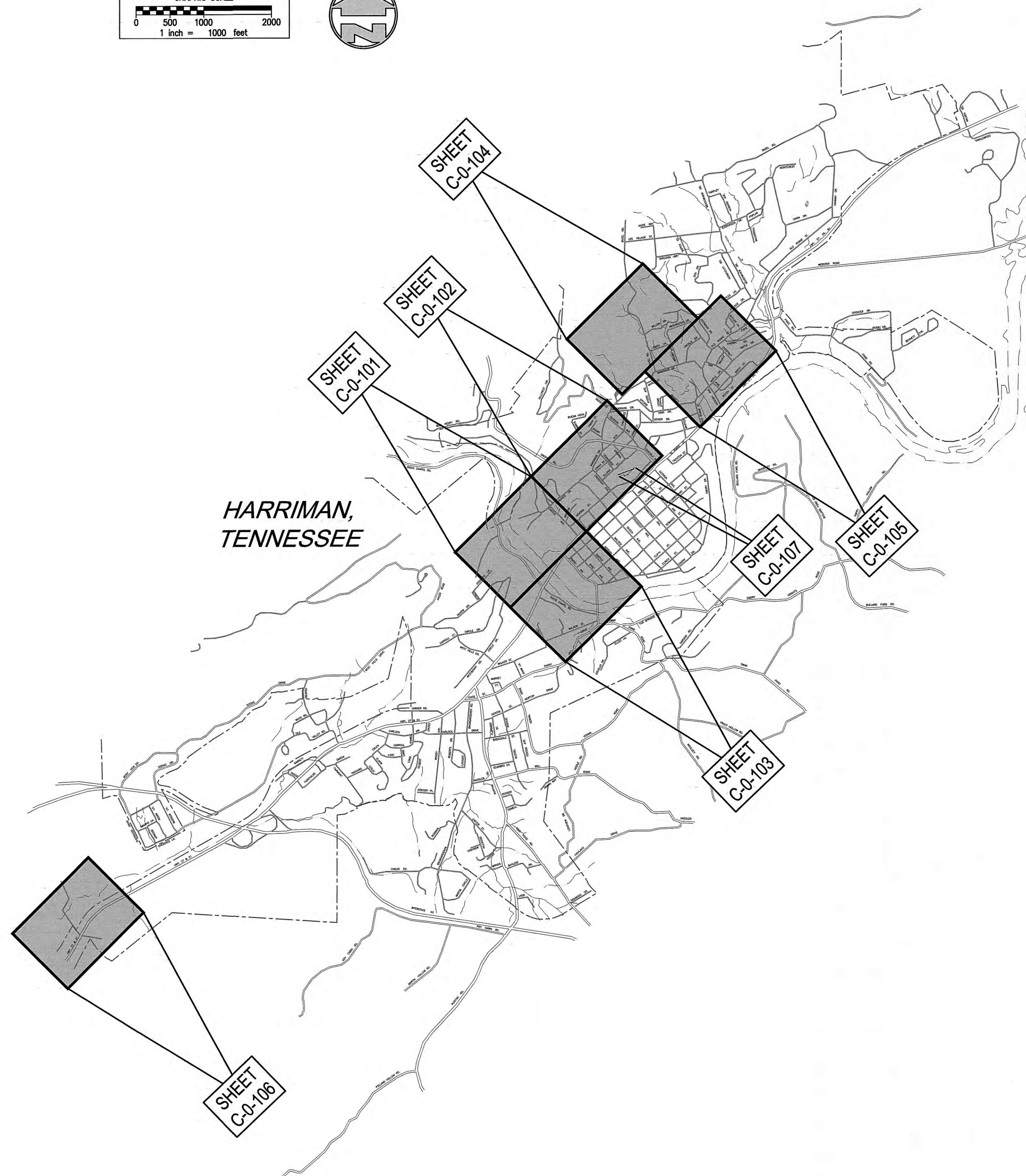
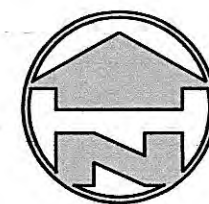
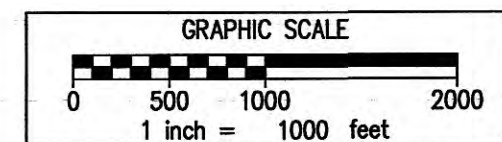
801 CORPORATE DRIVE - LEXINGTON, KY. 40503
PH. (859)223-3999 FAX (859)223-8917
LEXINGTON LOUISVILLE NASHVILLE INDIANAPOLIS
FORT MITCHELL KNOXVILLE ARLINGTON



DECEMBER 2012

RECORD DRAWINGS
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CHECKED BY:
Elaine NeSmith 10/17/2014
ENGINEER'S REPRESENTATIVE DATE

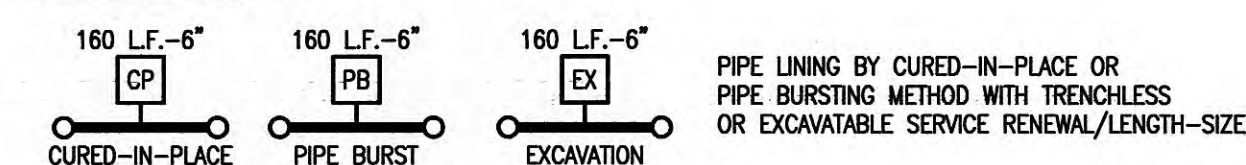
GRW PROJECT NO. 3947-01



PROJECT LOCATION - SHEET LAYOUT PLAN

SEWER REHABILITATION STANDARD LEGEND

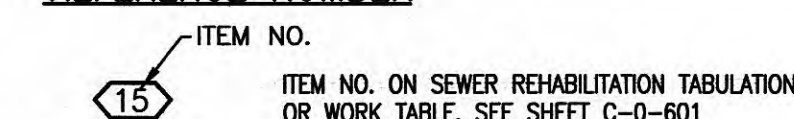
PIPE LINING



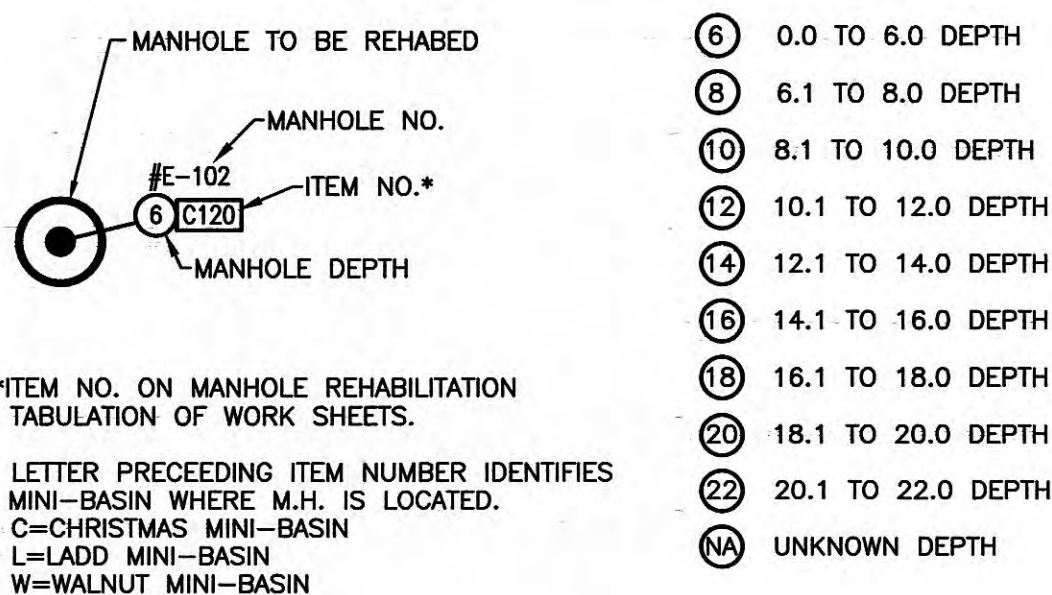
POINT REPAIRS



REFERENCE NUMBER



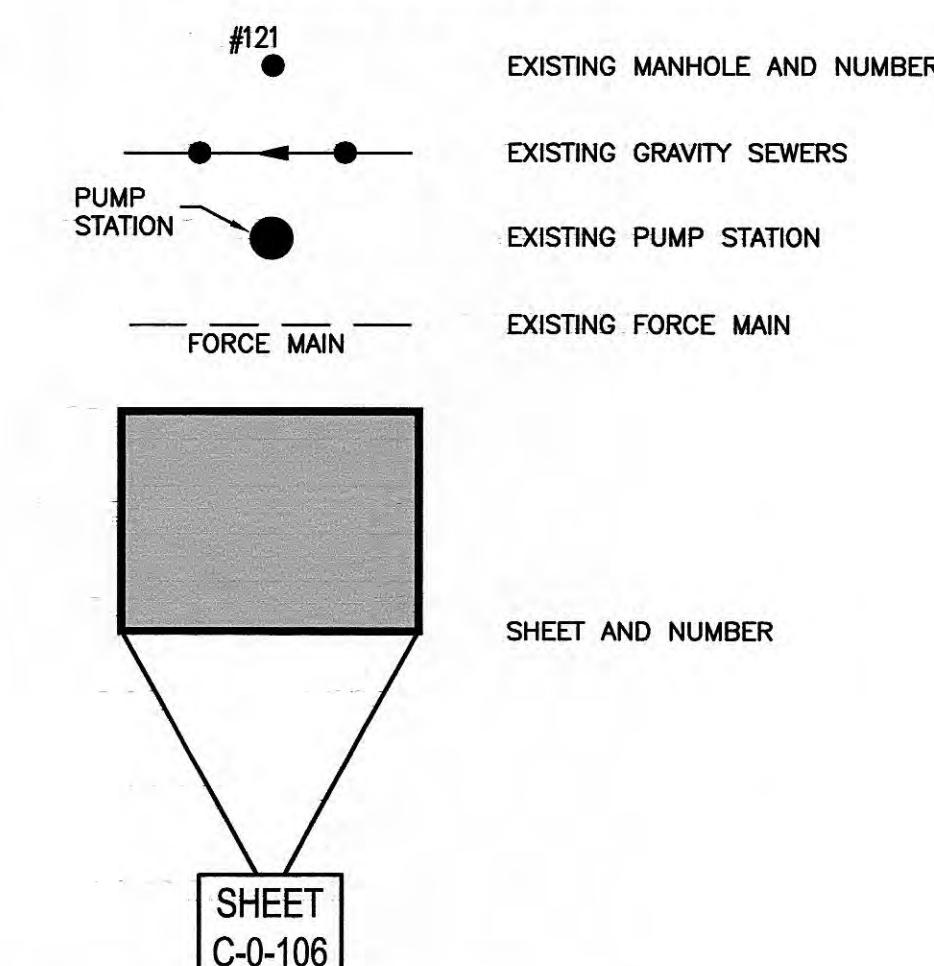
MANHOLE REHABILITATION



ABBREVIATIONS

PP	-	PRIVATE PROPERTY
PE	-	POLYETHYLENE
PVC	-	POLYVINYL CHLORIDE
SL	-	SLIPLINING
IPR	-	INTERNAL POINT REPAIR
SR	-	SERVICE REPAIR
L	-	CLEAN AND LINE MANHOLE
CP	-	PIPE LINING BY CURED-IN-PLACE
PB	-	PIPE REPLACEMENT BY PIPE BURSTING
EX	-	PIPE REPLACEMENT BY EXCAVATION
PR	-	POINT REPAIR
RP	-	REPLACE PIPE
PLP	-	INTERNAL PIPE LINING PATCH
NS	-	NOT SEEN
NA	-	NOT APPLICABLE/UNKNOWN

GENERAL LEGEND



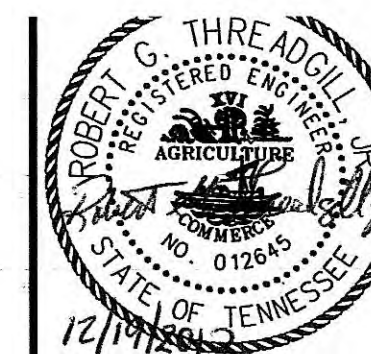
GENERAL NOTES

- THE CONTRACTOR SHALL RESTORE ALL CULVERTS, FENCES, WALLS, SMALL ORNAMENTAL TREES, CULTIVATED SHRUBS, FLOWERS, SIGNS, LIGHTS AND POWER POLES, STREET MARKERS, MAIL BOXES, WATER AND GAS LINES, WATER AND GAS METERS AND BOXES INCLUDING SHUT-OFFS, AND LAWNS DISTURBED BY CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITIONS. THE COST OF THIS WORK SHALL BE MERGED IN THE UNIT BID AND CONTRACT PRICES FOR THE PROPOSED WORK.
- WHERE IN EASEMENTS THE CONTRACTOR SHALL PROTECT AND RESTORE SAID PROPERTY TO CONDITION SIMILAR OR EQUAL TO THAT EXISTING AT THE COMMENCEMENT OF CONSTRUCTION, EXCEPT AS NOTED.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES. BEFORE CONSTRUCTION, CONTRACTOR SHALL CONTACT :
TENNESSEE811
DIAL 811 (OR 1-800-351-1111)
72 HOURS NOTICE
- CONTRACTOR SHALL NOT PLACE ANY VALVES OR OTHER ABOVE GRADE DEVICES IN ANY DITCH LINE ON STATE HIGHWAY RIGHT OF WAY.
- IF ANY EXISTING STORM SEWERS ARE SUBSTANTIALLY DAMAGED AS DETERMINED BY THE A/E AND OR OWNER, THE REPAIR SHALL BE MADE WITH R.C.P. PIPE FROM STRUCTURE-TO-STRUCTURE. PIPE SIZE SHALL BE EQUAL TO EXISTING.
- SUFFICIENT PRECAUTIONS SHALL BE TAKEN DURING CONSTRUCTION TO MINIMIZE THE RUN-OFF OF POLLUTING SUBSTANCES SUCH AS SILT, CLAY, FUELS, OILS, BITUMENS, CALCIUM CHLORIDE, OR OTHER POLLUTING MATERIALS HARMFUL TO HUMANS, FISH OR OTHER LIFE, INTO THE SUPPLIES AND SURFACE WATERS OF THE STATE. CONTROL MEASURES MUST BE ADEQUATE TO ASSURE THAT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS ARE MET. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE LAWS AND REGULATIONS ARE MET AND IS RESPONSIBLE FOR ENSURING THAT CONSTRUCTION DOES NOT HARM THE WATERS OF TENNESSEE. THE PROTECTION OF THE SITE SHALL CONTINUE THROUGHOUT THE CONSTRUCTION PERIOD. SPECIAL PRECAUTIONS SHALL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT OPERATIONS WHICH PROMOTE EROSION.
- THE TEMPORARY POLLUTION CONTROL PROVISIONS SHALL BE COORDINATED WITH THE PERMANENT EROSION CONTROL MEASURES, TO ENSURE ECONOMICAL, EFFECTIVE, AND CONTINUOUS EROSION CONTROL THROUGHOUT THE CONSTRUCTION AND POST-CONSTRUCTION PERIOD OF THE PROJECT. NATURAL COVER SHOULD BE MAINTAINED AS LONG AS POSSIBLE AND GRADED AREAS SHOULD BE STABILIZED AS SOON AS POSSIBLE.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS FROM THE APPROPRIATE FEDERAL, STATE, COUNTY AND/OR LOCAL AGENCIES TO CROSS ALL HIGHWAYS, STREETS, STREAMS, EASEMENTS, ETC...
- STATE HIGHWAY RIGHT-OF-WAY INFORMATION PROVIDED BY THE STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION. QUESTIONS CONCERNING R-O-W LOCATION ON ANY STATE HIGHWAY SHOULD BE REFERRED TO THE APPROPRIATE REGIONAL OFFICE OF THE STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION.
- PROPERTY OWNERS AND PARCEL INFORMATION PROVIDED BY THE COUNTY REGISTRAR OF DEEDS.
- WATER LINE INFORMATION PROVIDED BY THE UTILITY DISTRICT.
- COUNTY ROAD RIGHT-OF-WAY INFORMATION PROVIDED BY THE COUNTY HIGHWAY DEPT. QUESTIONS CONCERNING R-O-W LOCATION ON ANY COUNTY ROAD SHOULD BE REFERRED TO THE COUNTY HIGHWAY DEPARTMENT.
- LOCATION AND REFERENCE OF MANHOLES AND SEWERS HAVE BEEN APPROXIMATED FROM EXISTING PLANS OR RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND LINE SIZE, MATERIAL, ETC.
- EXISTING SANITARY SEWER MAPS PROVIDED BY CITY OF HARRIMAN, TN. LINE SIZES ARE NOTED IN SEWER REHABILITATION TABULATION OF WORK CHARTS.

RECORD DRAWINGS

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CHECKED BY:
Elaine NeSmith 10/17/2014
ENGINEER'S REPRESENTATIVE DATE



GRW PROJECT NO. 3847-01

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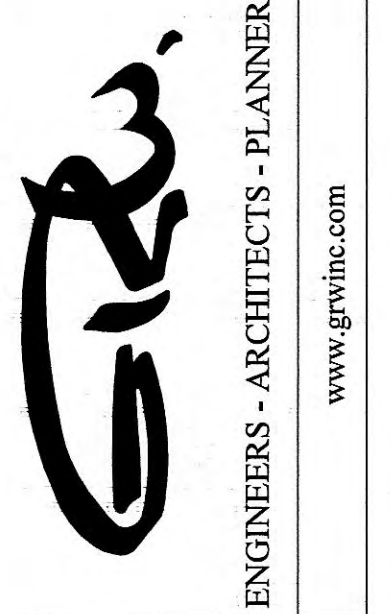
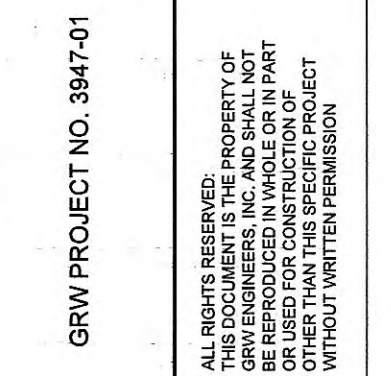
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PROJECT LOCATION - SHEET LAYOUT PLAN,
LEGENDS AND GENERAL NOTES
SEWER SYSTEM REHABILITATION
CITY OF HARRIMAN, TENNESSEE

REVISIONS						DESIGNED:
NO.	DESCRIPTION	DATE	BY	ACH		
				DRAWN		
				DM		
				REVIEWED		
				RGT		
				APPROVED:		

DATE: DECEMBER 2012
SCALE: AS NOTED
SHEET NO.: G-0-001

CONTRACT DRAWING



SEWER COLLECTION SYSTEM
REHABILITATION PLAN
SEWER SYSTEM REHABILITATION
CITY OF HARRIMAN, TENNESSEE

REVISIONS		BY		ACH
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				REVIEWED: RGT
				APPROVED: RGT

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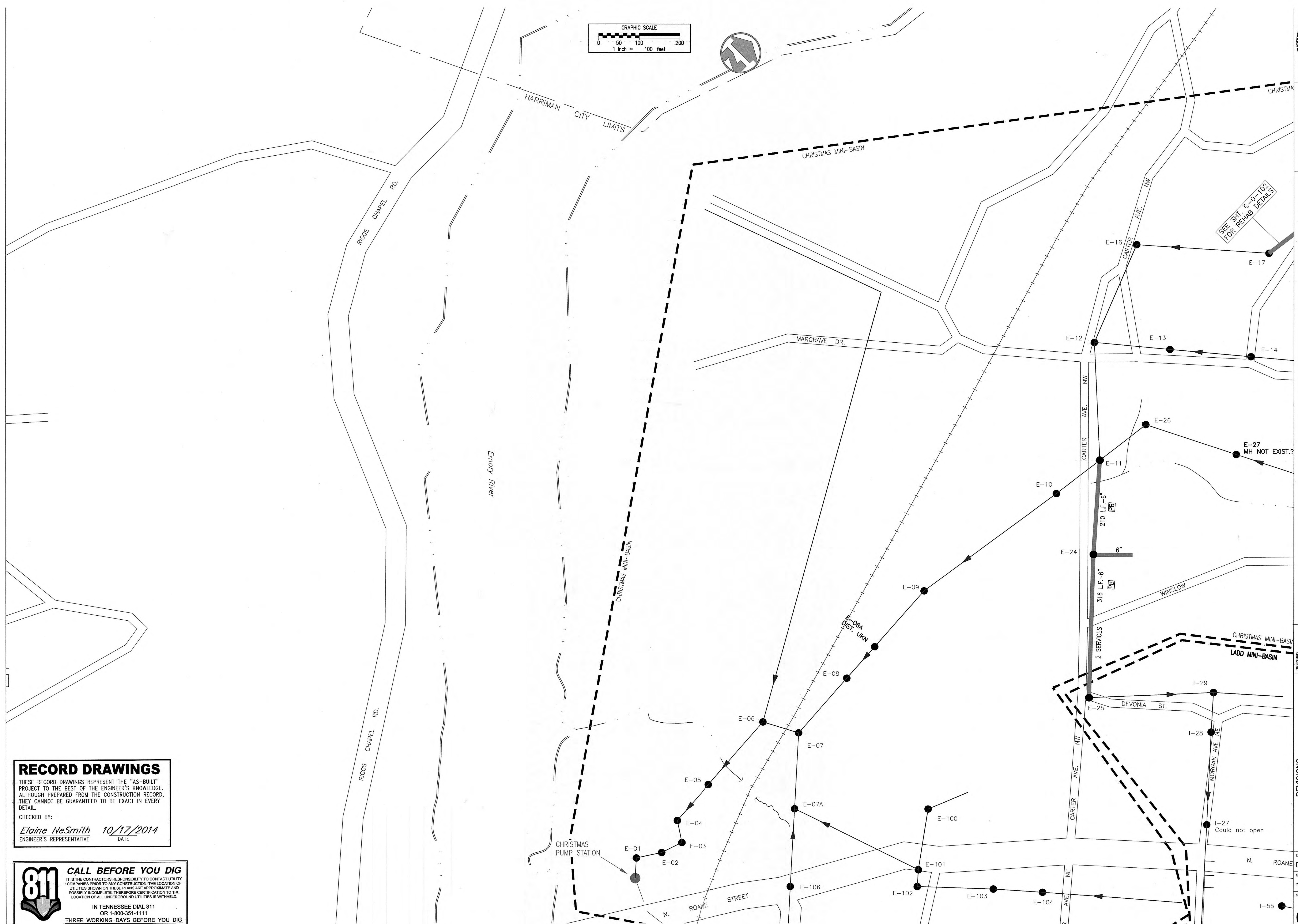
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1" = 100'

SHEET NO.

C-0-101

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IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION. THE LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND POSSIBLY INCOMPLETE, THEREFORE CERTIFICATION TO THE LOCATION OF ALL UNDERGROUND UTILITIES IS WITHHELD.

IN TENNESSEE DIAL 811
OR 1-800-351-1111
THREE WORKING DAYS BEFORE YOU DIG



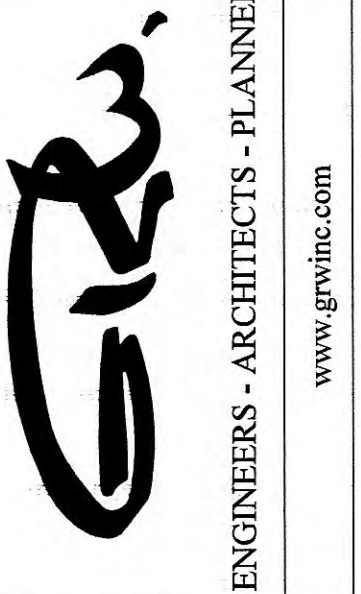
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ENGINEER'S REPRESENTATIVE DATE



SEWER COLLECTION SYSTEM
REHABILITATION PLAN
SEWER SYSTEM REHABILITATION
CITY OF HARRIMAN, TENNESSEE

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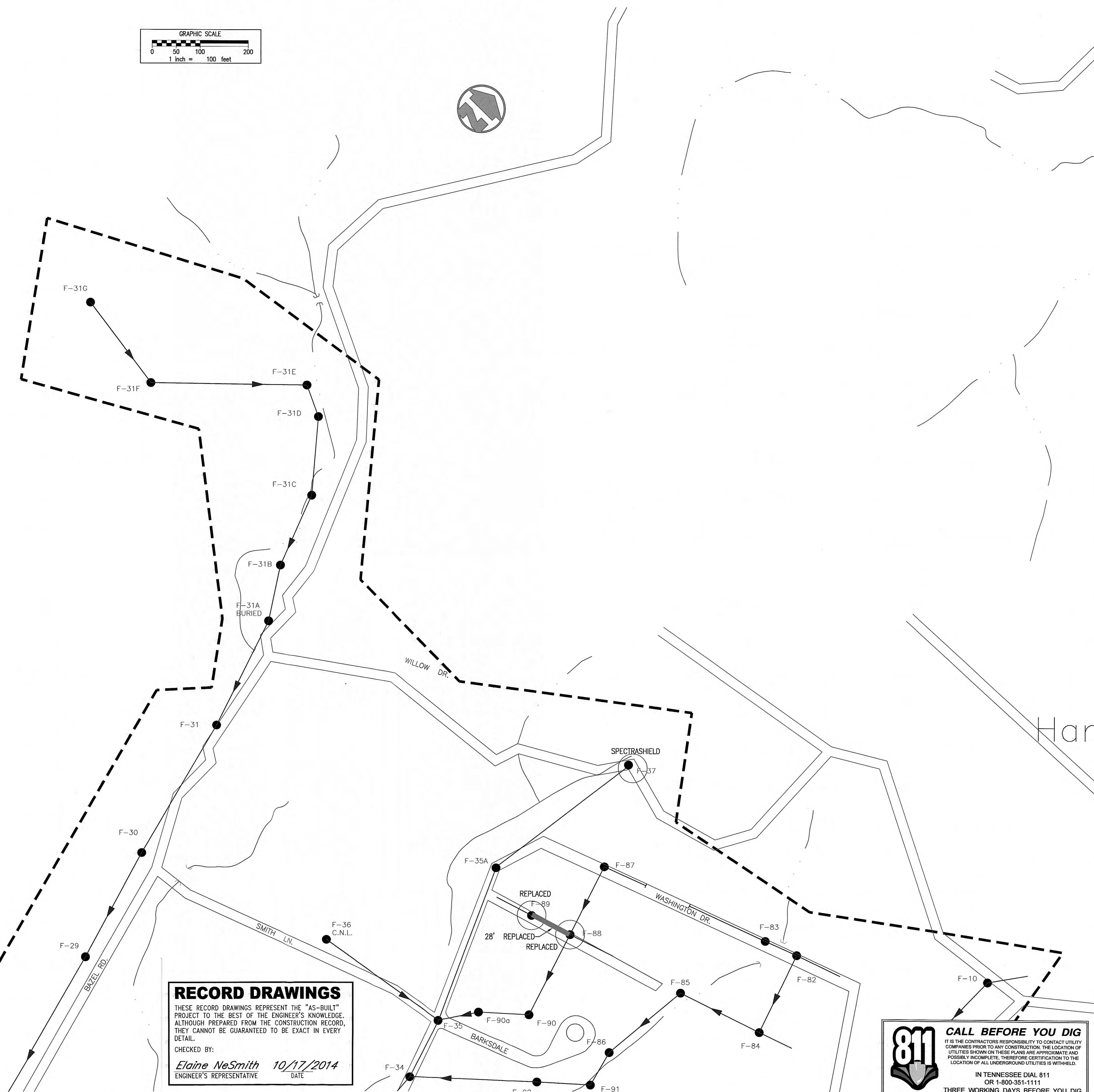
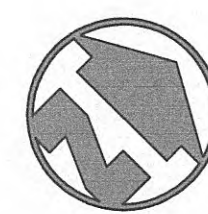
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C-0-103



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				REVIEWED:	RGT
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SEWER COLLECTION SYSTEM REHABILITATION PLAN

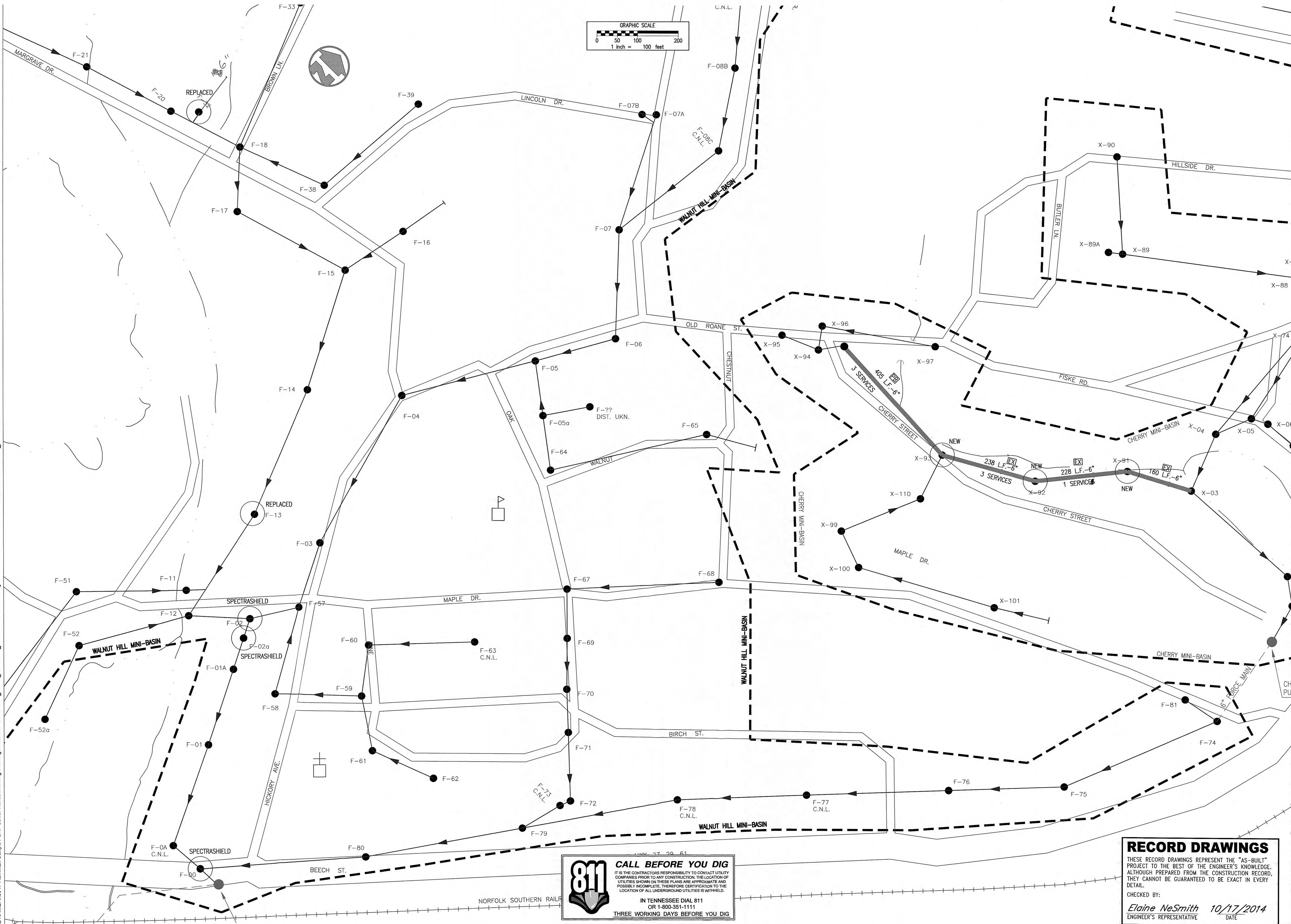
SEWER SYSTEM REHABILITATION CITY OF HARRIMAN, TENNESSEE

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PLOTTED BY: eneamith

PRINTED: 11/25/2014 @ 10:39AM

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ENGINEER'S REPRESENTATIVE

DATE: **10/17/2014**

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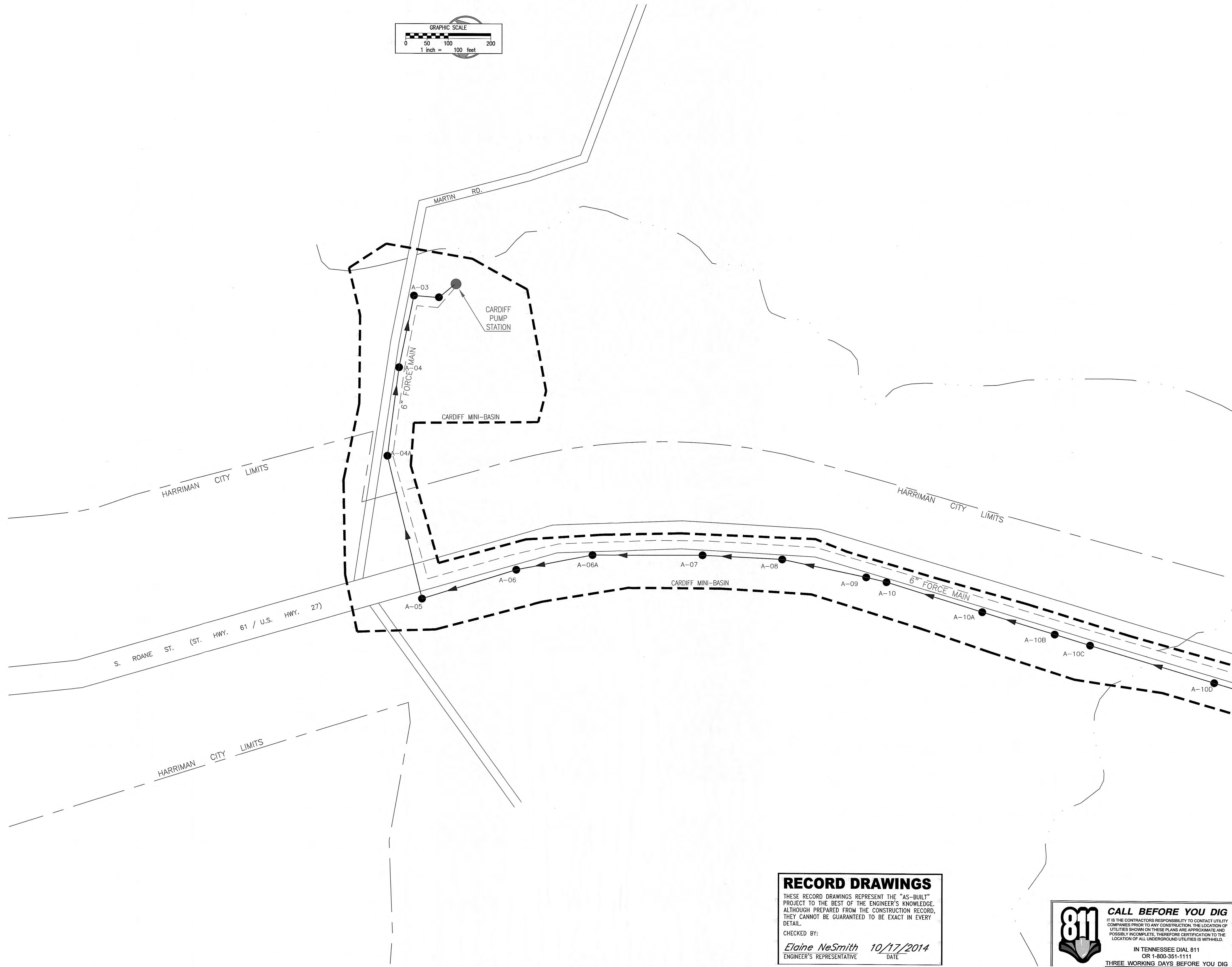
SEWER COLLECTION SYSTEM REHABILITATION PLAN
SEWER SYSTEM REHABILITATION
CITY OF HARRIMAN, TENNESSEE

ROBERT G. THREAGILL
REGISTERED ENGINEER
AGRICULTURE
NO. 018645
STATE OF TENNESSEE
12/19/2013

PLOTTED BY: enesmith

PRINTED: 11/25/2014 @ 10:39AM

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ENGINEER'S REPRESENTATIVE DATE

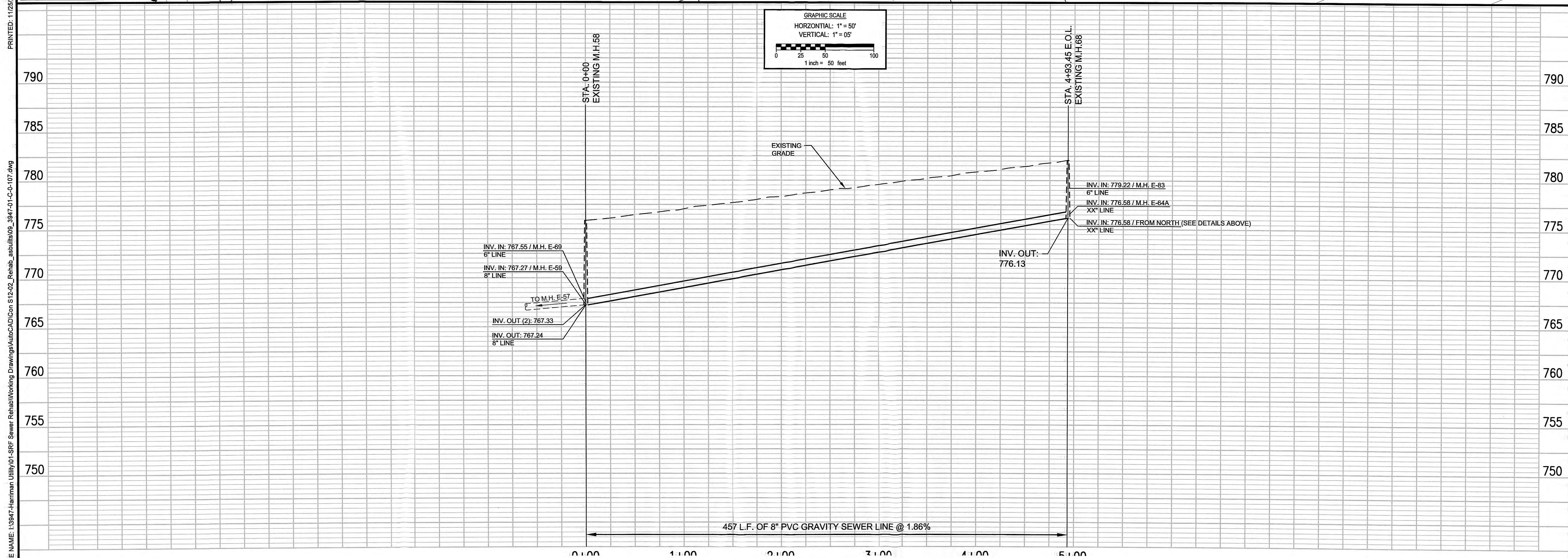
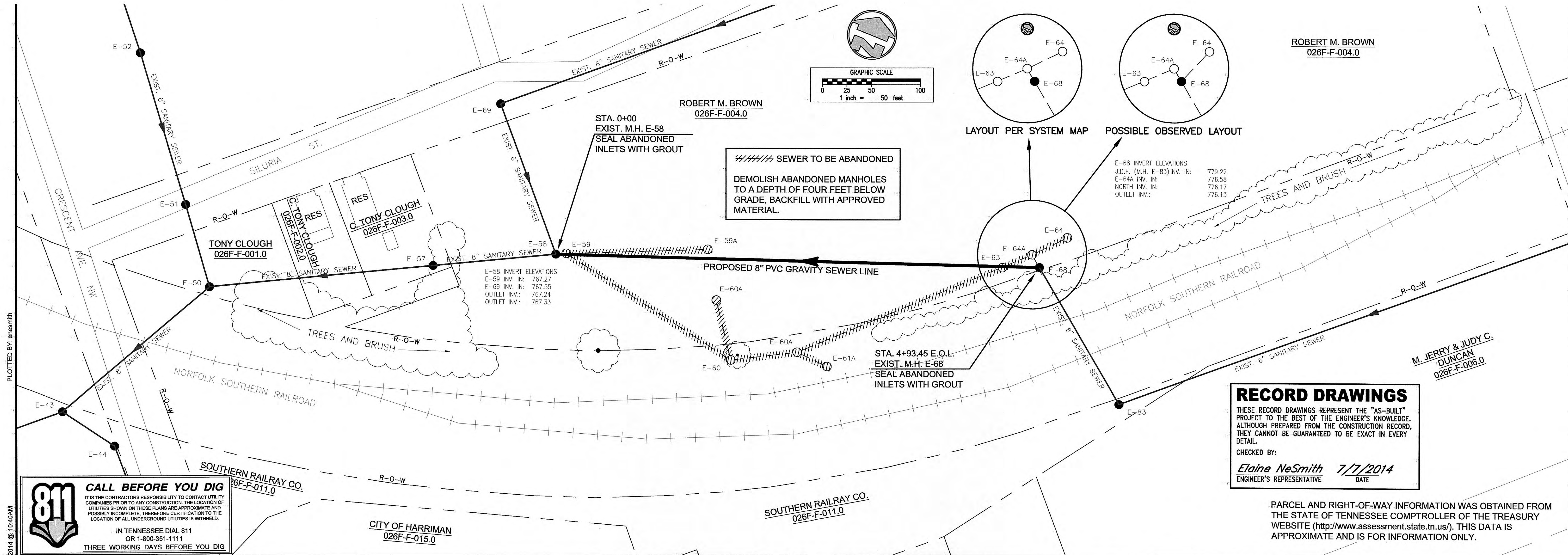
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SHEET NO.		SHEET NO.		

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ROBERT M. BROWN 026F-F-004.0

M. JERRY & JUDY C. DUNCAN 026F-F-006.0

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PROPOSED REPLACEMENT GRAVITY SEWER

SEWER SYSTEM REHABILITATION

CITY OF HARRIMAN, TENNESSEE

C-0-107