FILE NO.	10-0606
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DESIGNED BY:	BJT
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METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS

DAVIDSON COUNTY

620'± NORTH OF 46th AVENUE / MURPHY ROAD INTERSECTION
TO 487'± EAST OF 46th AVENUE / MURPHY ROAD INTERSECTION

CONSTRUCTION PLANS - PROJECT NO. 2014-R-1

PAVING, GRADING, DRAINAGE, LANDSCAPING,
LIGHTING, STRIPING & SIGNING

INDEX OF SHEETS
SEE SHEET 2

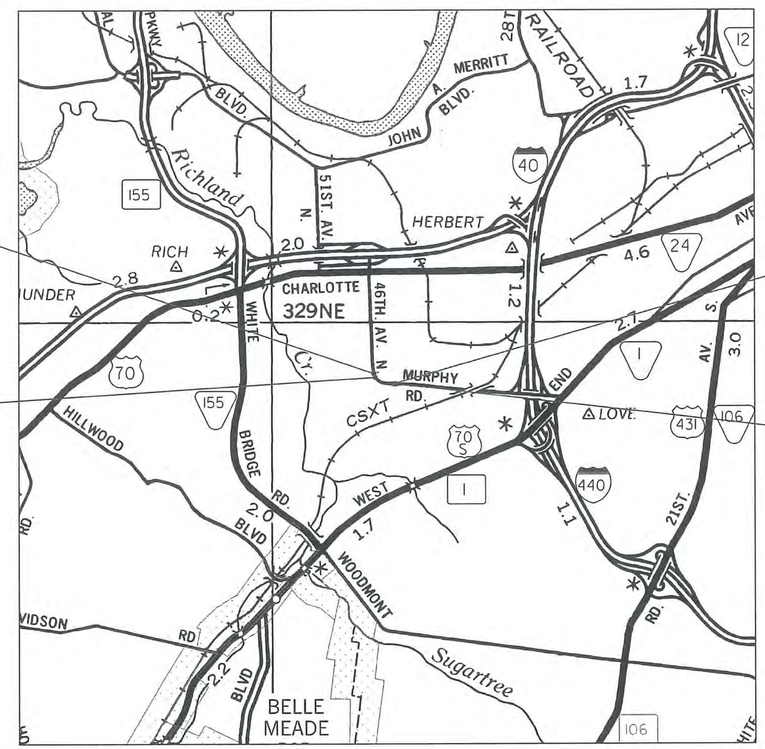
N

BEGIN PROJECT
46th AVENUE NORTH
STA. 10+00.00
N:659654.9213
E:1719963.7054

BEGIN CONSTRUCTION
46th AVENUE NORTH
STA. 11+33.57
N:659521.4390
E:1719968.4603

END CONSTRUCTION
MURPHY ROAD
STA. 26+13.01
N:659053.7736
E:1720777.4950

END PROJECT
MURPHY ROAD
STA. 27+15.01
N:659050.3295
E:1720879.4364



SCALE: 1"=2640'
ROADWAY LENGTH 0.21 MILES
PROJECT LENGTH 0.25 MILES

SPECIAL NOTES

PROPOSALS MAY BE REJECTED IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE CONTRACT.

CONTRACTOR TO OBTAIN TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) STANDARD DRAWINGS AND METROPOLITAN GOVERNMENT OF NASHVILLE AND DAIVIDSON COUNTY STANDARD DRAWINGS.

ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED IN FULL COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD, FEDERAL REGISTER 36 CFR PARTS 1190 AND 1191, ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES, ARCHITECTURAL BARRIERS ACT (ABA) ACCESSIBILITY GUIDELINES, PROPOSED RULE. PUBLISHED IN THE FEDERAL REGISTER ON JULY 23, 2004, AS HAS BEEN ADOPTED BY METRO.

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE COMMERCE
NO. 27
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Title Sheet

SCALE: 1"=2640'

SHEET 1

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NOTE:

CONTRACTOR RESPONSIBLE FOR OBTAINING TDOT STANDARD DRAWINGS

STANDARD ROADWAY DRAWINGS

ROADWAY DESIGN STANDARDS

DWG. NO	REV.	DESCRIPTION
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-S-12	08-01-09	CLEAR ZONE CRITERIA
RD01-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD01-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD01-TS-1	10-15-02	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD01-TS-1A		DESIGN STANDARDS FOR LOW-VOLUME LOCAL ROADS (ADT<=400)
RD01-TS-2	10-15-02	DESIGN STANDARDS FOR COLLECTOR ROADS AND STREETS
RD01-TS-6A	01-24-12	TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDER
RD01-TS-7A	10-15-02	DESIGN STANDARDS 2-LANE CURB & GUTTER WITH CONTINUOUS 2-WAY LEFT-TURN LANE
RD01-TS-8	06-15-12	SHARED USE PATH TYPICAL SECTIONS
RD01-TS-9	06-15-12	DESIGN STANDARDS FOR SINGLE LANE URBAN AND RURAL ROUNDABOUTS
RD01-TS-10	06-15-12	DESIGN STANDARDS FOR MULTI-LANE URBAN AND RURAL ROUNDABOUTS

DRAINAGE-CATCH BASINS AND MANHOLES

DWG. NO	REV.	DESCRIPTION
D-CB-10LPC	08-01-12	LOW PROFILE LOWERED CURB 32" X 26" RECTANGULAR CONCRETE NO. 10LPC CATCH BASIN
D-CB-10SB	09-24-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 10 CATCH BASIN
D-CB-12B	09-24-12	STANDARD RECTANGULAR BRICK NO. 12 CATCH BASIN
D-CB-12LP	08-01-12	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 12LP CATCH BASIN
D-CB-12P	09-24-12	STANDARD PRECAST RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12S	09-24-12	STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12SB	09-24-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SC	09-24-12	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SD	09-24-12	STANDARD 7' X 7' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SE	08-01-12	STANDARD 9' X 9' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-13B	09-24-12	STANDARD RECTANGULAR BRICK NO. 13 CATCH BASIN
D-CB-13P	09-24-12	STANDARD PRECAST RECTANGULAR CONCRETE NO. 13 CATCH BASIN
D-CB-13RA	09-24-12	STANDARD PRECAST 48" CIRCULAR NO. 13 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-13RB	09-24-12	STANDARD PRECAST 60" AND 72" CIRCULAR NO. 13 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-13RC	09-24-12	STANDARD PRECAST 84" THRU 120" CIRCULAR NO. 13 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-13S	09-24-12	STANDARD RECTANGULAR CONCRETE NO. 13 CATCH BASIN
D-CB-14B	09-24-12	STANDARD RECTANGULAR BRICK NO. 14 CATCH BASIN
D-CB-14P	09-24-12	STANDARD PRECAST RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14RB	08-15-12	STANDARD PRECAST CIRCULAR NO. 14RB CATCH BASIN
D-CB-14S	09-24-12	STANDARD RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14SE	08-01-12	STANDARD 9' X 9' SQUARE CONCRETE NO. 14 CATCH BASIN
D-CB-42RB	09-24-12	STANDARD PRECAST CIRCULAR NO. 42 CATCH BASIN
D-CB-99		MISCELLANEOUS DETAILS FOR RECTANGULAR STRUCTURES
D-CB-99R	09-24-12	MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-CB-99RA		BILL OF STEEL FOR ROUND CATCH BASIN LIDS
D-CBB-12A	05-27-01	TYPE "B" CAST IRON FRAME, GRATE & NONMOUNTABLE INLET DETAILS FOR NOS. 10, 12, 14, 16, & 17 TYPE CATCH BASINS
D-CBB-42	05-27-01	CAST IRON GRATE DETAILS FOR NOS. 42, 43 & 44 TYPE CATCH BASINS
D-MH-2	08-01-12	STANDARD MASONRY & PRECAST NO. 3 MANHOLE
D-MH-3	08-01-12	STANDARD PRECAST CIRCULAR LID DETAILS FOR NO. 3 MANHOLE
D-MH-4	08-01-12	STANDARD NO. 3 MANHOLE CASTINGS AND STEPS

ROADWAY AND PAVEMENT APPURTENANCES

DWG. NO	REV.	DESCRIPTION
RP-D-15	07-15-08	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-D-16	07-15-08	DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS
RP-H-3	05-08-13	HANDICAP RAMP AND TRUNCATED DOME SURFACE DETAIL
RP-H-4	01-15-13	PERPENDICULAR CURB RAMP
RP-H-5	01-15-13	PARALLEL CURB RAMP
RP-H-6	04-13-11	MEDIAN CROSSING

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BRANDON J. TAYLOR
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PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

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STANDARD ROADWAY DRAWINGS CONT'D.

ROADWAY AND PAVEMENT APPURTENANCES CONT'D.

RP-H-7	05-08-13	PERPENDICULAR HANDICAP RAMP FOR 20' THRU 60' RADIUS
RP-H-8	05-08-13	PERPENDICULAR HANDICAP RAMP FOR 20' THRU 60' RADIUS
RP-H-9	05-08-13	PARALLEL HANDICAP RAMP FOR 20' THRU 60' RADIUS
RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS
RP-J-1	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-3	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-7	01-30-12	CONCRETE RAMP JOINT TYPES AND SPACING
RP-J-9	02-02-12	CONTRACTION AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT
RP-J-11	07-29-96	3/4" AND 1-3/4" EXPANSION AND EDGE PAVEMENT JOINTS
RP-J-13	03-20-91	3/4" AND 1-3/4" ELASTOMERIC COMPRESSION JOINT SEALS
RP-J-15	01-19-02	LONGITUDINAL CONTRACTION AND CONSTRUCTION JOINTS
RP-MC-1	02-28-02	STANDARD 4" SLOPING (MOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-NMC-10	07-29-03	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-NMC-11	02-28-02	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-R-2		STANDARD CONSTRUCTION DETAILS FOR ROUNDABOUTS
RP-S-7	05-07-13	DETAILS FOR STANDARD CONCRETE SIDEWALKS

SAFETY APPURTENANCES AND FENCE

S-F-1	05-24-12	HIGH VISIBILITY FENCE

TRAFFIC CONTROL APPURTENANCES

T-L-1	02-15-07	STANDARD LIGHTING FOUNDATION DETAILS
T-L-1SA	07-29-04	STANDARD LIGHTING DETAILS FOR SINGLE ARM SUPPORTS
T-L-3	04-15-96	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	05-25-11	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-10	06-15-12	SIGNING AND PAVEMENT MARKINGS FOR SHARED-USE PATHS
T-M-12	11-01-11	SIGNING AND PAVEMENT MARKINGS FOR URBAN BICYCLE LANES
T-M-13		SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES
T-M-14	11-01-11	SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES AT INTERSECTIONS
T-M-17		PAVEMENT MARKING DETAILS FOR ROUNDABOUTS
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-S-9	11-01-11	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-11	06-06-11	DELINEATOR AND MILEPOST DETAILS
T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-16A	11-01-11	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	10-26-96	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-29-91	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-SG-11	07-29-04	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-WZ-21	03-15-11	LANE CLOSURE WITH LEFT HAND MERGE AND LANE SHIFT
T-WZ-30	09-01-05	TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (40 MPH OR LESS)
T-WZ-40	04-02-12	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-41	04-02-12	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-42	04-02-12	CENTER LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-55		SIDEWALK TRAFFIC CONTROL

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-2	08-01-12	SEDIMENT FILTER BAG
EC-STR-3B	08-01-12	SILT FENCE
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-8	08-01-12	FILTER SOCK
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-37	08-01-12	SEDIMENT TUBE
EC-STR-39	08-01-12	CURB INLET PROTECTION TYPE 1 & 2
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4
EC-STR-40		CATCH BASIN FILTER ASSEMBLY FOR CIRCULAR STRUCTURES
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER DETAILS
EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)
EC-STR-44A		CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS

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46th and Murphy Streetscape Project

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SCALE: N.T.S.

SHEET 3

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	HR	300
	201-01	CLEARING AND GRUBBING	S.Y.	1036
	202-03.04	REMOVE SIDEWALK (CONCRETE)	S.Y.	825
	202-03.05	REMOVE CONCRETE DRIVE (6" TO 8")	S.Y.	175
	202-08.10	REM. OF EXT. MTBLE CURB	L.F.	950
	202-08.11	REMOVE CONC. POST CURB	L.F.	260
	202-08.15	REMOVE CONC. CURB & GUTTER	L.F.	850
	202-03.01	REMOVAL OF ASPHALT PAVEMENT	S.Y.	2332
	203-01	ROAD AND DRAINAGE EXC. (UNCL)	C.Y.	947
(18)	209-03.21	FILTER SOCK (12IN)	L.F.	4819
	203-05	UNDERCUTTING	C.Y.	300
	203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	150
(18)	209-05	SEDIMENT REMOVAL	C.Y.	250
(18)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	1492
(18)	209-09.41	CURB INLET PROTECTION (TYPE 2)	EACH	11
(18)	209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	38
(18)	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	4
	303-01	MIN. AGG. TYPE A BASE, GR. D	TON	1673
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	255
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	115
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	2
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	3
	407-20.05	SAW CUTTING ASPHALT PAVEMENT	L.F.	4045
	411-01.11	ACS MIX(PG64-22) GRADING E RDWY	TON	715
	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	TON	400
(9) (15)	501-01.01	PORTLAND CEMENT CONCRETE PAVEMENT 8"	S.Y.	178
(10) (20)	611-01.20	ADJUSTMENT OF EXISTING MANHOLE	EACH	9
(20)	611-01.23	ADJUSTMENT OF WATER VALVE	EACH	19
	607-02.02	15" CONCRETE PIPE CULVERT	L.F.	160
	607-03.02	18" CONCRETE PIPE CULVERT	L.F.	652
	607-05.02	24" CONCRETE PIPE CULVERT	L.F.	30
	611-01.02	MANHOLES, 4'-8' DEPTH	EACH	2
	611-06.04	INLET, TYPE METRO STD. DWG. DR-105/106	EACH	15
	611-06.05	INLET, TYPE METRO STD. DWG. DR-110/111	EACH	14
	611-42.02	CATCH BASINS, TYPE 42, > 4' - 8' DEPTH	EACH	4
(15)	701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	17030

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	701-02.01	CONCRETE CURB RAMP (6")	S.F.	2336
	701-02.02	CONCRETE DRIVEWAY 8" (W/ WIRE MESH)	S.F.	3580
(1)	701-02.02	CONCRETE DRIVEWAY 8" (W/ WIRE MESH) CROSSWALKS	S.F.	829
	702-01	CONCRETE POST CURB	L.F.	1580
	702-01.01	EXTRUDED MOUNTABLE CURB	L.F.	205
	702-03	CONCRETE COMBINED CURB & GUTTER	L.F.	2700
	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	360
	712-01	TRAFFIC CONTROL	L.S.	1
(2)	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	150
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	350
	712-04.12	PLASTIC PAVEMENT MARKING (YIELD LINE)	S.F.	60
(11)	712-06	SIGNS (CONSTRUCTION)	S.F.	500
	713-11.01	"U" SECTION STEEL POSTS	LB	600
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB	1300
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	150
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	260
	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	L.S.	1
(3)	713-16.20	SIGNS (SNS - 46TH AVENUE W/ ARROW)	EACH	1
(3)	713-16.21	SIGNS (SNS - MURPHY ROAD W/ ARROW)	EACH	1
(3)	713-16.22	SIGNS (SNS - WESTLAWN DRIVE W/ ARROW)	EACH	1
(4)	714-04.03	CONDUIT HDPE	L.F.	370
	714-06.05	CABLE (1/C #6 AWG)	L.F.	5530 △1
	714-06.06	CABLE (1/C #4 AWG)	L.F.	5360
(17)	716-02.04	CHANNELIZATION STRIPING	S.Y.	12
(17)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	75
(17)	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	4
(17)	716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	226
(17)	716-03.09	PLASTIC WORD PAVEMENT MARKING (YIELD)	EACH	4
	716-13.01	SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE)	L.M.	1.5
	717-01	MOBILIZATION	L.S.	1
(5)	725-14.07	TRENCHING	L.F.	2000
(6)	730-01.02	REMOVAL OF SIGNAL EQUIPMENT	EACH	1
(21)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	2
	730-11.01	STEEL CONDUIT RISER ASSEMBLY	EACH	2
(7) (19)	730-12	PULL BOXES	EACH	10

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BRANDON J. TAYLOR
REGISTERED ENGINEER
NO. 112321
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
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46th and Murphy
Streetscape Project

Estimated Roadway Quantities

SCALE: N.T.S.

SHEET 4

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(4)	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	1910
(8)	730-12.04	CONDUIT 4" DIAMETER (PVC)	L.F.	140
	920-10.01	POROUS CONCRETE (6")	S.F.	980
	PWDW	DETECTABLE WARNINGS	S.F.	350
	SP	TIE INTO EXISTING CATCH BASIN	EACH	1
(12)	SP	TIE INTO EXISTING CULVERT	EACH	12
(13)	SP	RELOCATE BACKFLOW PREVENTER (MCCABES)	L.S.	1
(14)	SP	RELOCATE MCCABE SIGN	L.S.	1
(15)	SP	STONE SEAT WALL	L.S.	1
(4)	SP	240V 20 AMP RATED FUSED DISCONNECT	EACH	1
(4)	SP	100AMP RATED 12 SPACE NEMA 3R MCB LOAD CENTER	EACH	1
(4)	SP	125AMP RATED METER BASE	EACH	1
(16) (4)	SP	PARK DOUBLE LIGHT	EACH	7
(4)	SP	STREETSCAPE LIGHT/FOUNDATION	EACH	15

ESTIMATED LANDSCAPE QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(15)	721-01.01	BENCH	EACH	5
(15)	721-01.02	TRASH RECEPTACLE	EACH	3
(15)	721m01.05	BIKE RACK	EACH	4
(15)	802-01.10	PAPERBARK MAPLE	EACH	3
(15)	802-01.11	YOSHINO CHERRY	EACH	13
(15)	802-01.12	NATCHEZ CREPE MYRTLE	EACH	31
(15)	802-03.01	SHRUBS	EACH	158
(15)	802-04.01	GROUNDCOVERS (ORNAMENTAL GRASSES)	EACH	639
(15)	802-04.01	GROUNDCOVERS	EACH	1951 △1
(15)	802-05.03	REFILLABLE DRIP IRRIGATION FLEXIBLE BAG	EACH	3
(15)	802-06.03	MULCH (3" SHREDDED PINE BARK)	C.Y.	35
(15)	803-01	SODDING	S.Y.	1000
(15)	SP	ENTRY COLUMNS	EACH	3
(15)	SP	METAL SIGN FOR ENTRY COLUMN	EACH	3
(15)	SP	SMALL DECORATIVE ROCKS	S.F.	1050
(15)	SP	LARGE DECORATIVE ROCKS	EACH	3
(15)	SP	UPLIGHTS	EACH	6
(15)	SP	LANDSCAPE EDGING	L.F.	777

FOOTNOTES:

(1) Item is for the crosswalks near the roundabout. See landscape sheets for details.
(2) To be used as needed during traffic control.
(3) See sign detail on sign schedule sheets. This item is for installation only, METRO will furnish signs.
(4) See electrical layout sheets for details.
(5) Includes trenching for lighting conduit and AT&T relocation conduit.
(6) Item includes removal of all signal poles, signal heads, cabinet and span wire once the roundabout phase. is operational at the beginning of the final construction phase.
(7) Includes items for lighting pull boxes only. Pull boxes for AT&T relocation to be furnished by AT&T.
(8) Conduit for AT&T relocation.
(9) Item for roundabout truck apron.
(10) Adjustment of sanitary manholes.
(11) Includes the installation and maintenance of a sign panel, sheeting and supports.
(12) Includes locating the two (2) exisiting box culverts under 46th Avenue and Murphy Road and tying into them.
(13) Includes relocating the backflow preventor at Parcel 47 (McCabes Pub). Backflow preventor to be relocated during non-business hours. Contractor to coordinate with property owner.
(14) Includes relocating the business sign at Parcel 47 (McCabes Pub). Business sign to be relocated during non-business hours. Contractor to coordinate with property owner.
(15) See landscape sheets for details.
(16) Includes installation of light pole. Light poles and luminares to be furnished by METRO, foundations by others.
(17) The contractor may elect to substitute preformed plastic for the thermoplastic. Preformed plastic shall be paid for at the same unit price as bid for thermoplastic.
(18) See subsection 209.07 of the standard specifications for maintenance replacment.
(19) Refer to NES lighting installation manual, traffic pull box street lighting installation detail.
(20) Contractor to coordination with Metro Water Service on adjustments of sanitary manholes and water valves.
(21) Electrical service connection for street lighting. See electrical layout sheets for details.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
△1 UPDATED DATE AND QUANTITY		

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

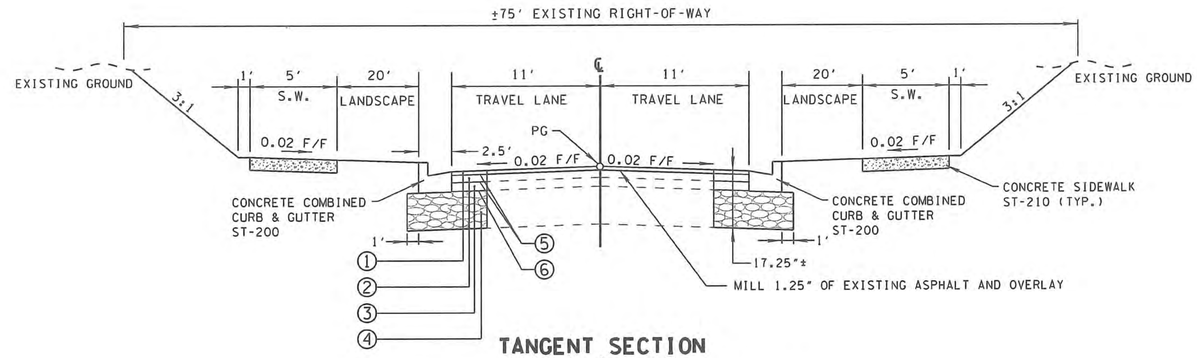
46th and Murphy Streetscape Project

Estimated Roadway Quantities

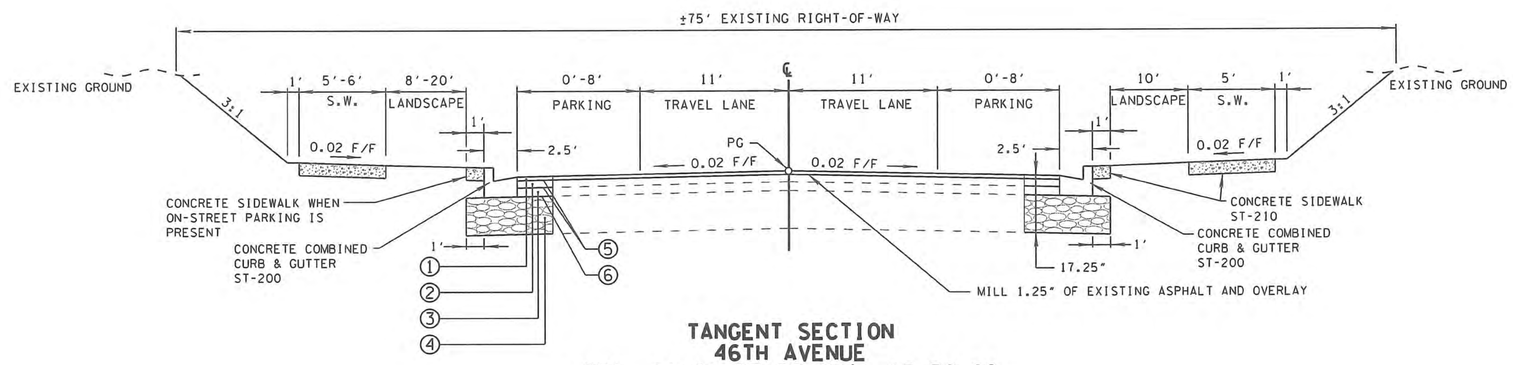
SCALE: N.T.S.

SHEET 5

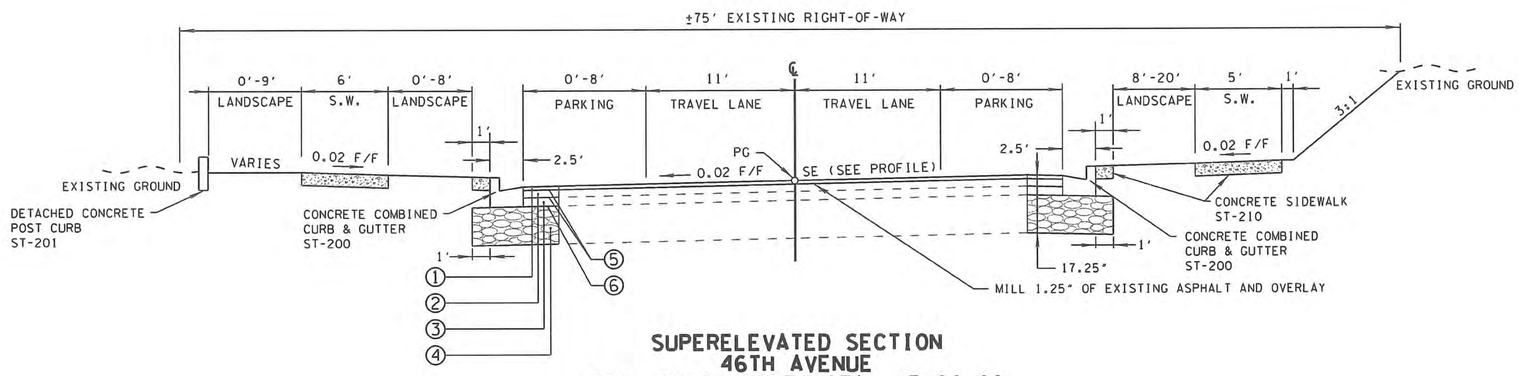
FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



TANGENT SECTION
46th AVENUE
STA. 11+33.57 TO STA. 11+61.37



TANGENT SECTION
46TH AVENUE
STA. 11+61.37 TO STA. 13+30.00



SUPERELEVATED SECTION
46TH AVENUE
STA. 13+30.00 TO STA. 15+20.00

METROPOLITAN GOVERNMENT
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PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Typical Sections

N.T.S.

SHEET 6

FILE NO.	10-0606
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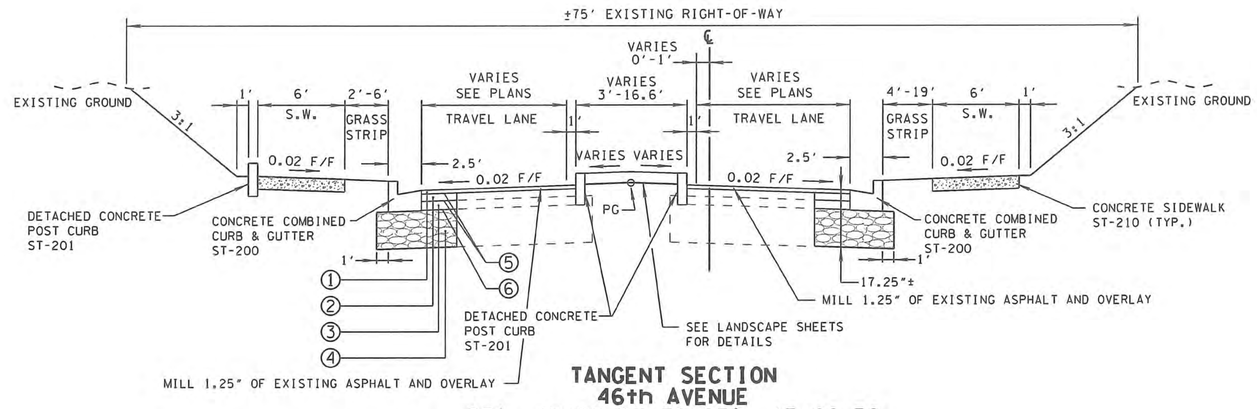
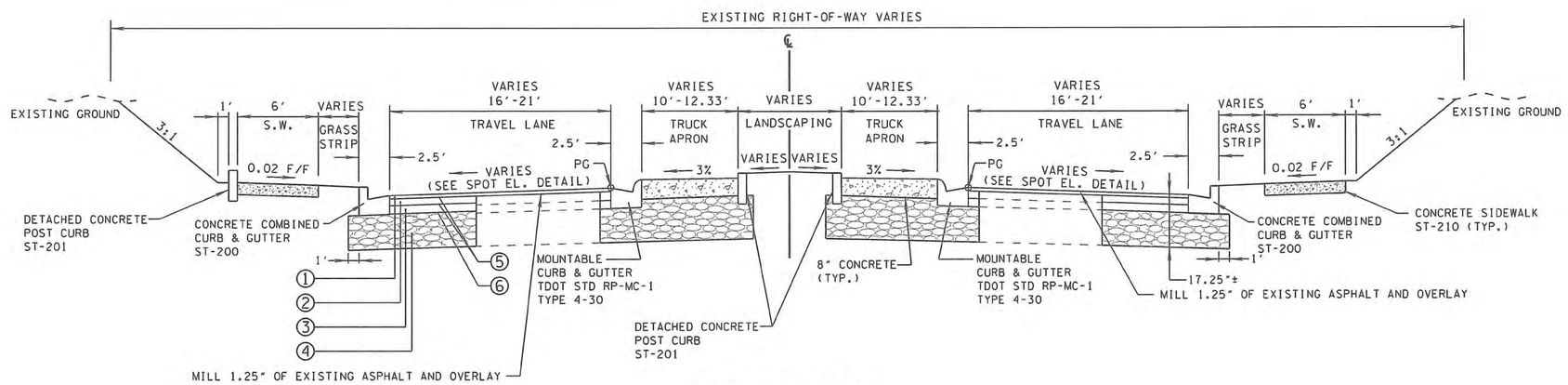


TANGENT SECTION
46th AVENUE
STA. 15+20.07 TO STA. 15+66.52



TANGENT SECTION
ROUNDABOUT
46th AVENUE
STA. 15+66.52 TO STA. 16+20.72
MURPHY ROAD
STA. 20+00.00 TO STA. 20+41.94

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46th and Murphy Streetscape Project

Typical Sections

N.T.S.

SHEET 7

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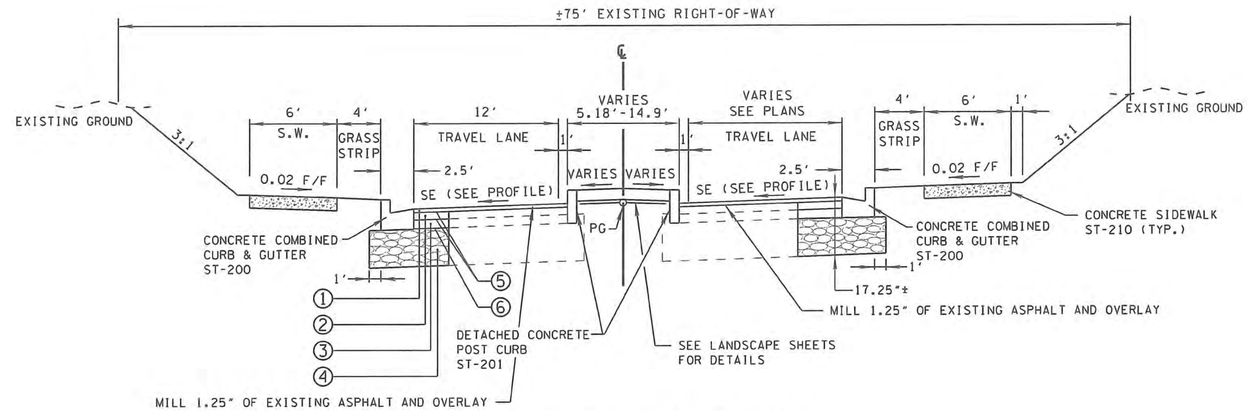
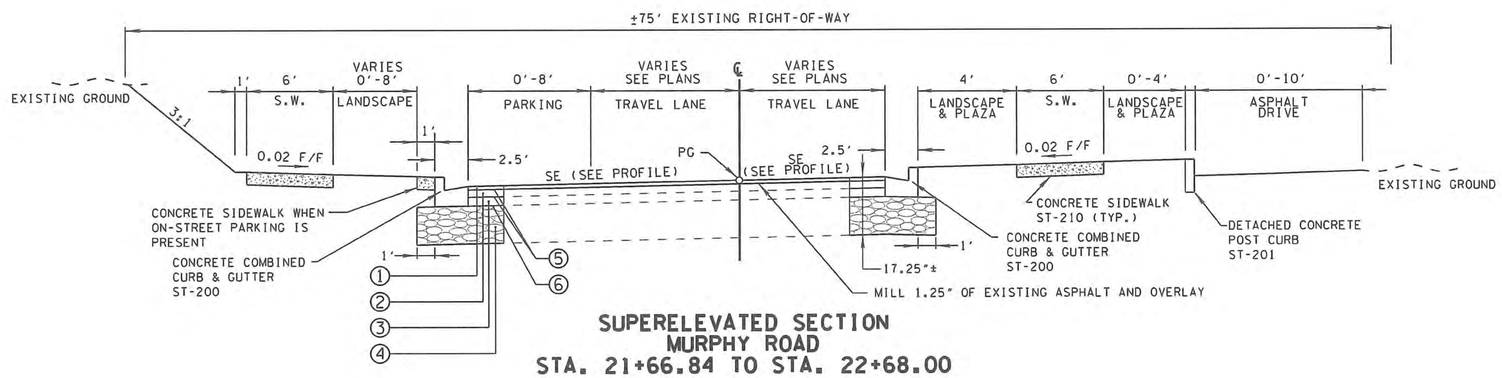
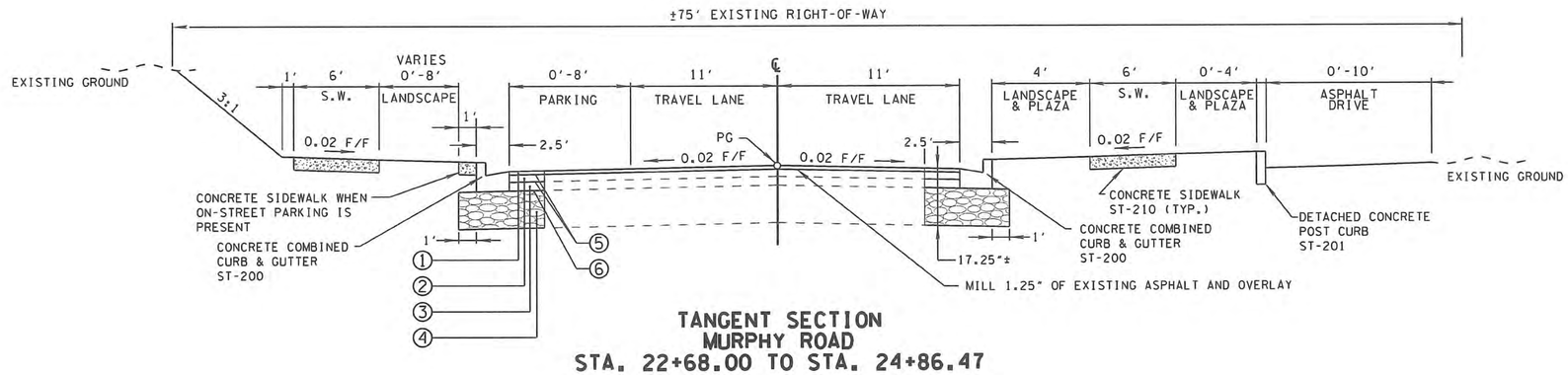


SUPERELEVATED SECTION
MURPHY ROAD
STA. 20+41.94 TO STA. 21+66.84



SUPERELEVATED SECTION
MURPHY ROAD
STA. 21+66.84 TO STA. 22+68.00



TANGENT SECTION
MURPHY ROAD
STA. 22+68.00 TO STA. 24+86.47

METROPOLITAN GOVERNMENT
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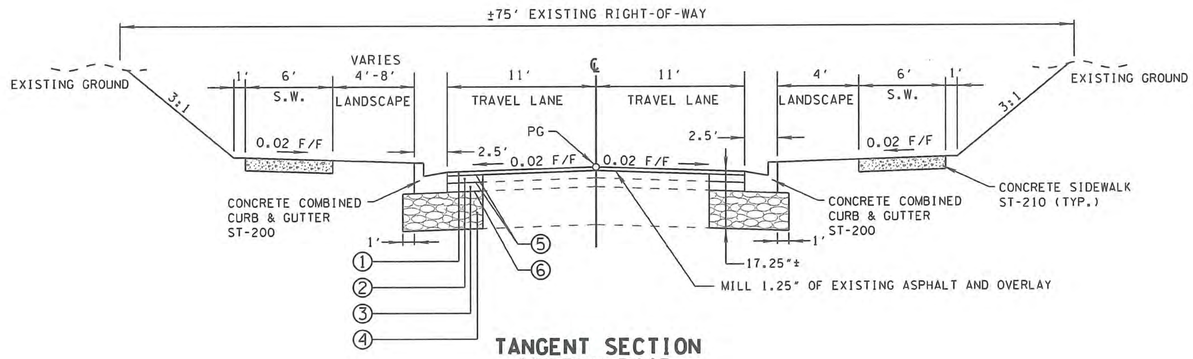
46th and Murphy Streetscape Project

Typical Sections

N.T.S.

SHEET 8



TANGENT SECTION
MURPHY ROAD
STA. 24+86.47 TO STA. 26+13.01

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46th and Murphy
Streetscape Project

Typical Sections

N.T.S.

SHEET 9

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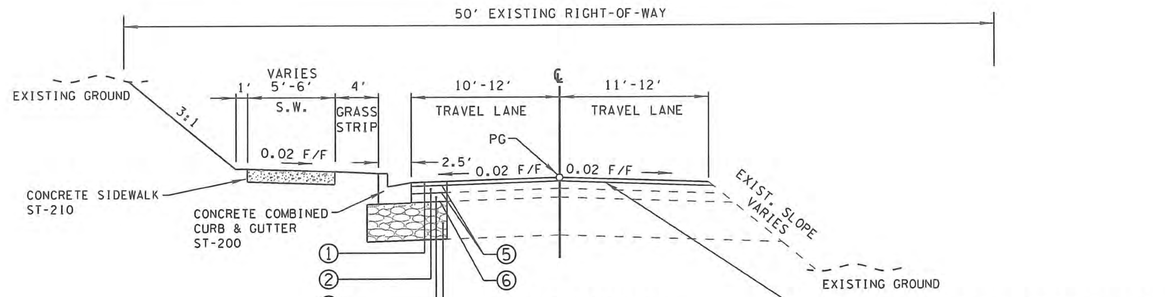
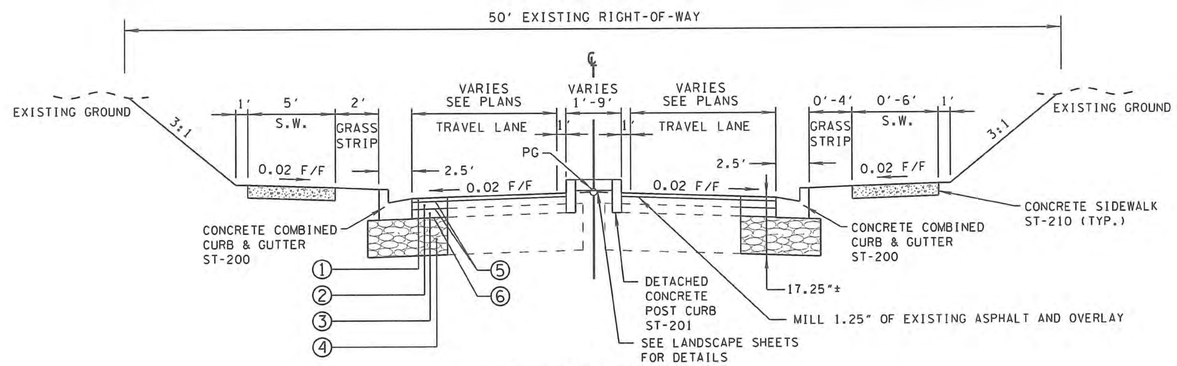
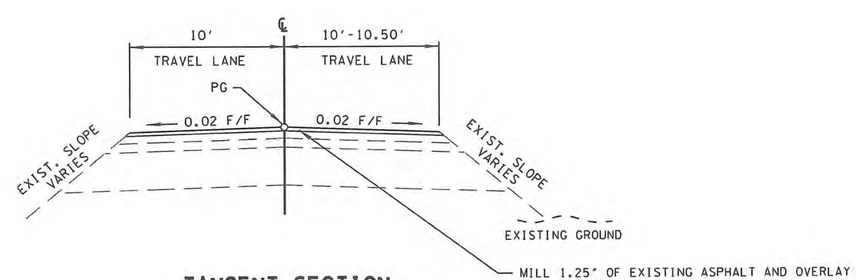


TANGENT SECTION
WESTLAWN DRIVE
STA. 11+34.24 TO STA. 12+42.91



TANGENT SECTION
WESTLAWN DRIVE
STA. 12+42.91 TO STA. 12+90.32



TANGENT SECTION
McCABE GOLF COURSE
STA. 10+03.00 TO STA. 11+57.42

METROPOLITAN GOVERNMENT
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46th and Murphy Streetscape Project

Typical Sections

N.T.S.

SHEET 10

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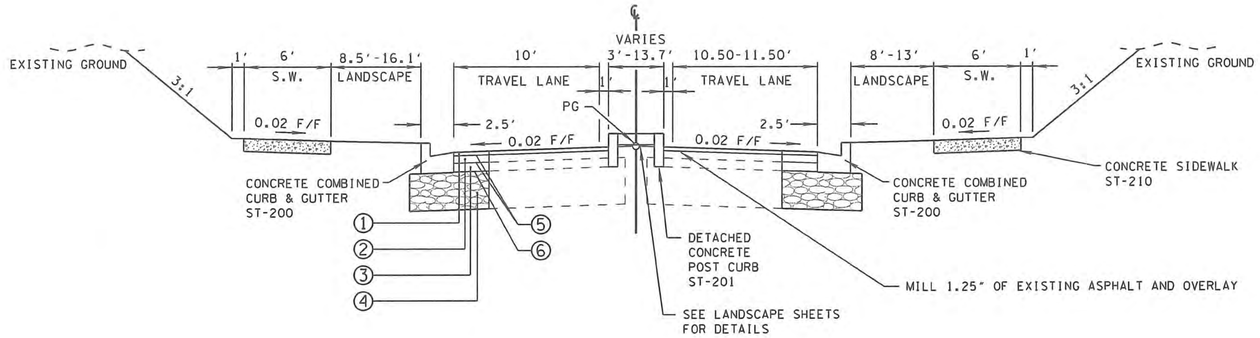
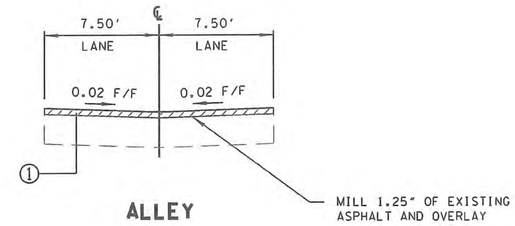
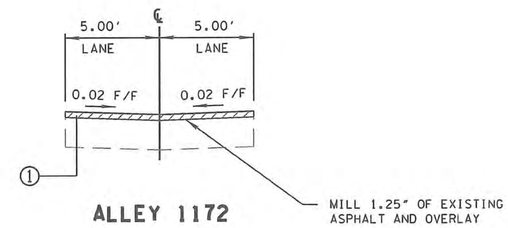


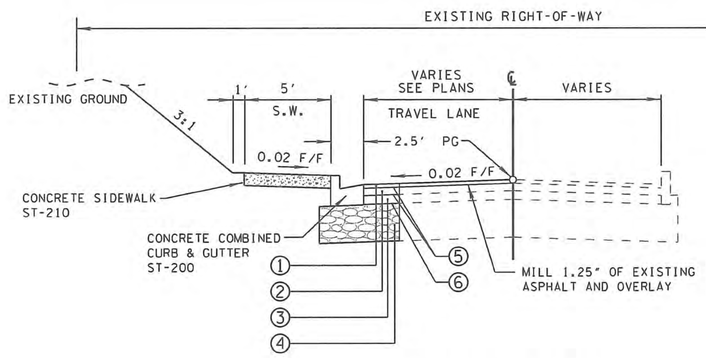
TANGENT SECTION
McCABE GOLF COURSE
STA. 11+57.42 TO STA. 11+88.50



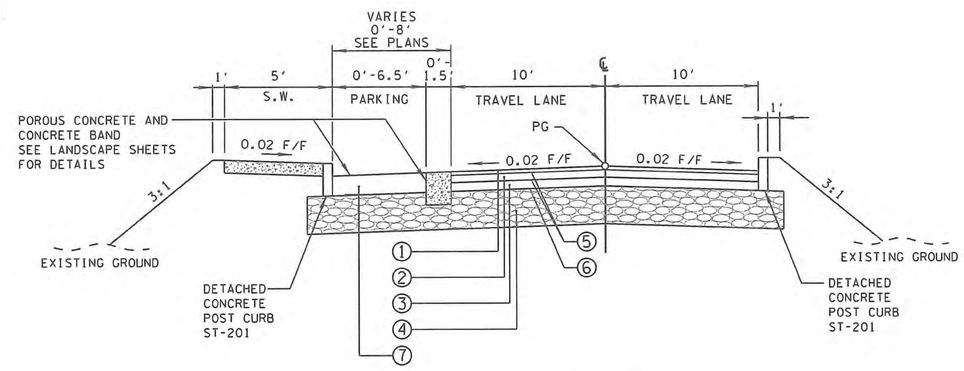
ALLEY



ALLEY 1172



TANGENT SECTION
45th AVENUE
STA. 0+22.16 TO STA. 1+56.78



NEW PARK ENTRANCE

PROPOSED PAVEMENT SCHEDULE

① ACS MIX (PG64-22) GR "E" @ 1.25" 411-01.11	⑤ BIT. MAT'L. FOR TACK COAT (TC) 403-01
② ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GR "B-M2" @ 2" 307-01.08	⑥ BIT. MAT'L. FOR PRIME COAT (PC) 402-01
③ ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GR "A" @ 4" 307-01.01	⑦ 6" POROUS CONCRETE
④ MINERAL AGGREGATE TYPE A BASE, GRADING D @ 10" 303-01	

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PUBLIC WORKS DEPARTMENT
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Typical Sections

N.T.S.

SHEET 11

GENERAL NOTES

GRADING

(1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE 0F THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

(2) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.

(3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

(1) ALL EXISTING ROADS WITHIN THE RIGHT-OF-WAY AND NOT IN THE GRADED AREA THAT ARE TO BE ABANDONED SHALL BE SCARIFIED, OBLITERATED, TOPSOILED AND SEEDED. SCARIFYING AND OBLITERATING THE PAVEMENT WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS. TOPSOIL, IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEMS 203-04 AND/OR 203-07. SEEDING, IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM 801-01.

(2) SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS AND ALL DAMAGE/DISTURBED AREAS. TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.

(3) ITEM NO. 801-01, SEEDING (WITH MULCH), SHALL BE USED WHERE EROSION CONTROL BLANKET OR SOD ARE NOT APPLIED.

GUARDRAIL

(1) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(2) THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(3) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

DRAINAGE

(1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(2) EXCAVATION FOR ALL DRAINAGE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).

(3) CULVERT EXCAVATION FOR CONCRETE BOX OR SLAB TYPE CULVERTS OR BRIDGES WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(4) THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).

(5) WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.

(6) DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

UTILITIES

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. 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 IT'S 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 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 HIS 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.

MISCELLANEOUS

(1) ALL DETOUR, ACCESS, SERVICE AND FRONTAGE ROADS SHALL BE CONSTRUCTED WITH A MINIMUM OF ONE (1) COURSE OF BASE MATERIAL BEFORE TRAFFIC IS INTERRUPTED ON EXISTING ROADS.

(2) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES WHERE AND AS DIRECTED BY THE ENGINEER.

(3) 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

ROAD CLOSURE

(1) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.

RIGHT - OF – WAY

(1) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.

(2) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.

(3) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.

(4) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

(5) TRACT REMAINDERS NOT HAVING AN EXISTING DRIVEWAY WILL BE PROVIDED ONE 50-FOOT OPENING IN THE ACCESS CONTROL FENCE AND A DRIVEWAY WILL BE CONSTRUCTED UNLESS ACCESS IS PROVIDED FROM AN INTERSECTING ROAD OR BASED ON PHYSICAL CONDITIONS AND/OR CONFLICTS WITH OTHER DESIGN CONSIDERATIONS WHICH PREVENT AN ACCESS OPENING. PAVING OF THESE NEW DRIVEWAYS WILL BE IN ACCORDANCE TO THE 7 PERCENT CRITERIA PREVIOUSLY MENTIONED FOR EXISTING DRIVEWAYS.

(6) NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.

(7) ON PROJECTS WITHOUT CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT AND TO CONSTRUCT ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

(8) ON PROJECTS WITH CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT. AFTER THE PERMIT HAS BEEN GRANTED, THE DEPARTMENT WILL CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE THROUGH THE CURB AND SIDEWALK, PROVIDED THE CURB AND SIDEWALK HAVE NOT BEEN CONSTRUCTED. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE FROM BACK OF SIDEWALK TO TOUCHDOWN POINT FOR ANY ADDITIONAL DRIVEWAYS OR FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

(9) ON NON-STATE ROUTES, ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS SHALL REQUIRE A PERMIT ONLY IF THE LOCAL AGENCY SPECIFIES THE NEED FOR THAT PERMIT.

(10) EASEMENT REQUIRED FOR THE RAILROAD CROSSING IS TO BE OBTAINED BY THE UTILITIES ENGINEER BY PROVISIONS CONTAINED IN THE CROSSING AGREEMENT NEGOTIATED WITH THE RAILROAD.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

(1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, PAINTED PAVEMENT MARKING (4" LINE), L.M.

(2) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20, PAINTED PAVEMENT MARKING (6" LINE), L.M.

(3) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02, PAINTED PAVEMENT MARKING (8" BARRIER LINE), L.F.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2104-R-1

46th and Murphy Streetscape Project

General Notes

SCALE: N.T.S.

SHEET 12

GENERAL NOTES

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

(1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NOPAVEMENT

PAVING

(1) THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.

(2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

RESURFACING

(3) ON CURB AND GUTTER SECTIONS, PUBLIC ROAD INTERSECTIONS SHALL BE RESURFACED TO THE END OF RADIUS. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD SHALL BE PROVIDED.

(4) ON URBAN TYPICAL SECTIONS, (CURB AND GUTTER), RESIDENTIAL DRIVEWAYS AND BUSINESS ENTRANCES SHALL HAVE A MINIMUM WIDTH OF MATERIAL NOT LESS THAN ONE FOOT USED IN THE TRANSITION TO FEATHER THE PAVEMENT EDGE.

(5) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE ENGINEER.

SIGNING

(1) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.

(2) AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE ENGINEER.

(3) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.

(4) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

(5) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.

SIGNALIZATION

(1) SALVAGEABLE EQUIPMENT SHALL BECOME THE PROPERTY OF METRO AND SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE ENGINEER

(2) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.

(3) THE PROJECT ENGINEER SHALL NOTIFY THE LOCAL GOVERNMENTAL AGENCY RESPONSIBLE FOR TRAFFIC CONTROL MAINTENANCE AT LEAST ONE DAY IN ADVANCE OF THE COLD PLANING ACTIVITY AT SIGNALIZED INTERSECTIONS WHERE DETECTOR LOOPS ARE ON THE PAVEMENT. THE MAINTAINING AGENCY WILL THEN BE RESPONSIBLE FOR DISCONNECTING THE LOOP DETECTORS AND MAKING ANY NECESSARY TIMING ADJUSTMENTS IN THE SIGNAL CONTROLLER PRIOR TO THE CONSTRUCTION.

(4) THE PROJECT ENGINEER SHALL BE RESPONSIBLE FOR SUPPLYING THE CONTRACTOR WITH AS BUILT SIGNAL PLANS AT THE PRE-CONSTRUCTION CONFERENCE. THESE PLANS WILL PROVIDE THE CONTRACTOR WITH THE DESIRED LOCATION FOR DETECTOR LOOP REPLACEMENT.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) 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.

(2) 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.

(3) 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.

(4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

(5) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, 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.

(6) 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 A 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.

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

(8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

LIGHTING

(1) INSTALLATION AND MATERIALS SHALL COMPLY WITH SECTIONS 714 AND 917 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED MARCH 1, 2006 AND WITH THE LATEST REVISIONS TO THE NATIONAL ELECTRIC CODE, NFPA 70.

(2) ALL WIRING SHALL BE CONCEALED UNDERGROUND IN 2-INCH SCHEDULE 40 PVC RIGID CONDUIT. EXCEPT AS NOTED IN THE NES STREET LIGHT DESIGN MANUAL.

(3) THE GROUND WIRE SHALL BE RUN INSIDE CONDUIT WITHIN STRUCTURES, SHALL BE COLORED GREEN AND HAVE THW INSULATION.

(4) EXISTING FOUNDATIONS TO BE REMOVED A MINIMUM OF SIX INCHES BELOW GRADE.

(5) ALL INCIDENTAL EQUIPMENT AND MATERIAL REQUIRED FOR THE SUCCESSFUL EXECUTION OF THIS WORK SHALL BE FURNISHED IN 714 ITEMS WHETHER SPECIFICALLY NOTED OR NOT.

(6) LIGHT STANDARDS SHALL BE ROUND TAPERED POLES. LENGTH SHALL BE DETERMINED BY REQUIRED MOUNTING HEIGHT.

(7) STANDARDS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.

(8) ALL NEW ROADWAY LIGHT STANDARDS SHALL BE MOUNTED ON BASES WITH ACCESS DOOR. TRANSFORMER BASES SHALL MEET AASHTO SPECIFICATIONS AND HAVE FHWA APPROVAL. STANDARDS SHALL BE ALUMINUM WITH TRANSFORMER BASES.

(9) BRACKET ARMS SHALL BE ROUND TAPERED TRUSS TYPE WITH STRAP MOUNTING AND LENGTHS AS SCHEDULED.

(10) BRACKET ARM UPSWEEP SHALL BE THE SAME FOR ALL LIGHT STANDARDS OF THE SAME TYPE.

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

(1) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.

(2) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

(3) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.

(4) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

SEDIMENT CONTROL

(5) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

(6) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.

(7) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.

(8) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

General Notes

SCALE: N.T.S.

SHEET 13

GENERAL NOTES

INSPECTION, MAINTENANCE, REPAIR

(1) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.

(2) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.

(3) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.

(4) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.

(5) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY.

(6) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.

(7) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.

MATERIALS

(8) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

SWPPP, PERMITS, PLANS, RECORDS

(9) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.

(10) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER.

(11) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, PRECIPITATION RECORDS.

(12) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BREIF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

(13) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

(14) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.

(15) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER A CHANGE IN CHEMICAL TREATMENT METHODS IS MADE INCLUDING USE OF A DIFFERENT CHEMICAL, DIFFERENT DOSAGE OR APPLICATION RATE, OR A DIFFERENT AREA OF APPLICATION.

(16) IF A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION) THE SWPPP SHALL BE MODIFIED OR UPDATED.

(17) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

(18) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.

(19) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS 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 (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
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REVISION BLOCK

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46th and Murphy Streetscape Project

General Notes

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SPECIAL NOTES

GRADING

(1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.

(2) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

(3) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

PAVEMENT

RESURFACING

(1) TRAFFIC WILL BE ALLOWED TO TEMPORARILY DRIVE ON THE MILLED SURFACE OF THE ROADWAY UNDER THE FOLLOWING CONDITIONS ONLY:

A. THE MILLED SURFACE IS FINE TEXTURED. THE FINE TEXTURE SHALL BE OBTAINED BY A MILLING MACHINE UTILIZING A MILLING HEAD WITH TEETH SPACING 3/8" OR LESS OPERATING AT LESS THAN 80 FEET PER MINUTE.

B. THE SURFACE SHALL BE SWEPT AND CLEANED OF ALL LOOSE MATERIALS.

C. THE DIFFERENCE IN ELEVATION BETWEEN THE MILLED SURFACE AND THE ADJACENT LANE SHALL NOT EXCEED 1 1/2 INCHES.

D. THE MILLED SURFACE SHALL BE PAVED WITHIN 48 HOURS.

E. RAIN OR INCLEMENT WEATHER IS NOT EXPECTED OR FORECASTED WITHIN 48 HOURS AFTER MILLING.

F. ALL APPLICABLE SIGNING IS INSTALLED IN ACCORDANCE WITH THE MUTCD SIGNING SHALL INCLUDE MOTORCYCLE WARNING SIGNS (TN-64) PLACED IN ADVANCE OF ANY MILLED AREAS.

G. IF RAVELING OR DETERIORATION OF THE MILLED SURFACE IS OCCURRING WHILE TRAFFIC IS DRIVING ON THE MILLED SURFACE, THEN THIS PRACTICE WILL NOT BE ALLOWED AND PAVING SHALL BE COMPLETED IMMEDIATELY AFTER MILLING.

H. ONLY ONE LANE IN EACH DIRECTION SHALL HAVE A MILLED SURFACE AT ONE TIME.

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

(1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 47, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

SPECIAL PROJECT NOTES

(1) PARKING LOT AT MCCABE GOLF COURSE TO BE BUILT BY OTHERS. CONTRACTOR TO BUILD DRIVEWAY LOCATED ON WESTLAWN DRIVE TO TIE INTO MCCABE GOLF COURSE PARKING LOT. CONTRACTOR TO COORDINATE WITH THE CONTRACTOR OF THAT PROJECT.

(2) CONTRACTOR TO PERFORM ALL WATER AND SEWER RELOCATION WORK AS SHOWN IN THE UTILITIES SHEETS OF THIS PLAN.

(3) PEDESTRIAN BRIDGE TO BE BUILT BY OTHERS AND TIE INTO SIDEWALK ON 46TH AVENUE. CONTRACTOR TO COORDINATE WITH THE CONTRACTOR OF THAT PROJECT.

(4) ALL DRIVEWAY RAMPS TO BE CONSTRUCTED IN ACCORDANCE WITH METRO STANDARD DRAWING NO. 322 AND 324.

(5) CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH LOCAL BUSINESS OWNERS.

(6) CONTRACTOR TO CLEAN ALL EXISTING INLETS PRIOR TO CONNECTING TO THE EXISTING SYSTEM.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

General Notes

SCALE: N.T.S.

SHEET 15

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	FROM OUTLET ELEV.	TO CODE	TO INLET ELEV.	% GRADE	REINFORCED CONC. PIPE-CLASS III SIZE & LENGTH (L.F.) 15"	18"	24"
27	2	462.04	1	461.85	1.02		19	
27	1	461.68	28	457.8	6.03		64	
27	28	457.63	3	454.25	4.72		72	
27	3	454.08	27	453.6	1.22		40	
27	27	452.9	37	450.5	8.02			30
27	4	454.28	36	453.6	2.19	31		
27	5	453.14	27	452.98	0.98		16	
27	26	454.27	7	453.73	1.01		54	
31	25	456	9	455.58	0.89		47	
31	9	455.25	7	454.92	0.55		61	
31	7	453.65	38	452.51	3.49		33	
31	10	453	39	452	5.64	18		
31	31	460.31	34	460.11	0.61	33		
31	32	463.08	34	462.29	5.85	14		
31	29	463.29	34	462.29	4.69	21		
31	34	459.94	41	459.39	2.48	22		
31	12	457.7	13	457.6	0.58		17	
31	42	460.1	13	457.81	5.73		40	
31	13	457.43	30	457.31	0.99		12	
31	17	458.12	14	457.51	1.10		55	
31	14	457.34	30	457.22	0.59		20	
31	16	457.86	15	457.78	0.95	8		
35	21	459.4	20	459.27	1.01	13		
35	19	459	18	458.83	1.01		28	
35	18	456.16	43	456.01	0.74		20	
35	24	462.02	22	461.45	1.00		57	
35	23	460.48	22	460.11	1.73		21	
35	22	458.11	46	457	7.10		16	
TOTALS						160	692	30

CATCH BASINS AND MANHOLES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	DEPTH (FT.)	PAY ITEMS: SINGLE INLET DR-105 0'-10'	DOUBLE INLET DR-110 0'-10'	COMBINATION INLET DR-120 0'-10'	MANHOLE 611-01.02 4'-8'
27	46th Ave.	11+47.07	12.05 RT.	2	466	SINGLE CB	3.96	1			
27	46th Ave.	11+46.46	12.59 LT.	1	466.03	DOUBLE CB	4.35		1		
27	46th Ave.	12+17.63	12.03 LT.	28	461.68	SINGLE CB	4.05	1			
27	46th Ave.	12+96.48	19.96' LT.	3	458.17	DOUBLE CB	4.09		1		
27	46th Ave.	12+95.37	19.89 RT.	4	458.16	SINGLE CB	3.88	1			
27	46th Ave.	13+42.48	20.00' LT.	27	458.03	MH	5.13				1
27	46th Ave.	13+55.59	20.03' LT.	5	457.37	DOUBLE CB	4.23		1		
27	46th Ave.	13+73.09	20.2' LT.	35	457.43	SINGLE CB	3.88	1			
27	46th Ave.	13+53.54	20.01' RT.	6	457.37	DOUBLE CB	3.5		1		
27	46th Ave.	14+85.62	15.57' LT.	26	458.55	DOUBLE CB	4.28		1		
31	46th Ave.	15+45.74	25.68' LT.	7	458.93	SINGLE CB	5.28	1			
31	46th Ave.	15+44.82	13.65' RT.	8	459.1	SINGLE CB	3.78	1			
31	46th Ave.	15+98.98	32.47' RT.	10	460.85	SINGLE CB	7.85	1			
31	46th Ave.	16+08.77	43.13' LT.	9	459.63	DOUBLE CB	4.38		1		
31	Murphy Road	20+74.33	16.54' LT.	25	460.74	DOUBLE CB	4.74		1		
31	Murphy Road	20+50.47	7.13' RT.	33	461.44	SINGLE CB	5.15	1			
31	Westlawn Dr.	12+63.12	12.89' LT.	31	464.19	SINGLE CB	3.88	1			
31	Westlawn Dr.	12+27.64	27.51' LT.	32	466.96	COMB CB	3.88			1	
31	Westlawn Dr.	12+01.88	13.2' LT.	29	467.17	SINGLE CB	3.88	1			
31	Westlawn Dr.	12+26.58	9.9' LT.	34	466.17	COMB CB	6.23			1	
31	Murphy Road	21+25.09	20.89' RT.	11	461.01	DOUBLE CB	4.17		1		
31	Murphy Road	21+83.69	42.25' LT.	12	461.75	DOUBLE CB	4.05		1		
31	Murphy Road	22+08.68	38.65' LT.	13	461.86	DOUBLE CB	4.43		1		
31	Murphy Road	22+12.48	20.8' LT.	30	461.9	MH	4.76				1
31	Murphy Road	22+37.75	13.87' LT.	14	461.87	DOUBLE CB	4.53		1		
31	Murphy Road	22+43.93	13.44' RT.	15	462.03	DOUBLE CB	4.3		1		
31	Murphy Road	22+45.62	25.53' RT.	16	462.64	COMB CB	4.78			1	
31	Murphy Road	22+99.66	20.00' LT.	17	462.3	SINGLE CB	4.18	1			
35	Murphy Road	23+81.28	12.07' LT.	18	463.06	COMB CB	6.9			1	
35	Murphy Road	24+13.57	20.00' LT.	19	463.15	DOUBLE CB	4.15		1		
35	Murphy Road	24+11.32	12.33' RT.	20	463.28	SINGLE CB	4.48	1			
35	Murphy Road	24+06.95	28.30' RT.	21	463.39	SINGLE CB	3.99	1			
35	Murphy Road	25+40.20	16.69' LT.	22	464.3	DOUBLE CB	6.19		1		
35	Murphy Road	25+53.26	40.76' LT.	23	465	SINGLE CB	4.52	1			
35	Murphy Road	26+03.01	18.53' LT.	24	464.79	SINGLE CB	2.77	1			
Total								15	14	4	2

PAVEMENT QUANTITIES

LOCATION	PAY ITEMS: 303-01 (TON)	307-01.01 (TON)	307-01.08 (TON)	402-01 (TON)	403-01 (TON)	411-01.11 (TON)
46TH AVENUE	334.6	51	23	0.4	0.1	16
MURPHY ROAD	501.9	76.5	34.5	0.6	0.15	24
McCABE GOLF COURSE	66.92	10.2	4.6	0.08	0.02	3.2
WESTLAWN DRIVE	133.84	20.4	9.2	0.16	0.04	6.4
ROUNDABOUT	100.38	15.3	6.9	0.12	0.03	4.8
NEW PARK ENTRANCE	535.36	81.6	36.8	0.64	0.16	25.6
OVERLAY					2.5	396
TOTAL	1673	255	115	2	3	476

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CHECKED BY:	DJS

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UPDATED DATE AND PAGE NUMBERS		

BRANDON J. TAYLOR — REGISTERED ENGINEER — STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Tabulated Quantities

SCALE: N.T.S.

SHEET 16

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
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DATE: 05/02/2014	BJT
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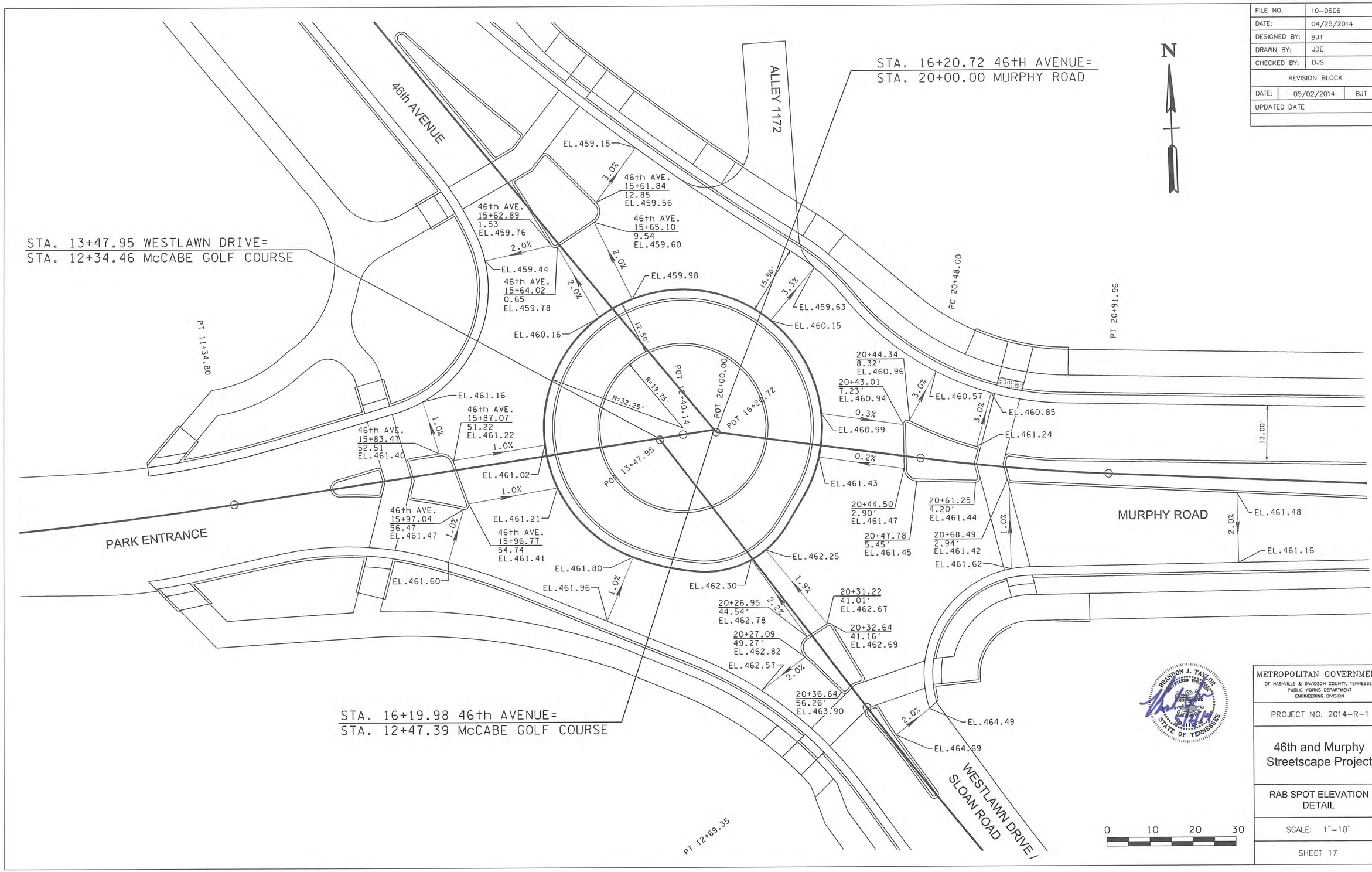


METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

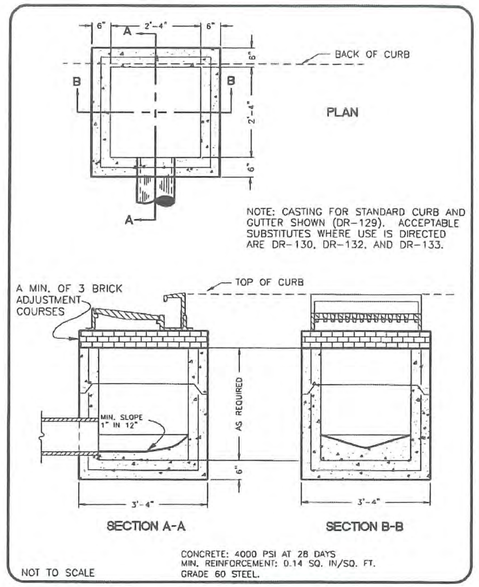
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

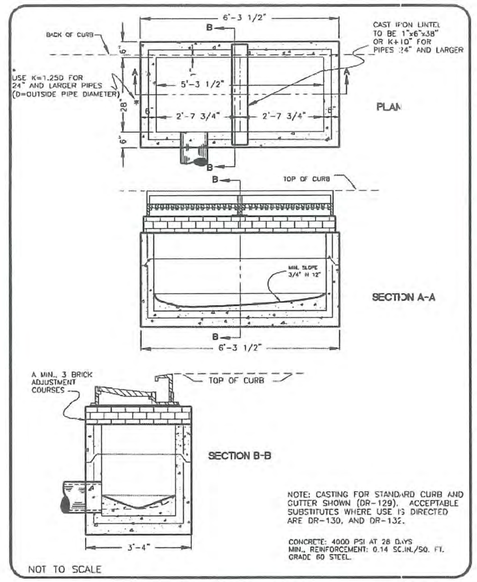
RAB SPOT ELEVATION DETAIL

SCALE: 1"=10'

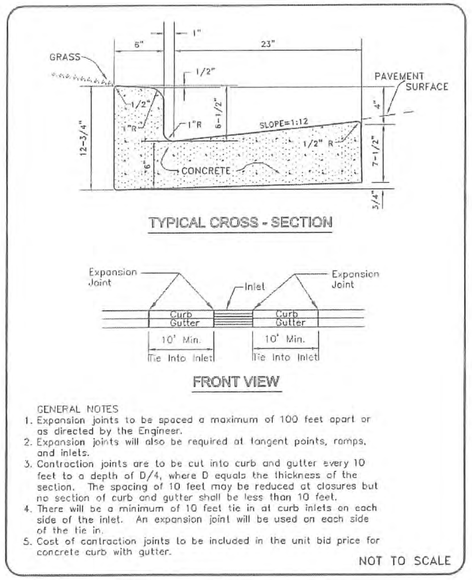
SHEET 17



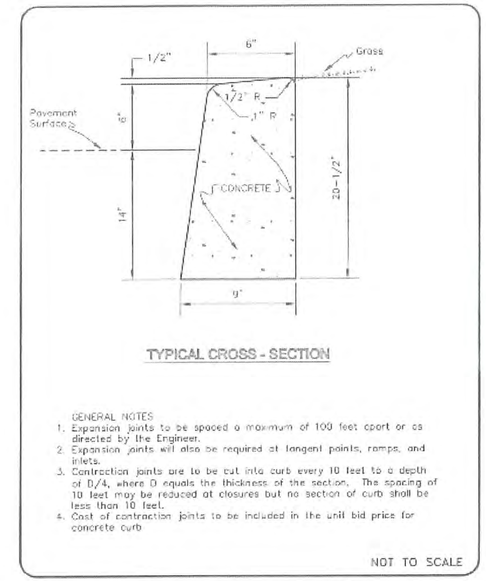
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	SINGLE INLET (PRECAST)	DWG. NO. DR-105
ASST. DIR. ENG.: DATE:		
DIRECTOR: DATE: 3/14/00		REVISED: 02/08/00



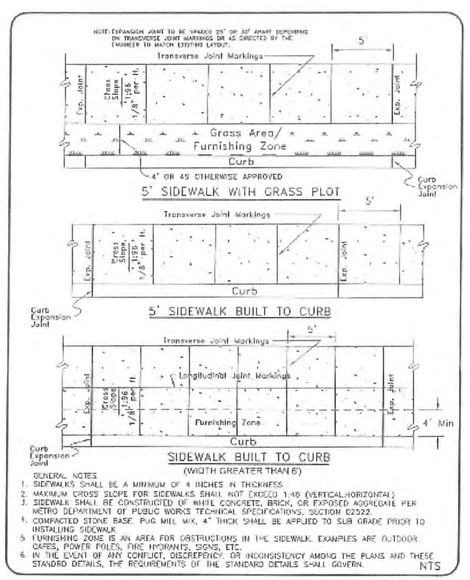
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	DOUBLE INLET (PRECAST)	DWG. NO. DR-110
ASST. DIR. ENG.: DATE:		
DIRECTOR: DATE: 3/14/00		REVISED: 02/14/00



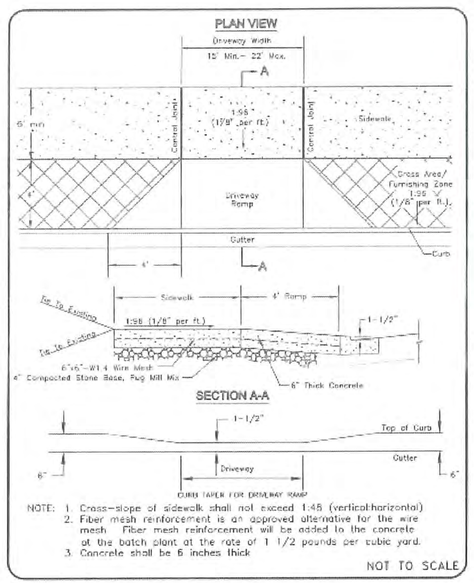
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD CURB WITH GUTTER	DWG. NO. ST-200
DIR. OF ENG.: DATE: 5/12/03		REVISED: 07/21/00 REVISED: 05/02/03 REVISED:



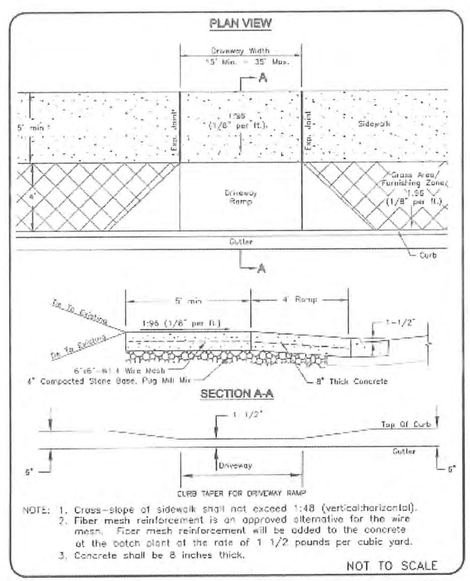
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	CONCRETE POST CURB	DWG. NO. ST-201
DIR. OF ENG.: DATE: 5/12/03		REVISED: 07/24/00 REVISED: 05/02/03 REVISED:



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	SIDEWALK CONSTRUCTION	DWG. NO. ST-210
DIR. OF ENG.: DATE: 7/12/02		REVISED: 05/02/03 REVISED: 11/24/03 REVISED: 06/23/04



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	NEW CONSTRUCTION RESIDENTIAL DRIVEWAY RAMP	DWG. NO. ST-322
DIR. OF ENG.: DATE: 5/12/03		REVISED: 07/27/02 REVISED: 05/08/03 REVISED:



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	NEW CONSTRUCTION COMMERCIAL DRIVEWAY RAMP	DWG. NO. ST-324
DIR. OF ENG.: DATE: 5/12/03		REVISED: 07/27/02 REVISED: 05/08/03 REVISED:

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
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BRANDON J. TAYLOR — REGISTERED ENGINEER — STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

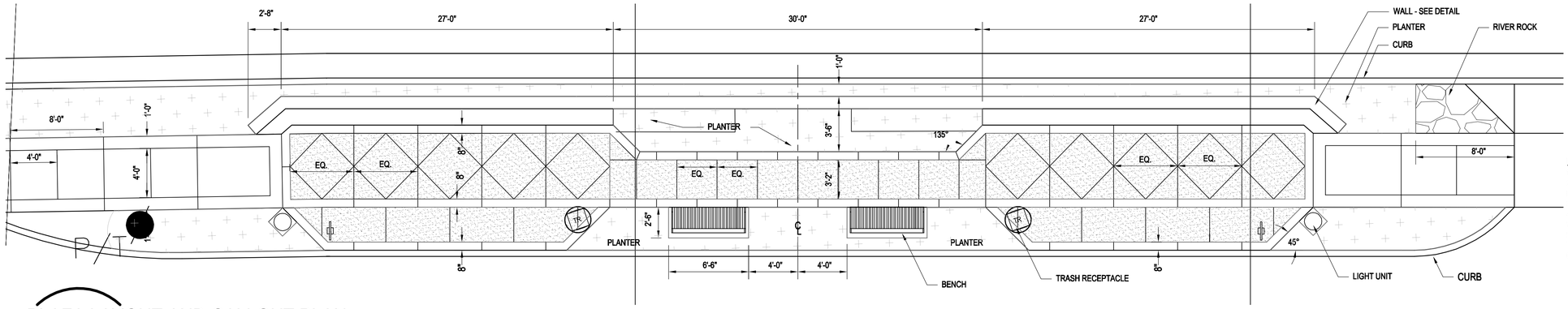
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

METRO STANDARD DETAILS

SCALE: 1"=10'

SHEET 18



1 PLAZA LAYOUT AND CALLOUT PLAN

1"= 5'-0"

NOTES:
1.SCORE JOINTS TO BE $\frac{3}{8}$" TOOLED.
2. ALL SCORED SECTIONS TO BE EQUAL SPACING FROM CENTER OF WALL OR PLANTERS.
3. ALL 8" AND 12" BANDING TO BE HEAVY BROOM FINISH PARALLEL TO WALK.
4. ALL OTHER WALKING AREAS TO BE MEDIUM BROOM FINISHED PERPENDICULAR TO WALKING DIRECTION.
5. FIELD LOCATE ALL ELEMENTS FOR APPROVAL BY OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION.
6. SEE SPECIFICATIONS FOR MOCK-UP REQUIREMENTS.

FILE NO.	10–0606
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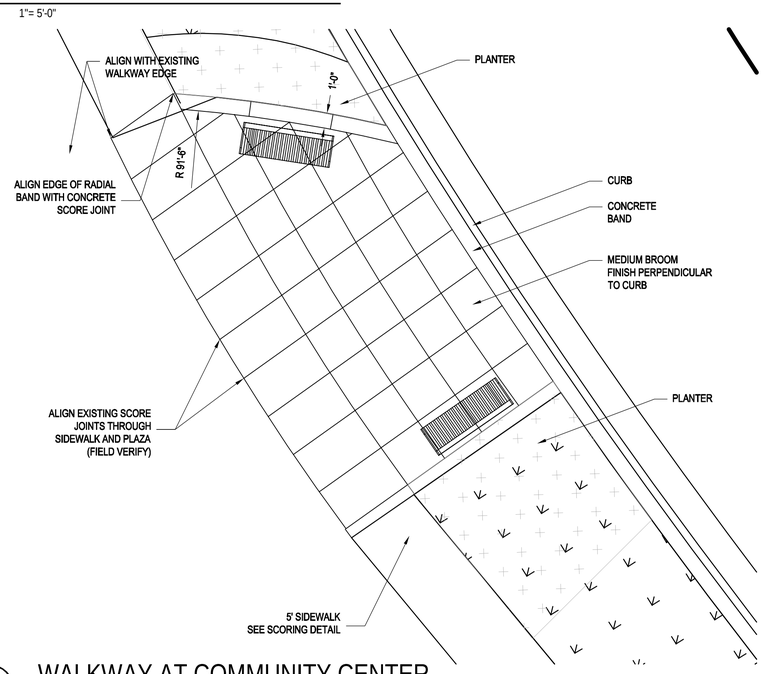
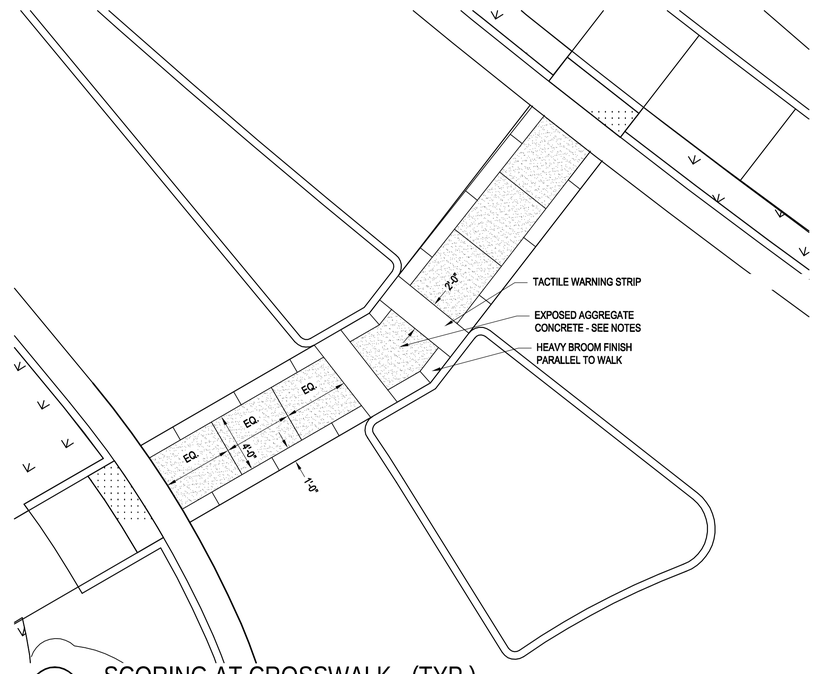


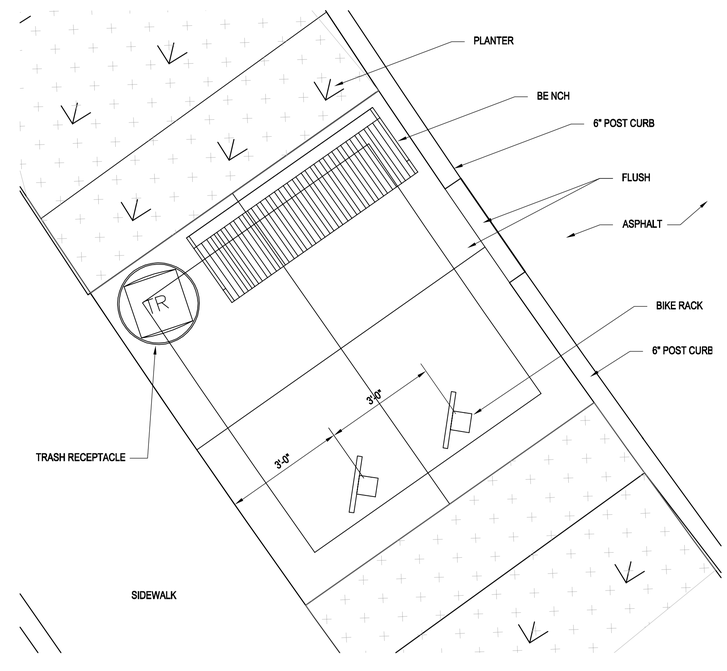
2 WALKWAY AT COMMUNITY CENTER

1"= 5'-0"



3 SCORING AT CROSSWALK - (TYP.)

1"= 5'-0"



4 PLAZA AT STAR BAGEL

1"= 5'-0"

**EXPOSED AGGREGATE CONCRETE:

BASIS OF DESIGN IS THE SPECIFICATION USED FOR THE 5TH AVENUE SOUTH PHASE 2 IMPROVEMENTS METRO PUBLIC WORKS PROJECT AND TITLED SPECIALTY CONCRETE PAVING.

A. AGGREGATES:
FOR ALL CONCRETE PAVEMENT IDENTIFIED AS EXPOSED AGGREGATE CONCRETE ON PLAN, AGGREGATE SHALL BE 10% LIMESTONE CHIP AND 90% PEA GRAVEL MIX AS PROVIDED BY METRO READY MIX, NASHVILLE TN, OR APPROVED EQUAL. COARSE AGGREGATES SHALL BE LIMESTONE AND RIVER GRAVEL MIX, FINE AGGREGATE SHALL BE RIVER SAND MEETING ASTM C33. GRADATION OF AGGREGATES IS AS FOLLOWS:

% PASSING	SCREEN
100	3/4"
94.2	3/8"
68	NO.4
7.1	NO.8
1.4	

B. FLY ASH: ASTM C618, TYPE F

C. SURFACE RETARDER;
CHEMICAL LIQUID SET RETARDER, FOR APPLICATION ON POURED IN PLACE FLATWORK, CAPABLE OF TEMPORARILY DELAYING FINAL HARDENING OF NEWLY PLACED CONCRETE SURFACE TO DEPTH OF REVEAL SPECIFIED
1. TOP-CAST, MANUFACTURER GRACE CONSTRUCTION PRODUCTS, 62 WHITEMORE AVE. CAMBRIDGE MA, 02140. WWW.GRACECONSTRUCTION.COM . PRODUCT: TOPCAST 50 FOR ALL APPLICATIONS

D. CONCRETE MIX
1. COMPLY WITH REQUIREMENTS OF APPLICABLE DIVISION 3 SECTIONS FOR CONCTETE MIX, DESIGN AND TESTING AND QUALITY CONTROL
2. COMPRESSION STRENGTH: 4000 PSI AT 28 DAYS
3. MAXIMUM SLUMP 4'
4. AIR CONTENT 6%
5. FLY ASH: REPLACE 25% BY MASS OF PORTLAND CEMENT WITH 25% BY MASS OF FLY ASH

E. INSTALLATION:
1. PROVIDE 4'X4' MOCK UP FOR APPROVAL PRIOR TO CONSTRUCTION
2. PROTECT CURBS, BORDERS AND ADJACENT MATERIALS NOT RECEIVING FINISH PRIOR TO POURING CONCRETE
3. APPLY SURFACE RETARDER UNIFORMLY TO THE WET CONCRETE AFTER THE INITIAL BLEED WATER RISES TO THE SURFACE
4. SPRAY WITH A LOW PRESSURE SPRAYER UNTIL THE SURFACE HAS A COMPLETE HIDING COAT
5. CONSULT MANUFACTURER FOR RECOMMENDED TIME FOR REMOVAL
6. PATCH IRREGULARITIES AFTER SURROUNDING SURFACES HAVE BEEN TEXTURED. REFINISH AFTER REPAIRS ARE CURED TO MATCH ADJACENT SURFACES.

F. PROTECTION
1. PROTECT CONCRETE FROM DAMAGE UNTIL WORK IS ACCEPTED.
2. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 14 DAYS AFTER PLACEMENT. WHEN CONSTRUCTION TRAFFIC IS PERMITTED, MAINTAIN PAVEMENT AS CLEAN AS POSSIBLE BY REMOVING SURFACE STAINS AND SPILLAGE OF MATERIALS AS THEY OCCUR.
3. MAINTAIN DECORATIVE CEMENT CONCRETE PAVEMENT FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP DECORATIVE CEMENT CONCRETE PAVEMENT NOT MORE THAN TWO DAYS BEFORE THE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

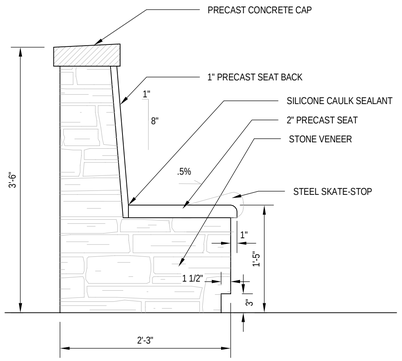
CONSTRUCTION DETAILS

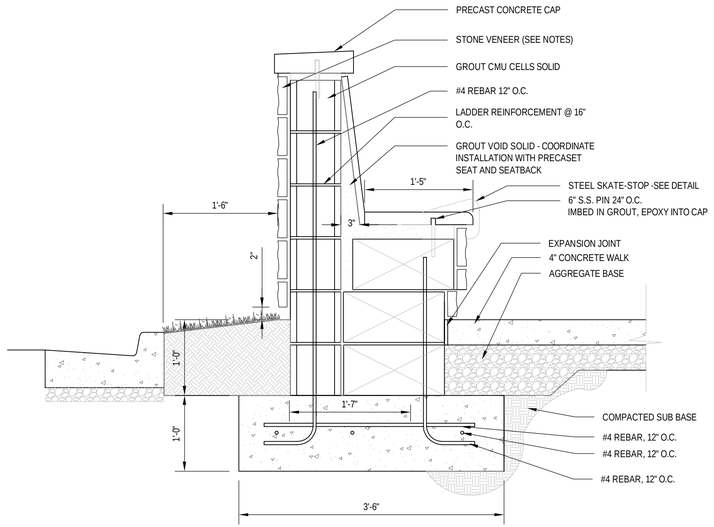
SCALE: N/A

SHEET 19

FILE NO.	10–0606
DATE:	04/25/2014
DESIGNED BY:	ARE
DRAWN BY:	ARE
CHECKED BY:	DAC

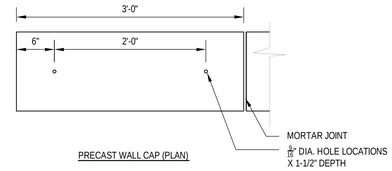
REVISION BLOCK		
DATE:	05/02/14	ARE
UPDATED DATE		



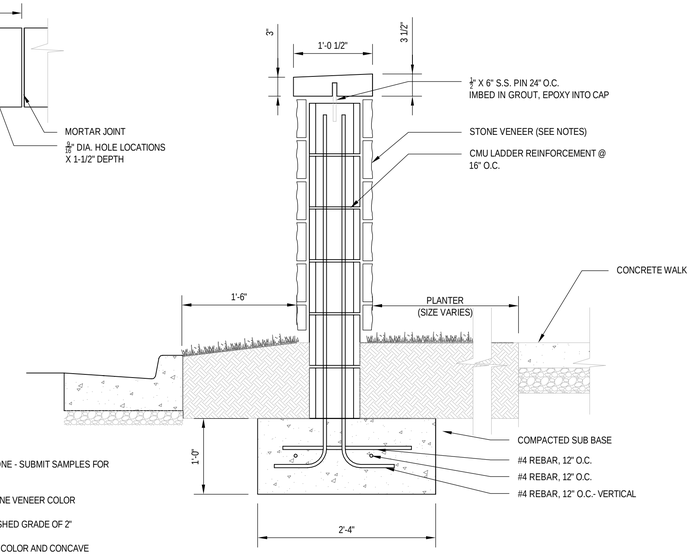


1 SEAT WALL AT PLAZA

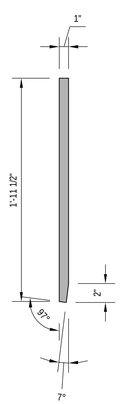
1"=1'-0"

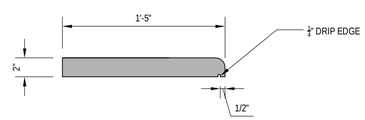


PRECAST WALL CAP (PLAN)



NOTES:
1. STONE VENEER TO BE HACKET TULSA BY CENTURION STONE - SUBMIT SAMPLES FOR APPROVAL PRIOR TO CONSTRUCTION. (800)-786-6352
2. INSTALL PER MANUFACTURERS RECOMMENDATION
3. MORTAR COLOR ADJACENT TO STONE SHALL MATCH STONE VENEER COLOR
4. CONCAVE TOOL ALL EXTERIOR MORTAR JOINTS
5. ENSURE CLEARANCE BETWEEN STONE VENEER AND FINISHED GRADE OF 2"
6. ALL PRECAST CONCRETE TO BE BUFF COLOR
7. ALL MORTAR JOINTS ADJACENT TO PRECAST TO BE BUFF COLOR AND CONCAVE TOOLED
8. SUBMIT SHOP DRAWINGS FOR WALL AND ALL PRECAST PIECES INCLUDING SHAPES AND SIZES FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION
9. SILICONE SEALANT COLOR TO MATCH PRECAST COLOR
10. PROVIDE 4'X4' WALL MOCK UP FOR APPROVAL PRIOR TO CONSTRUCTION

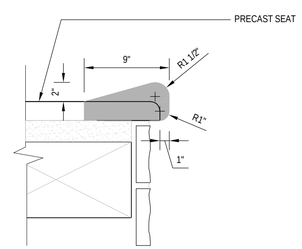




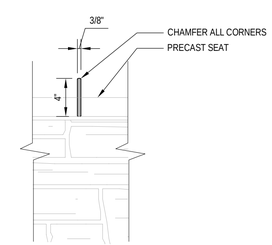
NOTES:
1.SUBMIT SHOP DRAWINGS FOR APPROVAL INCLUDING FINISH AND COLOR SAMPLES PRIOR TO CONSTRUCTION
2. PRECAST COLOR TO BE BUFF, FINISH TO BE LIGHT SAND BLAST
3. MORTAR COLOR BETWEEN PRECAST PIECES TO BE BUFF
4. MORTAR JOINTS TO BE 3/8" CONCAVE TOOLED
5. BOTH SEAT AND SEATBACK PIECES SHALL BE 4' IN LENGTH
6. OFFSET SEAT AND SEATBACK JOINTS ON CENTER

2 PRECAST SEAT AND SEATBACK

1-1/2"=1'-0"



SECTION



ELEVATION

NOTES:
1. PLACE EVERY 8' O.C.
2. MATERIAL TO BE CORTEN STEEL OR APPROVED EQUAL
3. IMBED SKATE STOP IN MORTAR JOINTS ONLY
4. ENSURE TIGHT FIT BETWEEN PRECAST PIECES AND METAL SKATE DETERANT
5. EPOXY IN PLACE, SUBMIT CUT SHEET FOR APPROVAL
6. CLEAN AND REMOVE EXCESS EPOXY IMMEDIATELY TO PREVENT DISCOLORATION OF PRECAST SEAT

3 STEEL SKATE-STOP

1-1/2"=1'-0"

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

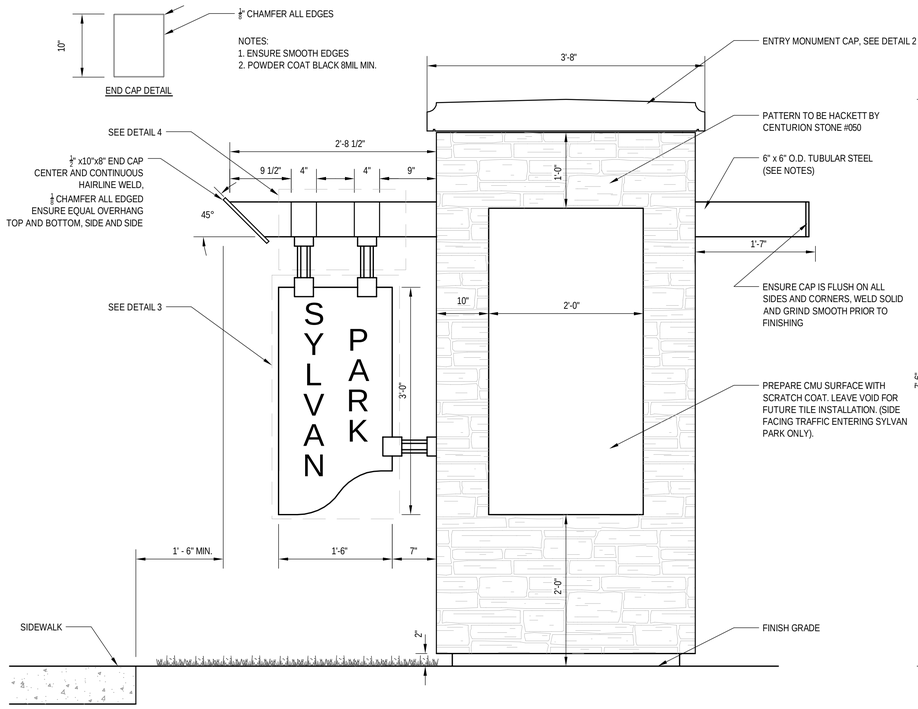
CONSTRUCTION DETAILS

SCALE: N/A

SHEET 20

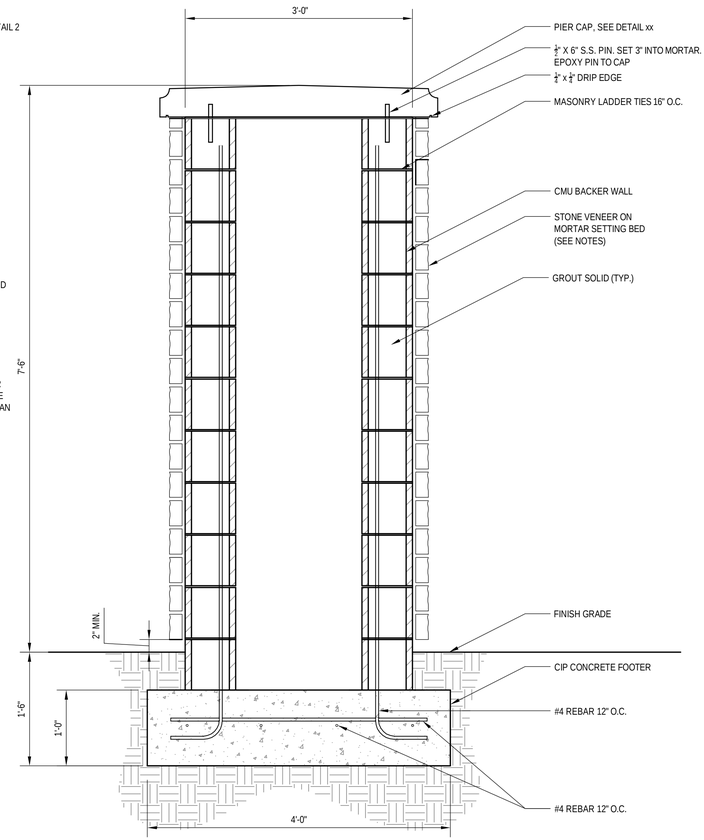
FILE NO.	10–0606
DATE:	04/25/2014
DESIGNED BY:	ARE
DRAWN BY:	ARE
CHECKED BY:	DAC

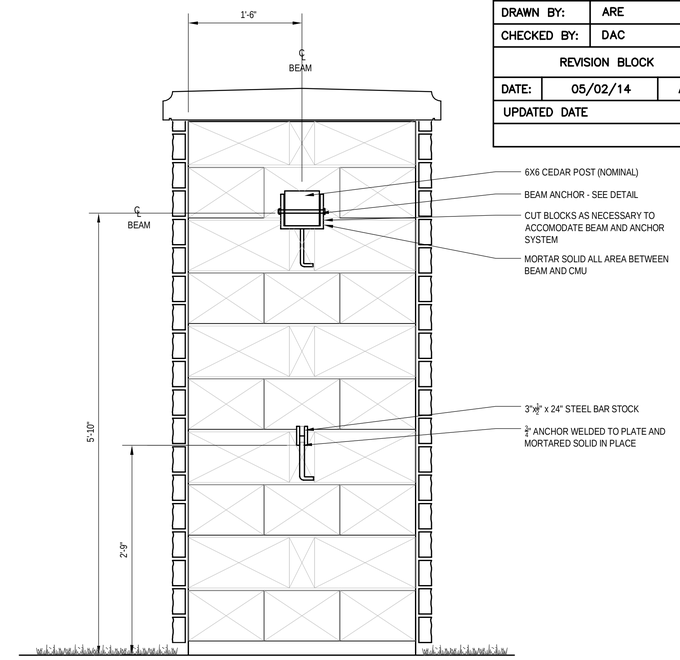
REVISION BLOCK		
DATE:	05/02/14	ARE
UPDATED DATE		



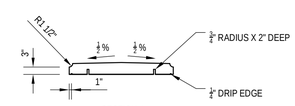
1 ENTRY MONUMENT

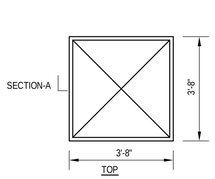
1"=1'-0"

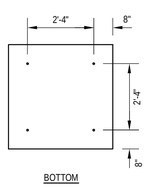




NOTES:
1. OWNER TO PROVIDE 6" X 6" TILE TO BE INSTALLED AT OWNER'S DISCRETION.
2. CONTRACTOR TO COORDINATE INSTALLATION SCHEDULE.
3. CULTURED STONE VENEER TO BE HACKETT TULSA BY CENTURION STONE. SUBMIT SAMPLES FOR APPROVAL PRIOR TO CONSTRUCTION.
4. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
5. MORTAR JOIN COLOR TO MATCH STONE COLOR.
6. CONCAVE TOOL MORTAR JOINTS.
7. FINISH CEDAR BEAM WITH 4 COATS CLEAR WEATHERPROOFING - SUBMIT CUT SHEET FOR APPROVAL



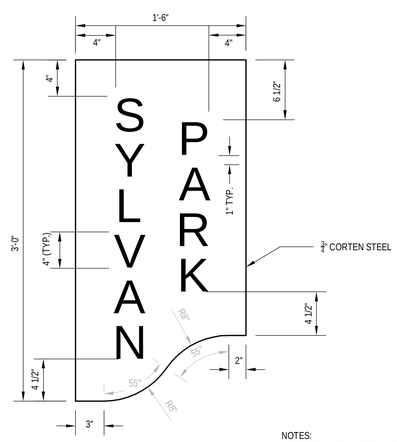




NOTES:
1. PRECAST CAP COLOR TO BE BUFF
2. FINISH TO BE LIGHT SAND BLAST

2 ENTRY MONUMENT CAP

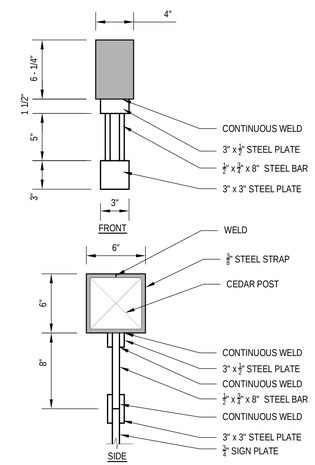
3/8""=1'-0"

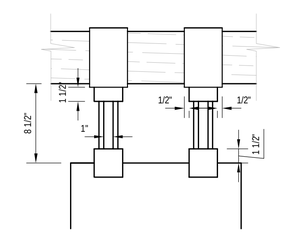


NOTES:
1. FONT TO BE BASKERVILLE OLD FACE FONT OR APPROVED EQUAL 4" HEIGHT & WIDTH LETTERS
2. WATER JET CUT LETTERS.
3. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION
4. SIGN PLATE TO BE CORTEN STEEL AND REMAIN NATURAL IN FINISH

3 ENTRY MONUMENT SIGN

1-1/2"=1'-0"





NOTES:
1. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
2. ENSURE CONTINUOUS HAIRLINE WELDS BETWEEN ALL ELEMENTS. GRIND SMOOTH.
3. METAL PLATE, BAR AND STRAP TO BE POWDER COATED BLACK 8MIL MIN.
4. ENSURE ALL CONNECTIONS BETWEEN SIGN AND POST ARE VANDAL PROOF.
5. ENSURE FINAL INSTALLATION OF STRAP IS SOLID AND TIGHT TO POST AND LATERAL MOVEMENT IS ELIMINATED.
7. ENSURE SIGN HANGS PARALLEL TO PIER AND PERPENDICULAR TO GROUND.

4 SIGN ATTACHMENT

1-1/2"=1'-0"

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

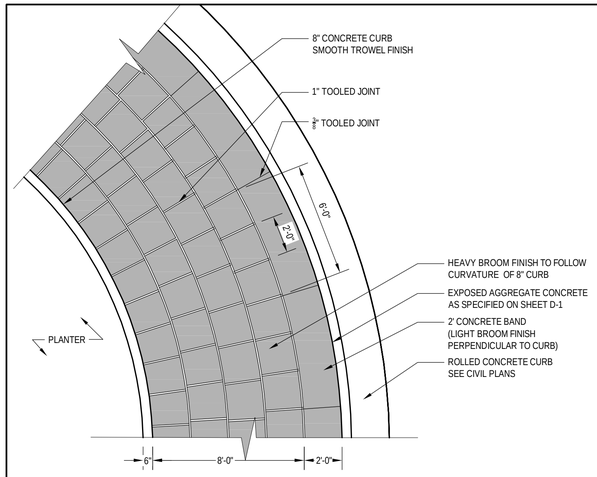
CONSTRUCTION DETAILS

SCALE: N/A

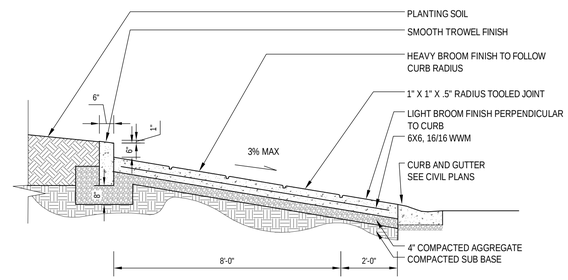
SHEET 21

FILE NO.	10–0606
DATE:	04/25/2014
DESIGNED BY:	ARE
DRAWN BY:	ARE
CHECKED BY:	DAC

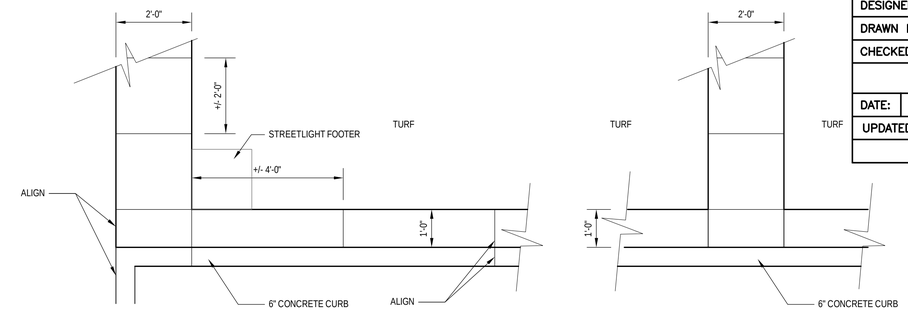
REVISION BLOCK		
DATE:	05/02/14	ARE
UPDATED DATE		



1 PAVING AT ROUND ABOUT
1/4"=1'-0"



2 SECTION AT ROUNDABOUT
3/8""=1'-0"

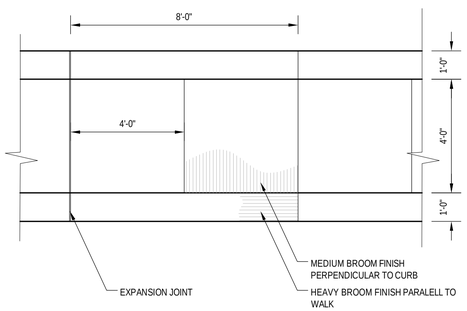


CONCRETE BAND AT 90 DEGREE CURB

CONCRETE BAND INTERSECTION

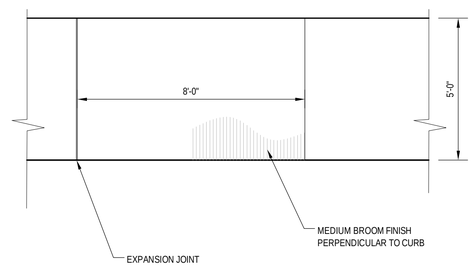
NOTES:
1. ALL 2' BANDS TO BE 90 DEGREES TO CURB
2. ALL SCORING TO BE ¾" HAND TOOLED JOINTS
3. ALL SCORED SECTIONS TO BE EVENLY SPACED AT THE SHOWN DIMENSIONS
4. CURBS TO BE SCORED EVERY 8' AND SHALL ALIGN WITH SCORING IN CONCRETE BAND ADJACENT TO CURB

3 CONCRETE BAND AT CURB
1/2"=1'-0"



NOTES:
1. EXPANSION JOINTS TO OCCUR EVERY 32 FEET TO ALIGN WITH SCORE PATTERN
2. SCORE JOINTS TO BE ¾" HAND TOOLED

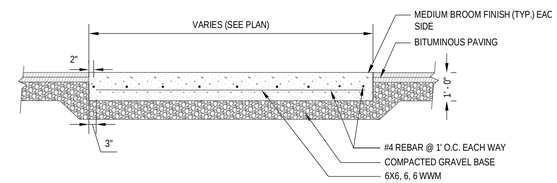
4 6' SIDEWALK SCORE PATTERN (TYP.)
3/8""=1'-0"



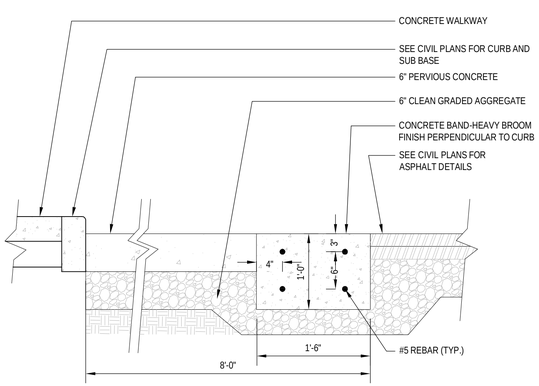
NOTES:
1. EXPANSION JOINTS TO OCCUR EVERY 32 FEET TO ALIGN WITH SCORE PATTERN
2. SCORE JOINTS TO BE ¾" HAND TOOLED

5 5' SIDEWALK SCORE PATTERN (TYP.)
3/8""=1'-0"

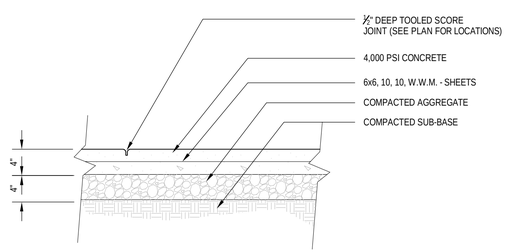
NOTES:
1. SEE CROSSWALK SCORING PLAN FOR FINISH AND SCORE PATTERN



6 CROSSWALK AT ASPHALT
3/8"=1'-0"

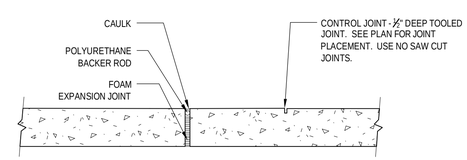


7 PERVIOUS CONCRETE AT PARALLEL PARKING
1" = 1'-0"



NOTE:
1. CONTRACTOR TO INSTALL CONCRETE MADE WITH "NATURAL" SAND TO MINIMIZE COLOR VARIATION.
2. BROOM FINISH CONCRETE WALKWAYS AS SHOWN IN DETAILS.
3. CONSOLIDECK SALTGUARD WB TO BE APPLIED TO ALL CONCRETE SURFACES PER MANUFACTURER'S SPECIFICATIONS. (PROSOCO ITEM #46067).
4. CONCRETE MIX USED SHALL BE ONE TO WITHSTAND SALTY CONDITIONS. REFER TO AMERICAN CONCRETE INSTITUTE 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE.
5. EXPANSION JOINTS SHALL BE SEPARATED NO GREATER THAN 32'. SCORE JOINTS SHALL BE SEPARATED NO MORE THAN 8' AT EQUAL DISTANCES. JOINTS SHALL BE PLACED AS SHOWN ON PLANS.

8 CONCRETE WALKWAY (TYPICAL)
1" = 1'-0"



NOTES:
1. SEE LAYOUT PLANS FOR PLACEMENT.
2. CONTROL JOIN @ 8' O.C. MAX
3. EXPANSION JOINT @ 32' O.C. MAX. OR AS SHOWN ON PLANS.
4. EXPANSION JOINT TO BE ½" AT BUILDINGS ONLY
5 EXPANSION JOINT TO BE ¼" AT ALL OTHER CONDITIONS.
6 CAULK COLOR TO MATCH CONCRETE COLOR
7 SUBMIT CAULK COLOR, BACKER ROD AND JOINT FILL MATERIAL FOR APPROVAL.

9 EXPANSION JOINT (TYP.)
1-1/2"=1'-0"

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

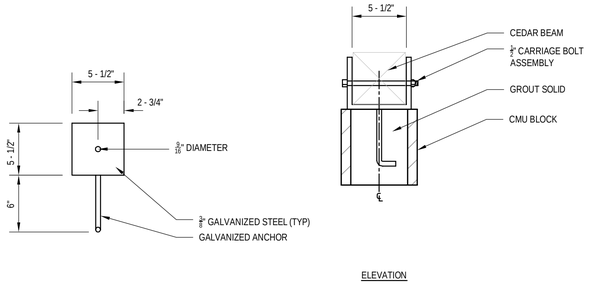
PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

CONSTRUCTION DETAILS

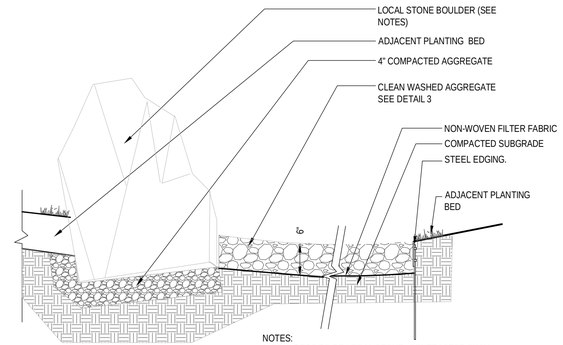
SCALE: N/A

SHEET 22



1 BEAM ANCHOR

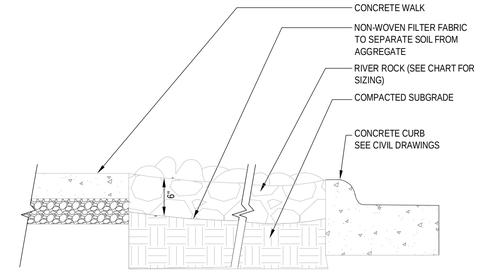
1-1/2"=1'-0"



NOTES:
1. BOULDERS TO BE LOCAL STONE. CONTRACTOR SHALL SOURCE AND CONTACT LANDSCAPE ARCHITECT FOR SELECTION.
2. BOULDERS SHALL RANGE IN SIZE FROM 8' - 15' AND HAVE IRREGULAR SHAPES.
3. LANDSCAPE ARCHITECT TO APPROVE BOULDERS AND BE PRESENT FOR PLACEMENT.

2 BOULDER @ STONE BED

Scale: 1"=1'-0"



NOTES:
1. RIVER ROCK TO BE LOCAL STONE. CONTRACTOR SHALL SOURCE AND CONTACT LANDSCAPE ARCHITECT.

RIVER ROCK MIXTURE CHART

SIZE	PERCENTAGE
1" - 3"	45%
4" - 8"	30%
9"-15"	25%

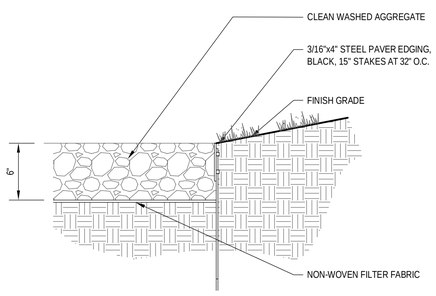
3 RIVER ROCK BED AT CURB

Scale: 1"=1'-0"

FILE NO.	10–0606
DATE:	04/25/2014
DESIGNED BY:	ARE
DRAWN BY:	ARE
CHECKED BY:	DAC

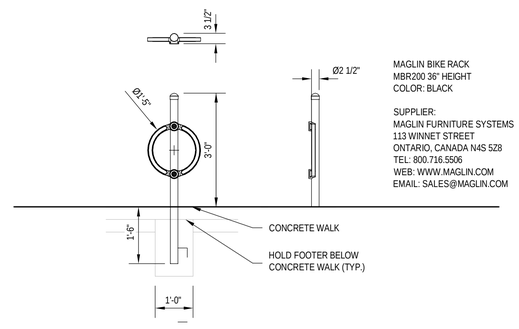
REVISION BLOCK

DATE:	05/02/14	ARE
UPDATED DATE		



4 EDGING @ RIVER ROCK

Scale: 1-1/2"=1'-0"



MAGLIN BIKE RACK
MBR200 36" HEIGHT
COLOR: BLACK

SUPPLIER:
MAGLIN FURNITURE SYSTEMS
113 WINNET STREET
ONTARIO, CANADA N4S 5Z8
TEL: 800.716.5506
WEB: WWW.MAGLIN.COM
EMAIL: SALES@MAGLIN.COM

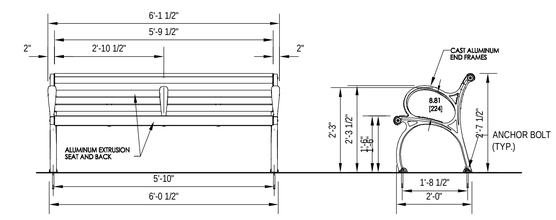
5 BIKE RACK

1/2"=1'-0"

PLAINWELL BENCH
72" LENGTH
COLOR: BLACK

SUPPLIER:
LANDSCAPE FORMS, INC.
431 LAWNDALE AVENUE
KALAMAZOO, MI 49048
TEL: 800.430.6209
WEB: WWW.LANDSCAPEFORMS.COM
EMAIL: SPECIFY@LANDSCAPEFORMS.COM

NOTES :
1. ANCHOR BOLTS TO EXTEND THROUGH PAVERS AND IMBEDDED MIN. 4" INTO CONCRETE.
2. FINAL LOCATION OF BENCH TO BENCH TO BE DETERMINED IN FIELD.



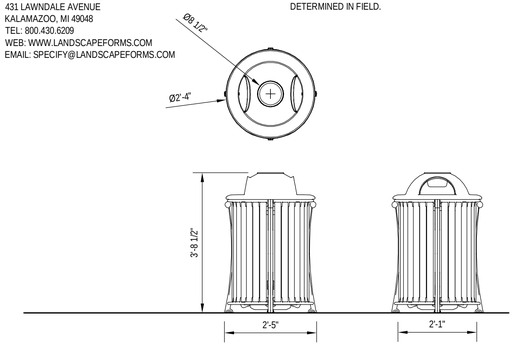
6 BENCH

1/2"=1'-0"

PLAINWELLTRASH RECEPTACLE WITH SAND TRAY
COLOR: BLACK

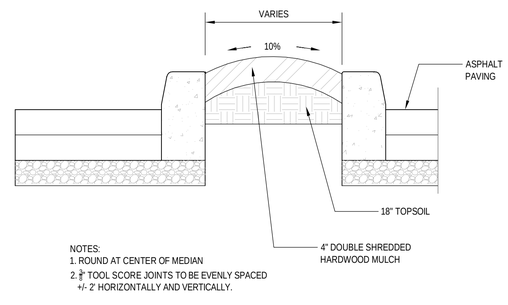
SUPPLIER:
LANDSCAPE FORMS, INC.
431 LAWNDALE AVENUE
KALAMAZOO, MI 49048
TEL: 800.430.6209
WEB: WWW.LANDSCAPEFORMS.COM
EMAIL: SPECIFY@LANDSCAPEFORMS.COM

NOTES :
1. ANCHOR BOLTS TO IMBEDDED MIN. 4" INTO CONCRETE.
2. FINAL LOCATION OF TRASH RECEPTACLE TO BENCH TO BE DETERMINED IN FIELD.



7 TRASH RECEPTACLE

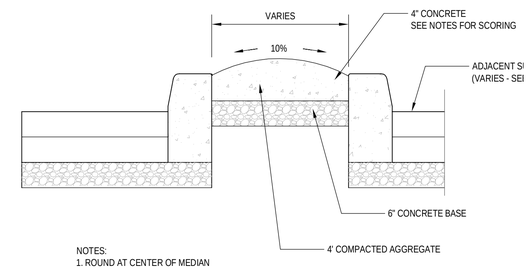
1/2"=1'-0"



NOTES:
1. ROUND AT CENTER OF MEDIAN
2. 3/8" TOOL SCORE JOINTS TO BE EVENLY SPACED +/- 2' HORIZONTALLY AND VERTICALLY.

8 PLANTING BED AT MEDIAN

1"=1'-0"



NOTES:
1. ROUND AT CENTER OF MEDIAN
2. 3/8" TOOL SCORE JOINTS TO BE EVENLY SPACED +/- 2' HORIZONTALLY AND VERTICALLY.

9 CONCRETE AT MEDIAN

1"=1'-0"

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

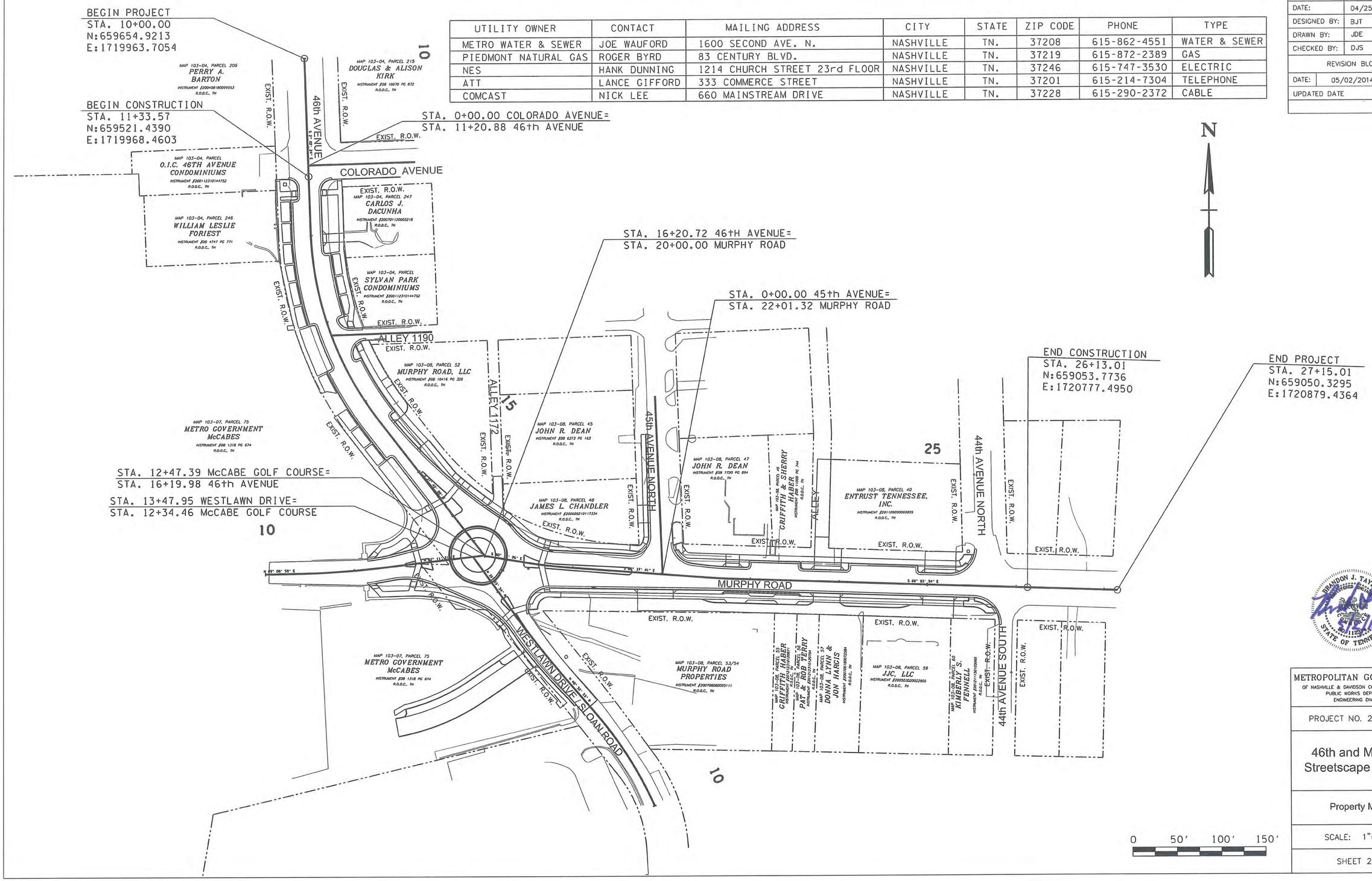
CONSTRUCTION DETAILS

SCALE: N/A

SHEET 23

FILE NO.	10-0606	
DATE:	04/25/2014	
DESIGNED BY:	BJT	
DRAWN BY:	JDE	
CHECKED BY:	DJS	
REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		

UTILITY OWNER	CONTACT	MAILING ADDRESS	CITY	STATE	ZIP CODE	PHONE	TYPE
METRO WATER & SEWER	JOE WAUFORD	1600 SECOND AVE. N.	NASHVILLE	TN.	37208	615-862-4551	WATER & SEWER
PIEDMONT NATURAL GAS	ROGER BYRD	83 CENTURY BLVD.	NASHVILLE	TN.	37219	615-872-2389	GAS
NES	HANK DUNNING	1214 CHURCH STREET 23rd FLOOR	NASHVILLE	TN.	37246	615-747-3530	ELECTRIC
ATT	LANCE GIFFORD	333 COMMERCE STREET	NASHVILLE	TN.	37201	615-214-7304	TELEPHONE
COMCAST	NICK LEE	660 MAINSTREAM DRIVE	NASHVILLE	TN.	37228	615-290-2372	CABLE



BRANDON J. TAYLOR
REGISTERED ENGINEER
NO. 112416
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

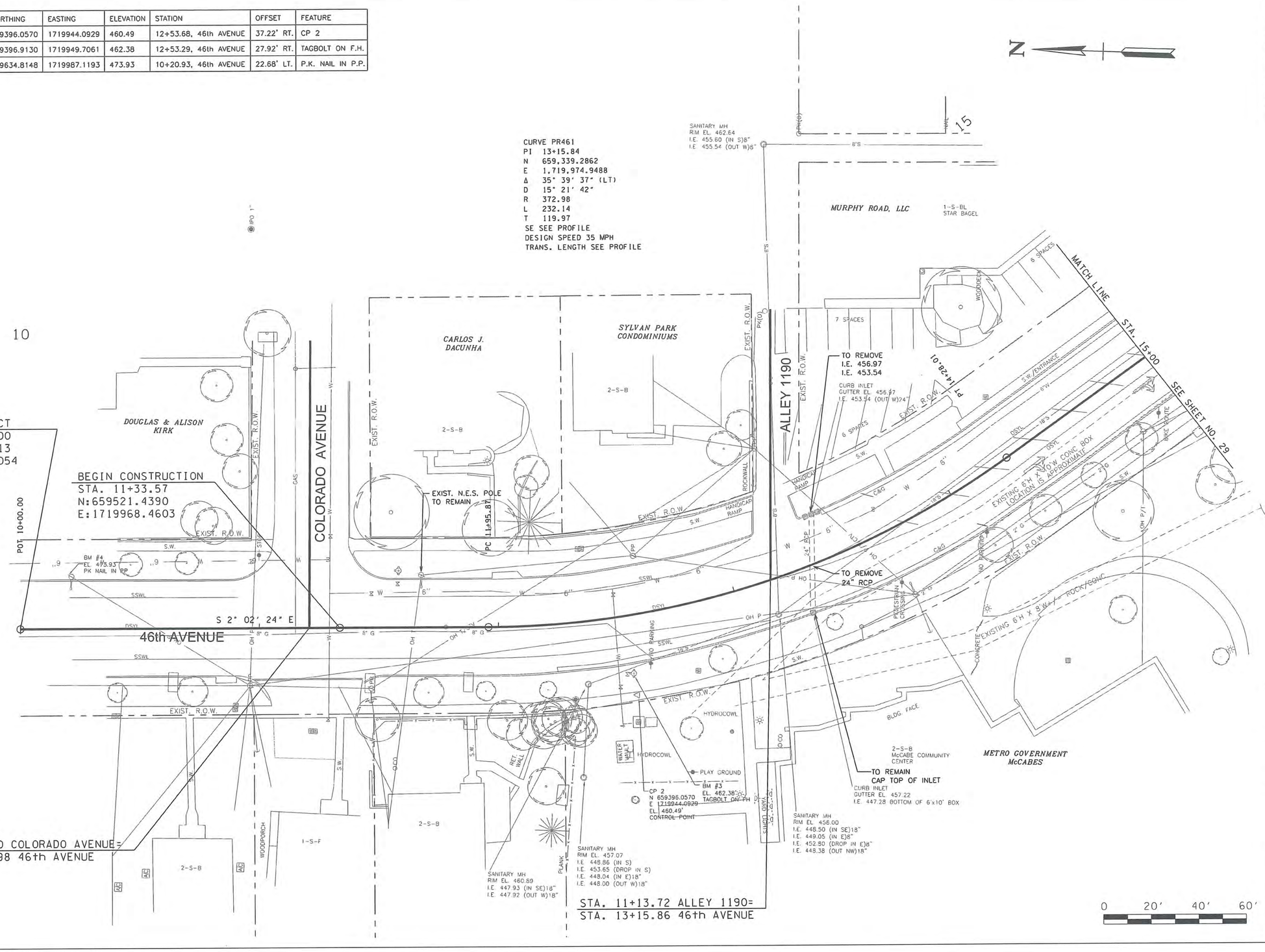
Property Map

SCALE: 1"=50'

SHEET 24

POINT	NORTHING	EASTING	ELEVATION	STATION	OFFSET	FEATURE
CP 2	659396.0570	1719944.0929	460.49	12+53.68, 46th AVENUE	37.22' RT.	CP 2
BM #3	659396.9130	1719949.7061	462.38	12+53.29, 46th AVENUE	27.92' RT.	TAGBOLT ON F.H.
BM #4	659634.8148	1719987.1193	473.93	10+20.93, 46th AVENUE	22.68' LT.	P.K. NAIL IN P.P.

FILE NO.	10-0606	
DATE:	04/25/2014	
DESIGNED BY:	BJT	
DRAWN BY:	JDE	
CHECKED BY:	DJS	
REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		



METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Present Layout
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 25

POINT	NORTHING	EASTING	ELEVATION	STATION	OFFSET	FEATURE
CP 2	659396.0570	1719944.0929	460.49	12+53.68	37.22' RT.	CP 2
BM #3	659396.9130	1719949.7061	462.38	12+53.29	27.92' RT.	TAGBOLT ON F.H.
BM #4	659634.8148	1719987.1193	473.93	10+20.93	22.68' LT.	P.K. NAIL IN P.P.

FILE NO.	10-0606	
DATE:	04/25/2014	
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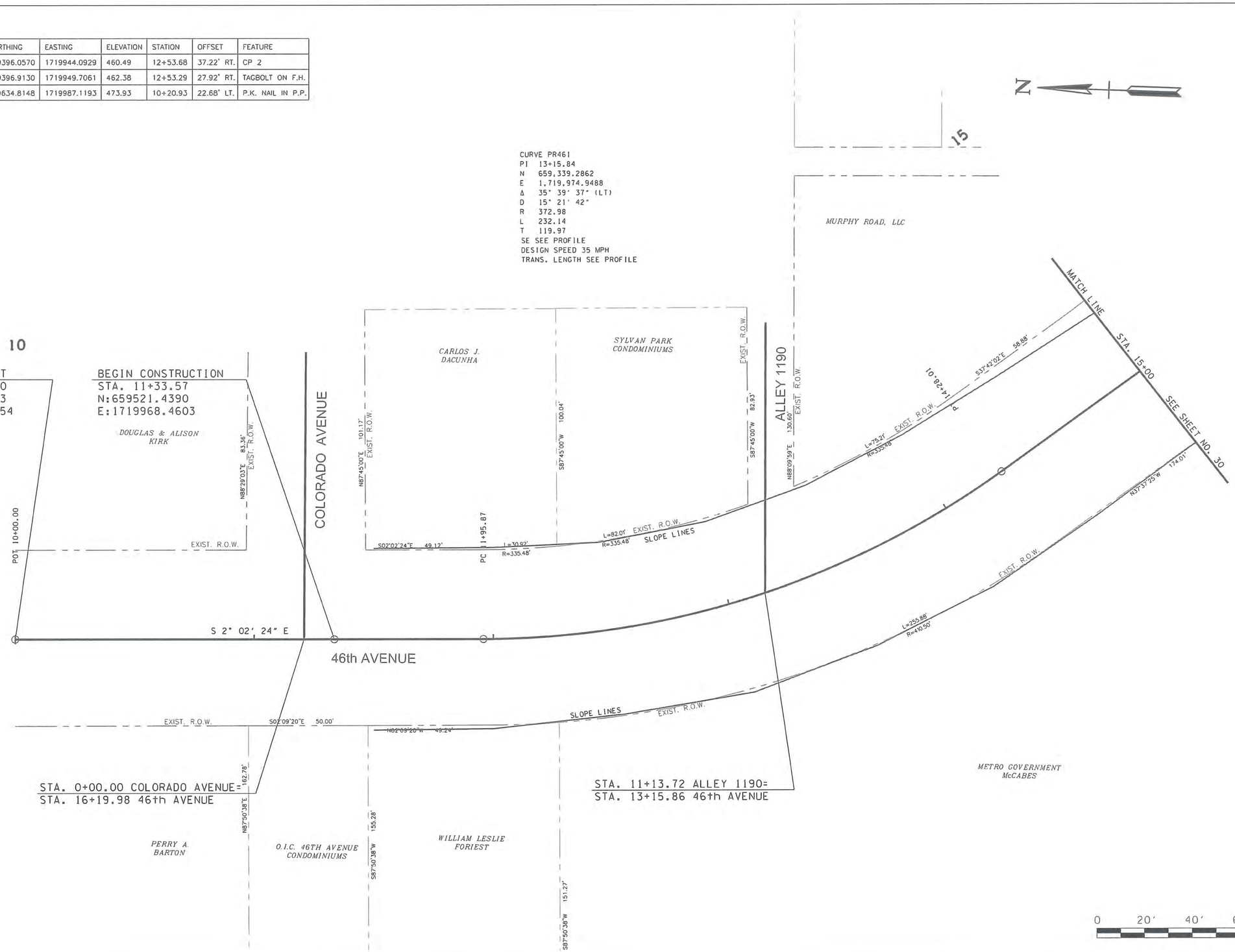
DRAWN BY:	JDE	
CHECKED BY:	DJS	
REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		

CURVE PR461
PI 13+15.84
N 659,339.2862
E 1,719,974.9488
Δ 35° 39' 37" (LT)
D 15° 21' 42"
R 372.98
L 232.14
T 119.97
SE SEE PROFILE
DESIGN SPEED 35 MPH
TRANS. LENGTH SEE PROFILE



BRANDON J. TAYLOR
REGISTERED ENGINEER
TENNESSEE LICENSE NO. 112000
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Right of Way Layout
B.O.P. TO STA. 15+00

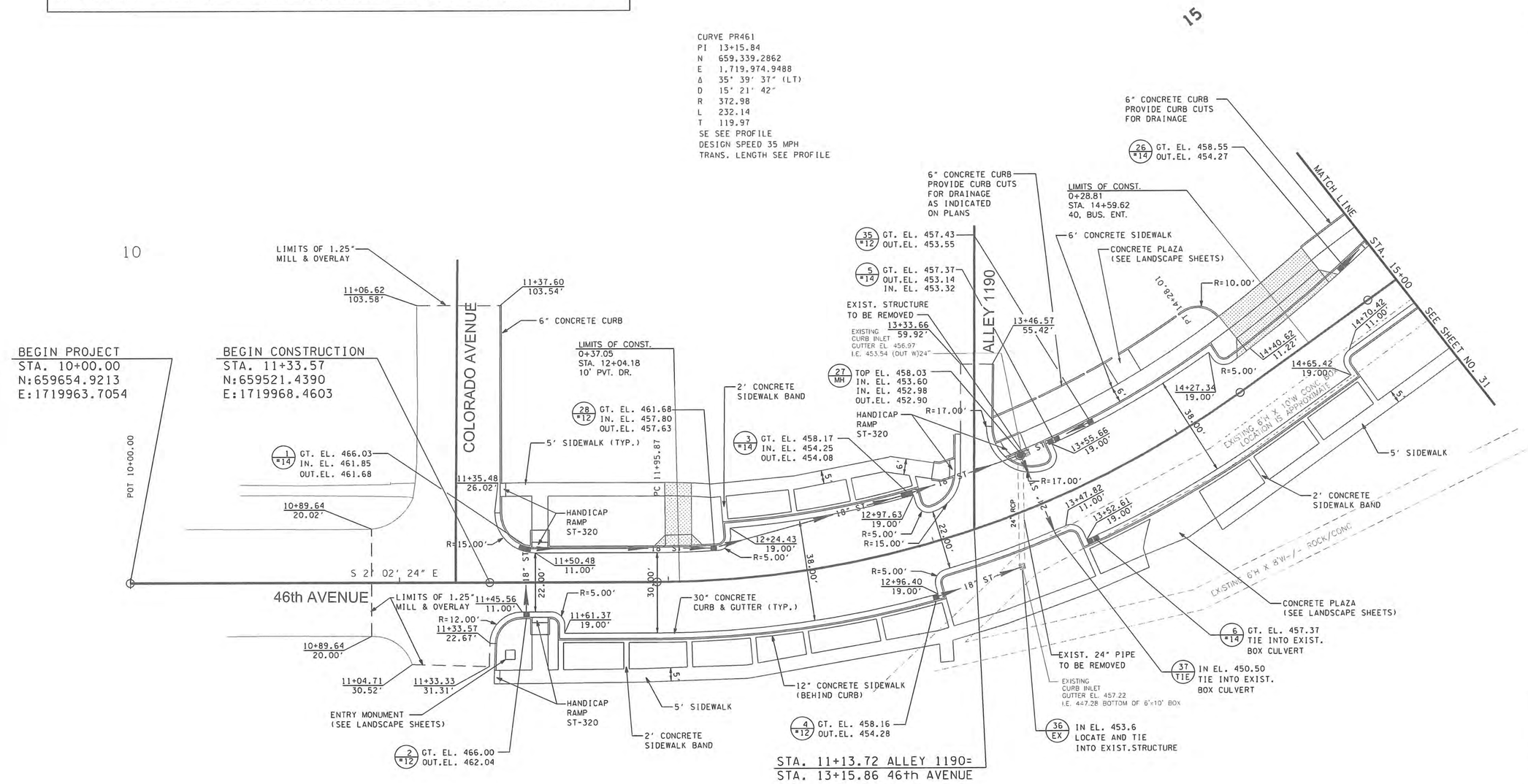
SCALE: 1"=20'

SHEET 26

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL,
VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISION
MUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:
- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT & FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS

THE ENGINEER SHALL CONTACT STORMWATER DEVELOPMENT REVIEW STAFF FOR SUBMITTAL REQUIREMENTS.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



BRANDON J. TAYLOR
REGISTERED ENGINEER
NO. 112547
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

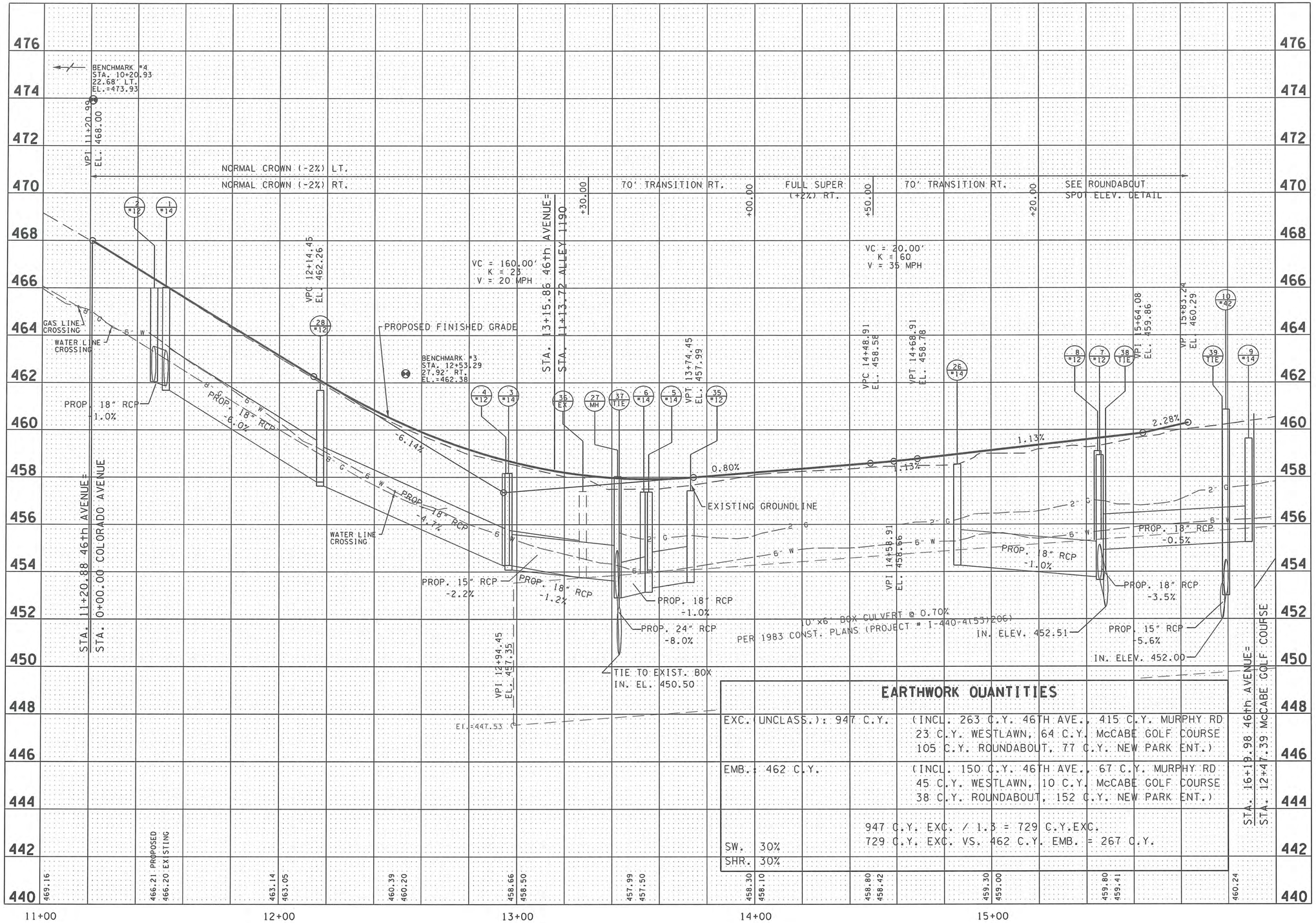
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Layout
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 27



EARTHWORK QUANTITIES

EXC. UNCLASS.): 947 C.Y. (INCL. 263 C.Y. 46TH AVE., 415 C.Y. MURPHY RD 23 C.Y. WESTLAWN, 64 C.Y. McCABE GOLF COURSE 105 C.Y. ROUNDABOUT, 77 C.Y. NEW PARK ENT.)

EMB.: 462 C.Y. (INCL. 150 C.Y. 46TH AVE., 67 C.Y. MURPHY RD 45 C.Y. WESTLAWN, 10 C.Y. McCABE GOLF COURSE 38 C.Y. ROUNDABOUT, 152 C.Y. NEW PARK ENT.)

947 C.Y. EXC. / 1.3 = 729 C.Y.EXC.
729 C.Y. EXC. VS. 462 C.Y. EMB. = 267 C.Y.

SW. 30%
SHR. 30%

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 112977
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

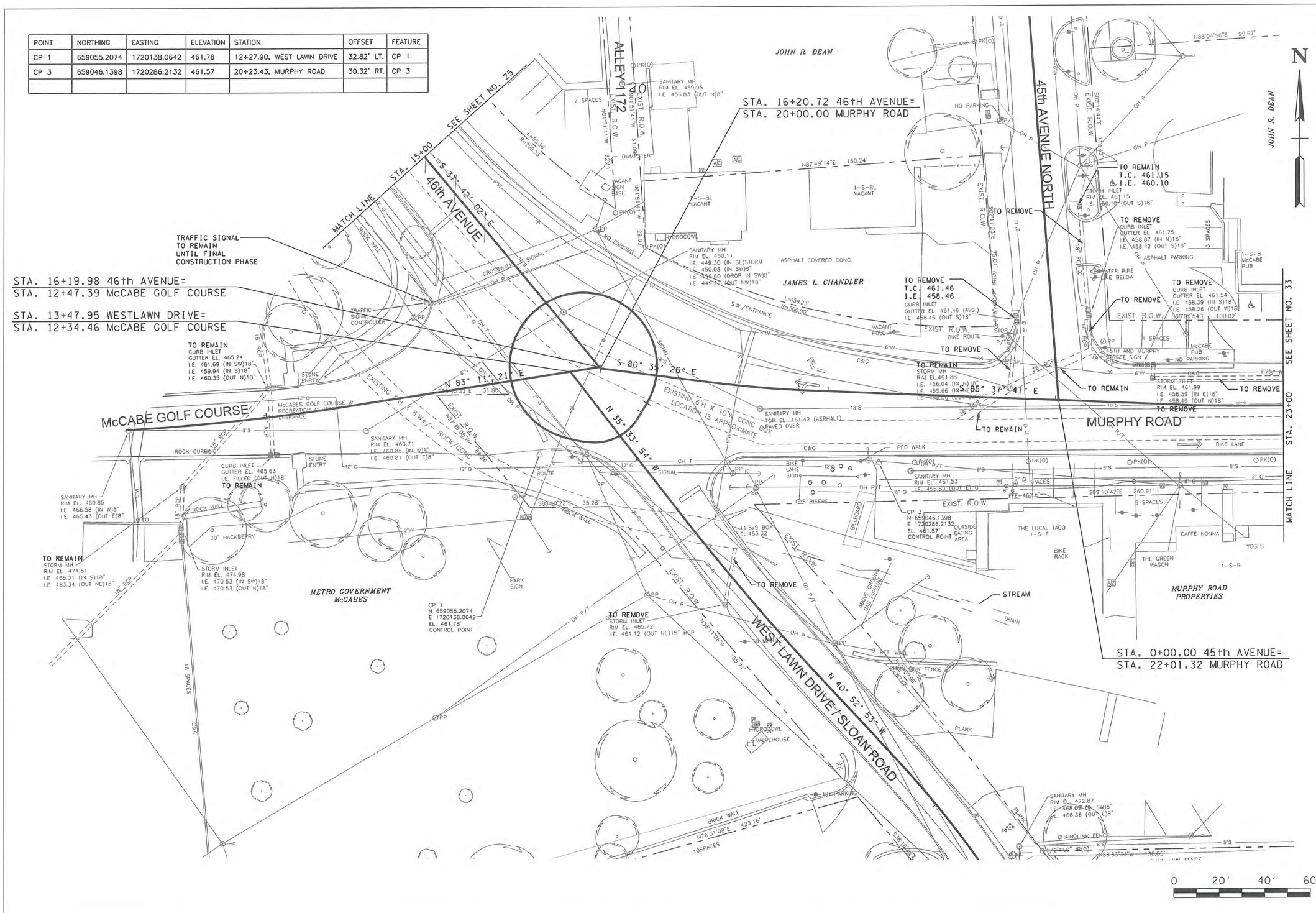
46th and Murphy Streetscape Project

Proposed Profile
B.O.P. to Sta. 15+00

SCALE: 1"=20' HOR
1"=2' VER

SHEET 28

POINT	NORTHING	EASTING	ELEVATION	STATION	OFFSET	FEATURE
CP 1	659055.2074	1720138.0642	461.78	12+27.90, WEST LAWN DRIVE	32.82' LT.	CP 1
CP 3	659046.1398	1720286.2132	461.57	20+23.43, MURPHY ROAD	30.32' RT.	CP 3



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

BRANDON J. TAYLOR
REGISTERED ENGINEER
NO. 112824
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

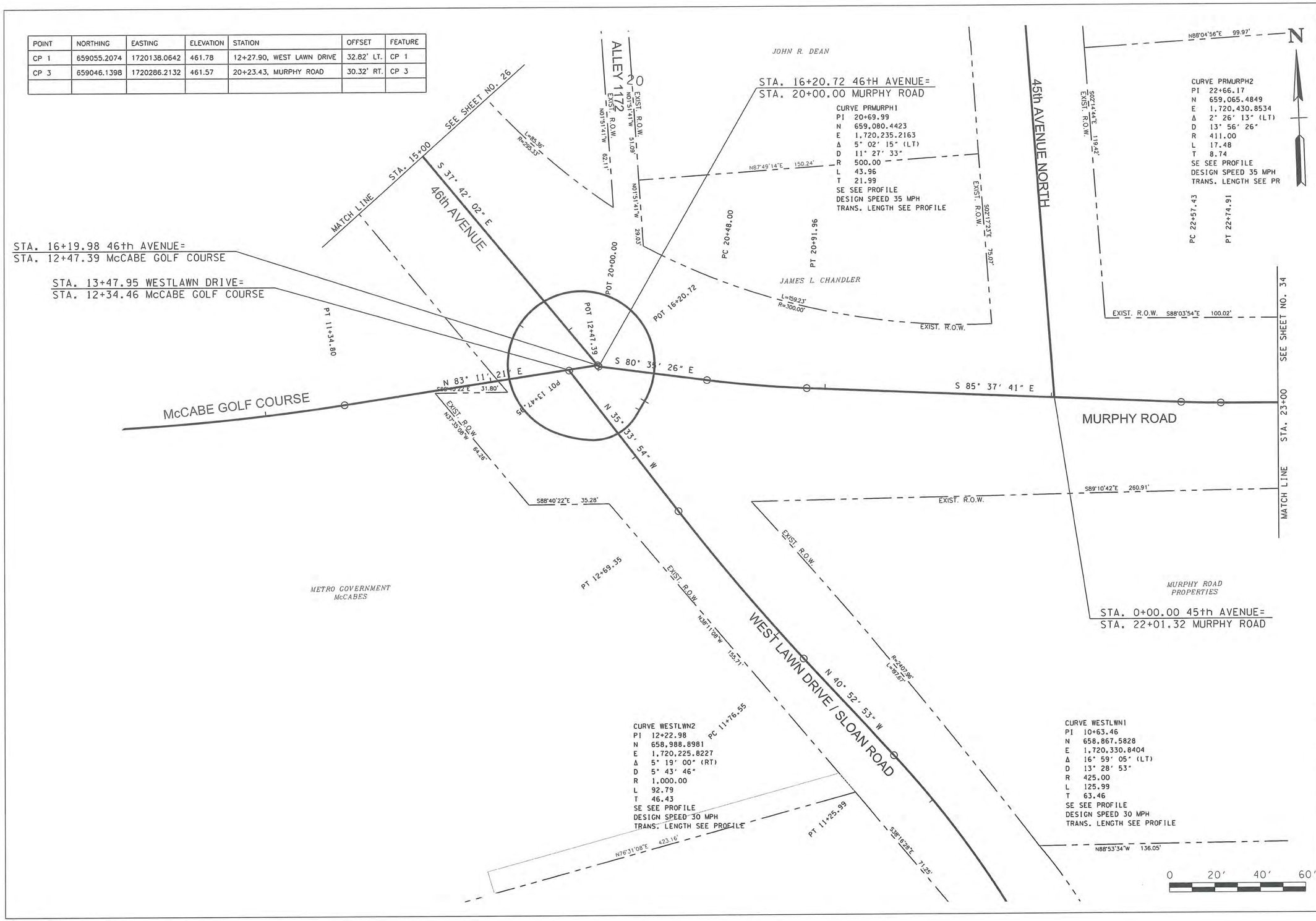
46th and Murphy Streetscape Project

Present Layout
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 29

POINT	NORTHING	EASTING	ELEVATION	STATION	OFFSET	FEATURE
CP 1	659055.2074	1720138.0642	461.78	12+27.90, WEST LAWN DRIVE	32.82' LT.	CP 1
CP 3	659046.1398	1720286.2132	461.57	20+23.43, MURPHY ROAD	30.32' RT.	CP 3



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 112616
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Right of Way Layout
STA. 15+00 TO STA. 23+00

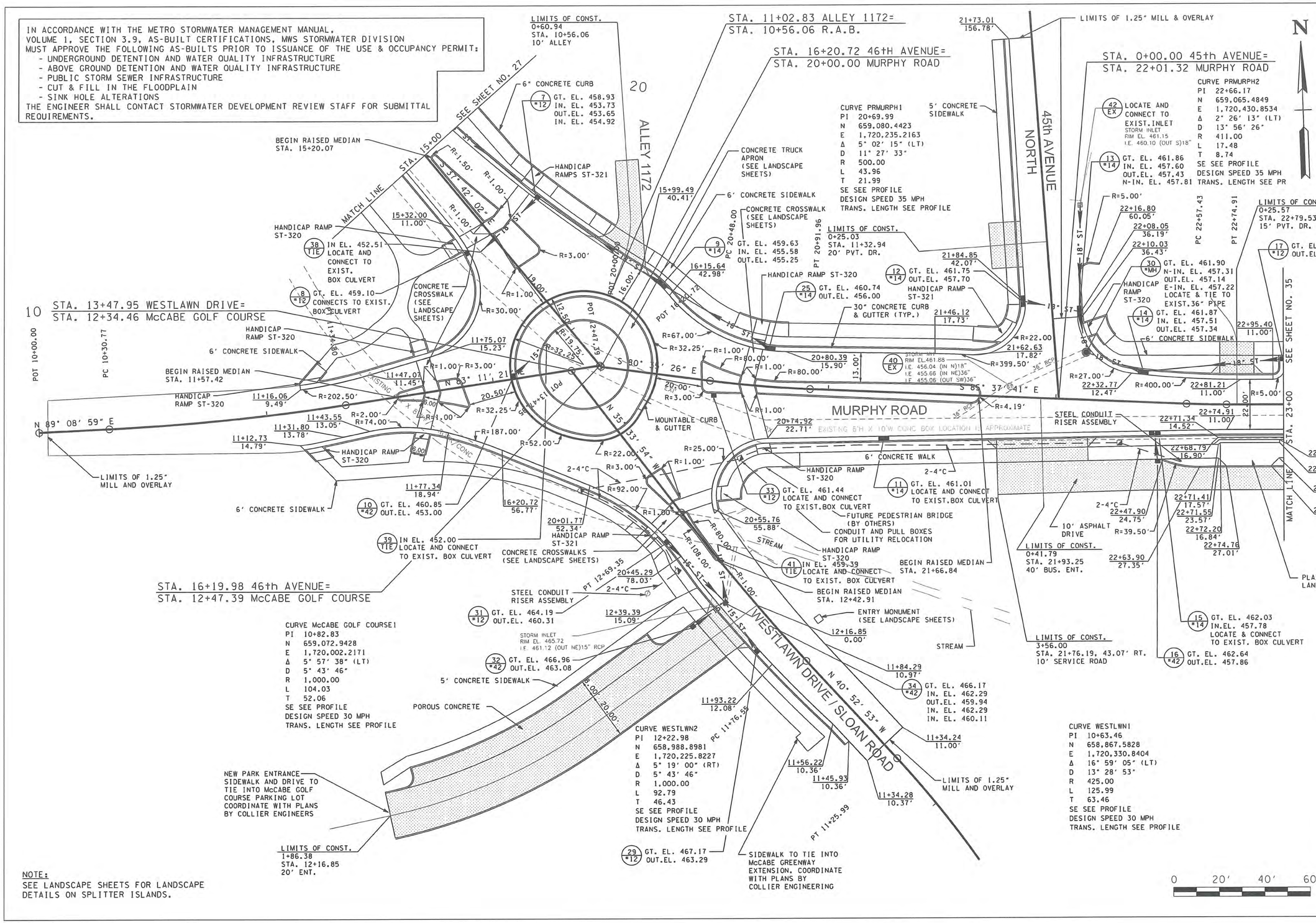
SCALE: 1"=20'

SHEET 30

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISION MUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:

- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT & FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS

THE ENGINEER SHALL CONTACT STORMWATER DEVELOPMENT REVIEW STAFF FOR SUBMITTAL REQUIREMENTS.



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

NOTE:
SEE LANDSCAPE SHEETS FOR LANDSCAPE DETAILS ON SPLITTER ISLANDS.

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

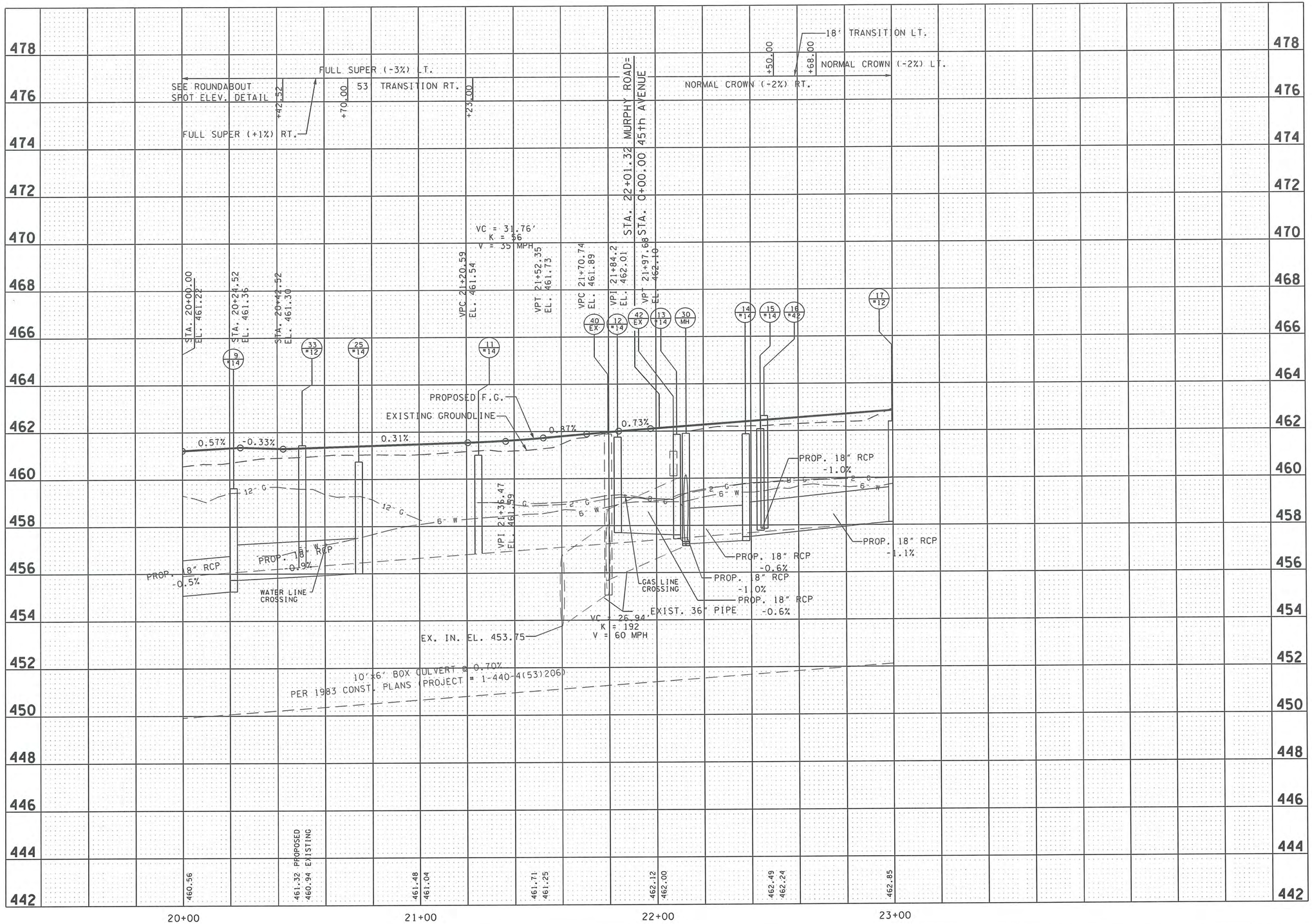
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Layout
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 31



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

BRANDON J. TAYLOR REGISTERED ENGINEER NO. 102101 STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Profile
Murphy Road
Sta. 20+00 to Sta. 23+00

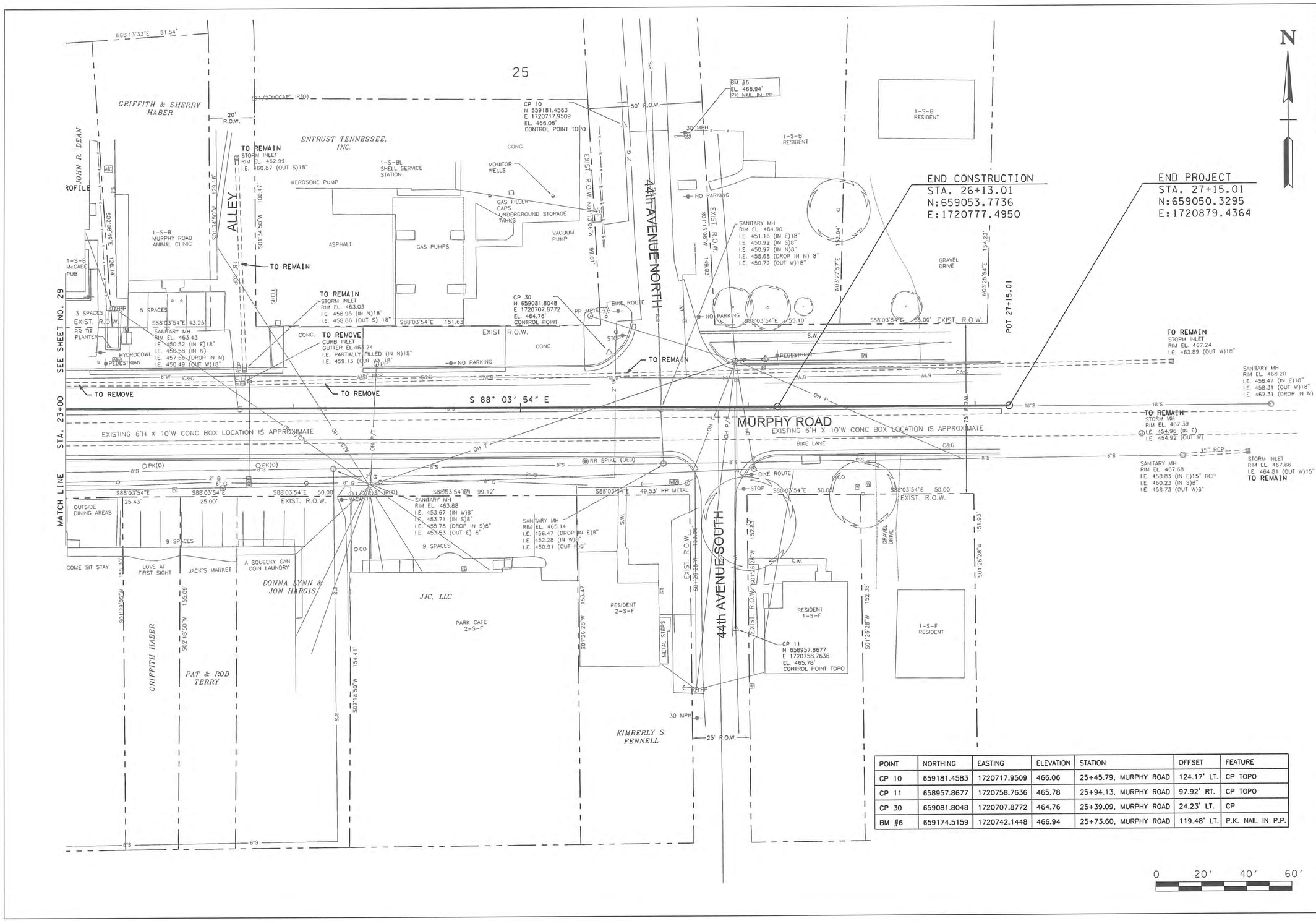
SCALE: 1"=20' HOR
1"=2' VER

SHEET 32

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		



POINT	NORTHING	EASTING	ELEVATION	STATION	OFFSET	FEATURE
CP 10	659181.4583	1720717.9509	466.06	25+45.79, MURPHY ROAD	124.17' LT.	CP TOPO
CP 11	658957.8677	1720758.7636	465.78	25+94.13, MURPHY ROAD	97.92' RT.	CP TOPO
CP 30	659081.8048	1720707.8772	464.76	25+39.09, MURPHY ROAD	24.23' LT.	CP
BM #6	659174.5159	1720742.1448	466.94	25+73.60, MURPHY ROAD	119.48' LT.	P.K. NAIL IN P.P.

0 20' 40' 60'

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
NO. 112631
PROFESSIONAL
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy
Streetscape Project

Present Layout
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 33

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 115216
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Right of Way Layout
STA. 23+00 TO E.O.P.

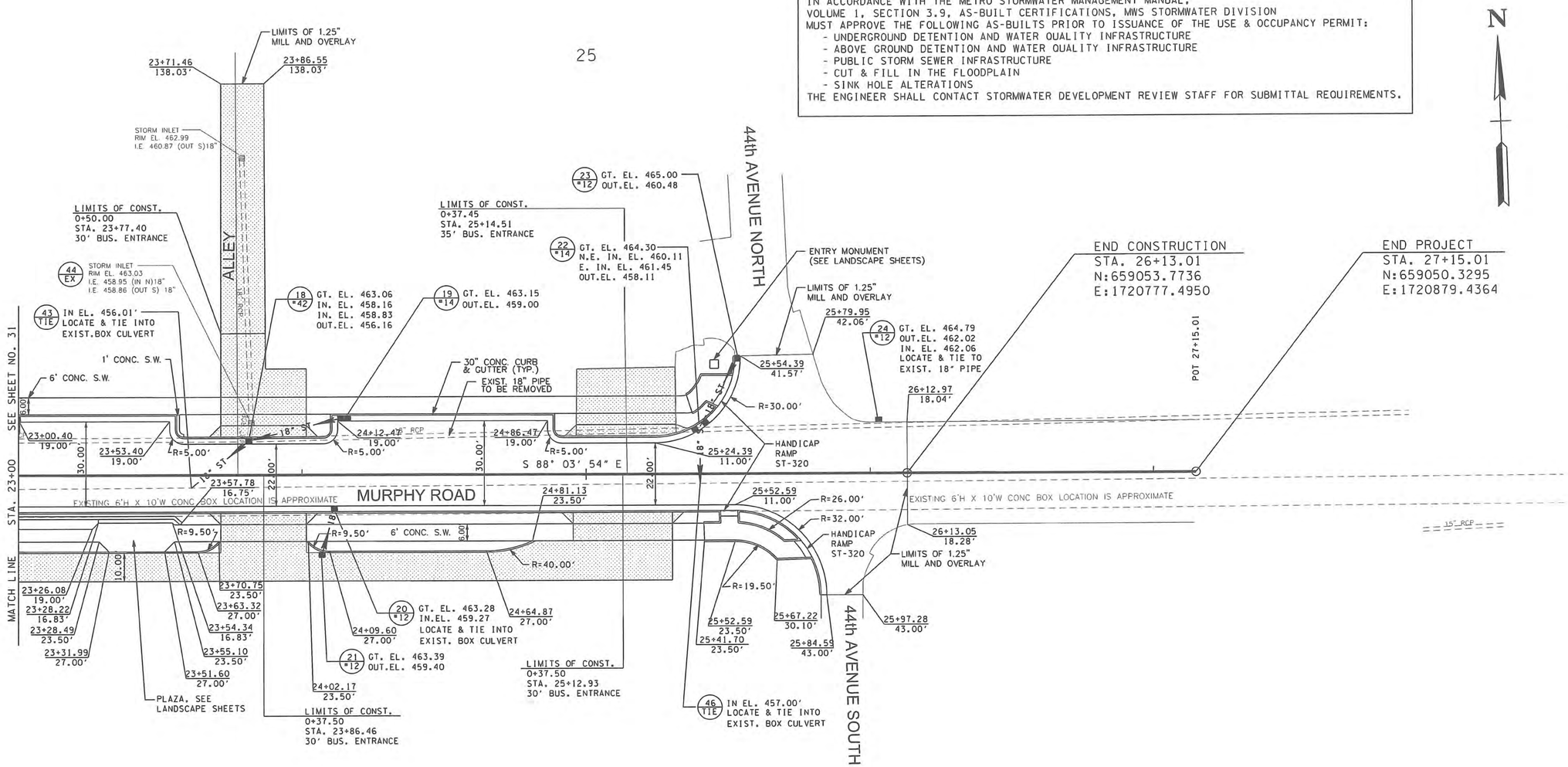
SCALE: 1"=20'

SHEET 34

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISION MUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:
- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT & FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS

THE ENGINEER SHALL CONTACT STORMWATER DEVELOPMENT REVIEW STAFF FOR SUBMITTAL REQUIREMENTS.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



0 20' 40' 60'

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

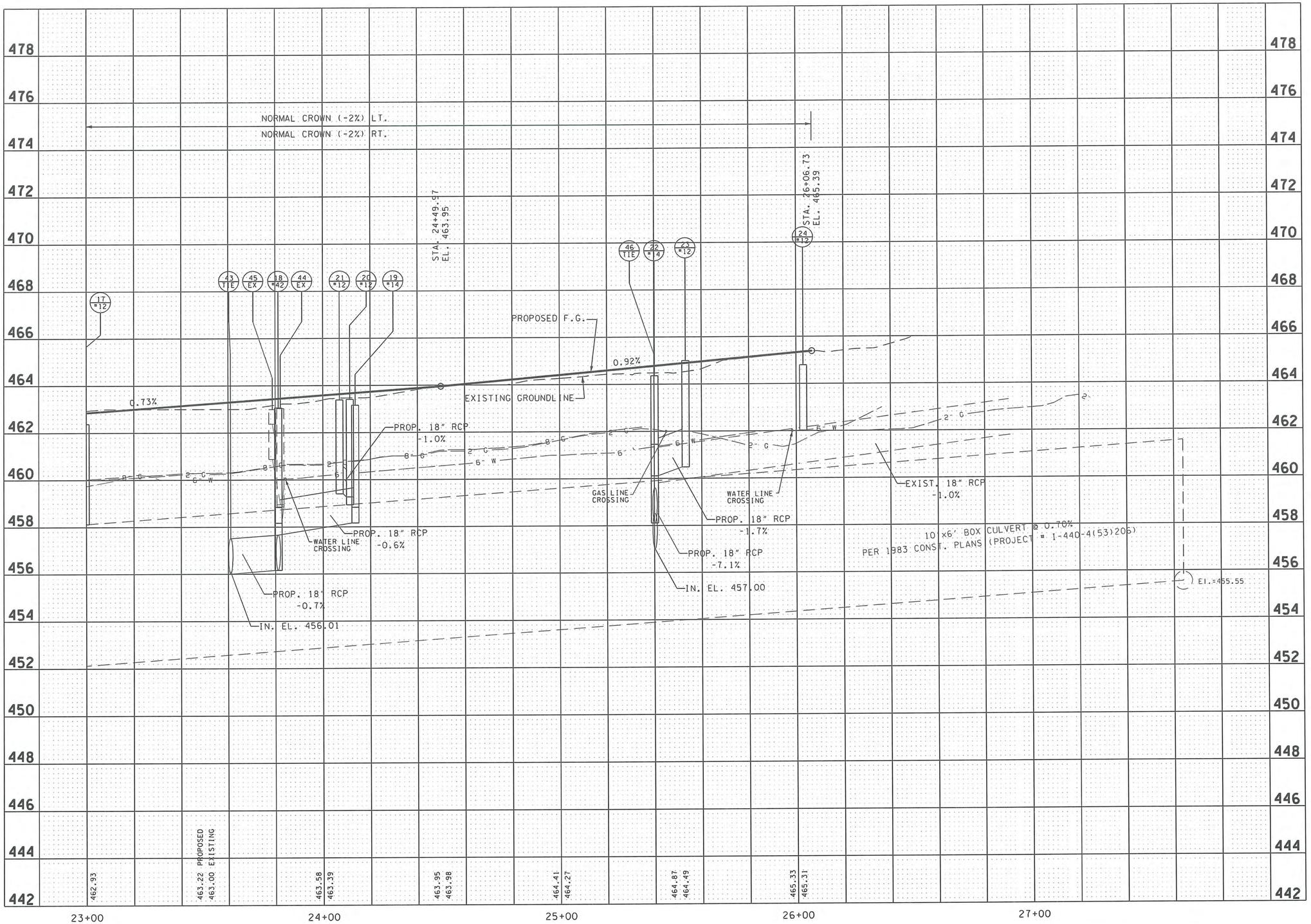
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Layout
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 35



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

BRANDON J. TAYLOR
REGISTERED ENGINEER
CIVIL
No. 112777
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

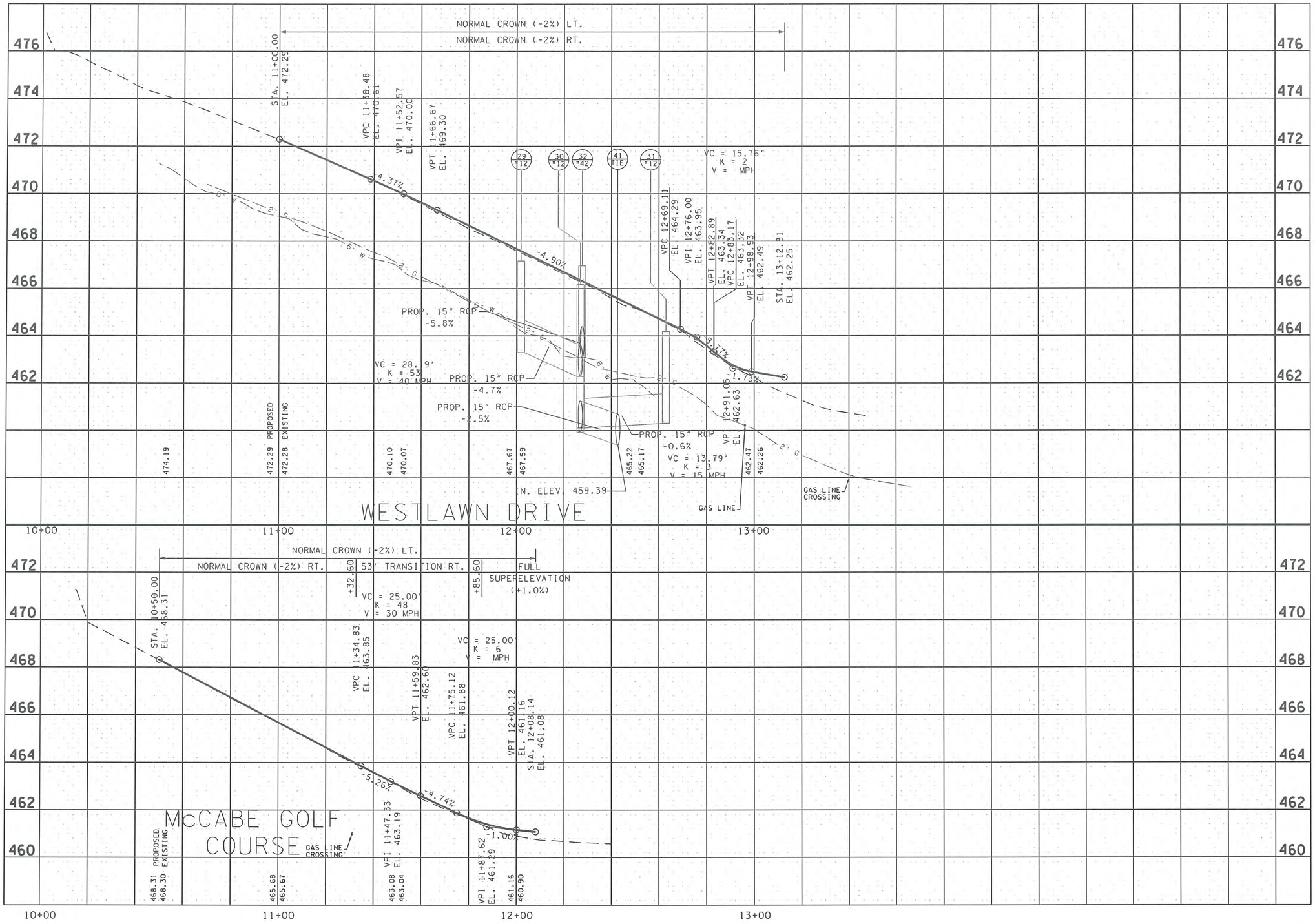
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Profile
Murphy Road
Sta. 23+00 to E.O.P.

SCALE: 1"=20' HOR
1"=2' VER

SHEET 36



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 112365
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

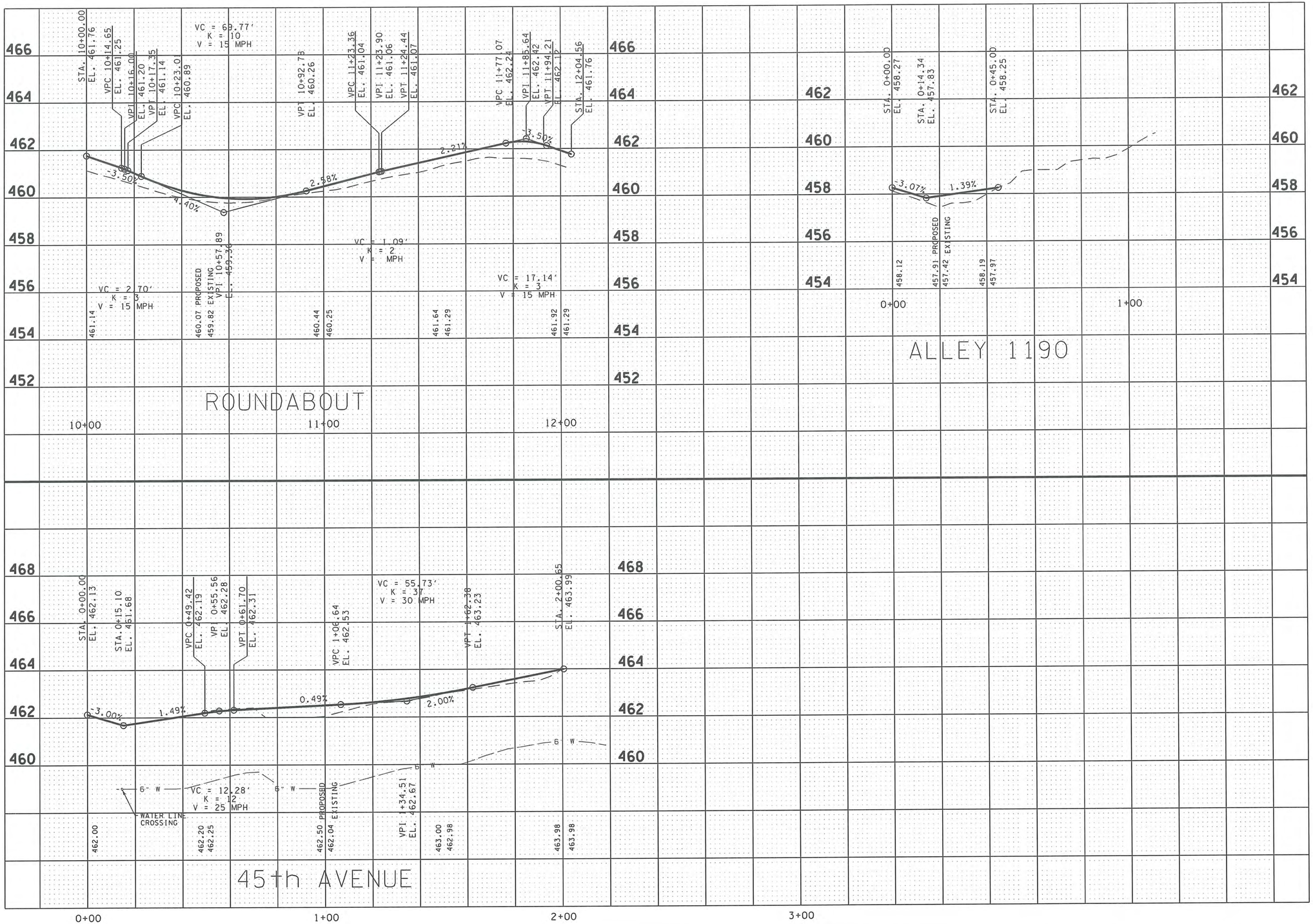
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Profile
Side Roads

SCALE: 1"=20' HOR
1"=2' VER

SHEET 37



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 112
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

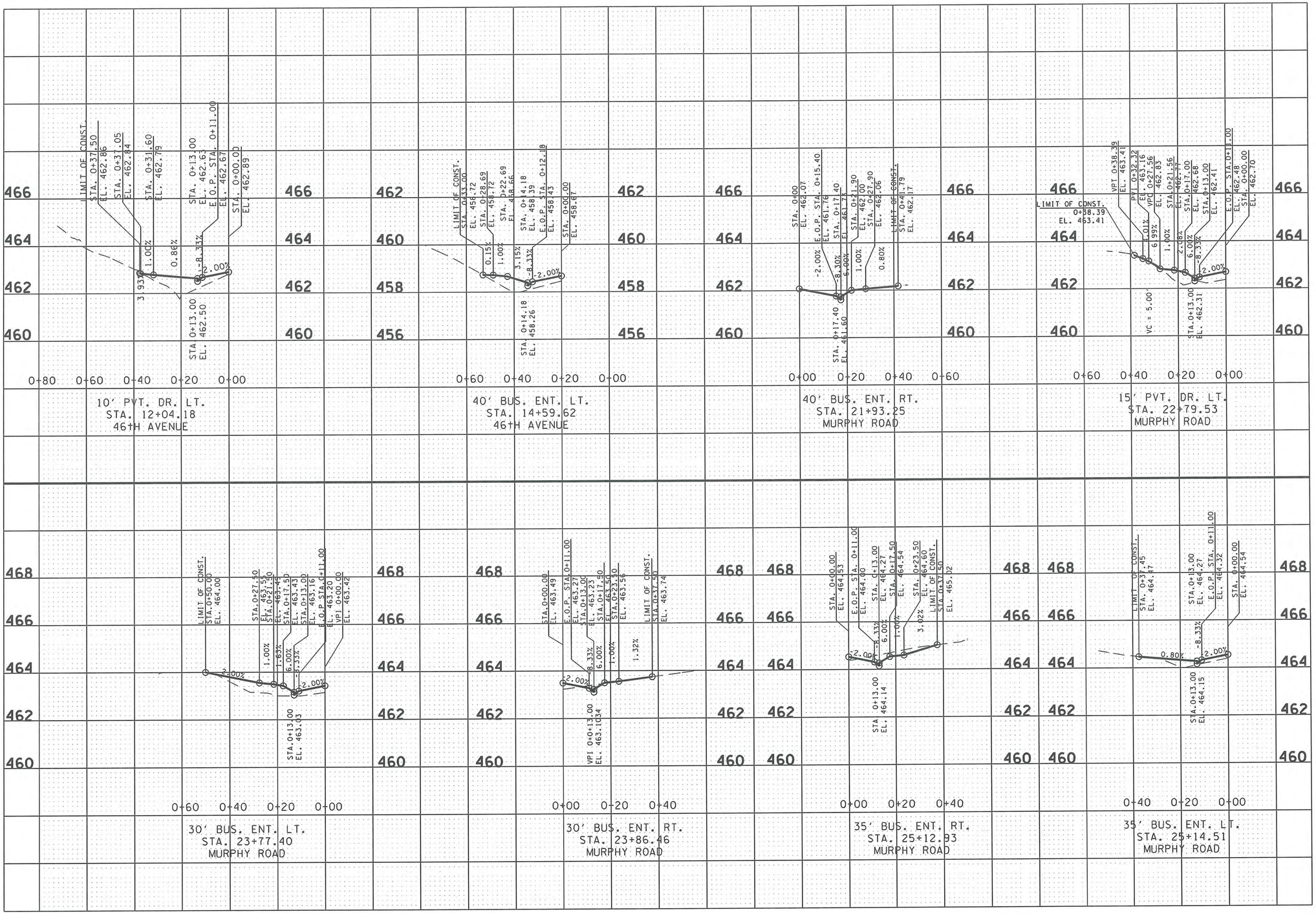
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Profile
Side Roads

SCALE: 1"=20' HOR
1"=2' VER

SHEET 38



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
NO. 125
STATE OF TENNESSEE
4/25/14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

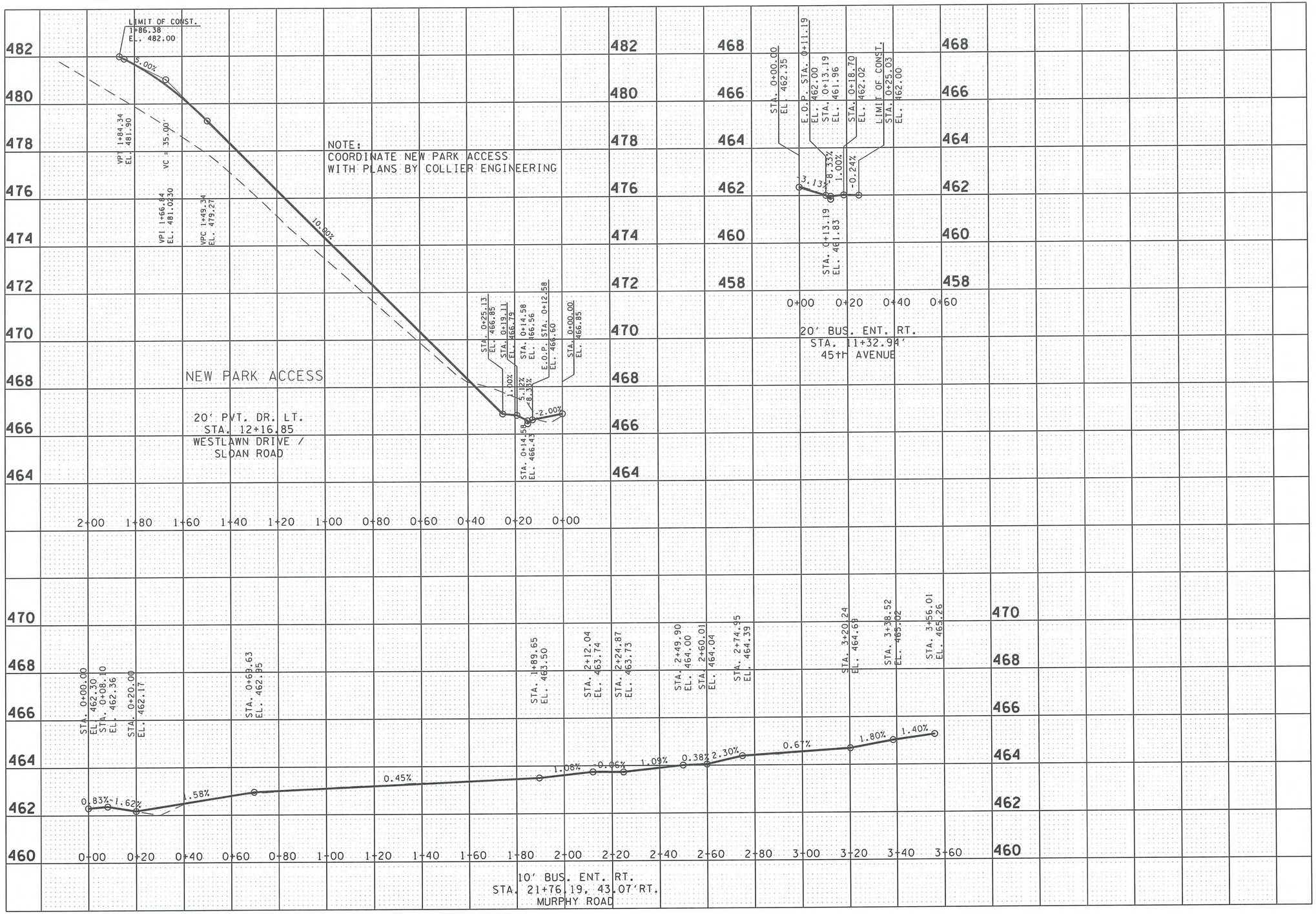
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Profile
Private Drives

SCALE: 1"=20' HOR
1"=2' VER

SHEET 39



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 112714
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Profile
Private Drives

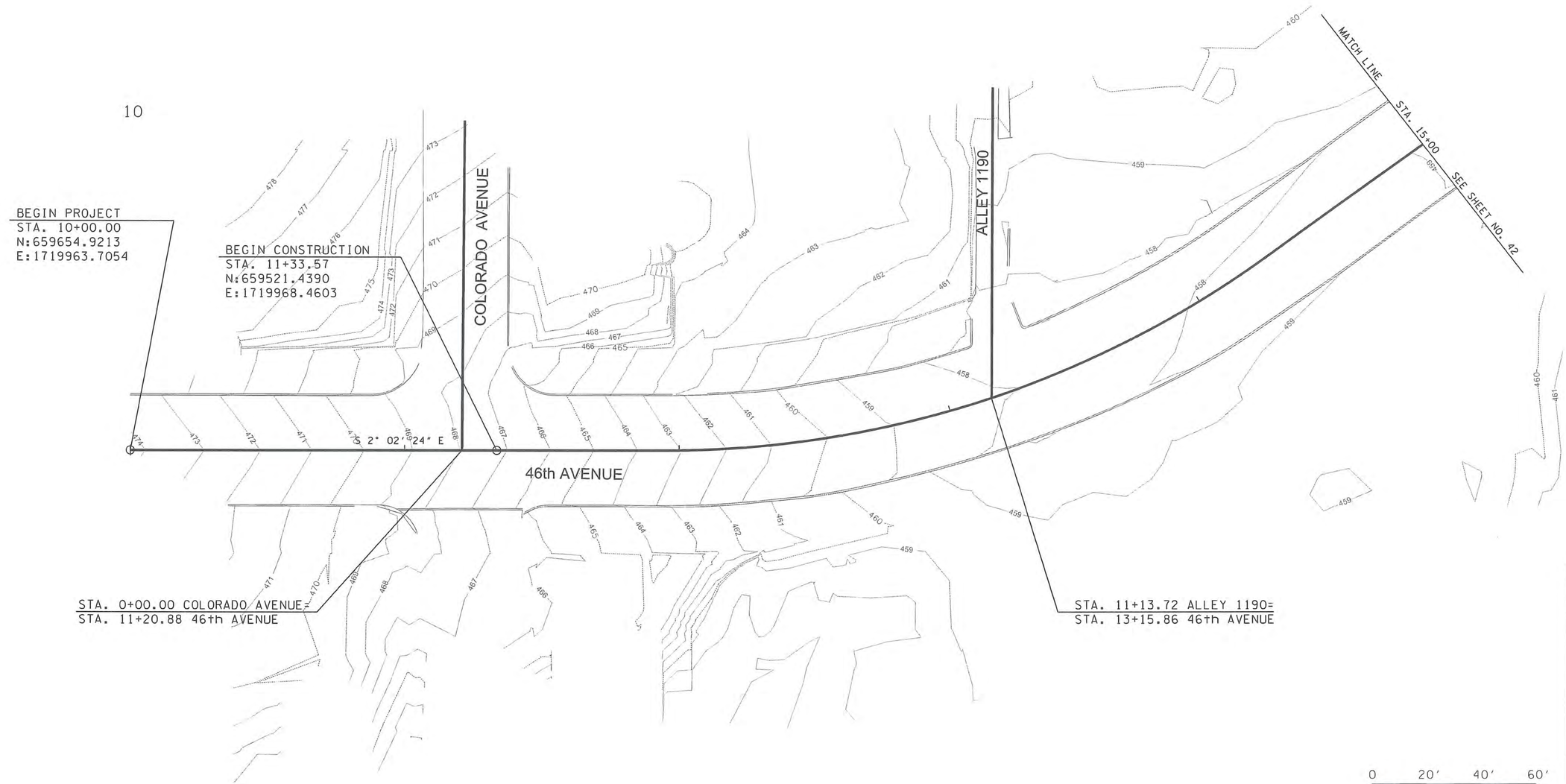
SCALE: 1"=20' HOR
1"=2' VER

SHEET 40

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		



BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
OF TENNESSEE
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

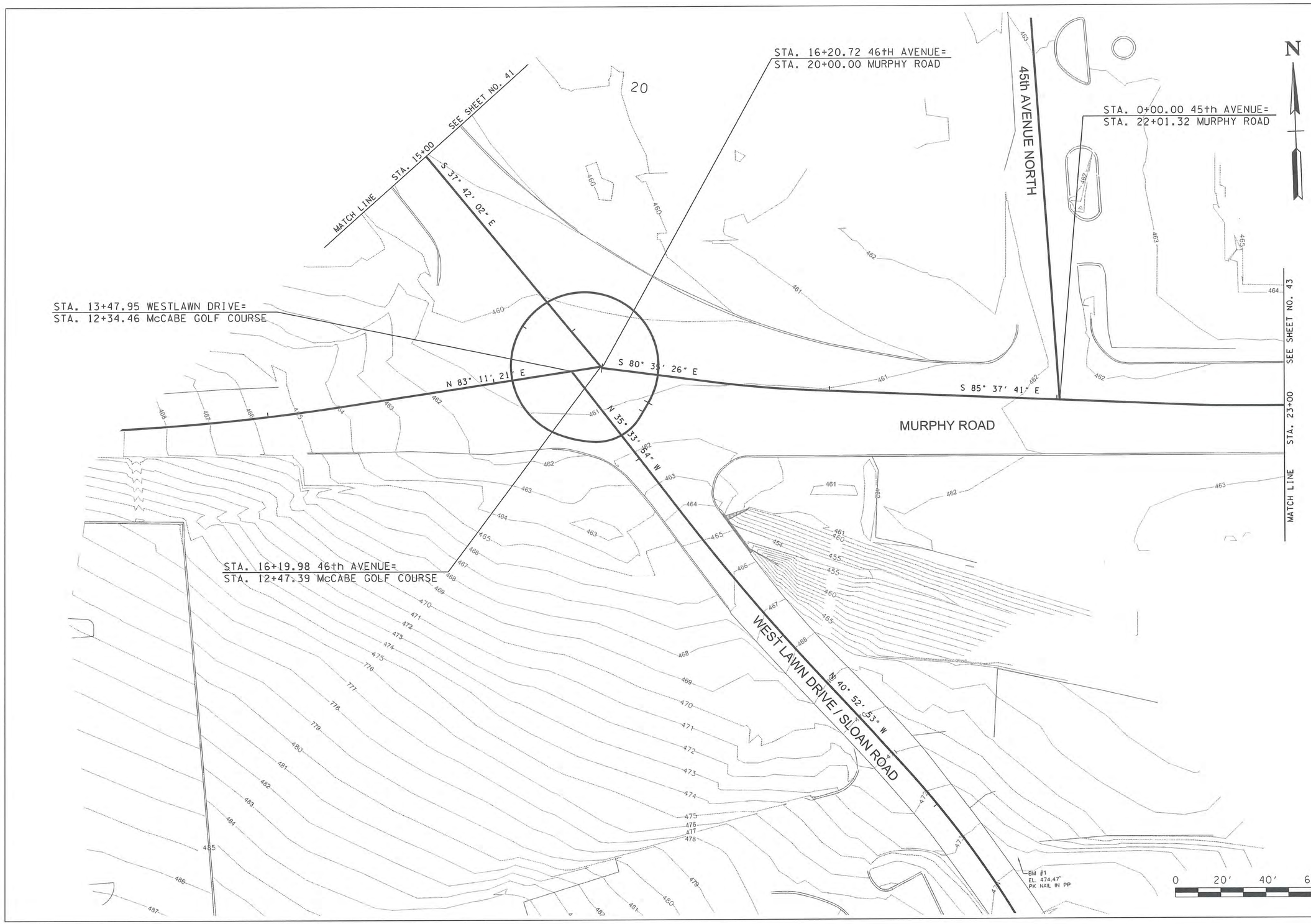
46th and Murphy Streetscape Project

Existing Contours
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 41

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

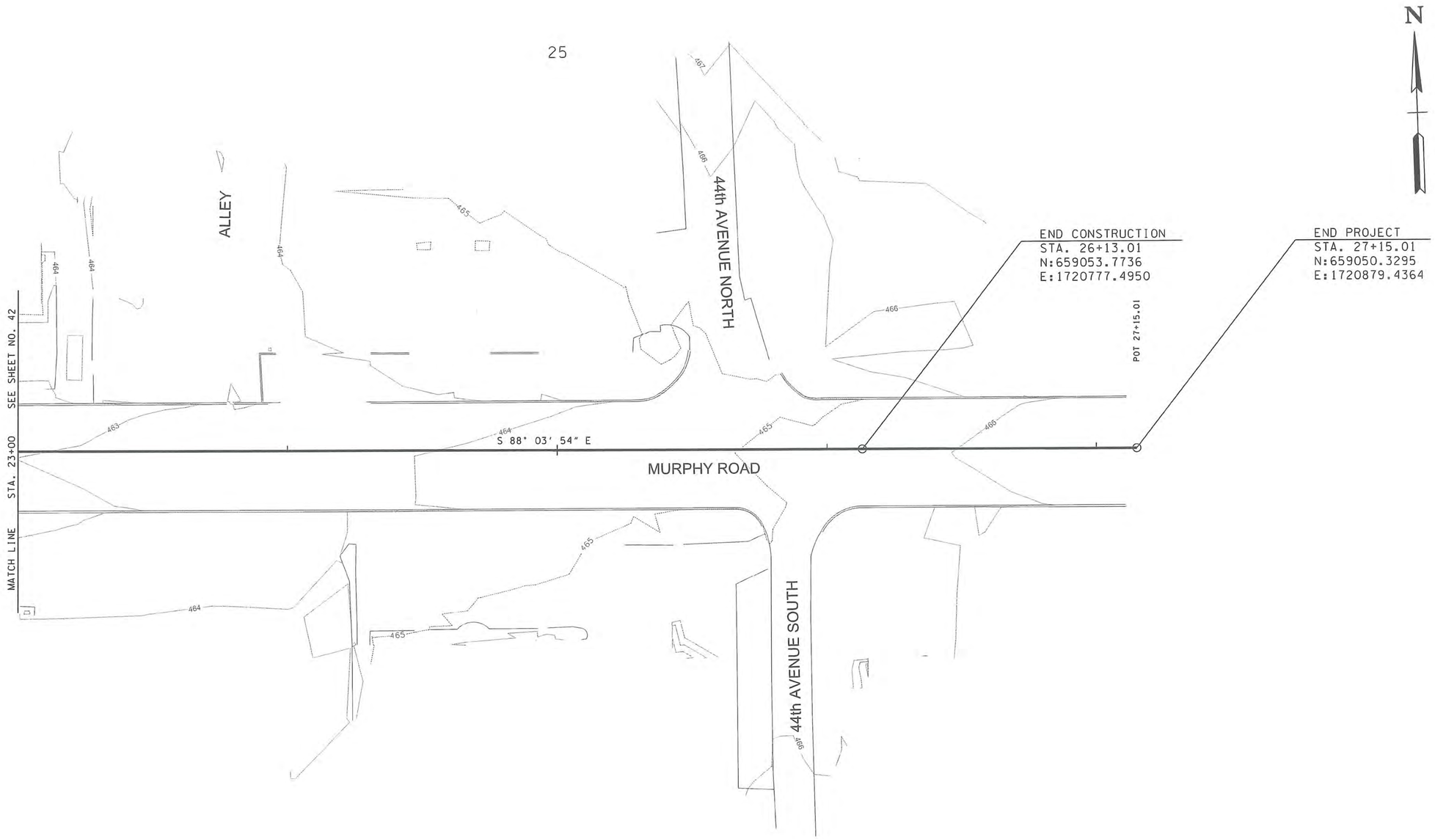
46th and Murphy Streetscape Project

Existing Contours
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 42

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	BJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
No. 112377
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

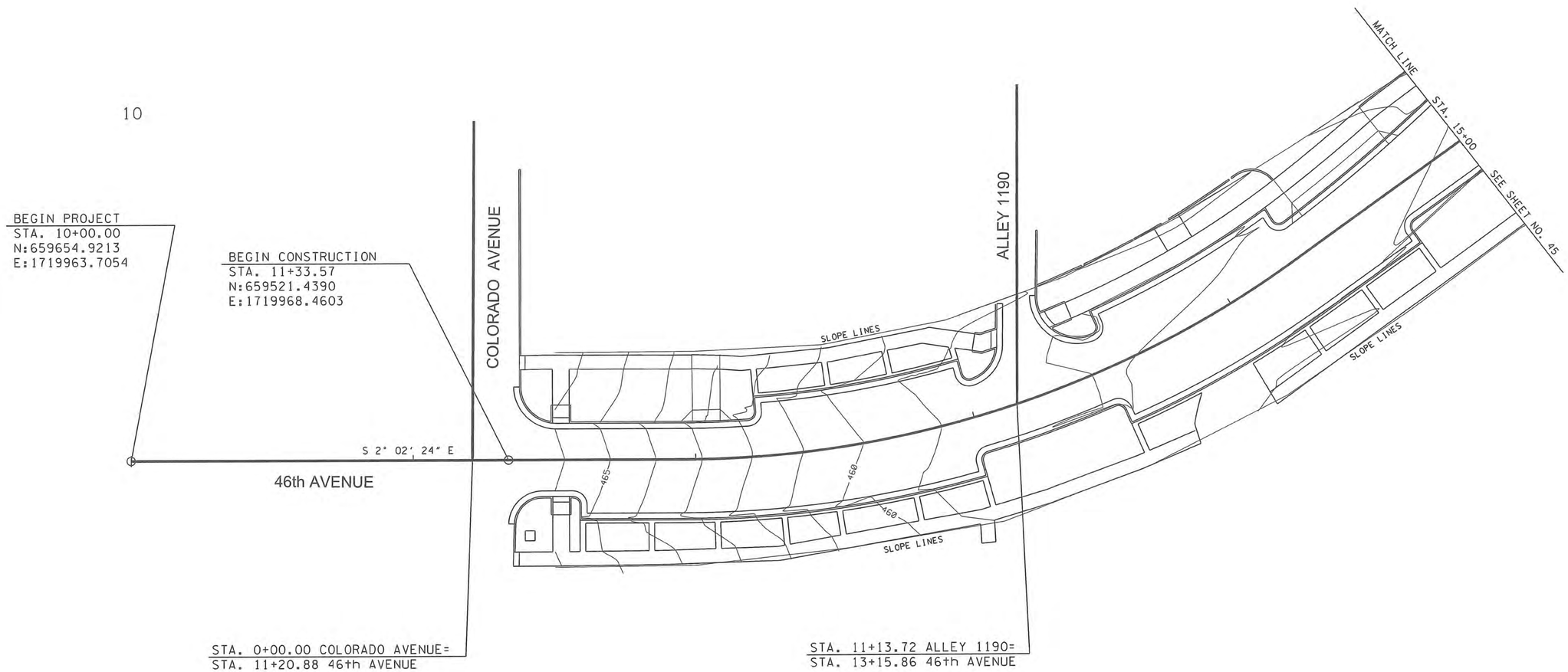
46th and Murphy
Streetscape Project

Existing Contours
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 43

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



0 20' 40' 60'

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

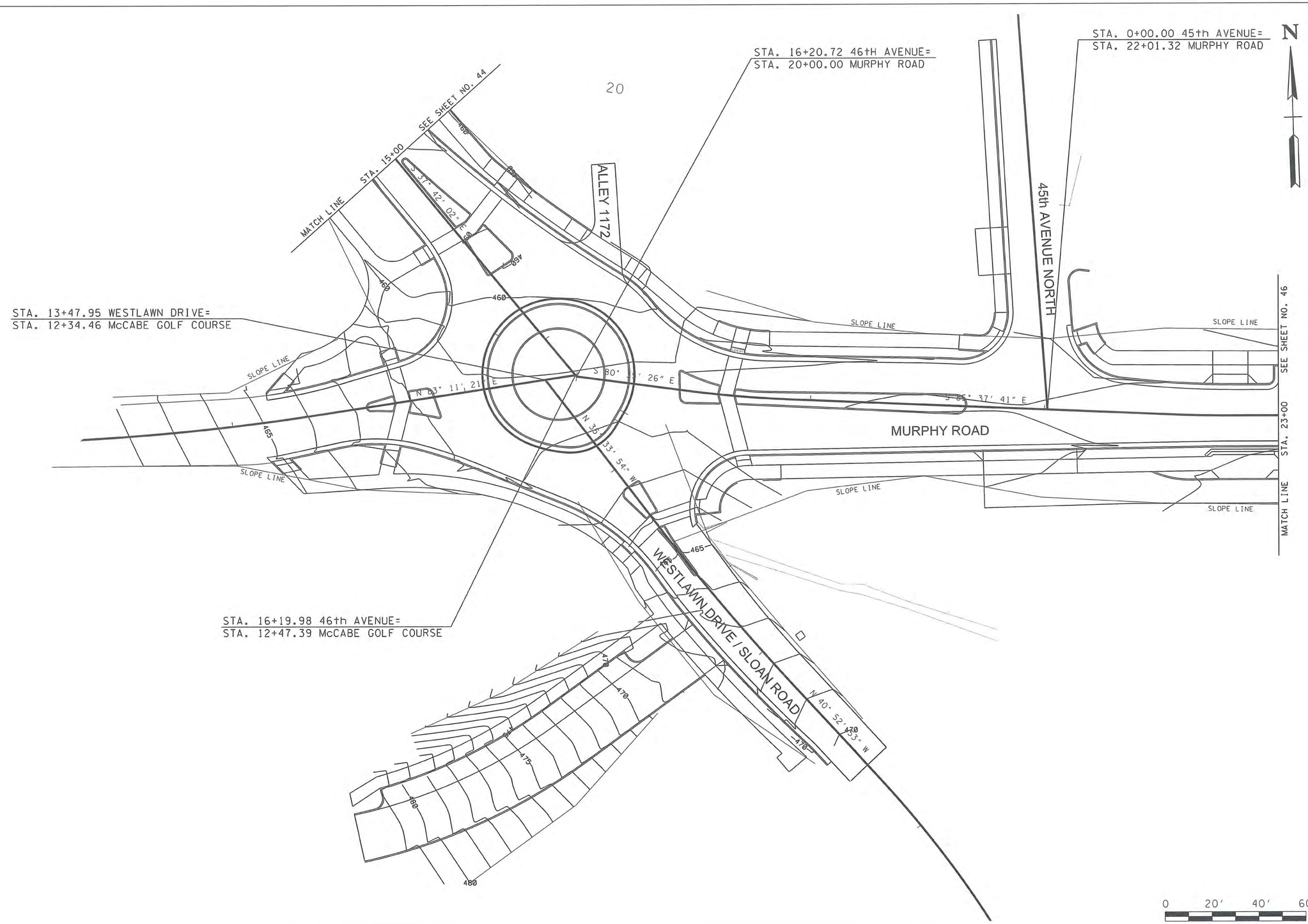
46th and Murphy Streetscape Project

Proposed Contours
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 44

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 111211
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

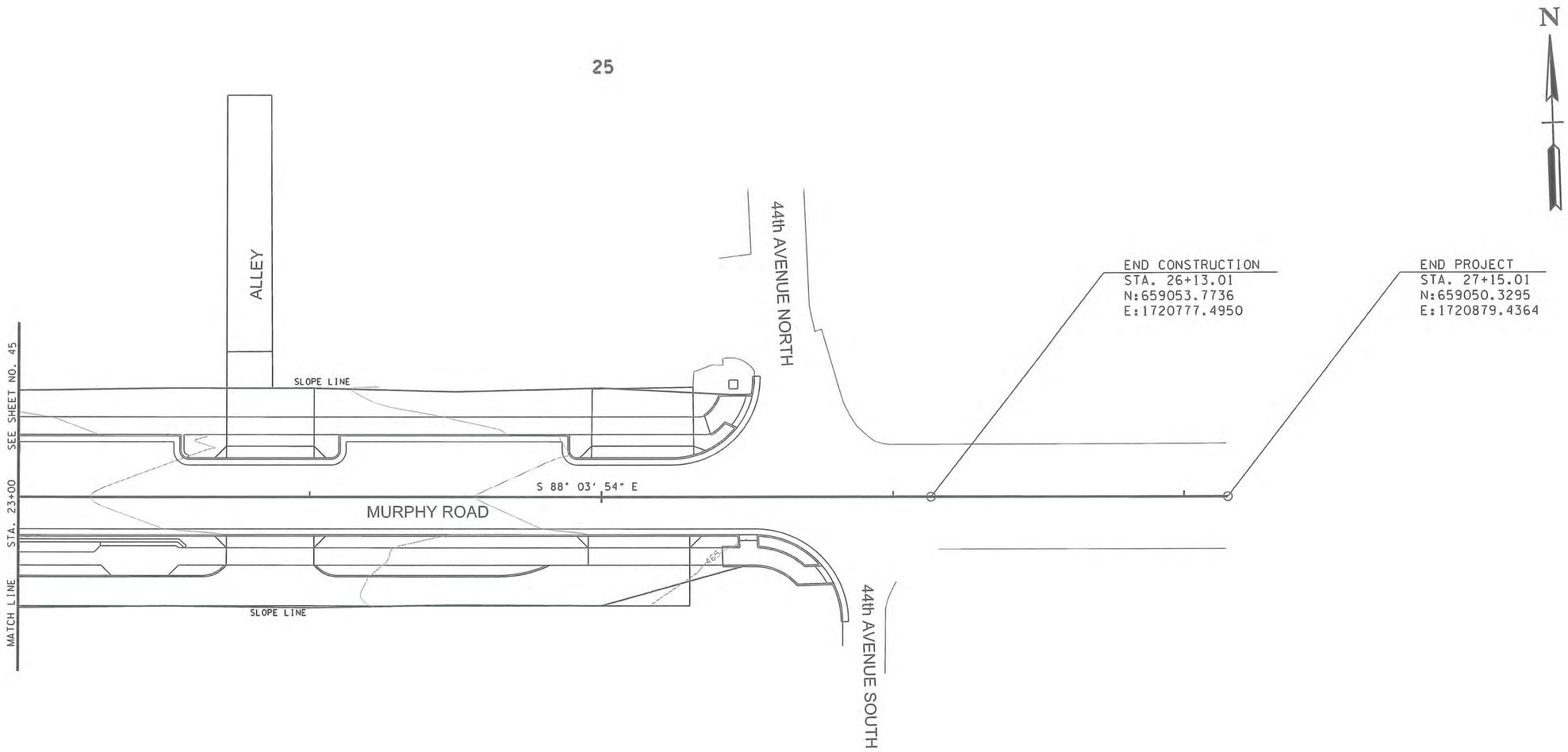
46th and Murphy
Streetscape Project

Proposed Contours
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 45

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy
Streetscape Project

Proposed Contours
STA. 15+00 TO STA . 23+00

SCALE: 1"=20'

SHEET 46

0 20' 40' 60'

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

STREAM/WETLAND

(1) ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., FOR PIER FOOTING, RIP-RAP PLACEMENT, MULTI-BARREL CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS, EC-STR-31 AND TEMPORARY DIVERSION CULVERTS, EC-STR-32 FOR SINGLE BARREL CULVERT CONSTRUCTION.

(2) A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

NPDES

(3) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.

(4) THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.

(5) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:

A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

D. NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

(6) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.

(7) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

(8) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

UTILITY RELOCATION

(9) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.

(10) SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY

(11) UTILITY CROSSINGS FOR PERENNIAL STREAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO UTILITIES IN THIS PROJECT IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC). THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLANS (SWPPP).

(12) IT IS THE RESPONSIBILITY OF THE METRO UTILITY CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.

(13) FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE METRO UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.

(14) IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE METRO UTILITY CONTRACTORS IN THIS PROJECT, THEREFORE, THE METRO CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE METRO CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE METRO CONTRACT WORK.

(15) TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE METRO PROJECT ENGINEER.

(16) FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE METRO RIGHT-OF-WAY, EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.

(17) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE METRO PROJECT ENGINEER).

(18) THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE METRO PROJECT ENGINEER BEFORE COMMENCING WORK.

(22) ALL VENDERS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES THAT THE PAM, PAM MIX, PAM BLEND EXHIBITS ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPA REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED. CATIONIC FORMS OF PAM ARE NOT ALLOWED FOR UNDER THIS GUIDELINE DUE TO THEIR HIGH LEVELS OF TOXICITY TO AQUATIC ORGANISMS. PAM EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS DUR TO SURFACTANT TOXICITY. CONTRACTOR MUST SEEK THE APPROVAL OF THE EPSC DESIGN ENGINEER AND TDOT IF CHITOSAN IS PROPOSED FOR USE ON THIS PROJECT.

(23) ALL VENDORS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS ~~S~~DEMONSTRATING THAT A PERFORMANCE OF 95% OR GREATER REDUCTION OF NTU OR TSS FROM STORMWATER DISCHARGES.

(24) EMULSION BATCHES SHALL BE MIXED FOLLOWING RECOMMENDATIONS OF A TESTING LABORATORY THAT DETERMINES THE PROPER PRODUCT AND RATE TO MEET SITE REQUIREMENTS. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS.

(25) PAM POWDER MAY BE APPLIED BY A HAND SPREADER OR A MECHANICAL SPREADER. MIXING PAM POWDER WITH DRY ~~DILICA~~ SILICA SAND WILL AID IN SPREADING.

(26) PREMIXING OF PAM POWDER INTO FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN SPECIFIED IN THE DESIGN PLAN. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.

(27) PAM LOGS OR BLOCKS SHALL BE APPLIED FOLLOWING SITE TESTING RESULTS TO ENSURE PROPER PLACEMENT AND PERFORMANCE AND SHALL MEET OR EXCEED STATE AND FEDERAL WATER QUALITY REQUIREMENTS.

FILE NO.	10-0606	
DATE:	04/25/2014	
DESIGNED BY:	BJT	
DRAWN BY:	JDE	
CHECKED BY:	DJS	
REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

E.P.S.C. Notes

SCALE: N.T.S.

SHEET 47

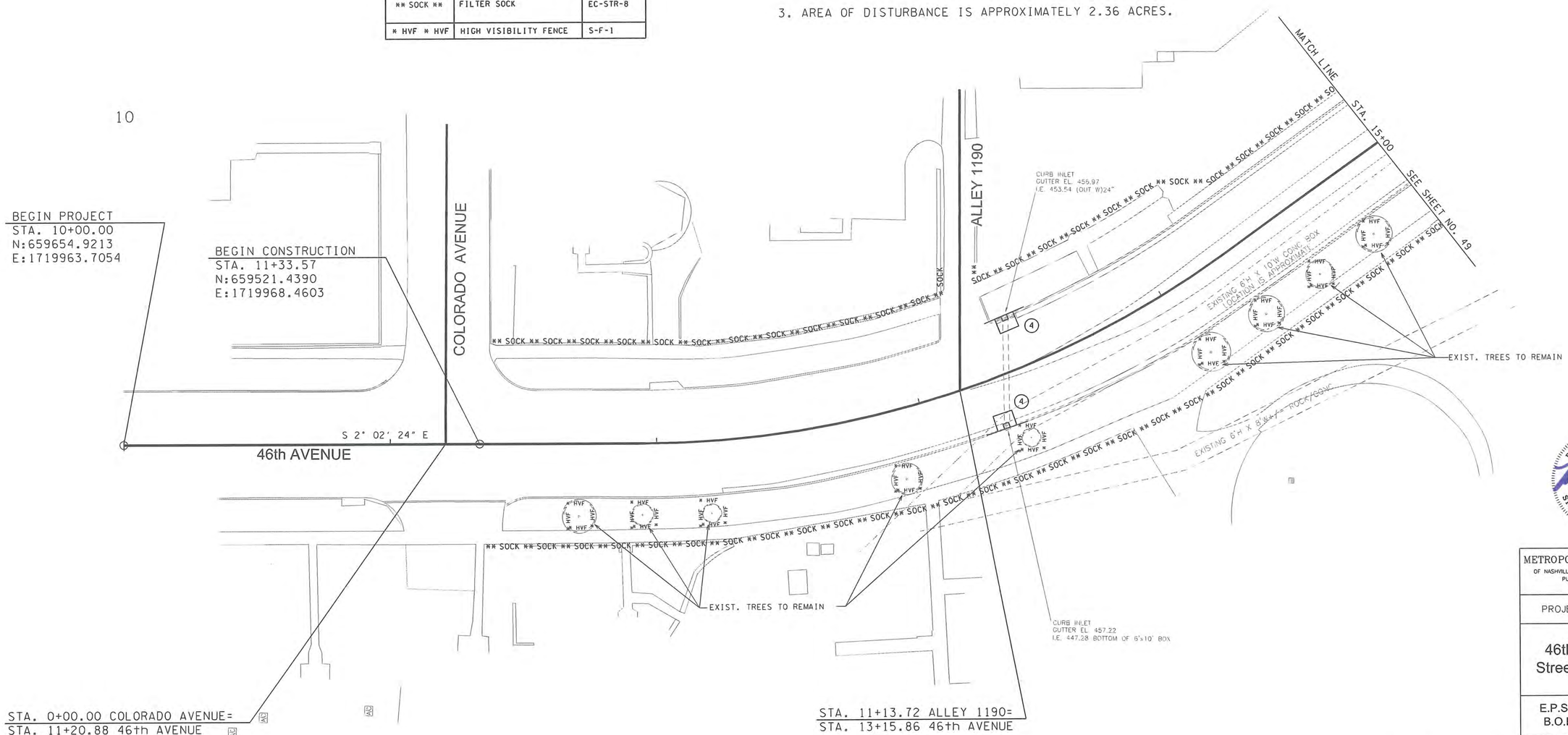
FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		

CONTRACTOR IS REQUIRED TO PROVIDE AN AREA FOR CONCRETE WAS DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR IS REQUIRED TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMEN DURING, PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
(4)	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
(D)	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
** SOCK **	FILTER SOCK	EC-STR-8
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

NOTE:
1. FILTER SOCK LOCATION TO BE COORDINATED WITH DRIVEWAY LOCATIONS.
2. COORDINATE EPSC STAGING WITH TRAFFIC CONTROL PLAN.
3. AREA OF DISTURBANCE IS APPROXIMATELY 2.36 ACRES.



BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 112143
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

E.P.S.C. Layout Phase 1
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 48

CONTRACTOR IS REQUIRED TO PROVIDE AN AREA FOR CONCRETE WAS DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR IS REQUIRED TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMEN DURING, PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.

NOTE:
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2. COORDINATE EPSC STAGING WITH TRAFFIC CONTROL PLAN.
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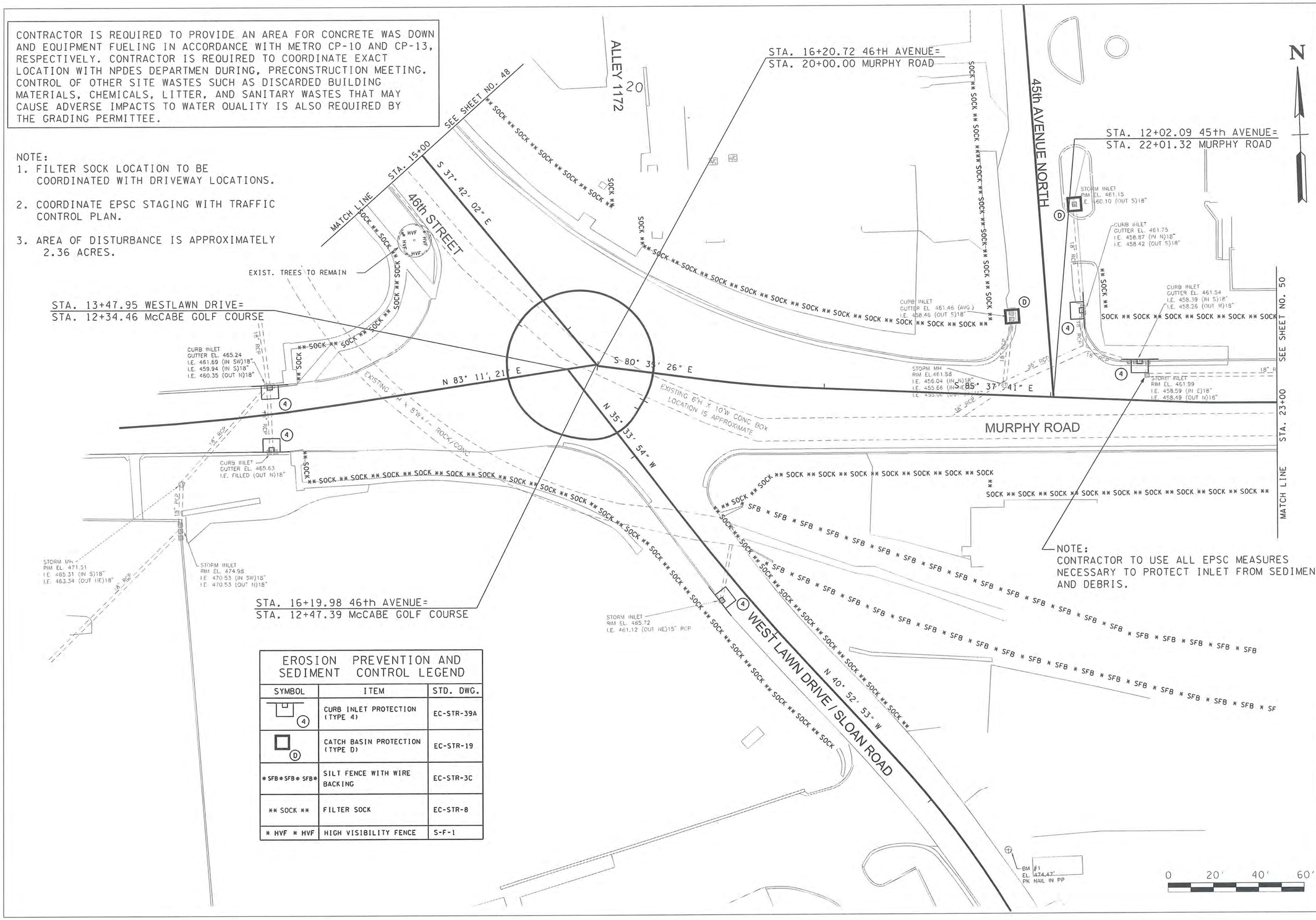

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
(4)	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
(D)	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
** SOCK **	FILTER SOCK	EC-STR-8
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
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CHECKED BY:	DJS
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DATE: 05/02/2014	BJT
UPDATED DATE	

BRANDON J. TAYLOR REGISTERED ENGINEER STRUCTURE No. 112374 STATE OF TENNESSEE 5/13/14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

E.P.S.C. Layout Phase 1
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 49

NOTE:
1. FILTER SOCK LOCATION TO BE COORDINATED WITH DRIVEWAY LOCATIONS.
2. COORDINATE EPSC STAGING WITH TRAFFIC CONTROL PLAN.
3. AREA OF DISTURBANCE IS APPROXIMATELY 2.36 ACRES.

CONTRACTOR IS REQUIRED TO PROVIDE AN AREA FOR CONCRETE WAS DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR IS REQUIRED TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMEN DURING, PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.

FILE NO.	10-0606
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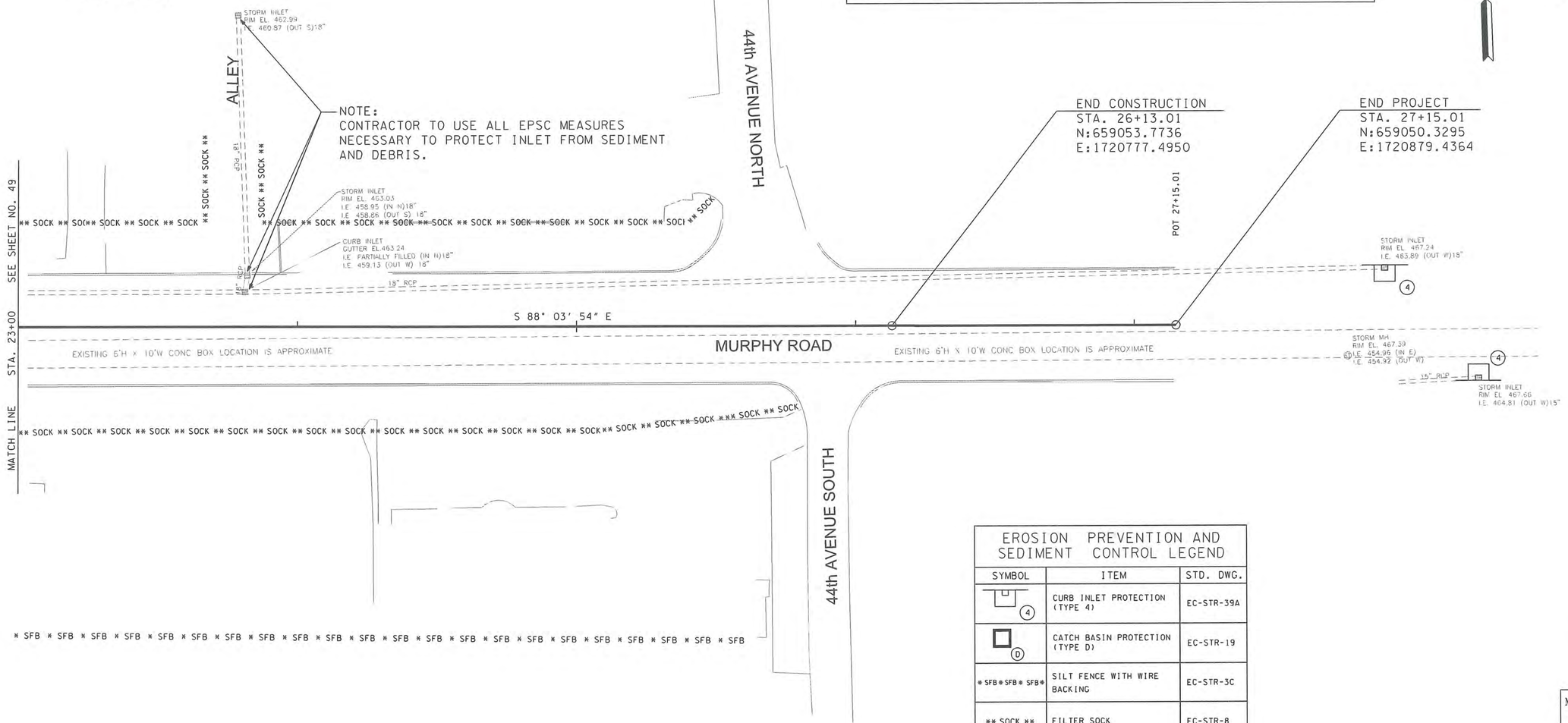

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
4	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
** SOCK **	FILTER SOCK	EC-STR-8
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

0 20' 40' 60'

BRANDON J. TAYLOR
REGISTERED ENGINEER
No. 112717
STATE OF TENNESSEE
5/2/14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

E.P.S.C. Layout Phase 1
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 50

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
(4)	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
(D)	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
** SOCK **	FILTER SOCK	EC-STR-8
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

CONTRACTOR IS REQUIRED TO PROVIDE AN AREA FOR CONCRETE WAS DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR IS REQUIRED TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMEN DURING, PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.

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NOTE:
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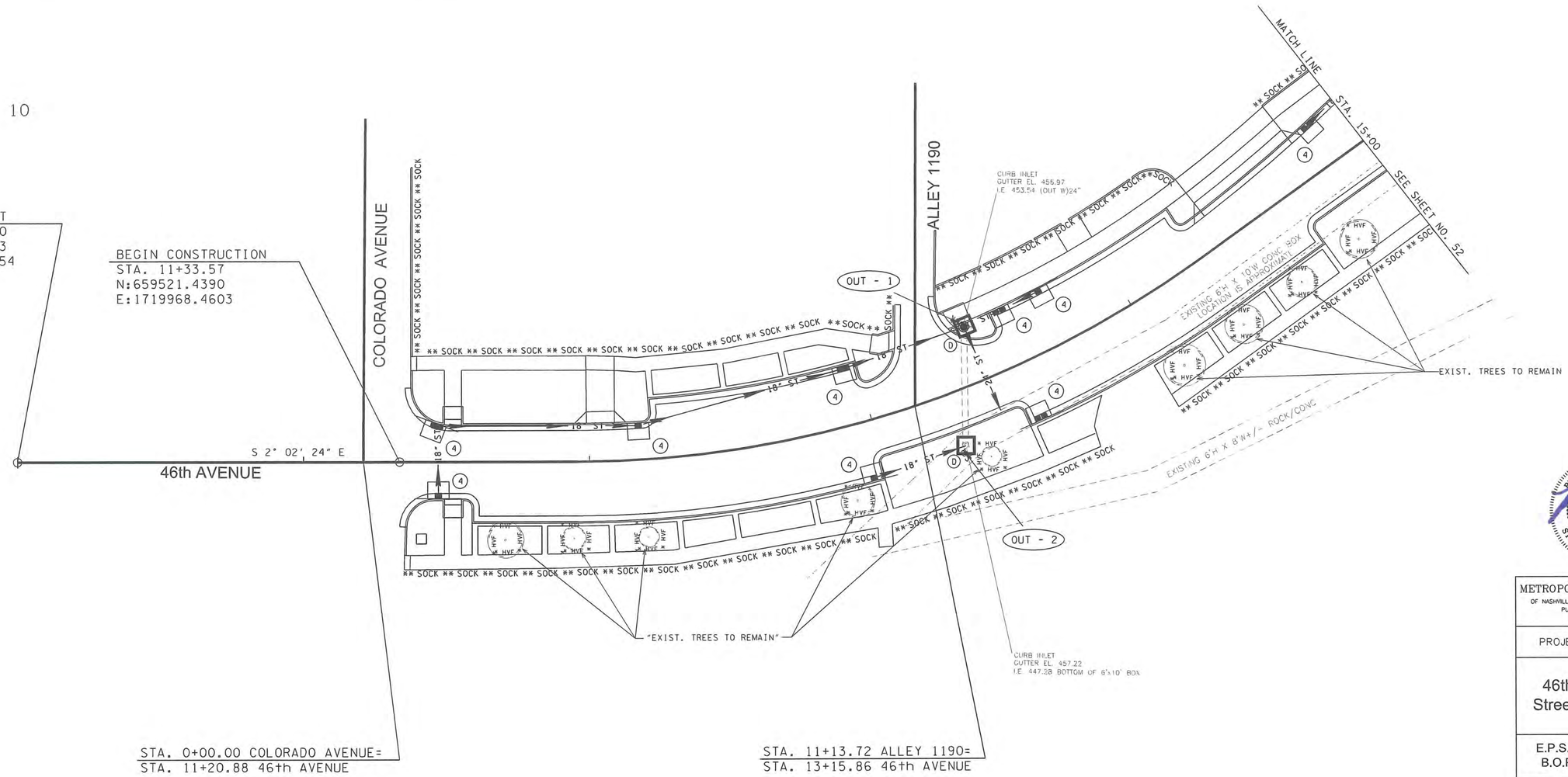
2. COORDINATE EPSC STAGING WITH TRAFFIC CONTROL PLAN.
3. AREA OF DISTURBANCE IS APPROXIMATELY 2.36 ACRES.



METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

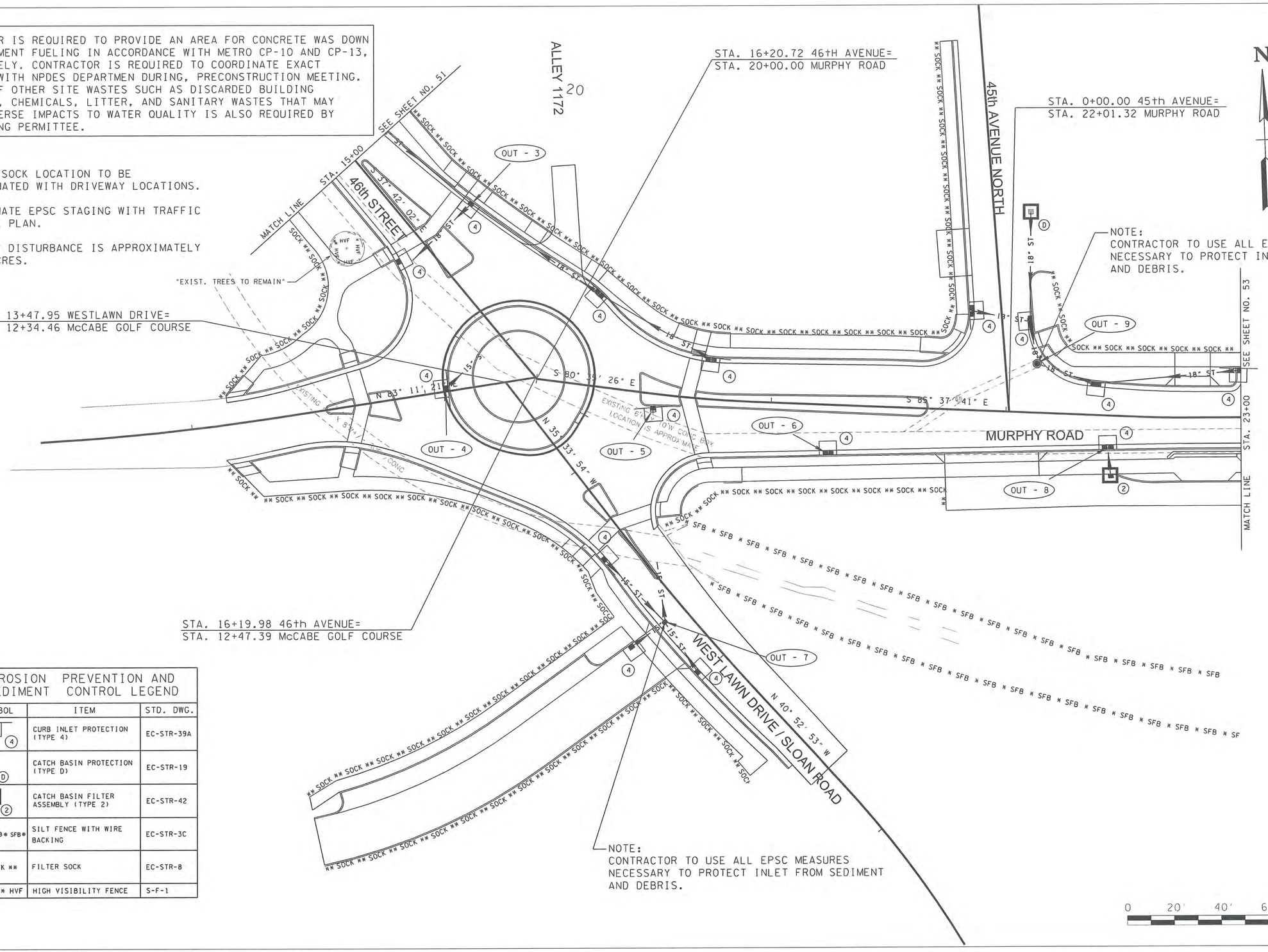
E.P.S.C. Layout Phase 2
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 51

CONTRACTOR IS REQUIRED TO PROVIDE AN AREA FOR CONCRETE WAS DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR IS REQUIRED TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMEN DURING, PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.

NOTE:
1. FILTER SOCK LOCATION TO BE COORDINATED WITH DRIVEWAY LOCATIONS.
2. COORDINATE EPSC STAGING WITH TRAFFIC CONTROL PLAN.
3. AREA OF DISTURBANCE IS APPROXIMATELY 2.36 ACRES.



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
4	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
2	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
** SOCK **	FILTER SOCK	EC-STR-8
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

E.P.S.C. Layout Phase 2
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

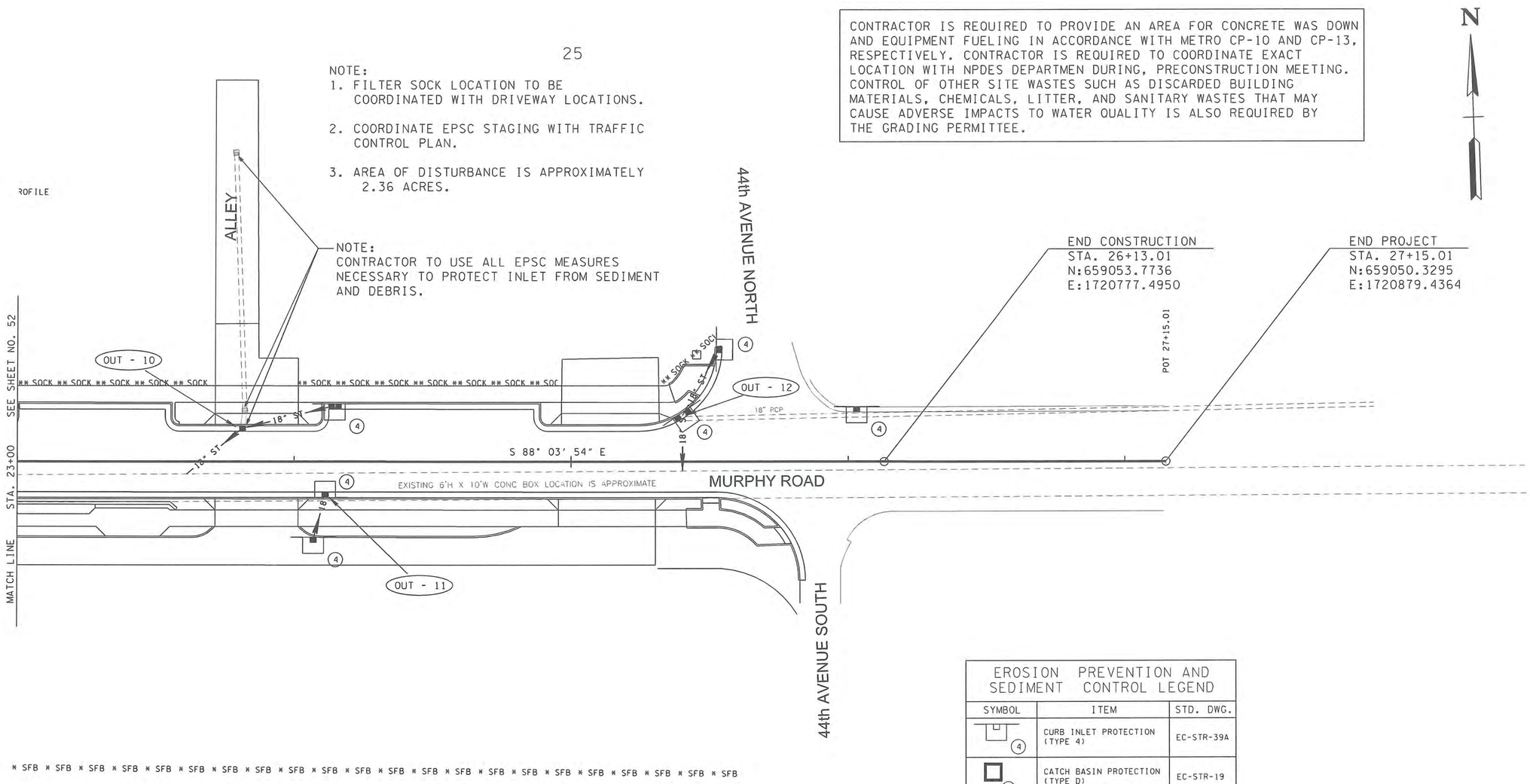
SHEET 52

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

CONTRACTOR IS REQUIRED TO PROVIDE AN AREA FOR CONCRETE WAS DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR IS REQUIRED TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMEN DURING, PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.

NOTE:
1. FILTER SOCK LOCATION TO BE COORDINATED WITH DRIVEWAY LOCATIONS.
2. COORDINATE EPSC STAGING WITH TRAFFIC CONTROL PLAN.
3. AREA OF DISTURBANCE IS APPROXIMATELY 2.36 ACRES.

NOTE:
CONTRACTOR TO USE ALL EPSC MEASURES NECESSARY TO PROTECT INLET FROM SEDIMENT AND DEBRIS.



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
(4)	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
(D)	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
** SOCK **	FILTER SOCK	EC-STR-8
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

0 20' 40' 60'

BRANDON J. TAYLOR
REGISTERED ENGINEER
NO. 112871
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

E.P.S.C. Layout Phase 2
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 53

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

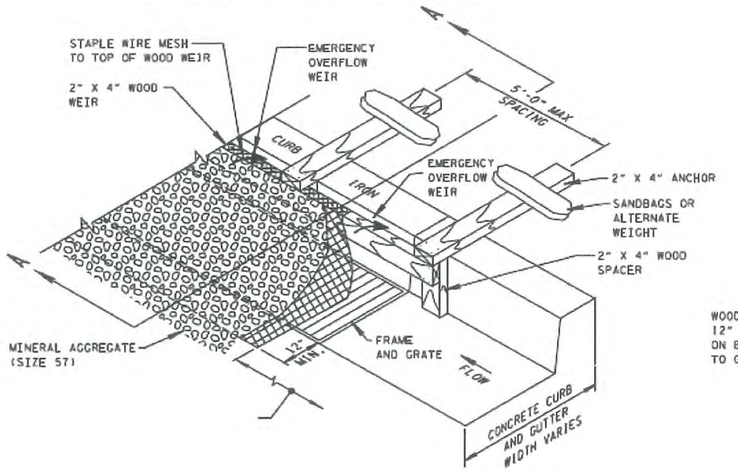
REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

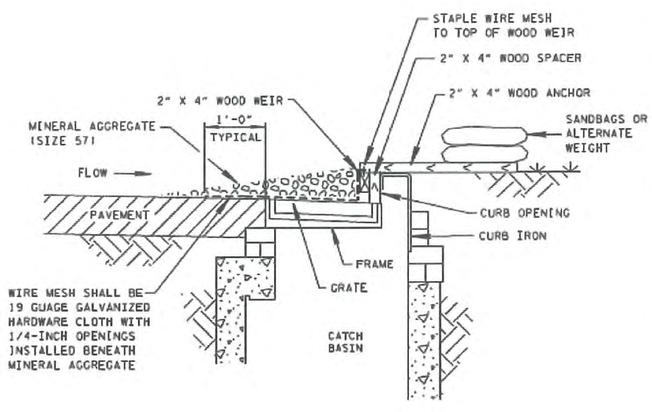
- ☐ REV. 4-15-06: REFORMATTED SHEET. REVISED NOTES. MISC. EDITS TO DRAWING.
- ☐ REV. 4-1-08: MISC. MINOR EDITS AND GENERAL NOTE REVISIONS.
- ☐ REV.6-24-10: MISC. MINOR EDITS.
- ☐ REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.

CURB INLET PROTECTION TYPE 3

LOW VOLUME, LOW SPEED TRAFFIC AREAS ONLY



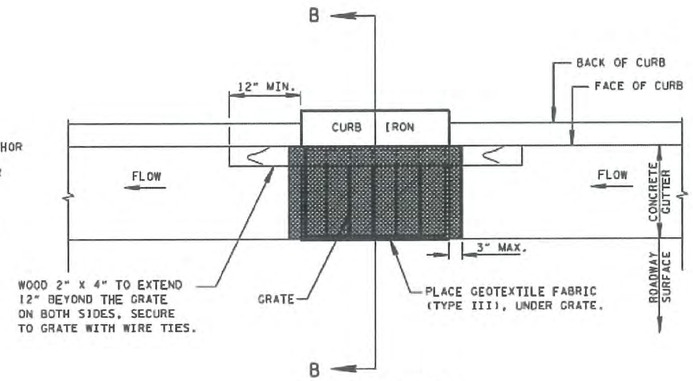
ISOMETRIC VIEW



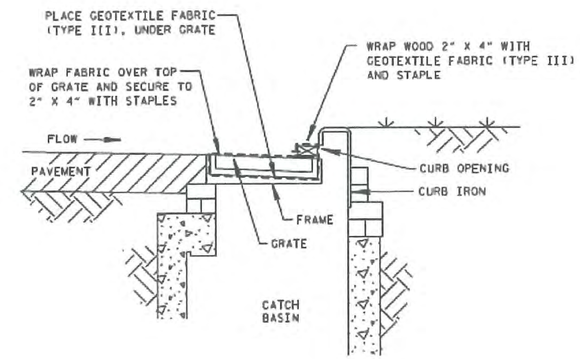
SECTION A-A

EROSION CONTROL PLAN LEGEND: ③ CURB INLET PROTECTION (TYPE 3)

CURB INLET PROTECTION TYPE 4



PLAN VIEW



SECTION B-B

EROSION CONTROL PLAN LEGEND: ④ CURB INLET PROTECTION (TYPE 4)

CURB INLET PROTECTION TYPE 3 GENERAL NOTES

(A1) CURB INLET PROTECTION (TYPE 3) IS A SEDIMENT CONTROL DEVICE USED TO INTERCEPT SEDIMENT LADEN WATER AND PREVENT TRANSPORTED SEDIMENT FROM ENTERING AN EXISTING STORM SEWER SYSTEM. THIS SEDIMENT CONTROL DEVICE SHOULD BE CONSIDERED, AND IS INTENDED TO BE, A SECONDARY TREATMENT DEVICE.

(A2) CURB INLET PROTECTION (TYPE 3) IS APPLICABLE TO CURB AND GUTTER INLETS WHERE A STURDY, COMPACT INSTALLATION IS DESIRED AND WHERE PONDING IS NOT A CONCERN. EMERGENCY OVERFLOW CAPABILITIES ARE MINIMAL, SO EXPECT THE POTENTIAL FOR SIGNIFICANT PONDING WITH THIS DEVICE.

(A3) MAXIMUM DRAINAGE AREA IS 1 ACRE.

(A4) CURB INLET PROTECTION (TYPE3) SHALL NOT BE USED WHERE LARGE QUANTITIES OF SEDIMENT ARE EXPECTED OR WHERE THE LONGITUDINAL GRADE OF CURB AND GUTTER EXCEEDS ONE (1) PERCENT.

(A5) WIRE MESH SHALL BE 19 GAUGE GALVANIZED HARDWARE CLOTH WITH ¼ INCH OPENINGS. MESH SHALL BE PLACED OVER THE CURB INLET OPENING AND AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET SO THAT AT LEAST 12 INCHES OF WIRE EXTENDS ACROSS THE PAVEMENT AND AT LEAST 12 INCHES ACROSS THE CONCRETE GUTTER BEYOND THE EDGES OF THE INLET OPENING.

(A6) THE WIRE MESH USED FOR THIS SEDIMENT CONTROL DEVICE SHALL BE A CONTINUOUS PIECE OF MATERIAL FORMED AND SHAPED TO MATCH THE SHAPE OF THE CURB AND GUTTER AND SECURED TO THE WOOD FRAME AS NEEDED BY WIRE STAPLES.

(A7) MINERAL AGGREGATE (SIZE 57) SHALL BE PLACED AGAINST THE WIRE MESH SO AS TO ANCHOR IT AGAINST THE CONCRETE GUTTER, PAVEMENT, AND WOOD FRAME.

(A8) 2" X 4" WOOD ANCHORS SHALL BE NAILED TO THE TOP OF THE WEIR AND VERTICAL WOOD SPACERS AT SPACER LOCATIONS AND SHALL BE SECURED BEHIND THE CURB IRON WITH SANDBAGS OR OTHER APPROVED ANCHORING DEVICE.

(A9) CURB INLET PROTECTION (TYPE 3) SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:

209-09.42 CURB INLET PROTECTION (TYPE 3) PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CURB INLET PROTECTION (TYPE 3).

(A10) ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE IS ALSO ACCEPTABLE.

(A11) MAINTENANCE SHALL BE PERFORMED AS NEEDED. FOR PROPER FUNCTION, SEDIMENT REMOVAL SHALL BE PERFORMED CONTINUOUSLY AND/OR AFTER EVERY RAIN EVENT AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL, PER CUBIC YARD.

CURB INLET PROTECTION TYPE 4 GENERAL NOTES

(B1) CURB INLET PROTECTION (TYPE 4) IS A SEDIMENT CONTROL DEVICE USED TO PREVENT TRANSPORTED SEDIMENT FROM ENTERING AN EXISTING STORM SEWER SYSTEM. THIS SEDIMENT CONTROL DEVICE SHOULD BE CONSIDERED, AND IS INTENDED TO BE, A SECONDARY TREATMENT DEVICE.

(B2) CURB INLET PROTECTION (TYPE 4) IS APPLICABLE TO CURB AND GUTTER INLETS WHERE A COMPACT INSTALLATION IS DESIRED AND POST PAVING CONDITIONS ARE PRESENT. THIS DEVICE WILL REQUIRE FREQUENT MAINTENANCE WHILE IN USE.

(B3) MAXIMUM DRAINAGE AREA IS 1 ACRE.

(B4) TYPE 4 INLET PROTECTION SHALL NOT BE USED WHERE LARGE QUANTITIES OF SEDIMENT ARE EXPECTED OR WHERE HIGH VELOCITIES OF APPROACHING WATER ARE ANTICIPATED DUE TO LONGITUDINAL GRADE OF CURB AND GUTTER.

(B5) GEOTEXTILE FABRIC (TYPE III) SHALL BE A CONTINUOUS PIECE WRAPPED AROUND THE 2" X 4" AND SECURED WITH STAPLES. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

(B6) ONLY GEOTEXTILE FABRIC (TYPE III) LISTED ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.

(B7) WOOD 2" X 4" SHALL BE PRESSURE TREATED YELLOW PINE. THE WOOD SHALL NOT BLOCK THE ENTIRE OPENING HEIGHT OF THE CURB IRON, AS THIS WILL OBSTRUCT THE EMERGENCY OVERFLOW CAPABILITIES OF THE DEVICE.

(B8) THE CONTRACTOR SHALL SECURE THE DEVICE WHEN REMOVING THE GRATE TO PREVENT SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. WHEN REPLACING THE GRATE, CARE MUST BE TAKEN TO INSURE THAT THE 2" X 4" RESTS FIRMLY AGAINST THE FACE OF THE CURB AND/OR THE CONCRETE GUTTER.

(B9) CURB INLET PROTECTION (TYPE 4) SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:

209-09.43 CURB INLET PROTECTION (TYPE 4) PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CURB INLET PROTECTION (TYPE 4).

(B10) ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE IS ALSO ACCEPTABLE.

(B11) MAINTENANCE SHALL BE PERFORMED AS NEEDED. FOR PROPER FUNCTION, SEDIMENT REMOVAL SHALL BE PERFORMED CONTINUOUSLY AND/OR AFTER EVERY RAIN EVENT AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL, PER CUBIC YARD.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CURB INLET PROTECTION TYPE 3 & 4

1-20-06 EC-STR-39A

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

E.P.S.C. Detail

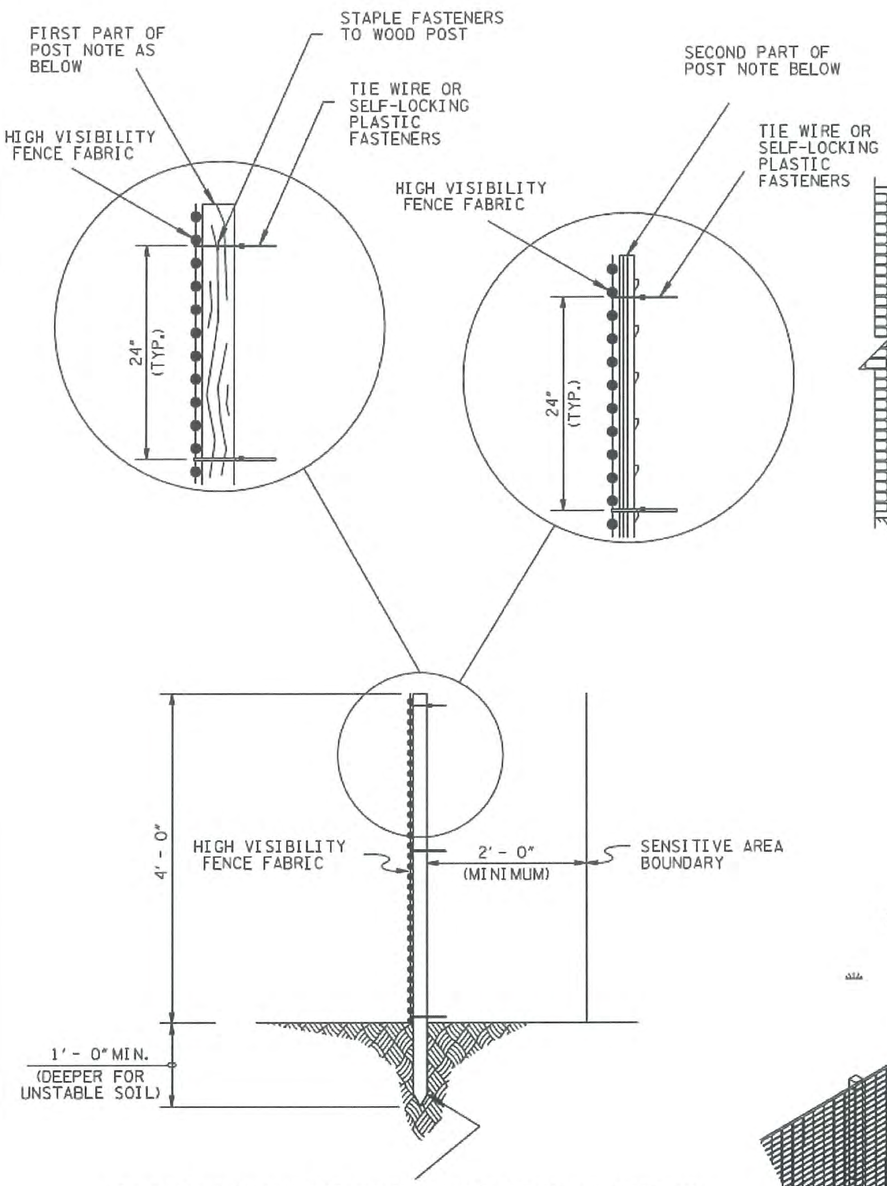
SCALE: N.T.S.

SHEET 54

REV. 05-24-12: ADDED HIGH VISIBILITY FENCE LEGEND.

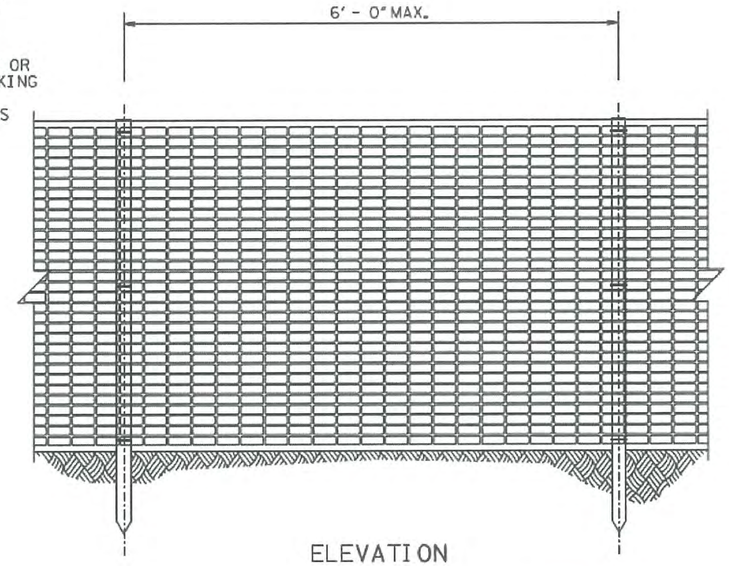
FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		

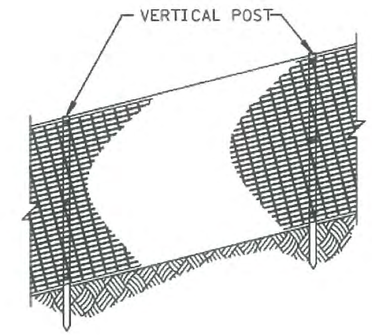


MIN. 2.25" (NOMINAL) X 2.25' (NOMINAL)-(1.75" ACTUAL X 1.75" ACTUAL) (3.06 SQ. IN.O HARDWOOD POST (OAK OR HICKORY) OR MIN. 1.25 LB/FT. STEEL POST (STD "T" OR "U" SECTION) LENGTH 60"

TYPICAL SECTION

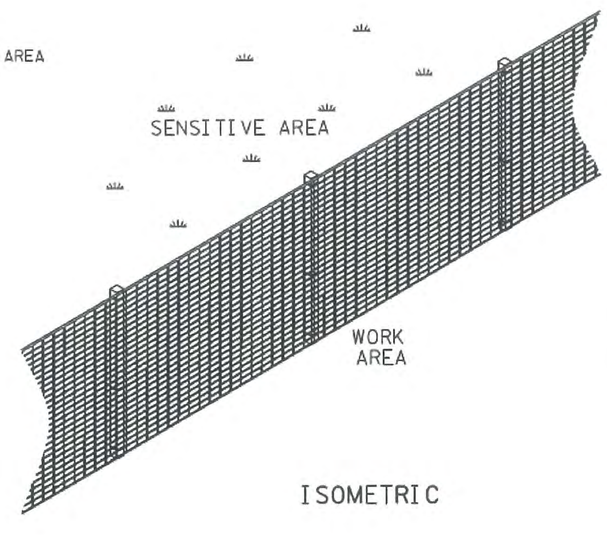


ELEVATION



ELEVATION

FENCE ON SLOPE



ISOMETRIC

GENERAL NOTES

(A) HIGH VISIBILITY FENCE IS INTENDED TO BE PLACED TO PREVENT DISTURBANCE OF SENSITIVE AREAS, THEIR BUFFERS, AND OTHER AREAS REQUIRED TO BE LEFT UNDISTURBED DURING CONSTRUCTION. IT MAY ALSO BE USED TO MARK APPROVED CLEARING LIMITS AND TO CONTROL VEHICLE ACCESS TO AND ON THE PROJECT SITE.

(B) HIGH VISIBILITY FENCE FABRIC SHALL BE MACHINED PRODUCED ORANGE COLORED MESH MANUFACTURED FROM POLYPROPYLENE OR POLYETHYLENE. IT SHALL BE FULLY STABILIZED ULTRAVIOLET RESISTANT.

(C) HIGH VISIBILITY FENCE FABRIC MAY BE MADE FROM RECYCLED MATERIALS. MATERIALS SHALL NOT CONTAIN BIODEGRADABLE FILLER MATERIALS THAT CAN DEGRADE THE PHYSICAL OR CHEMICAL CHARACTERISTICS OF THE FINISHED FABRIC.

(D) HIGH VISIBILITY FENCE FABRIC SHALL HAVE A MINIMUM 4 FOOT WIDTH AND SHALL BE FURNISHED IN ONE CONTINUOUS WIDTH AND SHALL NOT BE SPLICED TO CONFORM TO THE SPECIFIED WIDTH DIMENSION.

(E) STEEL POST SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 1.25 LB/FT. POST SHALL BE HOT-DIPPED GALVANIZED OR PAINT. STEEL POST MAY BE EQUIPPED WITH AN ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. IF POSTS ANCHOR PLATES USED THEY SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.

(F) HIGH VISIBILITY FENCE FABRIC SHALL BE FASTENED TO THE POST USING TIE WIRE OR SELF -LOCKING PLASTIC FASTENERS WITH A MAXIMUM FASTENERS SPACING OF 2 FEET. WHEN WOOD POSTS ARE USED THE FASTENERS SHALL BE STAPLED TO THE POST.

(G) HIGH VISIBILITY FENCE THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONSTRCTORS EXPENSE ON THE SAME DAY THE DAMAGE OCCURS.

(H) HIGH VISIBILITY FENCE SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:

707-08.11 HIGH VISIBILITY CONSTRUCTION FENCE, PER LF
PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION MAINTENANCE, AND REMOVAL OF HIGH VISIBILITY FENCE.

LEGEND: *HVF*HVF*

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

HIGH VISIBILITY FENCE

12-15-07 | S-F-1

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

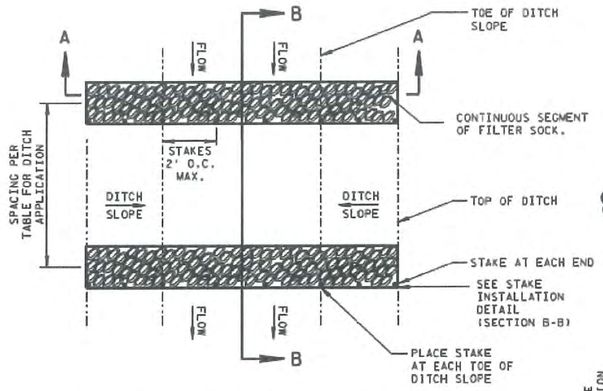
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

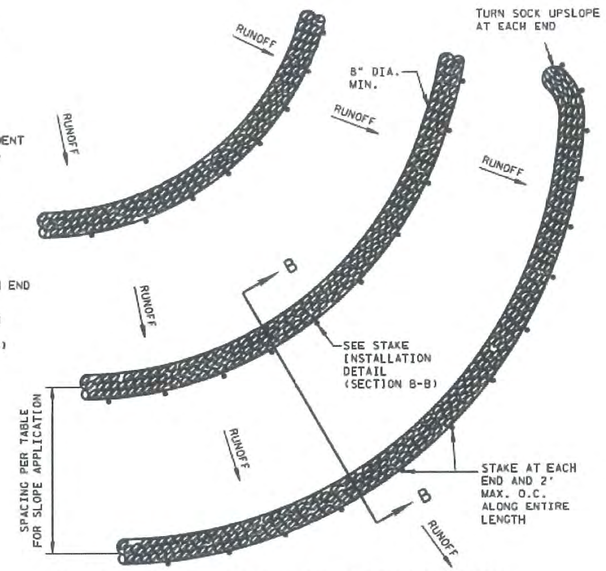
E.P.S.C. Detail

SCALE: N.T.S.

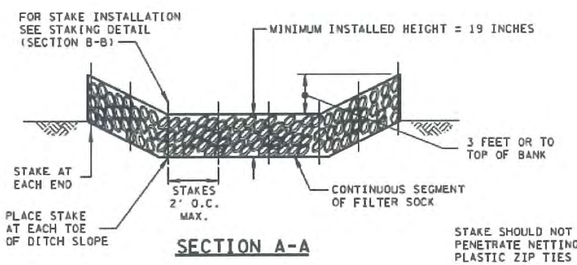
SHEET 55



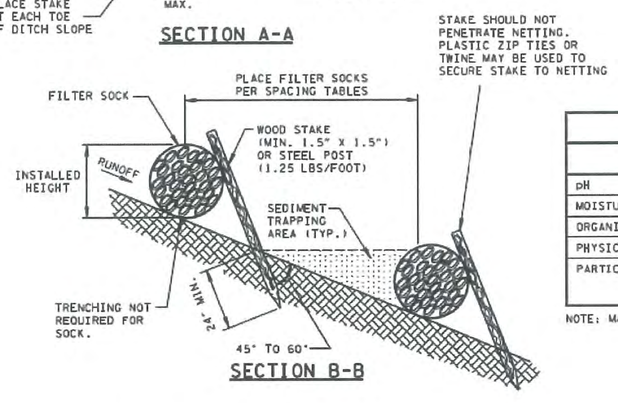
PLAN VIEW FOR DITCH APPLICATION



PLAN VIEW FOR SLOPE APPLICATION



SECTION A-A

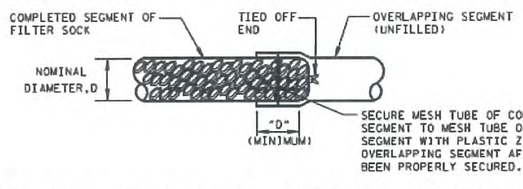


SECTION B-B

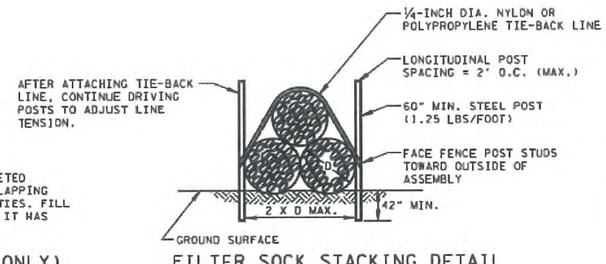
SOCK HEIGHTS INSTALLED		
NOMINAL DIAMETER, D	INSTALLED HEIGHT OF SINGLE SOCK	INSTALLED HEIGHT OF STACKED SOCKS
8"	6.5"	N/A
12"	9.5"	19"
18"	14.5"	29"
24"	19"	38"

MINIMUM SPECIFICATION FOR FILTER MEDIA		
PROPERTY	UNITS	RANGE
pH	pH	5.0 - 8.5
MOISTURE CONTENT	% WET WEIGHT BASIS	< 60
ORGANIC MATTER CONTENT	% DRY WEIGHT BASIS	25 - 100
PHYSICAL CONTAMINANTS	% DRY WEIGHT BASIS	< 1
PARTICLE SIZE	% PASSING SELECTED MESH SIZE, DRY WEIGHT BASIS	2 INCH - 99% 3/8 INCH - 30% - 50% MAX. PARTICLE SIZE 2 INCHES

NOTE: MANUFACTURER SPECIFICATION MAY BE SUBSTITUTED WITH THE APPROVAL OF ENGINEER.



FILTER SOCK JOINT DETAIL (FOR SLOPE APPLICATION ONLY)



FILTER SOCK STACKING DETAIL
SEE NOTE (D)

EROSION CONTROL PLAN LEGEND: ••SOCK••SOCK••SOCK••SOCK•• FILTER SOCK

FILTER SOCK CHECK DAM ESTIMATED QUANTITIES						
	V-DITCH[1]			TRAPEZOIDAL DITCH[2]		
	24" FILTER SOCK (INSTALLED HEIGHT 19")	12" FILTER SOCK STACKED (INSTALLED HEIGHT 19")	18" FILTER SOCK STACKED (INSTALLED HEIGHT 29")	24" FILTER SOCK (INSTALLED HEIGHT 19")	12" FILTER SOCK STACKED (INSTALLED HEIGHT 19")	18" FILTER SOCK STACKED (INSTALLED HEIGHT 29")
LENGTH(FT)	20	60	48	24	72	60

1. ESTIMATED QUANTITIES BASED ON 4:1 SIDE SLOPES. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION.
2. ESTIMATED QUANTITIES BASED ON 4FT BOTTOM WIDTH, 4 FT DEPTH, AND 4:1 SIDE SLOPES. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION.

FILTER SOCK SPACING FOR SLOPE APPLICATION				
SLOPE	8"	12"	18"	24"
2%	70'	100'	N/A	N/A
5%	30'	60'	100'	100'
10%	20'	30'	70'	100'
6:1	N/A	20'	40'	55'
4:1	N/A	20'	30'	30'
3:1	N/A	N/A	20'	25'
2:1	N/A	N/A	20'	20'

N/A = NOT RECOMMENDED

FILTER SOCK SPACING FOR DITCH APPLICATION	
DITCH SLOPE	MAXIMUM FILTER SOCK SPACING
LESS THAN 2%	125'
2%	100'
3%	70'
4%	50'
5%	40'
6%	30'
GREATER THAN 6%	25'

BASED ON AN INSTALLED HEIGHT OF 19 INCHES. SEE NOTE D.

FILTER SOCK GENERAL NOTES

(A) FILTER SOCKS CAN BE PLACED IN DITCHES OR AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES. THEY CAN ALSO SERVE TO REMOVE SEDIMENT FROM RUNOFF AND RELEASE IT AS SHEET FLOW.

(B) FILTER SOCKS INSTALLED ON A SLOPE SHALL BE PLACED ALONG OR ON THE GROUND CONTOUR. WHERE POSSIBLE FILTER SOCKS APPLIED AT THE TOE OF A SLOPE SHOULD BE PLACED 10 FEET AWAY FROM THE TOE IN ORDER TO PROVIDE SEDIMENT STORAGE. THE MAXIMUM DRAINAGE AREA SHALL BE ¼ ACRE PER 100 LF OF SOCK.

(C) FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE AREA SHALL BE 15 ACRES. AT SITES WHICH OUTFALL TO EXCEPTIONAL TENNESSEE WATERS OR SEDIMENT-IMPAIRED STREAMS, THE MAXIMUM DRAINAGE AREA SHALL BE LIMITED TO 10 ACRES. FILTER SOCKS SHALL NOT BE USED IN STREAMS, WETLANDS, OTHER NATURAL WATER RESOURCES, OR IN DITCHES WITH CONTINUOUS FLOWS.

(D) FOR DITCH APPLICATIONS, THE MINIMUM INSTALLED HEIGHT OF A SINGLE SOCK, OR OF AN ASSEMBLY OF STACKED SOCKS, SHALL BE 19 INCHES. FILTER SOCKS MAY BE STACKED AS DETAILED ON THIS DRAWING TO ACHIEVE THE REQUIRED HEIGHT. SOCKS SHALL BE PLACED PERPENDICULAR TO THE FLOW OF WATER. FILTER SOCKS SHALL CONTINUE UP THE SIDE SLOPES TO THE TOP OF BANK OR A MAXIMUM OF 3 FEET ABOVE THE INSTALLED HEIGHT FILTER SOCKS SHALL REMAIN IN PLACE UNTIL ALL UPSTREAM AREAS ARE PERMANENTLY STABILIZED.

(E) FILTER SOCKS SHALL CONSIST OF A TUBULAR MESH SOCK WITH OPENINGS NO GREATER THAN 3/8THS OF AN INCH IN SIZE. THE MESH SOCK IS NOT REQUIRED TO BE BIODEGRADABLE. FILL MATERIAL SHALL CONSIST OF EITHER WOOD CHIPS (MULCH) OR A 50/50 COMBINATION OF WOOD CHIPS AND MANUFACTURED COMPOST MATERIAL.

(F) FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED IN DIAMETERS OF 8, 12, 18 OR 24 INCHES. DIAMETER TOLERANCE IS 2 INCHES. A FILTER SOCK WILL FLATTEN OUT TO AN OVAL WHEN IT IS PLACED; THUS, THE INSTALLED HEIGHT WILL BE LESS THAN THE NOMINAL DIAMETER.

(G) STEEL POSTS SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 1.25 LB/FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH GRADE WEATHER RESISTANT STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH AN ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.

(H) FILTER SOCKS ARE FILLED ON THE PROJECT SITE AND MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED AS SHOWN ON THIS DRAWING.

(I) ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE TO FILTER SOCKS IS ALSO ACCEPTABLE. FOR DITCH APPLICATIONS, SANDBAG OR GRAVEL BAG BERMS MAY ALSO BE USED AS ALTERNATE MATERIALS.

(J) FILTER SOCKS SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

209-03.20 FILTER SOCK (8 INCH) PER LINEAR FOOT
209-03.21 FILTER SOCK (12 INCH) PER LINEAR FOOT
209-03.22 FILTER SOCK (18 INCH) PER LINEAR FOOT
209-03.23 FILTER SOCK (24 INCH) PER LINEAR FOOT
209-08.09 FILTER SOCK CHECK DAM PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF FILTER SOCKS.

(K) SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER SOCK WHEN IT HAS ACCUMULATED TO ONE-HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

(L) FILTER SOCKS SHALL BE INSPECTED AFTER EACH RUNOFF EVENT AND SHALL BE REMOVED AND REPLACED IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

(M) FILTER SOCKS SHOULD BE REMOVED FROM SLOPES AFTER STABILIZATION IS COMPLETE. THIS MAY BE ACCOMPLISHED BY CUTTING THE SOCK OPEN AND SPREADING THE FILL MATERIAL ON THE SITE. ALL NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED. FILTER SOCKS APPLIED IN DITCHES SHALL BE COMPLETELY REMOVED.

☐ REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FILTER SOCK

4-1-08 EC-STR-8

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

BRANDON J. TAYLOR
REGISTERED ENGINEER
CIVIL
No. 118575
STATE OF TENNESSEE
5/12/14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

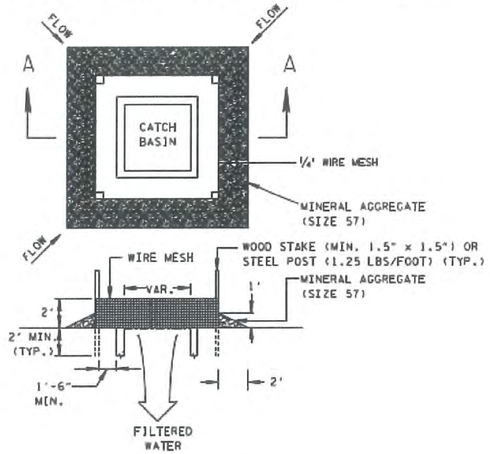
46th and Murphy Streetscape Project

E.P.S.C. Detail

SCALE: N.T.S.

SHEET 56

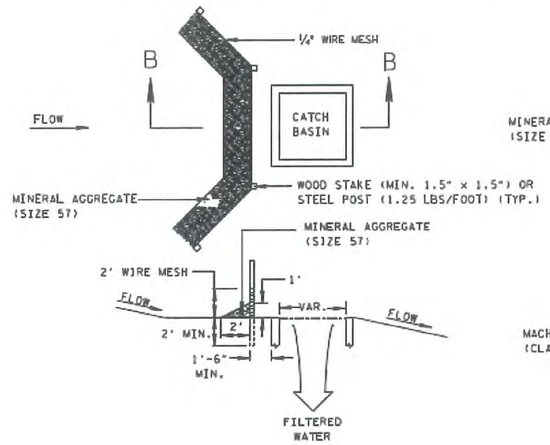
CATCH BASIN PROTECTION (TYPE B)



SECTION A-A

EROSION CONTROL PLAN LEGEND: (B) CATCH BASIN PROTECTION (TYPE B)

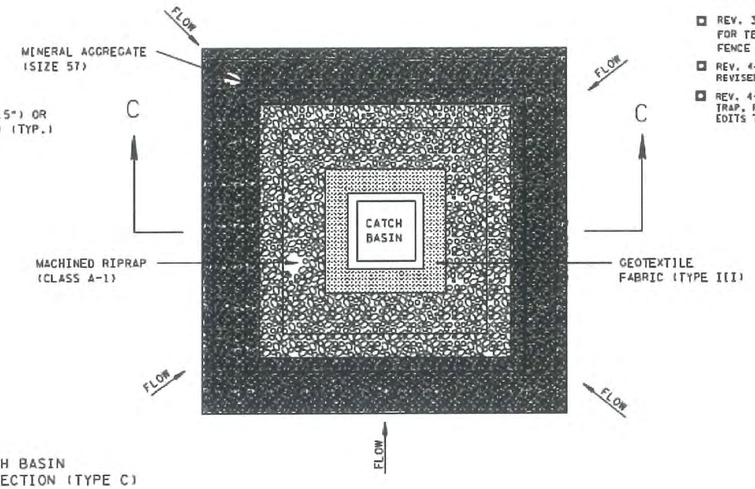
CATCH BASIN PROTECTION (TYPE C)



SECTION B-B

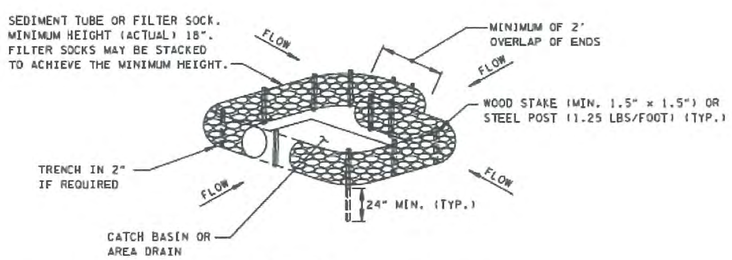
EROSION CONTROL PLAN LEGEND: (C) CATCH BASIN PROTECTION (TYPE C)

CATCH BASIN PROTECTION (TYPE A)



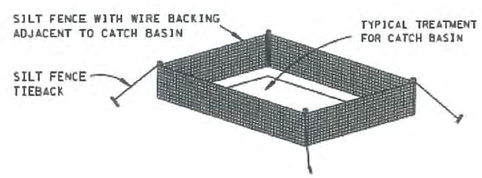
EROSION CONTROL PLAN LEGEND: (A) CATCH BASIN PROTECTION (TYPE A)

CATCH BASIN PROTECTION (TYPE D)

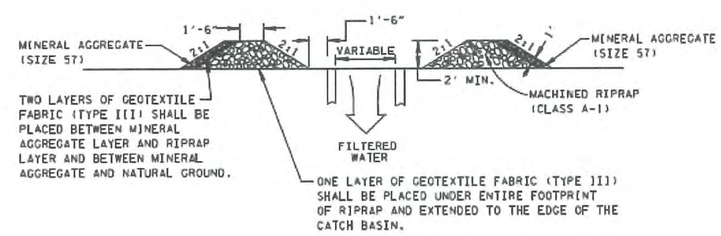


EROSION CONTROL PLAN LEGEND: (D) CATCH BASIN PROTECTION (TYPE D)

CATCH BASIN PROTECTION (TYPE E)



EROSION CONTROL PLAN LEGEND: (E) CATCH BASIN PROTECTION (TYPE E)



SECTION C-C

CATCH BASIN PROTECTION GENERAL NOTES

(A) CATCH BASIN PROTECTION IS USED TO PREVENT SEDIMENT IN CONSTRUCTION SITE RUNOFF FROM ENTERING A STORM SEWER SYSTEM.

(B) TYPE B, TYPE C, TYPE D (SEDIMENT TUBE), AND TYPE E SHOULD ONLY BE USED IN UNPAVED AREAS. TYPE A AND TYPE D (FILTER SOCK) MAY BE USED IN BOTH UNPAVED AND PAVED AREAS.

(C) TYPE B, TYPE C, TYPE D, AND TYPE E HAVE A MAXIMUM DRAINAGE AREA OF 1 ACRE. TYPE A HAS A MAXIMUM DRAINAGE AREA OF 2 ACRES.

(D) ONLY GEOTEXTILE FABRIC (TYPE III) LISTED ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.

(E) THE WIRE MESH USED IN TYPE B AND TYPE C SHALL BE A MINIMUM 19 GAGE HARDWARE CLOTH WITH 1/4 INCH MESH OPENINGS.

(F) FOR INSTALLATION DETAILS FOR SILT FENCE WITH WIRE BACKING (EC-STR-3C), FILTER SOCK (EC-STR-8), AND SEDIMENT TUBE (EC-STR-37) REFER TO THEIR RESPECTIVE STANDARD DRAWING. FILTER SOCKS MAY NOT REQUIRE STAKING WHEN APPROVED BY THE ENGINEER.

(G) ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE IS ALSO ACCEPTABLE.

(H) CATCH BASIN PROTECTION SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

209-40.30	CATCH BASIN PROTECTION (TYPE A) PER EACH
209-40.31	CATCH BASIN PROTECTION (TYPE B) PER EACH
209-40.32	CATCH BASIN PROTECTION (TYPE C) PER EACH
209-40.33	CATCH BASIN PROTECTION (TYPE D) PER EACH
209-40.34	CATCH BASIN PROTECTION (TYPE E) PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CATCH BASIN PROTECTION.

(I) SEDIMENT SHALL BE REMOVED FROM BEHIND THE CATCH BASIN PROTECTION WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL, PER CUBIC YARD.

REV. 12-18-95: CHANGED DRAWING NO. FROM ESC-STR-19 TO EC-STR-19.

- REV. 5-27-01: CHANGED ITEM NO. 303-15.01 TO 303-10.01.
- REV. 12-18-02: IN CATCH BASIN SILT FENCE SILT TRAP CHANGED TYPE OF SILT FENCE FROM SILT FENCE (WITHOUT BACKING) TO SILT FENCE (WITH BACKING) AND PAY ITEM FROM 209-08 TO 209-08.02.
- REV. 3-15-04: CHANGED LEGENDS FOR TEMPORARY ROCK AND SILT FENCE CATCH BASIN PROTECTION.
- REV. 4-15-06: REFORMATTED SHEET, REVISED NOTES, MISC. EDITS TO DRAWING.
- REV. 4-1-08: REPLACED HAY BALE SILT TRAP, REVISED GENERAL NOTES, AND MISC. EDITS TO DRAWING.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CATCH BASIN PROTECTION

10-26-92 EC-STR-19

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

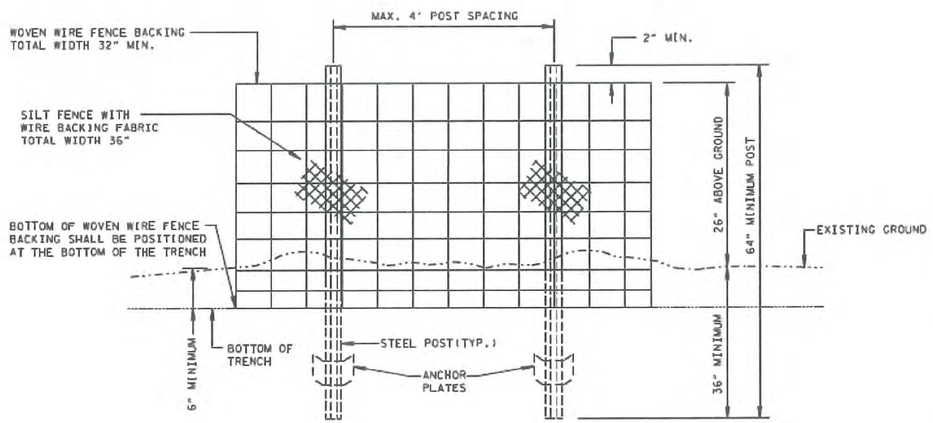
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

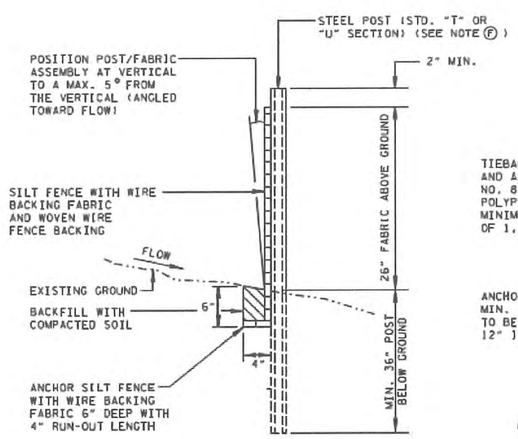
E.P.S.C. Detail

SCALE: N.T.S.

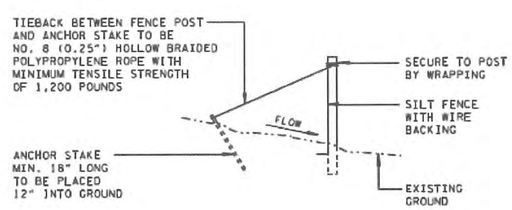
SHEET 57



ELEVATION VIEW



SECTIONAL VIEW



SILT FENCE TIEBACK

(WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS. COST TO BE INCLUDED IN THE ITEMS FOR SILT FENCE WITH WIRE BACKING)

EROSION CONTROL PLAN LEGEND: • SFB • SFB • SFB • SILT FENCE WITH WIRE BACKING

SILT FENCE WITH WIRE BACKING FABRIC SPECIFICATIONS

FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MARV VALUES OF TEST DATA)
GEOTEXTILE FABRIC TYPE	WOVEN MONOFILAMENT
APPARENT OPENING SIZE (ASTM D4751)	#70 TO #100 STANDARD SIEVE
WATER FLUX (ASTM D4491)	≥ 18 GPM/FT^2
TENSILE STRENGTH (ASTM D4632)	≥ 310 LB. (WARP DIRECTION) X 200 LB. (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	≥ 90%
BURST STRENGTH (ASTM D3786)	≥ 400 PSI
PUNCTURE STRENGTH (ASTM D4833)	≥ 105 LB.
TRAPEZOIDAL TEAR (ASTM D4533)	≥ 100 LB. (WARP DIRECTION) X 60 LB. (FILL DIRECTION)

SILT FENCE WITH WIRE BACKING GENERAL NOTES

(A) SILT FENCE WITH WIRE BACKING IS USED TO INTERCEPT SMALL AMOUNTS OF SEDIMENT AND REDUCE VELOCITY FROM SHEET FLOW ONLY. USE SILT FENCE WITH WIRE BACKING UP-GRADIENT TO, AND ALONG THE PERIMETER OF STREAMS, WETLANDS, PONDS, SPRINGS, OR OTHER NATURAL WATER RESOURCES LOCATED WITHIN OR ADJACENT TO THE PROJECT RIGHT-OF-WAY AND AT LARGE FILL SLOPES.

(B) THE MAXIMUM DRAINAGE AREA SIZE FOR CONTINUOUS SILT FENCE WITH BACKING SHALL BE 1 ACRE PER 150 LINEAR FEET OF FENCE LENGTH. MAXIMUM SLOPE LENGTH BEHIND FENCE ON UPSLOPE SIDE SHALL BE 290 FEET (AS MEASURED ALONG THE GROUND SURFACE).

(C) WHEN INSTALLED AT THE TOE OF A SLOPE SILT FENCE WITH WIRE BACKING SHOULD BE PLACED 5 FEET TO 10 FEET AWAY FROM THE TOE TO ALLOW SPACE FOR PONDING OF WATER, COLLECTION OF SEDIMENT, AND EASE OF MAINTENANCE AND REMOVAL.

(D) WHEN TWO SECTIONS OF SILT FENCE WITH WIRE BACKING FABRIC ADJOIN EACH OTHER, THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING EC-STR-3E.

(E) MAINTENANCE SHALL BE PERFORMED AS NEEDED; CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND/OR WHEN EVIDENCE OF FILTER CLOGGING IS OBSERVED.

(F) STEEL POSTS SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 1.25 LB/FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH GRADE WEATHER RESISTANT STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH AN ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED TO AID IN THE ATTACHMENT OF THE WIRE BACKING. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.

(G) STEEL POSTS SHALL HAVE A PROJECTION FOR FASTENING WIRE TO THEM. WOVEN WIRE FENCE BACKING TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST SIX PER POST.

(H) FABRIC SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE BACKING WITH THE TIES SPACED EVERY 24 INCHES ALONG TOP AND MIDSECTION.

(I) WOVEN WIRE FENCE BACKING SHALL MEET THE REQUIREMENTS FOR ASTM A-116 FOR NO. 11 FARM, DESIGN NO. 832-6-11, CLASS 3 COATING.

(J) SILT FENCE WITH BACKING SHOULD BE PLACED ALONG OR NEAR THE GROUND CONTOUR. THE BOTTOM OF FENCE AT GROUNDLINE SHOULD BE ON A ZERO PERCENT (0%) GRADE, PLUS OR MINUS FIVE TENTHS OF ONE PERCENT (±0.5%). THE END OF A ROW OF SILT FENCE WITH WIRE BACKING SHOULD BE TURNED UP SLOPE FORMING A J-HOOK TO FILTER ANY CONCENTRATED FLOW BEHIND FENCE.

(K) FOR TRENCH-BASED INSTALLATIONS, SILT FENCING WITH WIRE BACKING SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:

- EXCAVATE TRENCH A MAXIMUM OF 4 INCHES WIDE AND 6 INCHES DEEP. THE TRENCH SHALL BE HAND-CLEANED FOLLOWING EXCAVATION TO REMOVE BULKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
- DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL.
- ATTACH WOVEN WIRE FENCE BACKING TO POSTS AND FABRIC TO THE WIRE BACKING USING WIRE TIES. SPACING AND DENSITY OF TIES SHALL BE INSTALLED ACCORDING TO NOTES G AND H
- INSTALL FABRIC IN TRENCH.
- BACKFILL TRENCH (OVER-FILL) WITH SOIL PLACED AROUND FABRIC.
- COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).

(L) ONLY SILT FENCE WITH WIRE BACKING FABRIC LISTED ON THE QUALIFIED PRODUCTS LIST MAY BE USED. ANY PRODUCTS LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE MAY ALSO BE USED.

(M) SILT FENCE WITH WIRE BACKING SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:

209-08.02 TEMPORARY SILT FENCE (WITH BACKING) PER LINEAR FOOT

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF THE SILT FENCE WITH WIRE BACKING.

(N) SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WITH WIRE BACKING WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

REV. 12-18-03: MODIFIED TABLE (2) AND GENERAL NOTE (E).

☐ REV. 7-29-04: CHANGED VALUES IN TABLE 2 FROM MEAN TO MARV VALUES.

☐ REV. 4-15-06: MODIFIED FABRIC HEIGHT. ADDED NOTES (J) AND (K). REVISED TABLE TITLE. REORDERED GENERAL NOTES. REFORMATTED SHEET. REVISED NOTES. MISC. EDITS TO DRAWING.

☐ REV. 4-1-08: REMOVED TEMPORARY REFERENCE. REVISED NOTES. AND MISC. EDITS TO DRAWING.

☐ REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SILT FENCE WITH WIRE BACKING

12-18-02 | EC-STR-3C

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

BRANDON J. FAYLOR REGISTERED ENGINEER AGRICULTURE NO. 115374 STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

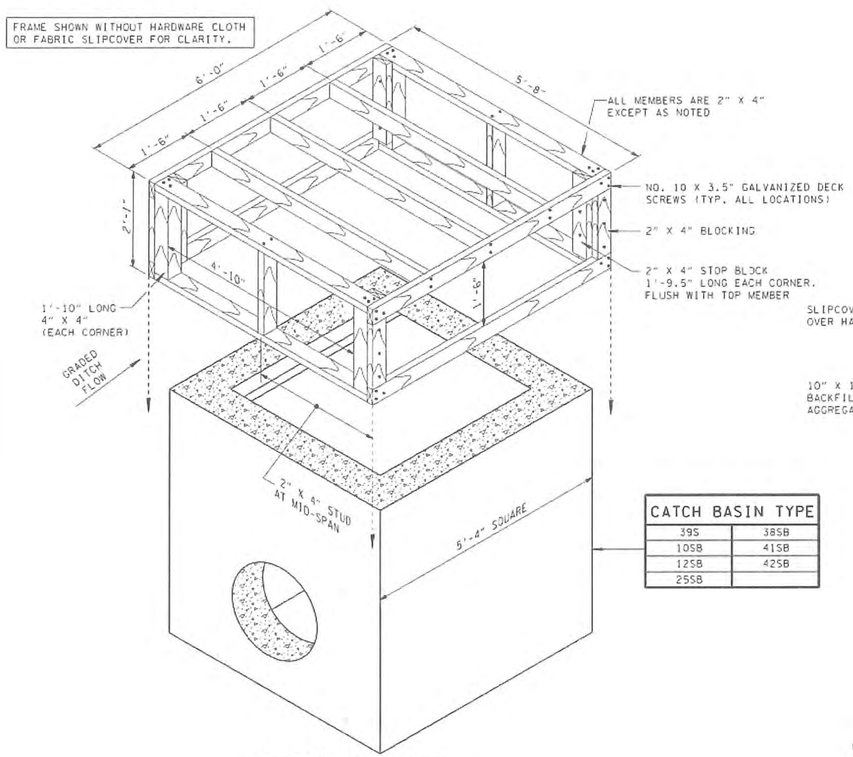
E.P.S.C. Detail

SCALE: N.T.S.

SHEET 58

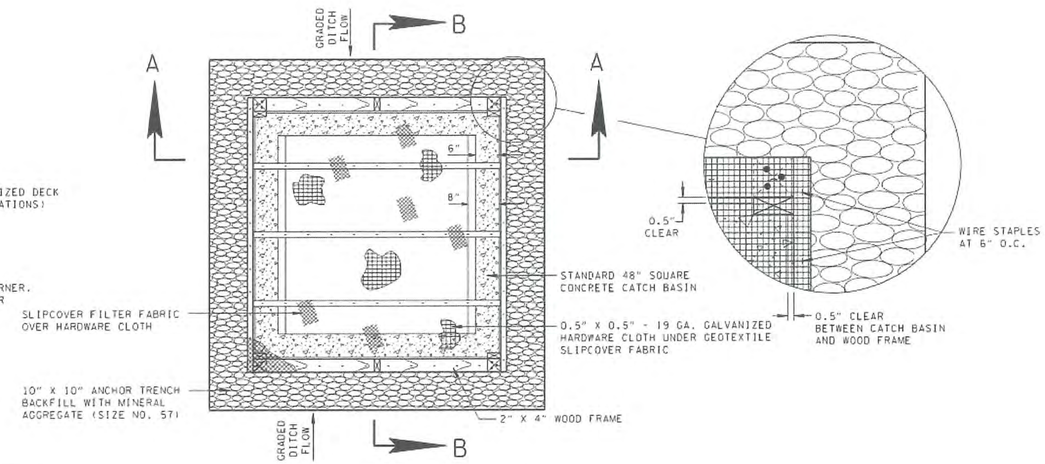
FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		

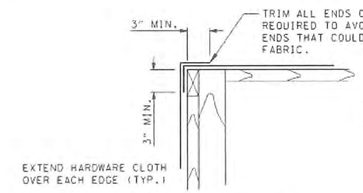


ISOMETRIC VIEW
CATCH BASIN FILTER ASSEMBLY
N.T.S.

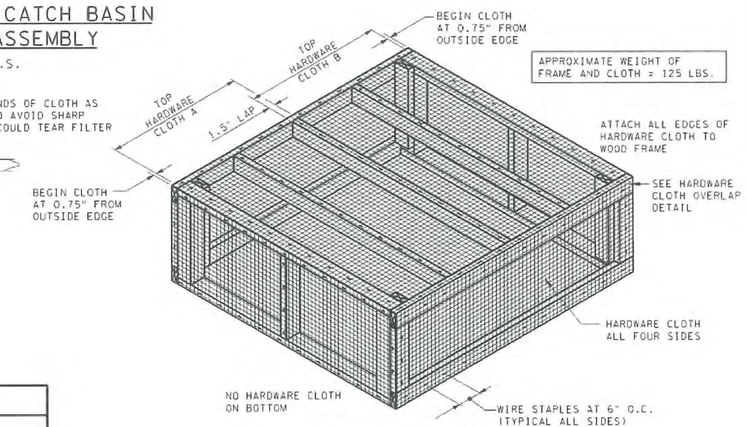
CATCH BASIN TYPE	
39S	38SB
10SB	41SB
12SB	42SB
25SB	



PLAN VIEW - CATCH BASIN
FILTER ASSEMBLY
N.T.S.



HARDWARE CLOTH
OVERLAP DETAIL
N.T.S.



APPROXIMATE WEIGHT OF FRAME AND CLOTH = 125 LBS.

ISOMETRIC VIEW
FRAME WITH HARDWARE CLOTH
N.T.S.

EROSION CONTROL PLAN LEGEND: (2) CATCH BASIN FILTER ASSEMBLY (TYPE 2)

CATCH BASIN FILTER ASSEMBLY GENERAL NOTES

(A) DRAWING TO BE USED WITH STANDARD TYPE 39S AND D-CB-SERIES SB CATCH BASINS. SEE STANDARD DRAWINGS FOR CATCH BASIN DIMENSIONS AND DETAILS.

(B) THE CATCH BASIN FILTER ASSEMBLY IS TO BE USED WHERE INTERCEPTION OF CONCENTRATED FLOWS (e.g. DITCHES AND SWALES) IS REQUIRED AFTER STRUCTURES ARE CONSTRUCTED BUT PRIOR TO ESTABLISHING VEGETATION.

(C) 2 x 4 AND 4 x 4 PRESSURE TREATED MEMBERS SHOWN ARE NOMINAL DIMENSIONS. TYPICAL ACTUAL DIMENSIONS ARE 1.5 x 3.5 INCH AND 3.5 x 3.5 INCH RESPECTIVELY. ACTUAL DIMENSIONS OF WOOD MAY VARY EVEN GREATER DEPENDING ON MOISTURE CONTENT. ALL WOOD SHALL BE NO. 2 PRESSURE TREATED SOUTHERN YELLOW PINE.

(D) PERIODIC MAINTENANCE AND CLEANING OF THE STRUCTURE SHALL BE PERFORMED AS NECESSARY TO PREVENT CLOGGING OF THE FILTER FABRIC. FILTER ASSEMBLY MAY BE CLEANED AT AN ACCEPTABLE LOCATION WITH WATER OR BY BRUSHING AND BLOWING CLEAN WITH COMPRESSED AIR. MAINTENANCE AND CLEANING OF STRUCTURES WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE PRICE BID FOR THE STRUCTURE.

CATCH BASIN FILTER ASSEMBLY GENERAL NOTES (CONT.)

(E) DEFECTIVE WOOD, HARDWARE CLOTH OR FILTER FABRIC SHALL BE REPLACED AS NECESSARY TO INSURE PROPER FUNCTIONING OF FILTER ASSEMBLY. REUSE OF ASSEMBLIES IS ACCEPTABLE PROVIDED THE UNIT IS IN PROPER WORKING CONDITION. APPROVAL MUST BE GIVEN BY TDOT ENGINEER.

(F) ASSEMBLY AND STONE SHALL BE REMOVED AFTER UPSTREAM VEGETATION HAS BEEN ESTABLISHED OR OTHER SEDIMENT CONTROL STRUCTURES ARE IN PLACE. BACKFILL AND COMPACT ANCHOR TRENCH TO FINAL GRADE AS REQUIRED AFTER REMOVAL.

(G) IF NECESSARY, AT DIRECTION OF TDOT ENGINEER, SLIPCOVER MAY BE SECURED IN PLACE AT THE LOWEST PRACTICAL POINT WITH NYLON STRING, TWINE, WIRE OR OTHER SUITABLE MATERIAL.

(H) WHERE LARGE QUANTITIES OF SEDIMENT OR HIGH VELOCITIES OF APPROACHING WATER ARE ANTICIPATED DUE TO SPACING OF CATCH BASINS, DITCH GRADE, ETC...OTHER EROSION PREVENTION AND SEDIMENT CONTROL DEVICES MAY BE NECESSARY UPSTREAM OF FILTER ASSEMBLY.

(I) ALL LABOR AND MATERIALS NECESSARY TO CONSTRUCT AND INSTALL TEMPORARY CATCH BASIN FILTER ASSEMBLY INCLUDING TRENCHING, BACKFILLING, STONE, AND SLIPCOVER SHALL BE PAID FOR UNDER ITEM NUMBER 209-40.42, CATCH BASIN FILTER ASSEMBLY (TYPE 2), PER EACH.

INSTALLATION SEQUENCE FOR HARDWARE CLOTH

INSTALL TOP HARDWARE CLOTH A. PULL MATERIAL TIGHT, LAP AND STAPLE AS SHOWN. CUT TO LENGTH AND TRIM SHARP EDGES.

INSTALL TOP HARDWARE CLOTH B - OVERLAPPING CLOTH A AT CENTER TOP BRACE. PULL CLOTH TIGHT, LAP, AND STAPLE AS SHOWN. CUT TO LENGTH AND TRIM ALL SHARP EDGES.

INSTALL HARDWARE CLOTH AROUND EXTERIOR OF WOOD FRAME USING ONE CONTINUOUS PIECE BEGINNING AT A CORNER, ENDING AT SAME CORNER, AND OVERLAPPING AS REQUIRED. PULL TIGHT AND STAPLE EACH SIDE BEFORE PROCEEDING WITH SUBSEQUENT SIDES.

TRIM EXCESS ALONG BOTTOM AS NECESSARY.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CATCH BASIN
FILTER ASSEMBLY
(TYPE 2)

4-15-04 | EC-STR-42

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy
Streetscape Project

E.P.S.C. Detail

SCALE: N.T.S.

SHEET 59

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

   a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

   a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

   b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.

   c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.

   d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

   FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 AND W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

   SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.

   WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

   THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

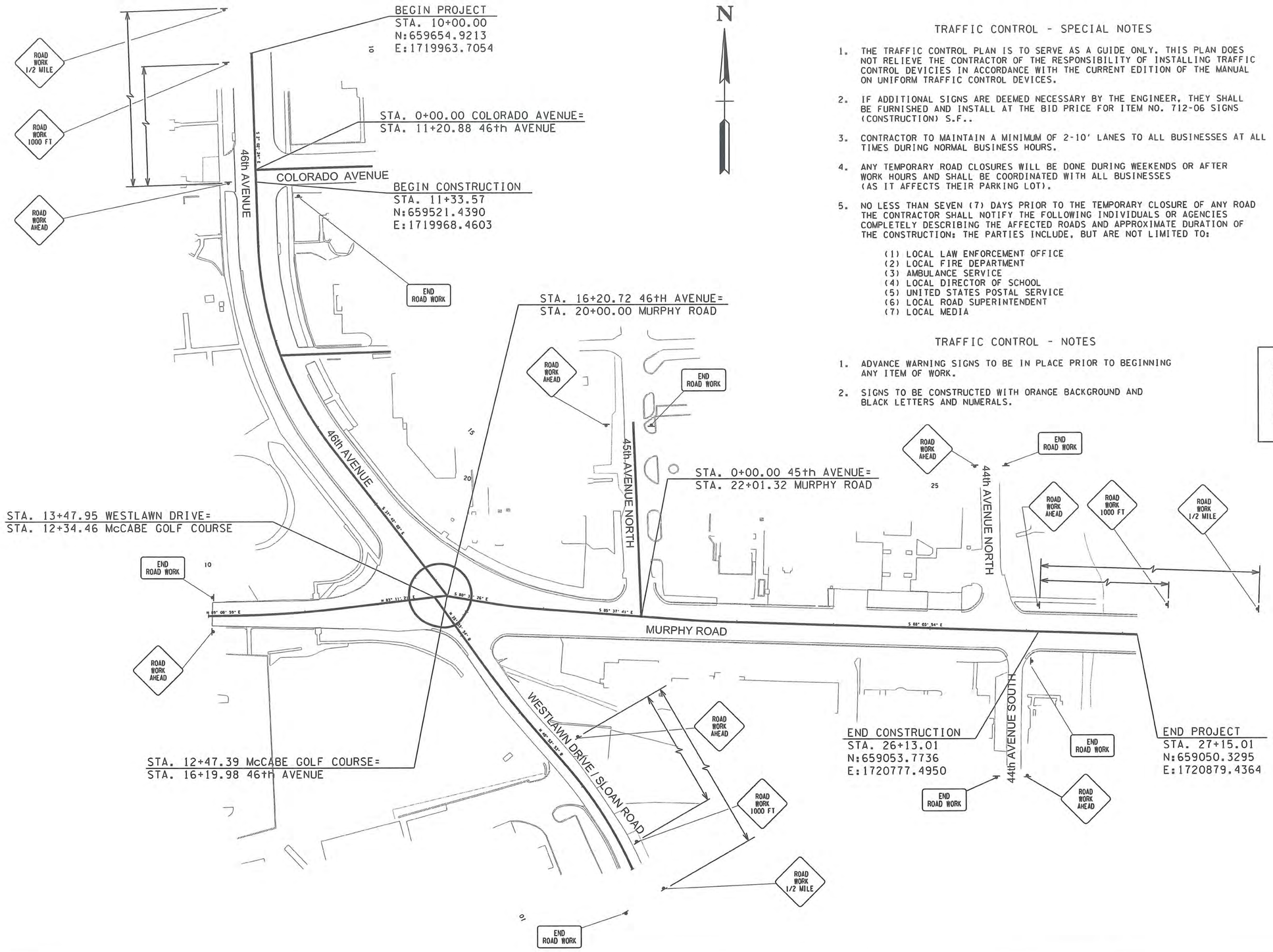
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Traffic Control Drop Off Notes

SCALE: N.T.S.

SHEET 60



FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK

DATE:	05/02/2014	BJT
UPDATED DATE		

TRAFFIC CONTROL - SPECIAL NOTES

1. THE TRAFFIC CONTROL PLAN IS TO SERVE AS A GUIDE ONLY. THIS PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. IF ADDITIONAL SIGNS ARE DEEMED NECESSARY BY THE ENGINEER, THEY SHALL BE FURNISHED AND INSTALL AT THE BID PRICE FOR ITEM NO. 712-06 SIGNS (CONSTRUCTION) S.F..
3. CONTRACTOR TO MAINTAIN A MINIMUM OF 2-10' LANES TO ALL BUSINESSES AT ALL TIMES DURING NORMAL BUSINESS HOURS.
4. ANY TEMPORARY ROAD CLOSURES WILL BE DONE DURING WEEKENDS OR AFTER WORK HOURS AND SHALL BE COORDINATED WITH ALL BUSINESSES (AS IT AFFECTS THEIR PARKING LOT).
5. NO LESS THAN SEVEN (7) DAYS PRIOR TO THE TEMPORARY CLOSURE OF ANY ROAD THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND APPROXIMATE DURATION OF THE CONSTRUCTION: THE PARTIES INCLUDE, BUT ARE NOT LIMITED TO:

   (1) LOCAL LAW ENFORCEMENT OFFICE
   (2) LOCAL FIRE DEPARTMENT
   (3) AMBULANCE SERVICE
   (4) LOCAL DIRECTOR OF SCHOOL
   (5) UNITED STATES POSTAL SERVICE
   (6) LOCAL ROAD SUPERINTENDENT
   (7) LOCAL MEDIA

TRAFFIC CONTROL - NOTES

1. ADVANCE WARNING SIGNS TO BE IN PLACE PRIOR TO BEGINNING ANY ITEM OF WORK.
2. SIGNS TO BE CONSTRUCTED WITH ORANGE BACKGROUND AND BLACK LETTERS AND NUMERALS.

PRIOR TO BEGINNING ANY WORK IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT A TRAFFIC CONTROL PLAN TO THE PERMITS DIVISION OF THE DEPARTMENT OF PUBLIC WORKS. NO WORK SHALL BE PERFORMED WITHOUT PROPER PERMITS AND AN APPROVED TRAFFIC CONTROL PLAN.

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
No. 112[illegible]
STATE OF TENNESSEE
5/2/14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

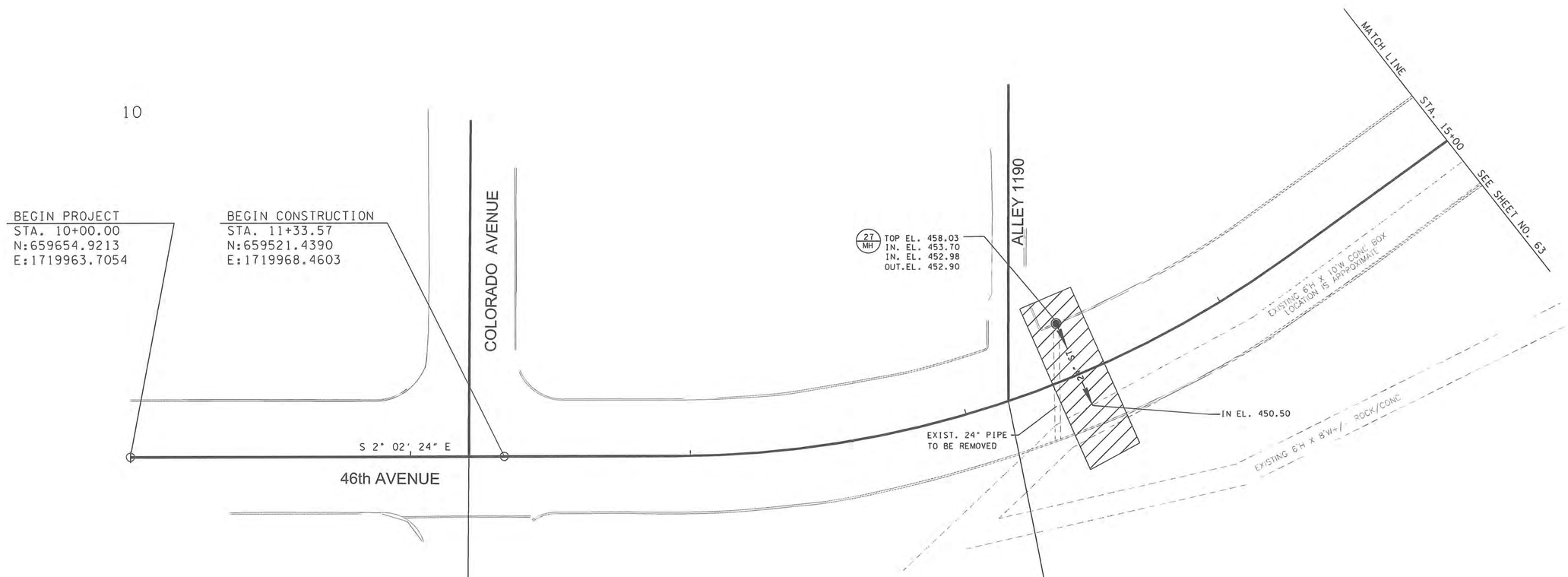
46th and Murphy Streetscape Project

Traffic Control Notes and Details

SCALE: 1"=100'

SHEET 61

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



Phase 1

1. CONSTRUCT STORM SEWER TIE-INS TO EXISTING 10'x6' BOX CULVERT
2. CAP PIPES TO BE TIED INTO AT A LATER CONSTRUCTION PHASE.
3. CONSTRUCT DRIVEWAY TO McABES GOLF COURSE PARKING LOT.
4. CONTRACTOR TO USE PORTABLE BARRIER RAIL AS NEEDED DURING PHASE 1.

STA. 0+00.00 COLORADO AVENUE=
STA. 11+20.88 46th AVENUE

STA. 11+13.72 ALLEY 1190=
STA. 13+15.86 46th AVENUE

TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

0 20' 40' 60'

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

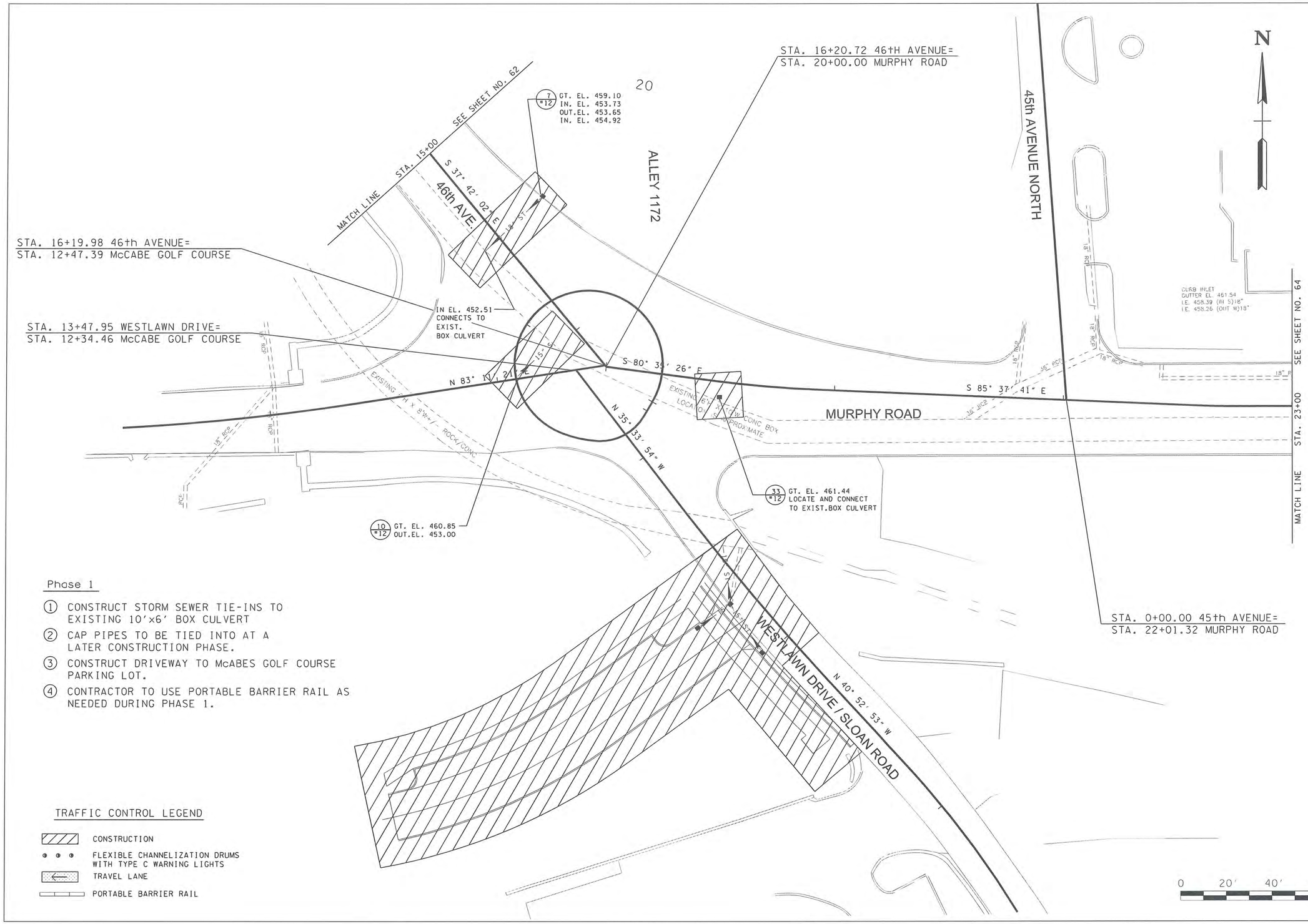
46th and Murphy Streetscape Project

Traffic Control Phase 1
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 62

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



Phase 1

1. CONSTRUCT STORM SEWER TIE-INS TO EXISTING 10'x6' BOX CULVERT
2. CAP PIPES TO BE TIED INTO AT A LATER CONSTRUCTION PHASE.
3. CONSTRUCT DRIVEWAY TO McABES GOLF COURSE PARKING LOT.
4. CONTRACTOR TO USE PORTABLE BARRIER RAIL AS NEEDED DURING PHASE 1.

TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

BRANDON J. TAYLOR
LICENSED PROFESSIONAL ENGINEER
No. 112...
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

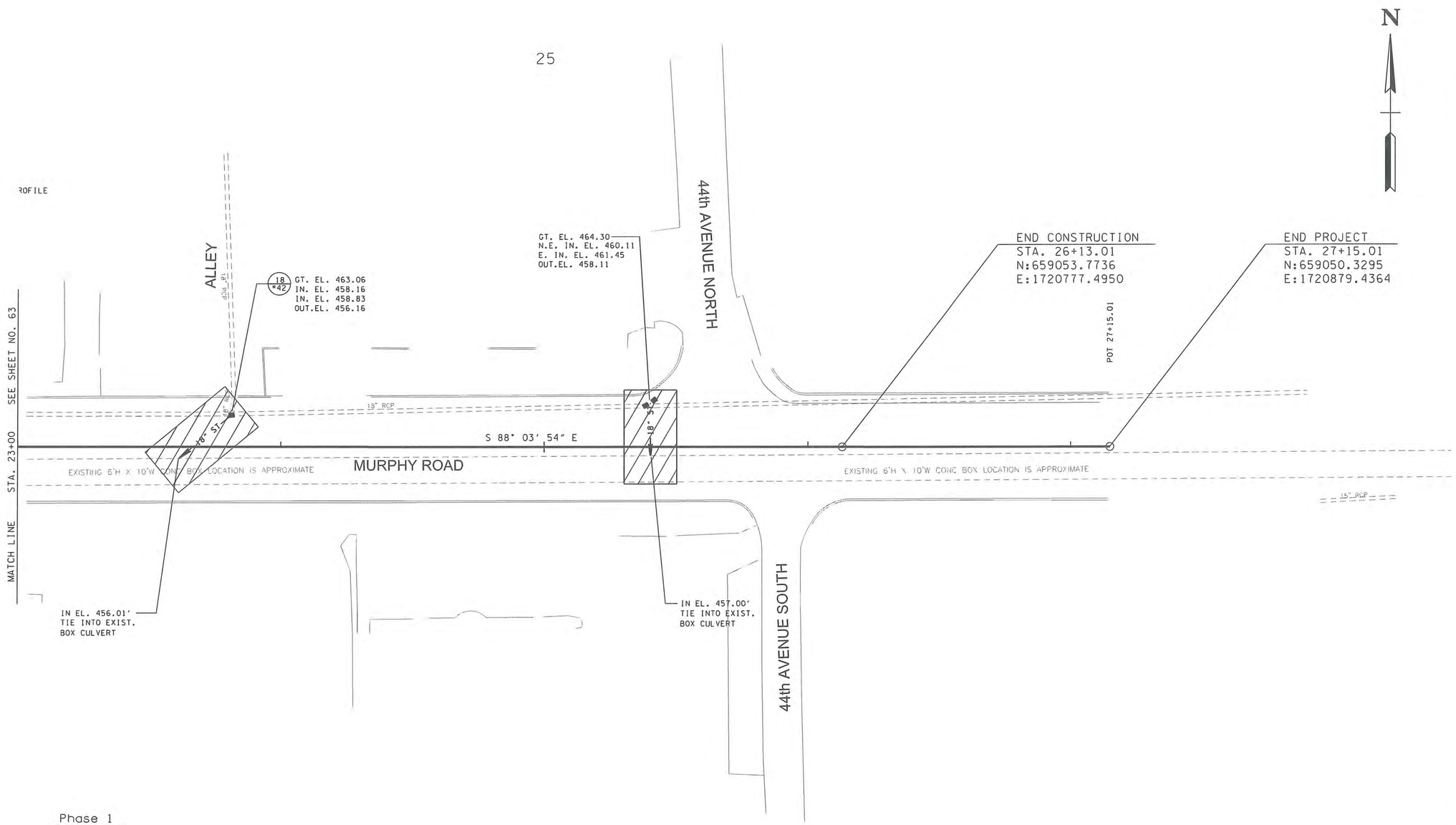
46th and Murphy Streetscape Project

Traffic Control Phase 1
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 63

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



Phase 1

1. CONSTRUCT STORM SEWER TIE-INS TO EXISTING 10'x6' BOX CULVERT
2. CAP PIPES TO BE TIED INTO AT A LATER CONSTRUCTION PHASE.
3. CONSTRUCT DRIVEWAY TO McABES GOLF COURSE PARKING LOT.
4. CONTRACTOR TO USE PORTABLE BARRIER RAIL AS NEEDED DURING PHASE 1.

TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

0 20' 40' 60'

BRANDON J. TAYLOR REGISTERED ENGINEER AGRICULTURE No. 112 STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Traffic Control Phase 1
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 64

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
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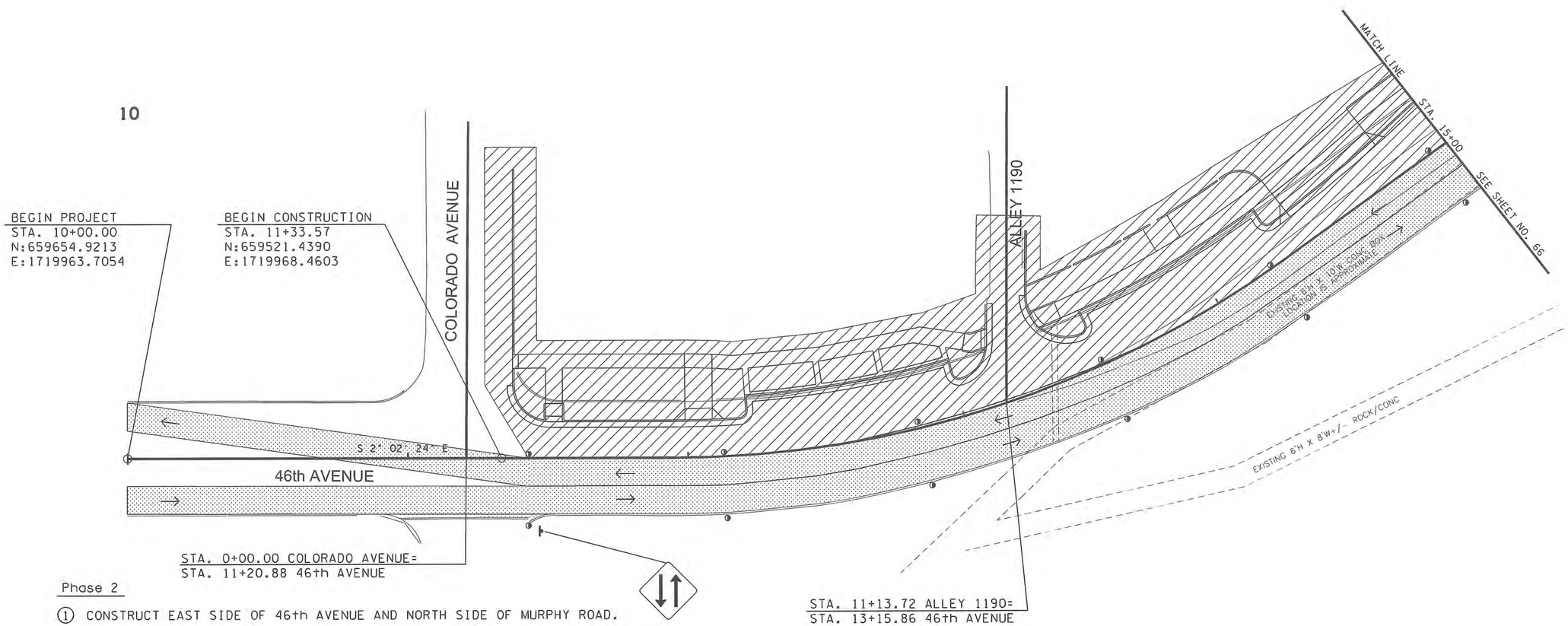
DATE: 05/02/2014	BJT
UPDATED DATE	



Phase 2

1. CONSTRUCT EAST SIDE OF 46th AVENUE AND NORTH SIDE OF MURPHY ROAD.
2. CONSTRUCT SIDEWALK ON WEST SIDE OF 45th AVENUE. 45th AVENUE TO REMAIN OPEN DURING CONSTRUCTION.
3. CONSTRUCT ALL DRIVEWAY AND ALLEY CONNECTIONS. COORDINATE WITH ALL BUSINESSES OWNERS ABOUT CONSTRUCTION OF THEIR DRIVE. ALL DRIVES TO REMAIN OPEN DURING BUSINESS HOURS.
4. TRAFFIC SIGNAL TO REMAIN OPERATIONAL DURING PHASE 2.
5. ROUNDABOUT CENTRAL ISLAND NOT TO BE CONSTRUCTED DURING PHASE 2.
6. MAINTAIN PEDESTRIAN ACCESS AT TRAFFIC SIGNAL.

TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE

0 20' 40' 60'

BRANDON J. TAYLOR REGISTERED ENGINEER AGRICULTURE 5/5/14 STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Traffic Control Phase 2
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 65

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
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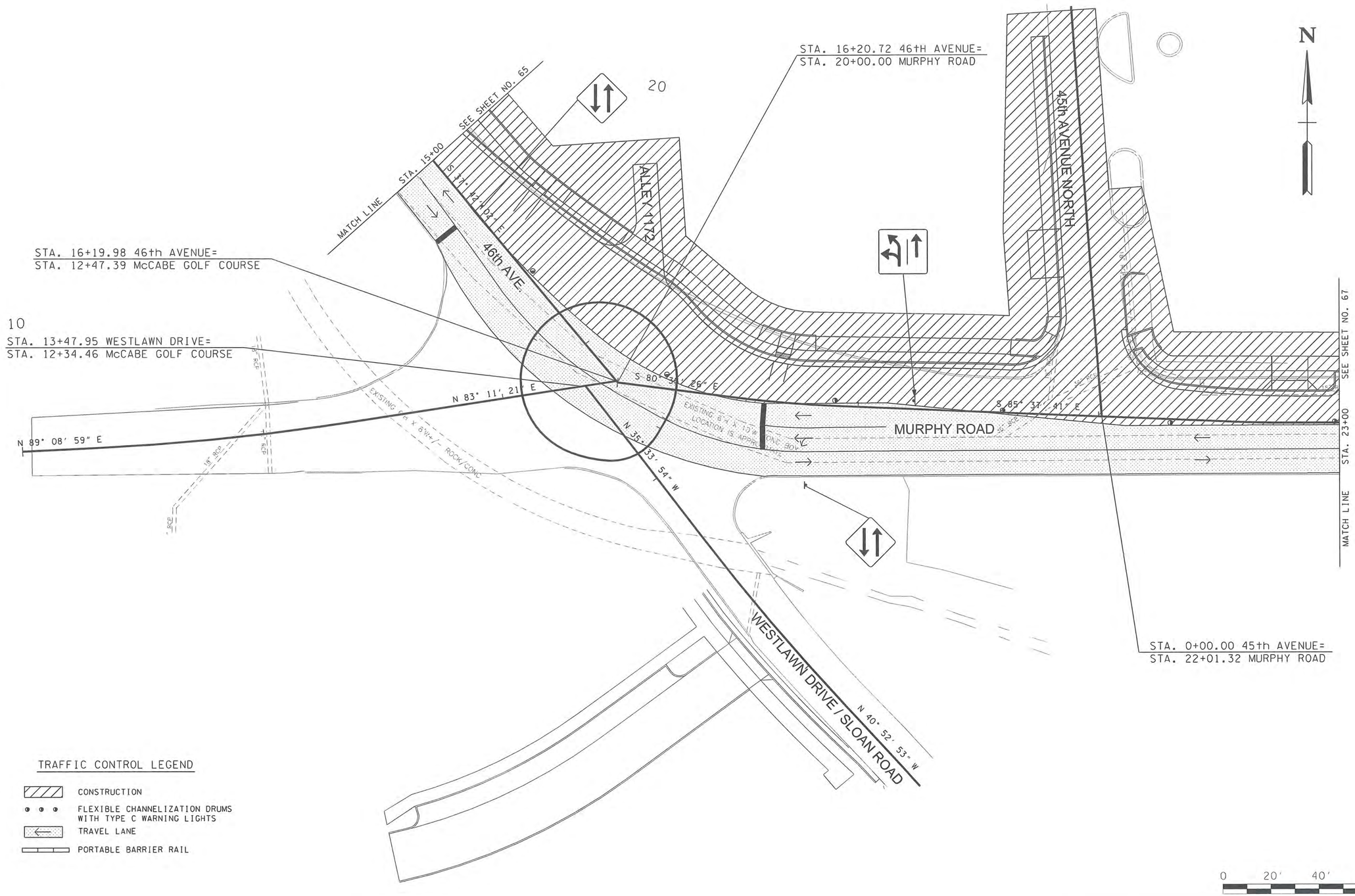
DATE: 05/02/2014	BJT
UPDATED DATE	



BRANDON J. FAYAL
REGISTERED ENGINEER
AGRICULTURE
No. 112
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Traffic Control Phase 2
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 66

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
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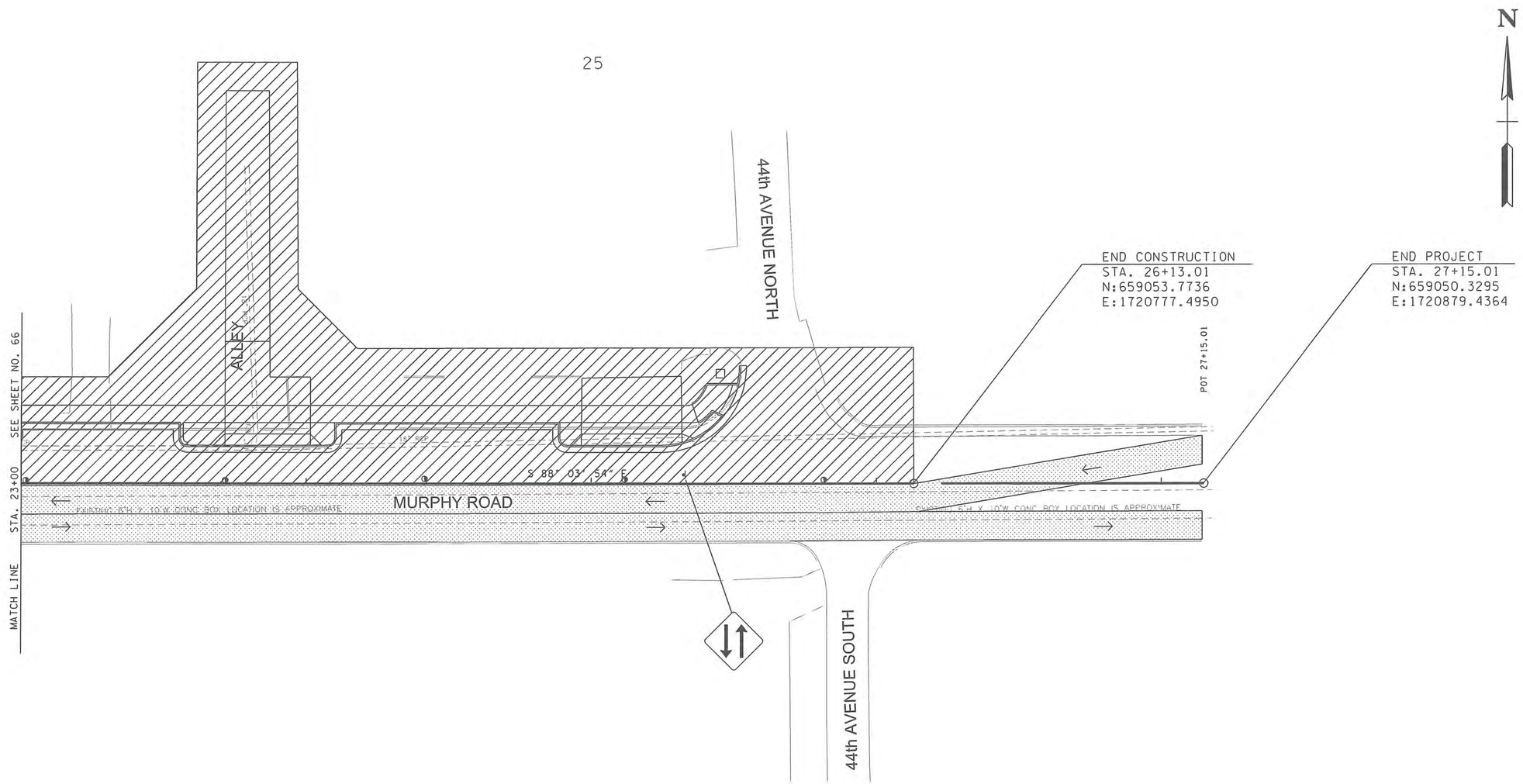

TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

0 20' 40' 60'

BRANDON J. TAYLOR REGISTERED ENGINEER AGRICULTURE COMMERCE No. 112... STATE OF TENNESSEE 5/2/14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Traffic Control Phase 2
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 67

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
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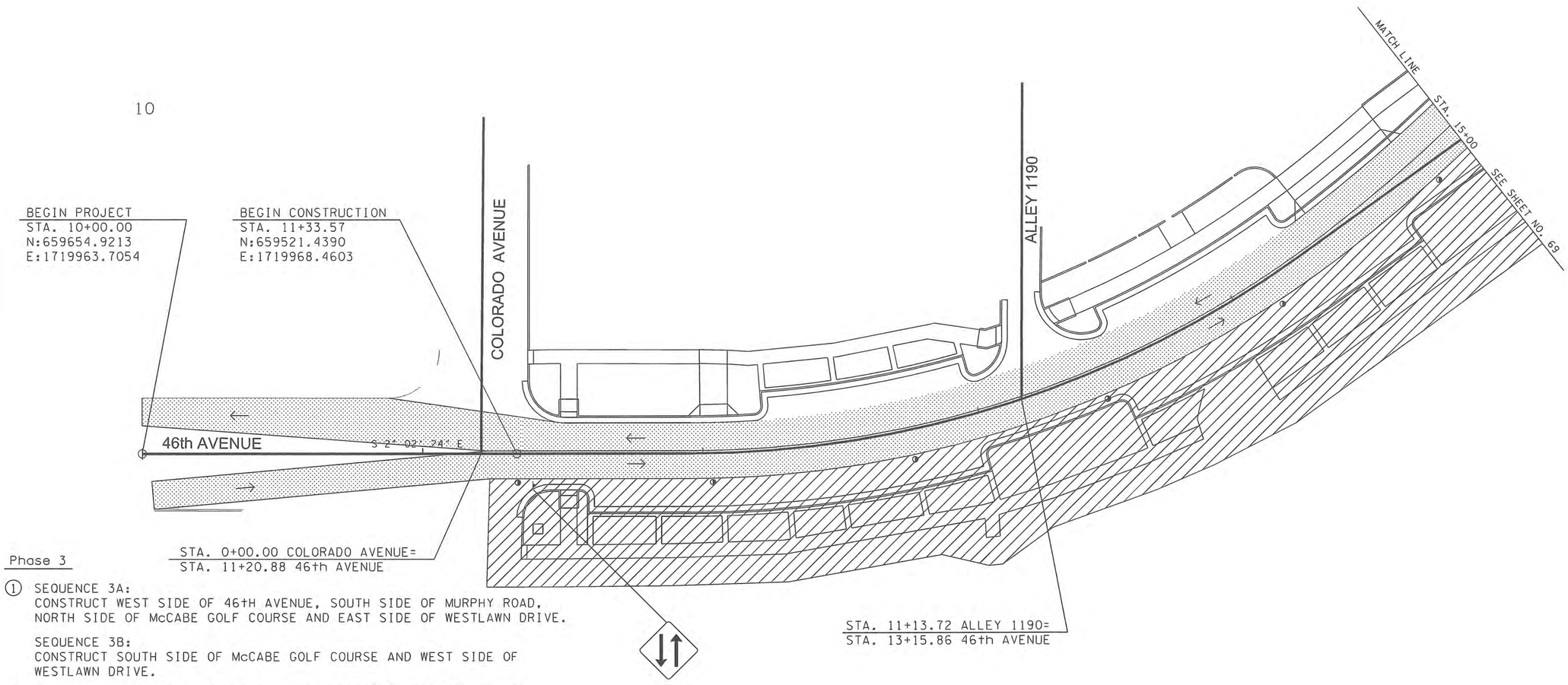
DATE: 05/02/2014	BJT
UPDATED DATE	



Phase 3

1. SEQUENCE 3A:
   CONSTRUCT WEST SIDE OF 46th AVENUE, SOUTH SIDE OF MURPHY ROAD, NORTH SIDE OF McCABE GOLF COURSE AND EAST SIDE OF WESTLAWN DRIVE.

   SEQUENCE 3B:
   CONSTRUCT SOUTH SIDE OF McCABE GOLF COURSE AND WEST SIDE OF WESTLAWN DRIVE.
2. CONSTRUCT ALL DRIVEWAY AND ALLEY CONNECTIONS. COORDINATE WITH ALL BUSINESS OWNERS ABOUT CONSTRUCTION OF THEIR DRIVE. ALL DRIVES TO REMAIN OPEN DURING BUSINESS HOURS.
3. TRAFFIC SIGNAL TO REMAIN OPERATIONAL DURING PHASE 3.
4. ROUNDABOUT CENTRAL ISLAND AND SPLITTER ISLAND NOT TO BE CONSTRUCTED DURING PHASE 3.
5. MAINTAIN PEDESTRIAN ACCESS AT TRAFFIC SIGNAL.

TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

0 20' 40' 60'

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 112804
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Traffic Control Phase 3
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 68

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
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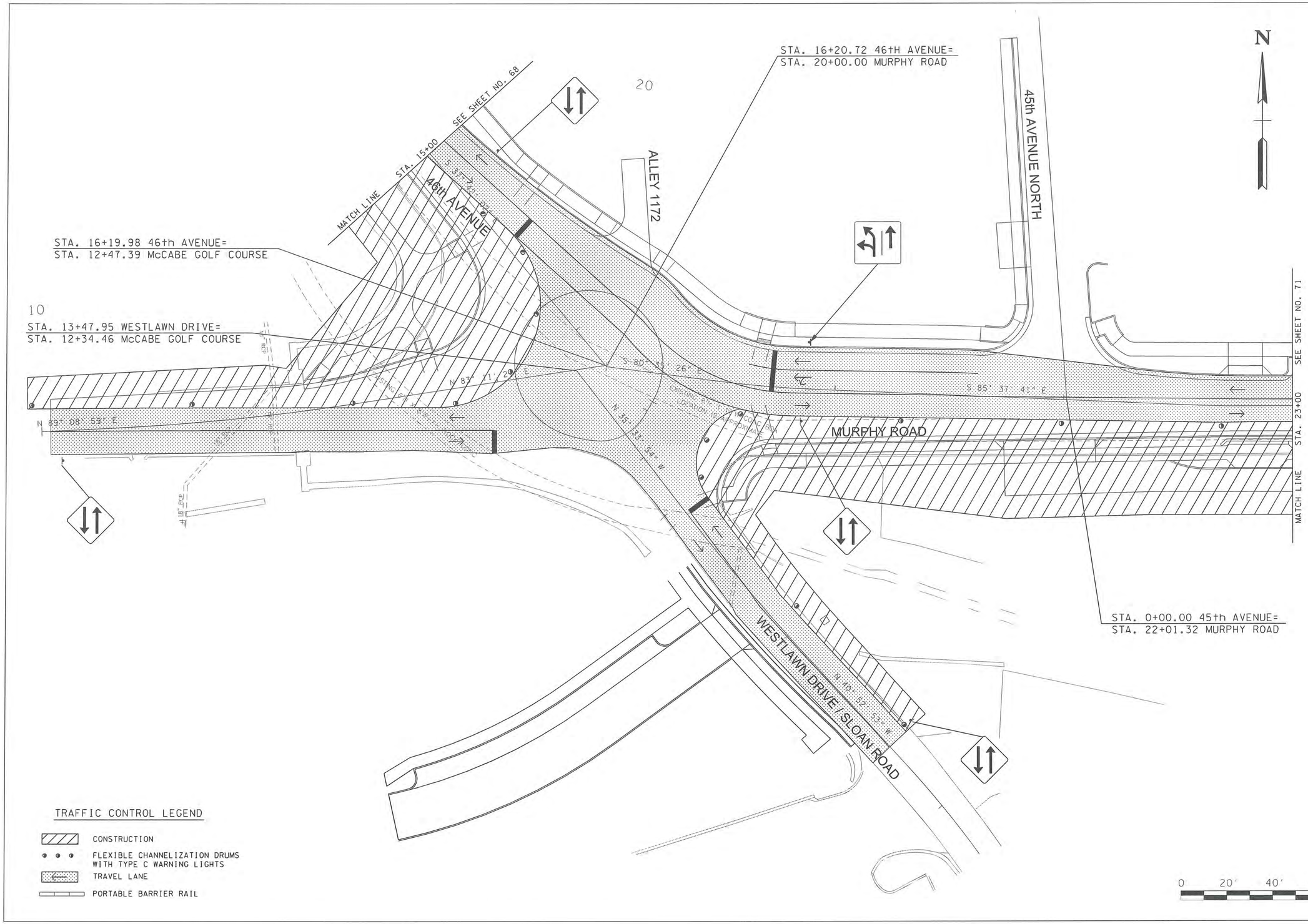
DATE: 05/02/2014	BJT
UPDATED DATE	



BRANDON J. TOLLE
REGISTERED ENGINEER
AGRICULTURE
NO. 112314
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

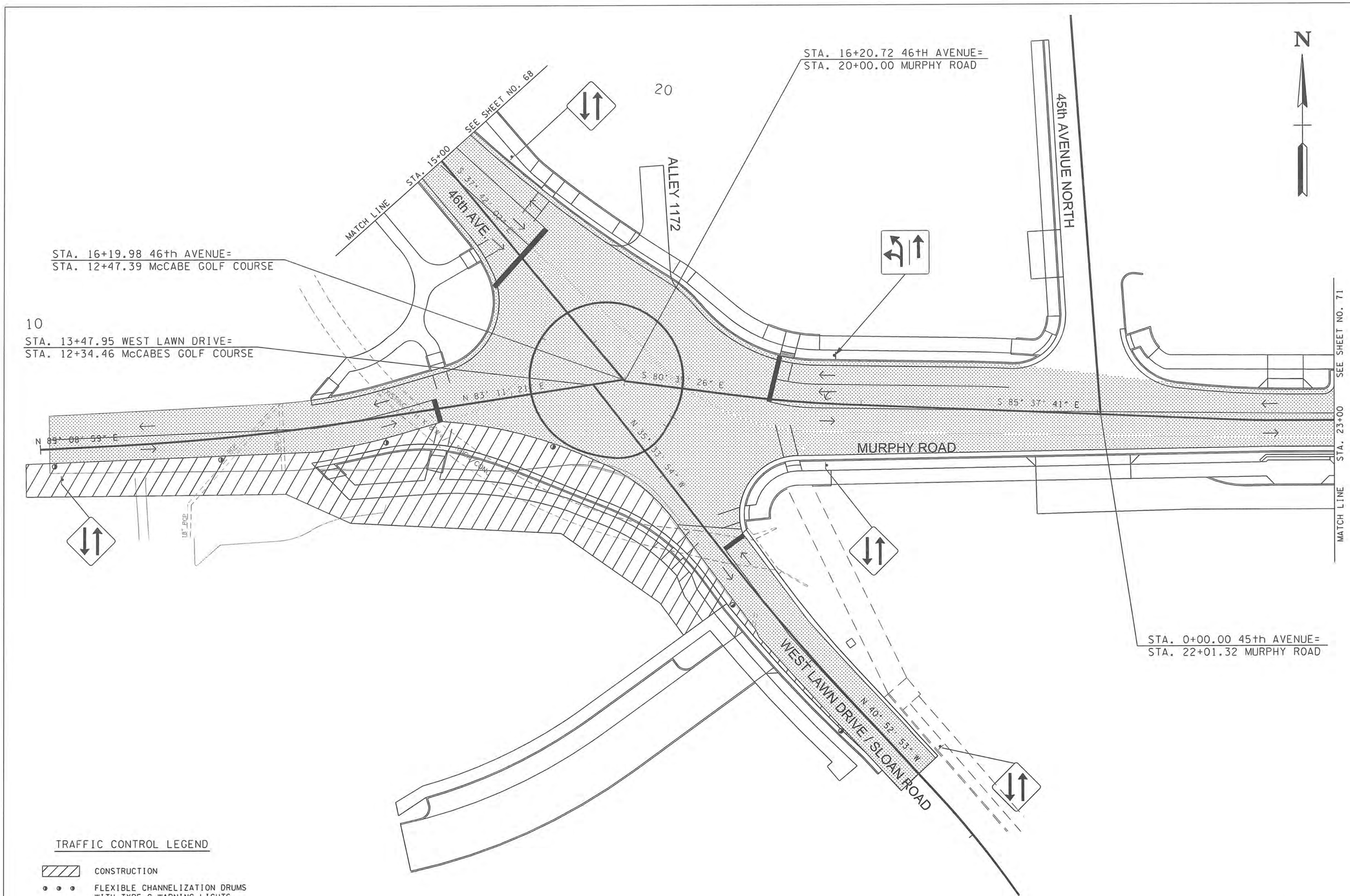
46th and Murphy Streetscape Project

Traffic Control Phase 3
SEQUENCE 3A
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 69

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
No. 112300
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

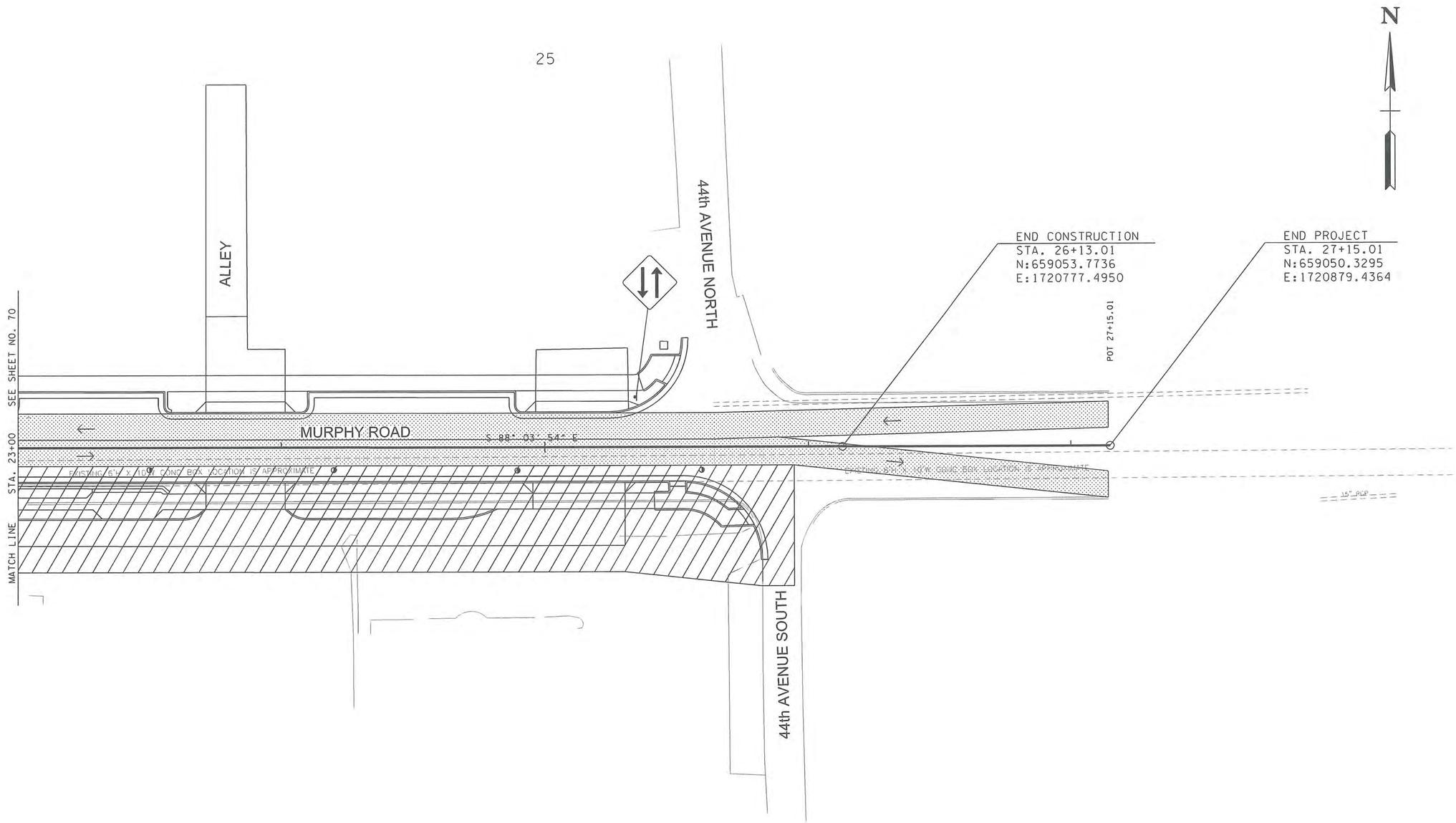
46th and Murphy Streetscape Project

Traffic Control Phase 3
SEQUENCE 3B
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 70

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

0 20' 40' 60'

BRANDON J. TAYLOR REGISTERED ENGINEER NO. 112... STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

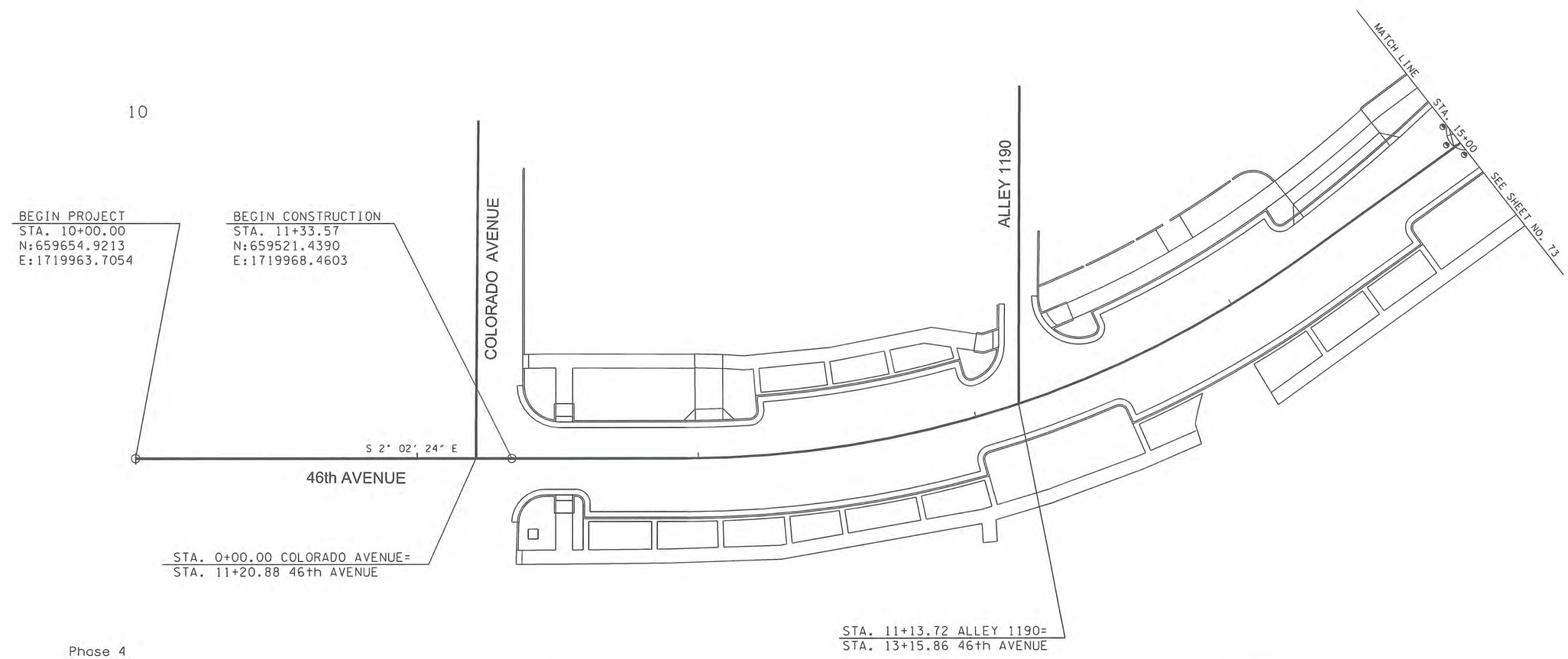
46th and Murphy Streetscape Project

Traffic Control Phase 3
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 71

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



Phase 4

1. CONSTRUCT ROUNDABOUT CENTRAL ISLAND AS PART OF SEQUENCE 4A.
2. COUNSTRUCT SPLITTER ISLANDS AS PART OF SEQUENCE 4B.
3. REMOVE TRAFFIC SIGNAL.

TRAFFIC CONTROL LEGEND

- CONSTRUCTION SEQUENCE 4A
- CONSTRUCTION SEQUENCE 4B
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

0 20' 40' 60'

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

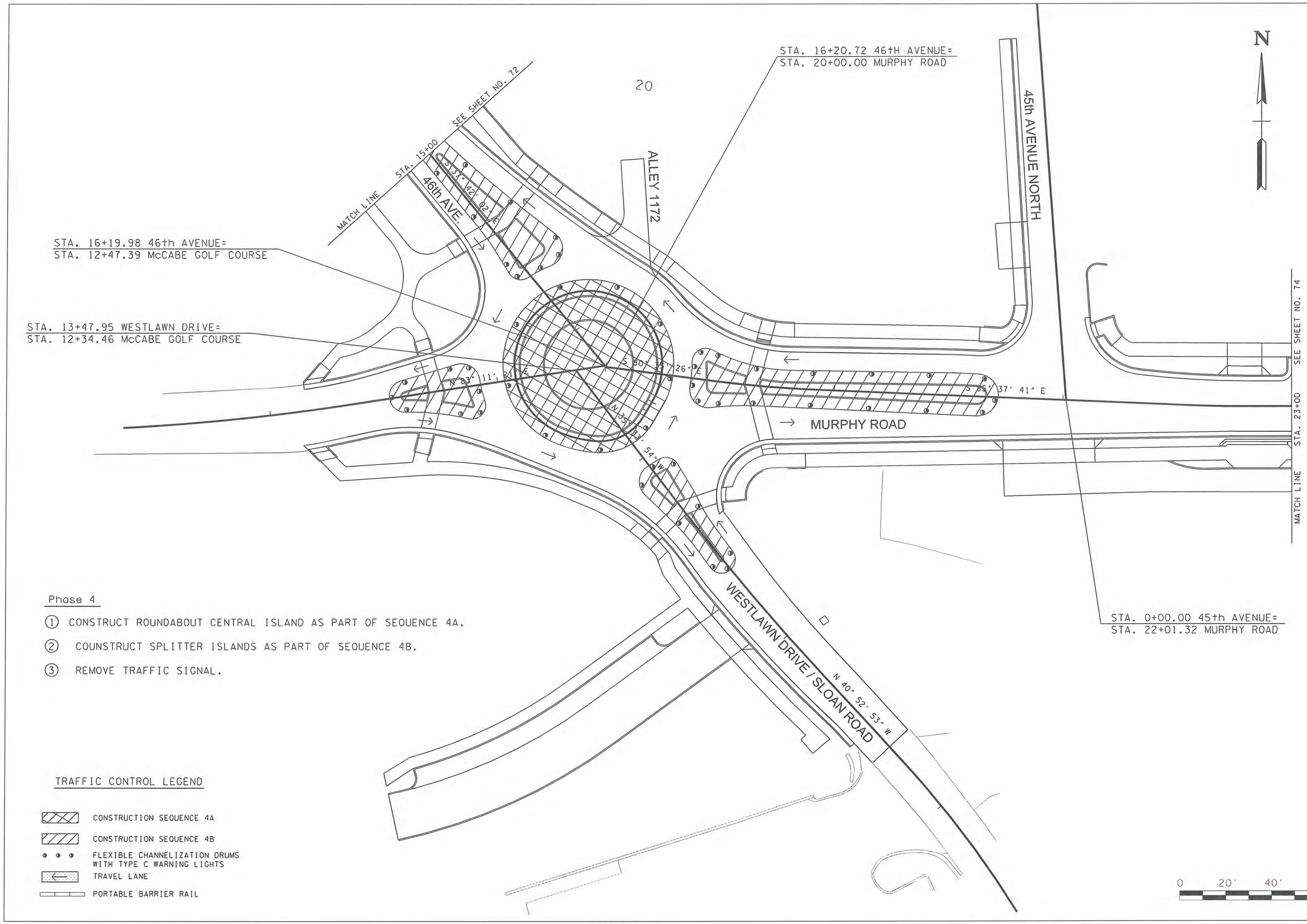
46th and Murphy Streetscape Project

Traffic Control Phase 4
B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 72

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



Phase 4

1. CONSTRUCT ROUNDABOUT CENTRAL ISLAND AS PART OF SEQUENCE 4A.
2. COUNSTRUCT SPLITTER ISLANDS AS PART OF SEQUENCE 4B.
3. REMOVE TRAFFIC SIGNAL.

TRAFFIC CONTROL LEGEND

- CONSTRUCTION SEQUENCE 4A
- CONSTRUCTION SEQUENCE 4B
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

BRANDON J. TAYLOR
REGISTERED ENGINEER
AGRICULTURE
No. 112470
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

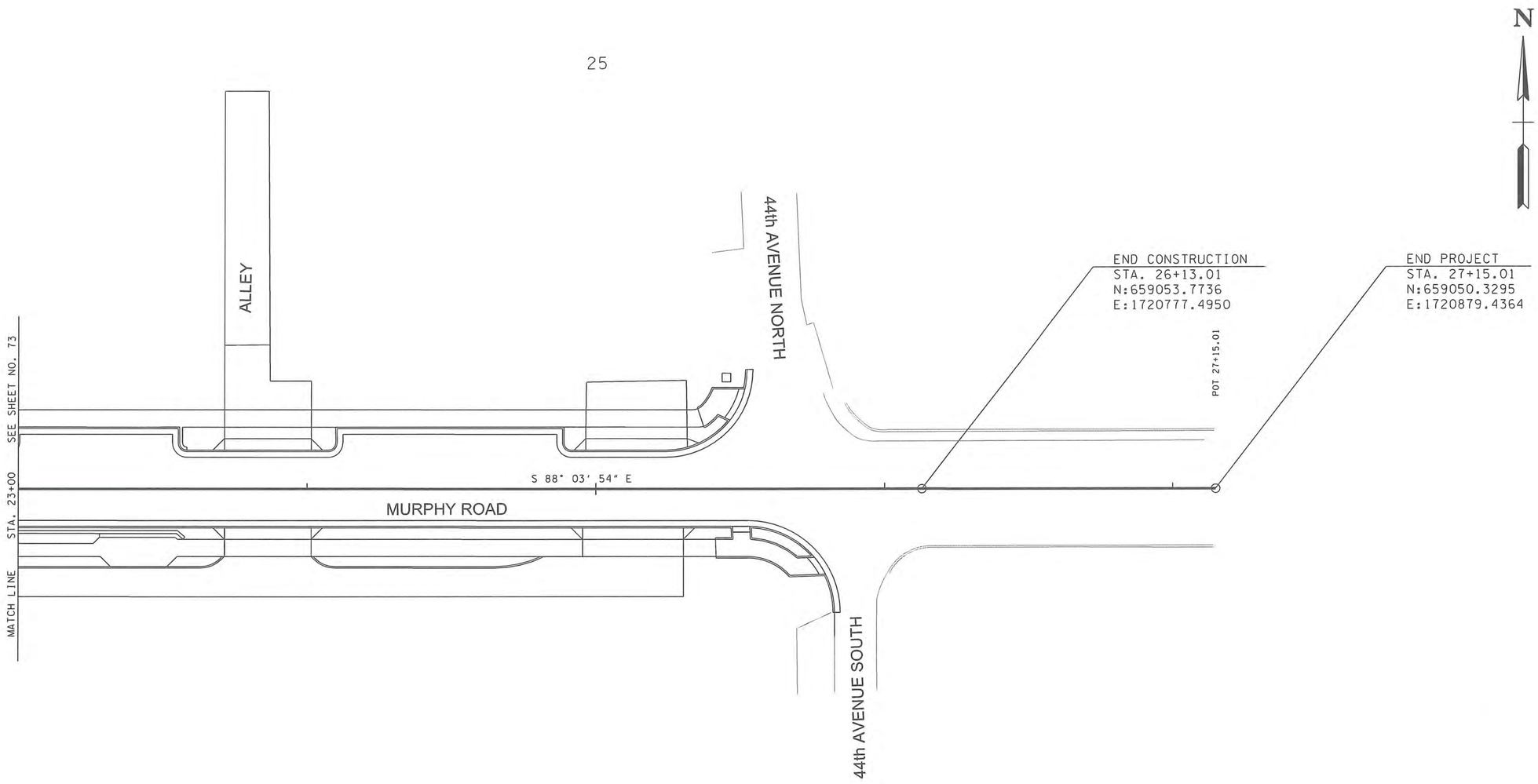
Traffic Control Phase 4
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 73

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		



Phase 4

1. CONSTRUCT ROUNDABOUT CENTRAL ISLAND AS PART OF SEQUENCE 4A.
2. COUNSTRUCT SPLITTER ISLANDS AS PART OF SEQUENCE 4B.
3. REMOVE TRAFFIC SIGNAL.

TRAFFIC CONTROL LEGEND

- CONSTRUCTION
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- TRAVEL LANE
- PORTABLE BARRIER RAIL

0 20' 40' 60'

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

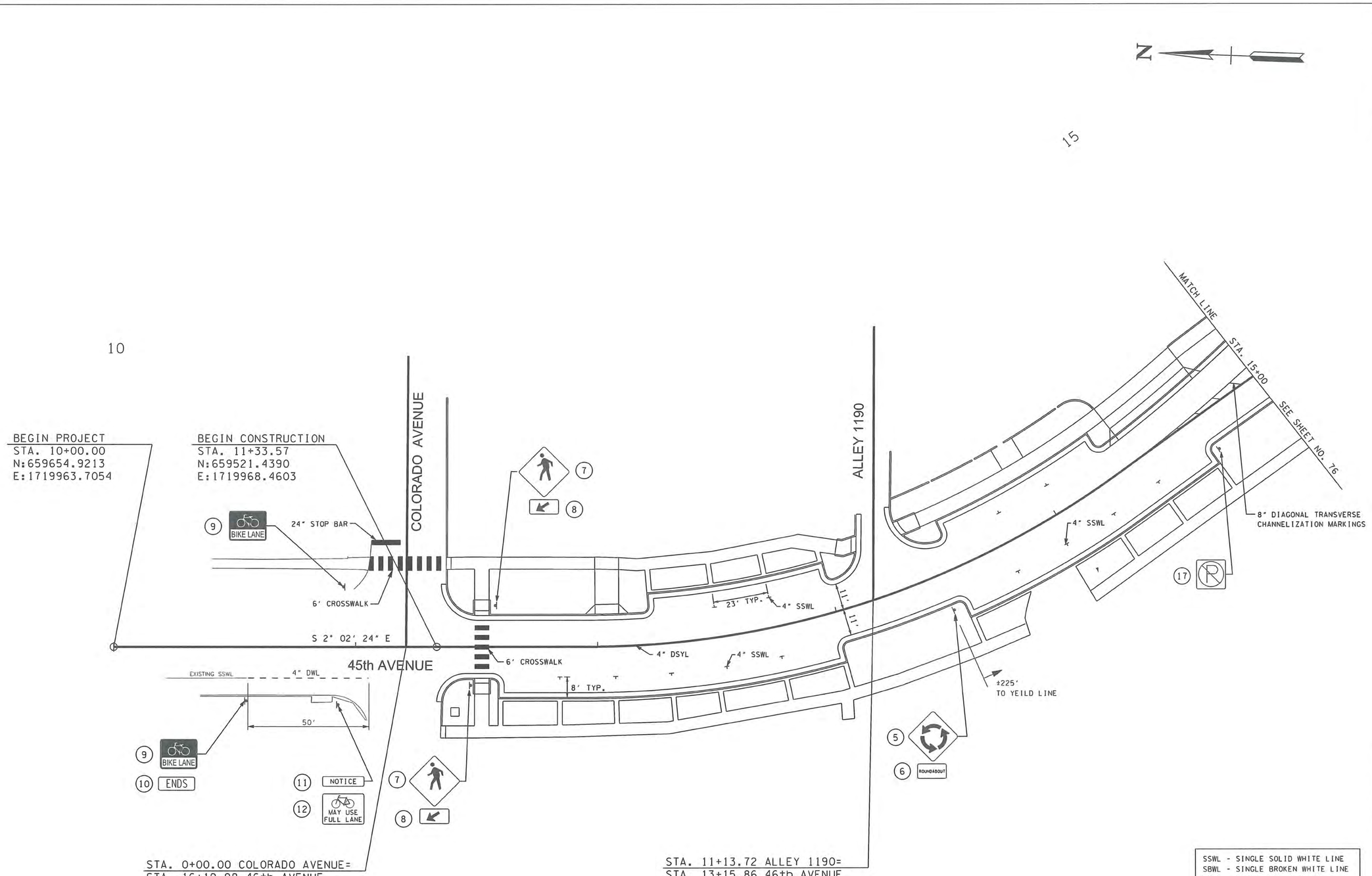
46th and Murphy Streetscape Project

Traffic Control Phase 4
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 74

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	



SSWL - SINGLE SOLID WHITE LINE
SBWL - SINGLE BROKEN WHITE LINE
SSYL - SINGLE SOLID YELLOW LINE
DSYL - DOUBLE SOLID YELLOW LINE
DWL - DOTTED WHITE LINE

0 20' 40' 60'

BRANDON J. TAYLOR
REGISTERED ENGINEER
NO. 112444
STATE OF TENNESSEE

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

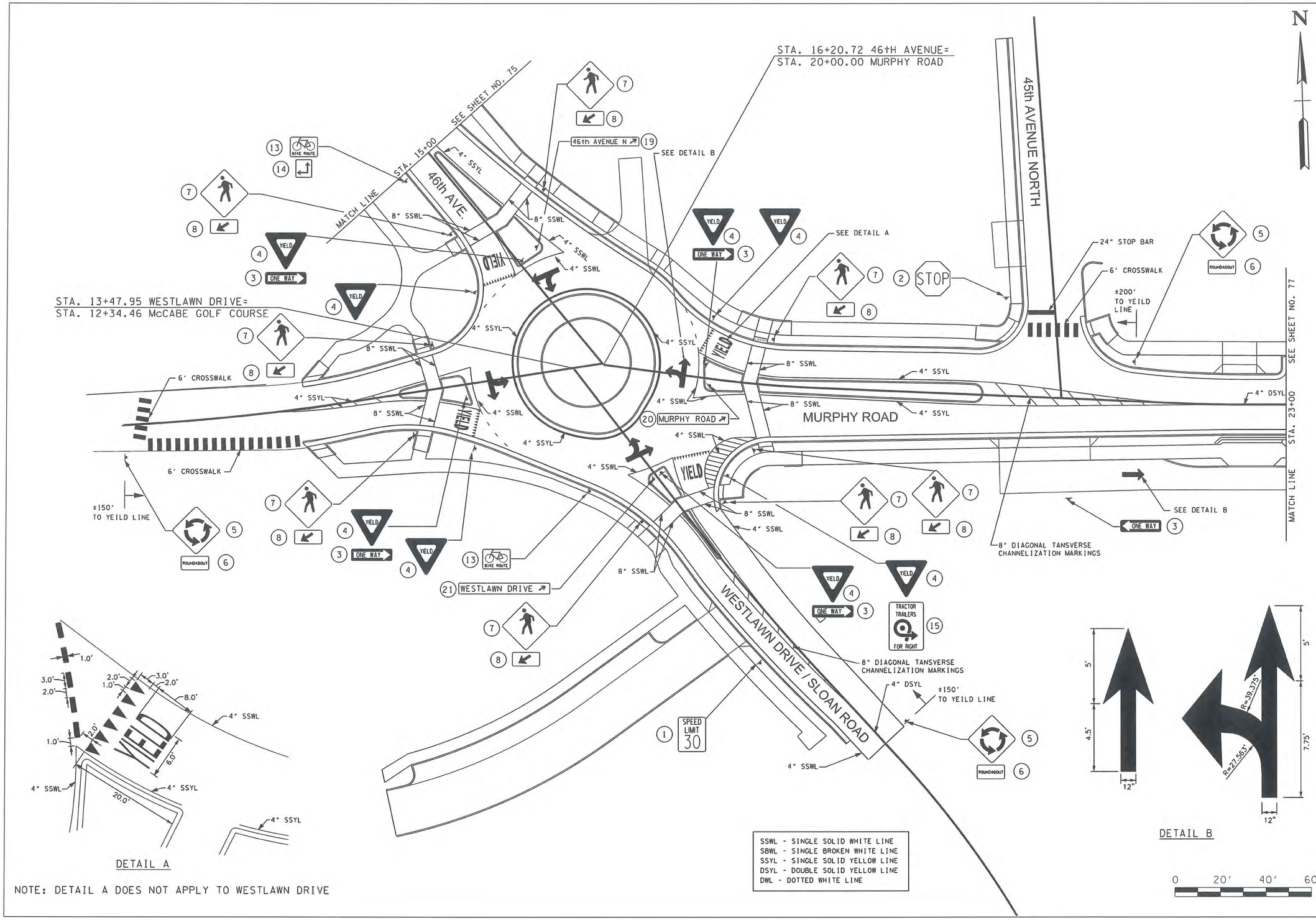
46th and Murphy Streetscape Project

Signing and Pavement Marking B.O.P. TO STA. 15+00

SCALE: 1"=20'

SHEET 75

FILE NO.	10-0606	
DATE:	04/25/2014	
DESIGNED BY:	BJT	
DRAWN BY:	JDE	
CHECKED BY:	DJS	
REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		



METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

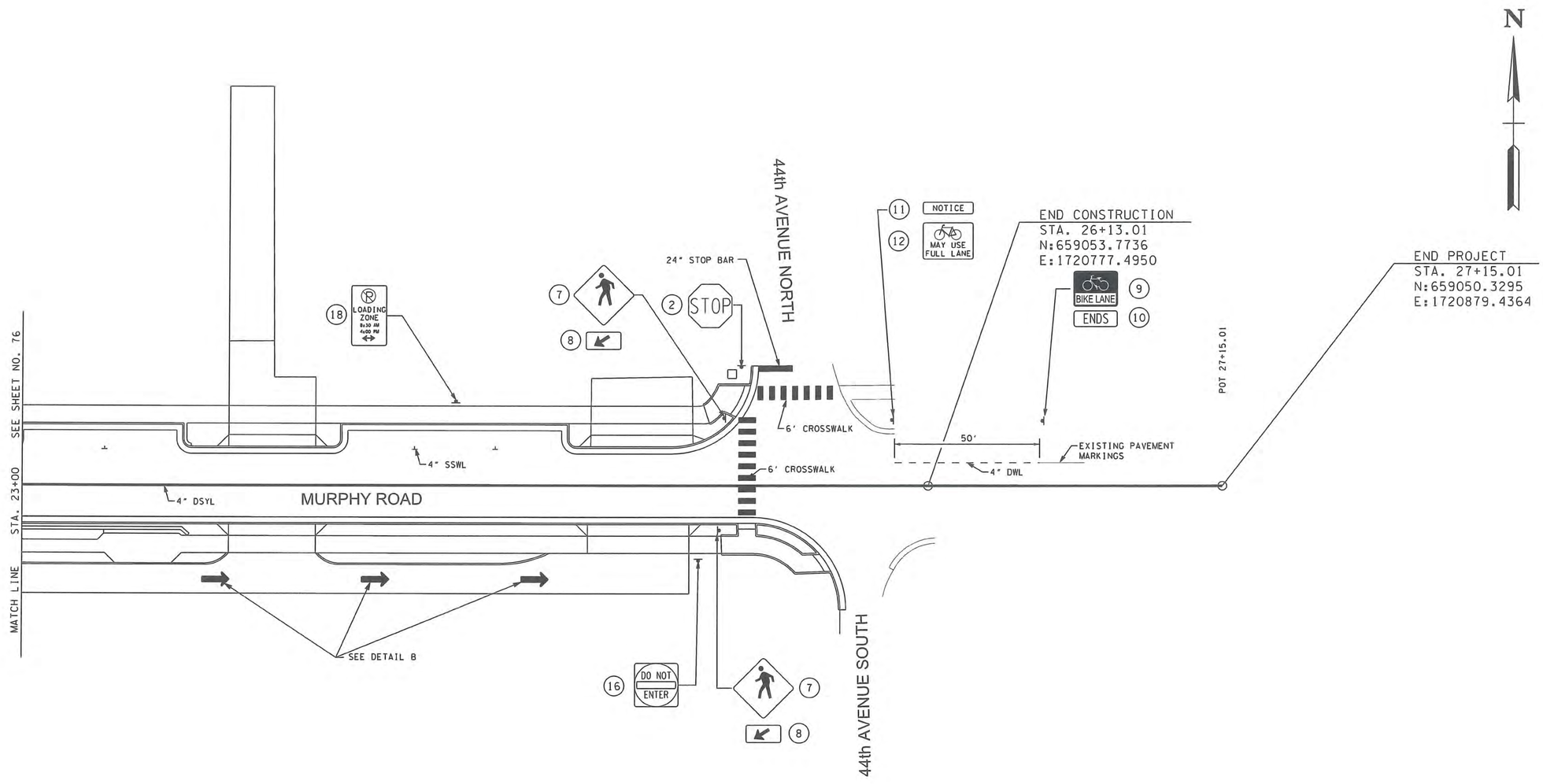
Signing and Pavement Marking
STA. 15+00 TO STA. 23+00

SCALE: 1"=20'

SHEET 76

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS

REVISION BLOCK		
DATE:	05/02/2014	BJT
UPDATED DATE		



SSWL - SINGLE SOLID WHITE LINE
SBWL - SINGLE BROKEN WHITE LINE
SSYL - SINGLE SOLID YELLOW LINE
DSYL - DOUBLE SOLID YELLOW LINE
DWL - DOTTED WHITE LINE

0 20' 40' 60'

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Signing and Pavement Marking
STA. 23+00 TO E.O.P.

SCALE: 1"=20'

SHEET 77

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
1		76	24"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	13'				7'-0"	
2		76 77	30"	30"									WHITE (REF.)	RED (REF.)	0.100" SHEET ALUMINUM	U6	13'				7'-0"	
3		76	36"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6						
4		76	36"	36"									RED (REF.)	WHITE (REF.)	0.100" SHEET ALUMINUM	U6	14'-6"				7'-0"	
5		76 77	30"	30"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	14'				7'-0"	
6		76 77	24"	12"									BLACK	YELLOW (REF.)	0.080" SHEET ALUMINUM							
7		76 77	30"	30"									BLACK	FLORESCENT YELLOW/ GREEN (REF.)	0.100" SHEET ALUMINUM	P8	14'				7'-0"	
8		75 76 77	24"	12"									BLACK	FLORESCENT YELLOW/ GREEN (REF.)	0.080" SHEET ALUMINUM							
9		75 77	24"	18"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	12'-6"				7'-0"	
10		75 77	24"	8"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM							

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Sign Schedule

SCALE: N.T.S.

SHEET 78

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
11	NOTICE	75 77	30"	8"									BLACK	FLORESCENT YELLOW / GREEN (REF.)	0.080" SHEET ALUMINUM	P8	15'				7'-0"	
12	MAY USE FULL LANE	75 77	30"	30"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM							
13	BIKE ROUTE	76	24"	18"									WHITE (REF.)	GREEN (REF.)	0.080" SHEET ALUMINUM	P8	12'-6"				7'-0"	
14		76	12"	9"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM							
15	TRACTOR TRAILERS FOR RIGHT	76	18"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	13'				7'-0"	
16	DO NOT ENTER	77	30"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	13'				7'-0"	
17		75	12"	18"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	12'				7'-0"	
18	LOADING ZONE 8:30 AM 4:00 PM	77	12"	18"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	12'				7'-0"	
19	46th AVENUE N	75	24"	6"									WHITE	GREEN (REF.)	0.080" SHEET ALUMINUM	U6	X				7'-0"	
20	MURPHY ROAD	75	24"	6"									WHITE	GREEN (REF.)	0.080" SHEET ALUMINUM	U6	X				7'-0"	
21	WESTLAWN DRIVE	75	24"	6"									WHITE	GREEN (REF.)	0.080" SHEET ALUMINUM	U6	X				7'-0"	

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BJT
DRAWN BY:	JDE
CHECKED BY:	DJS
REVISION BLOCK	
DATE: 05/02/2014	BJT
UPDATED DATE	

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

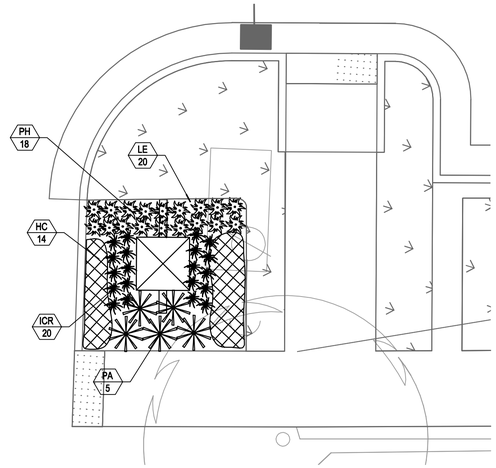
Sign Schedule

SCALE: N.T.S.

SHEET 79

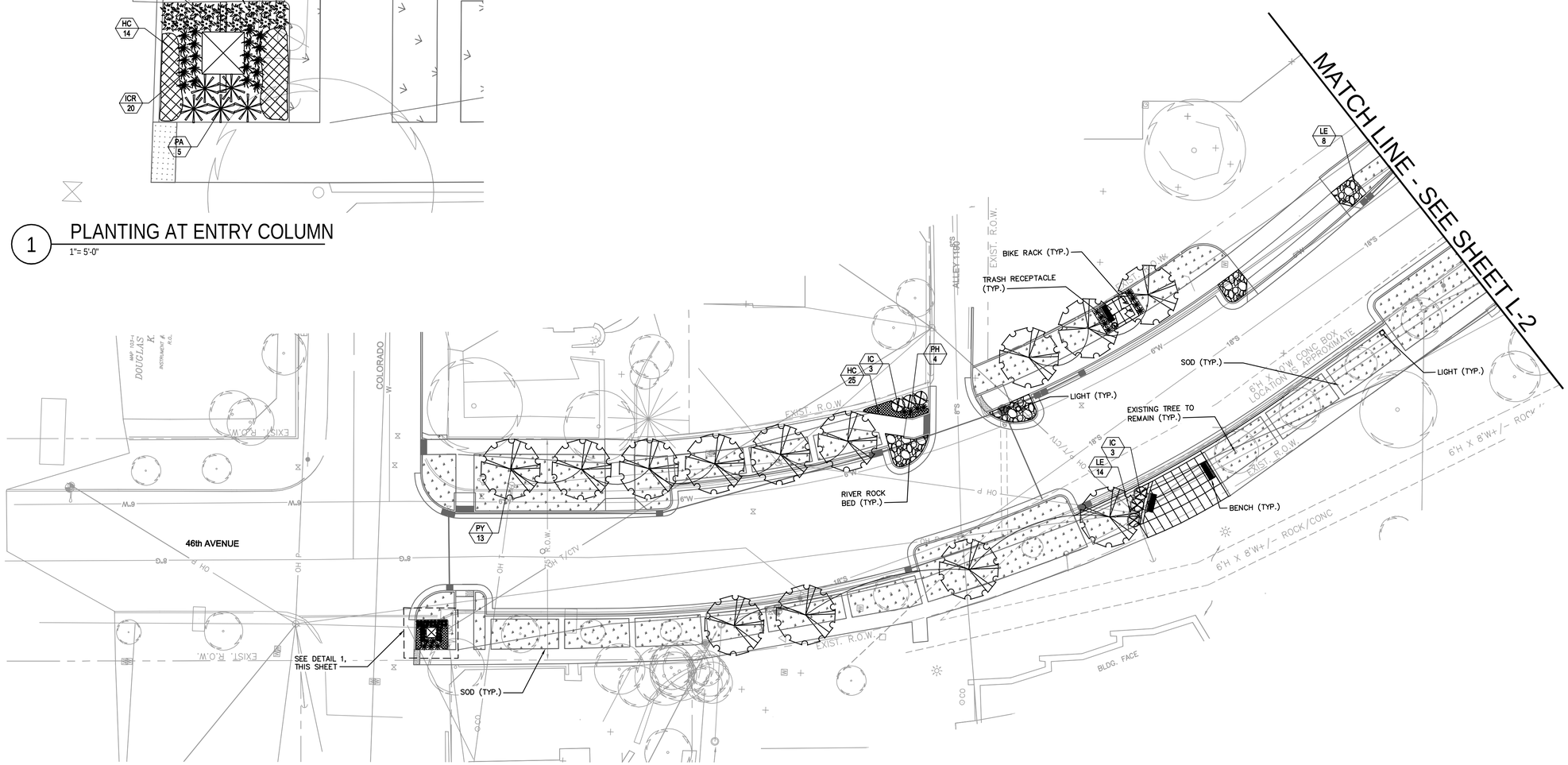
FILE NO.	10–0606
DATE:	04/25/2014
DESIGNED BY:	ARE
DRAWN BY:	ARE
CHECKED BY:	DAC

REVISION BLOCK		
DATE:	05/02/14	ARE
UPDATED DATE		



1 PLANTING AT ENTRY COLUMN

1"= 5'-0"



METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

Landscape Plan

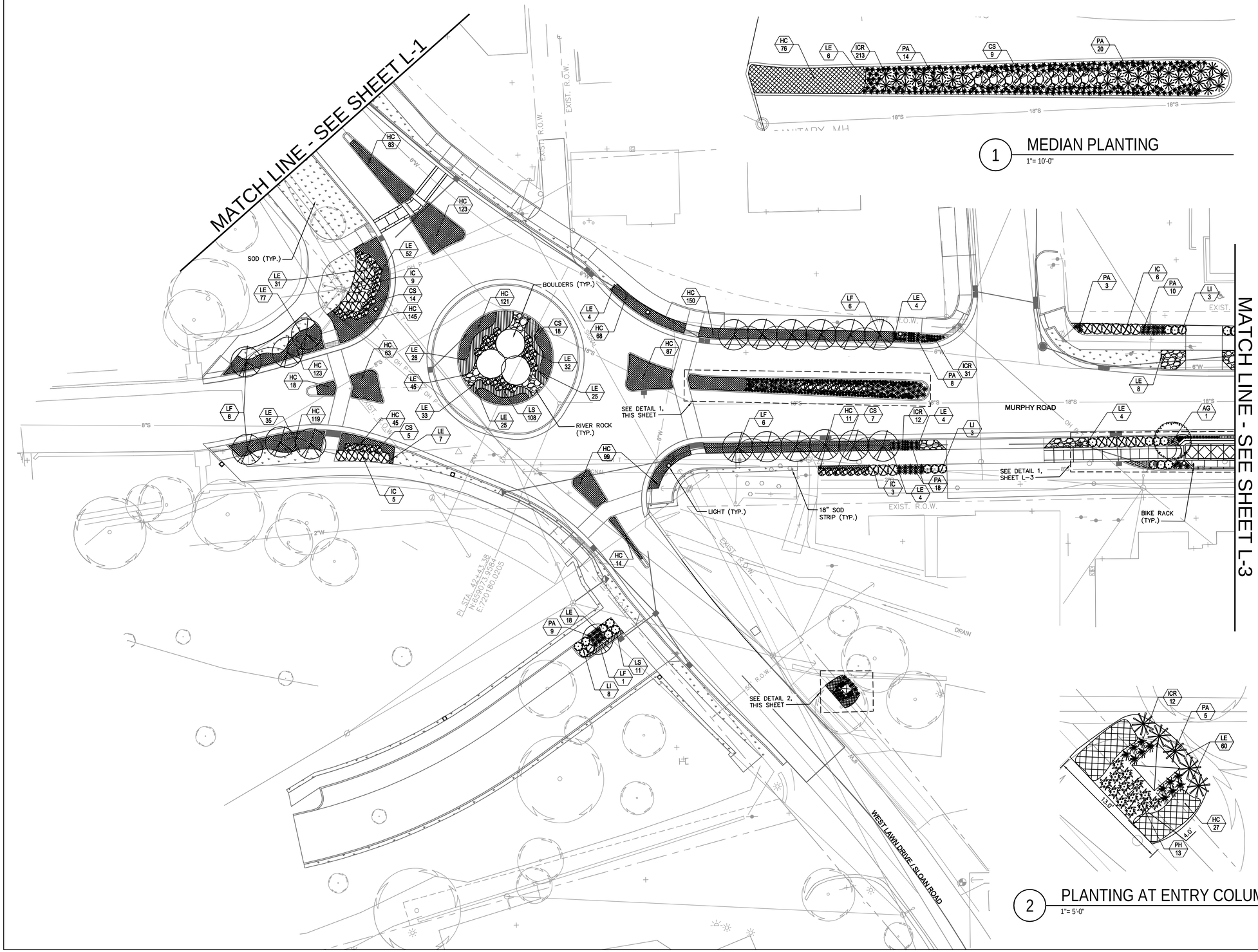
SCALE: 1"=20'

SHEET L–1

FILE NO.	10–0606
DATE:	04/25/2014
DESIGNED BY:	ARE
DRAWN BY:	ARE
CHECKED BY:	DAC

REVISION BLOCK

DATE:	05/02/14	ARE
UPDATED DATE		



1 MEDIAN PLANTING
1"= 10'-0"

2 PLANTING AT ENTRY COLUMN
1"= 5'-0"

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

Landscape Plan

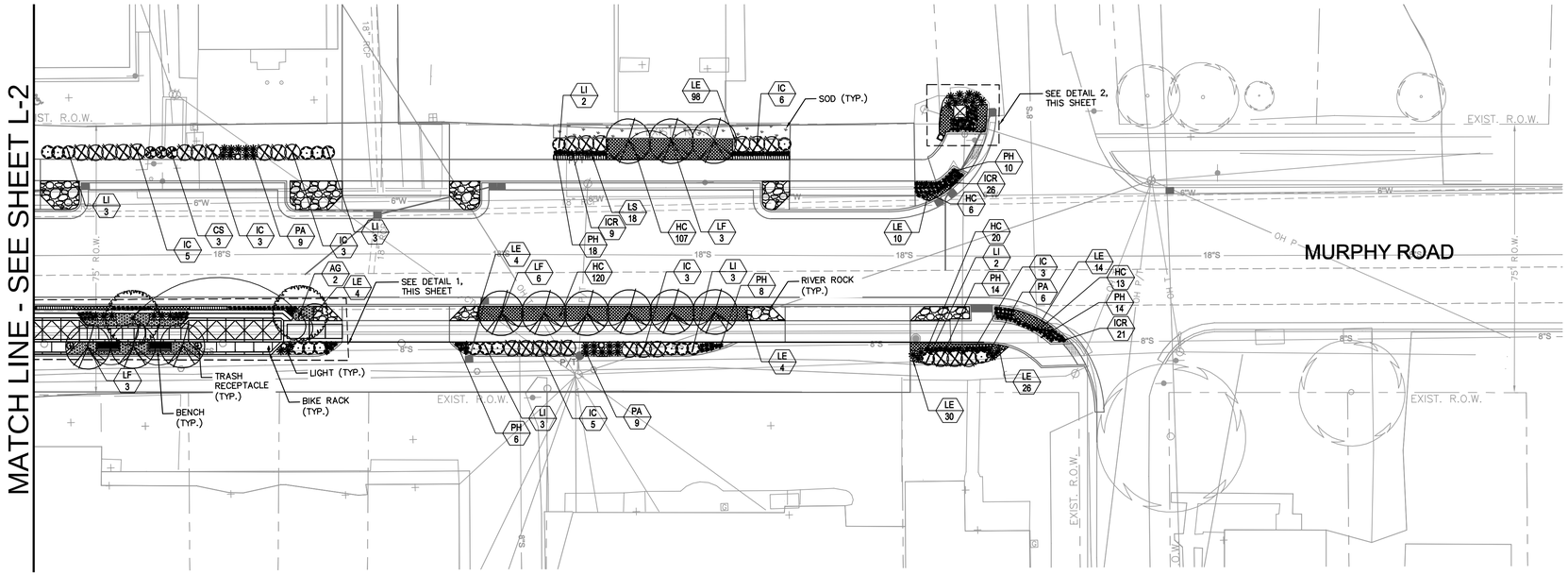
SCALE: 1"=20'

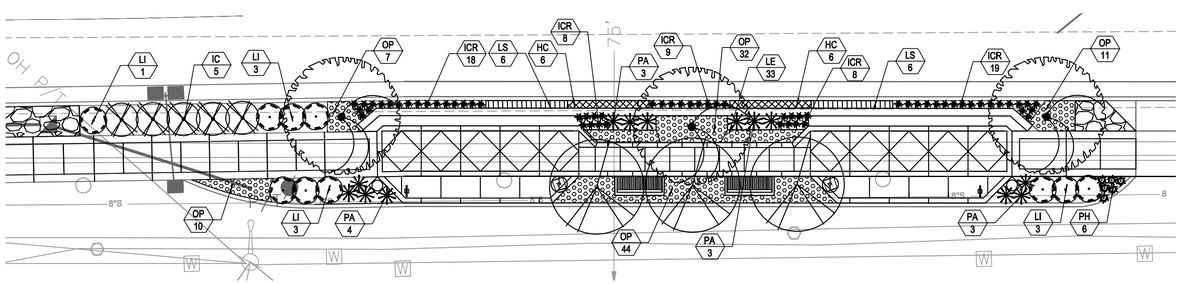
SHEET L–2

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	ARE
DRAWN BY:	ARE
CHECKED BY:	DAC

REVISION BLOCK

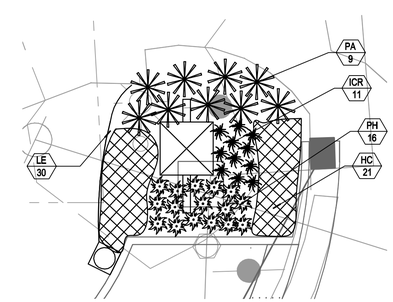
DATE:	05/02/14	ARE
UPDATED DATE		





1 PLANTING AT PLAZA

1"= 10'-0"



2 PLANTING AT ENTRY COLUMN

1"= 5'-0"

ALISHA ELEY
REGISTERED
TENNESSEE NO. 00000920
LANDSCAPE ARCHITECT

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

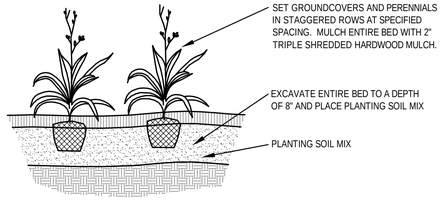
PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Landscape Plan

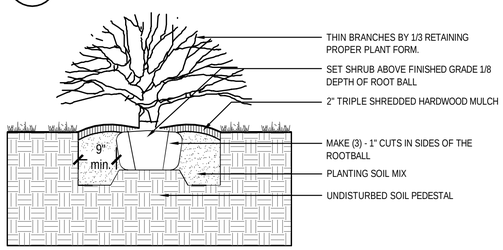
SCALE: 1"=20'

SHEET L-3



1 GROUNDCOVER PLANTING

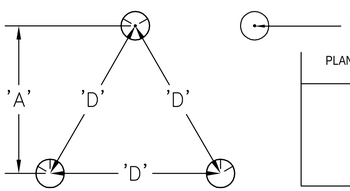
N.T.S.



2 TYP. B&B SHRUB PLANTING

N.T.S.

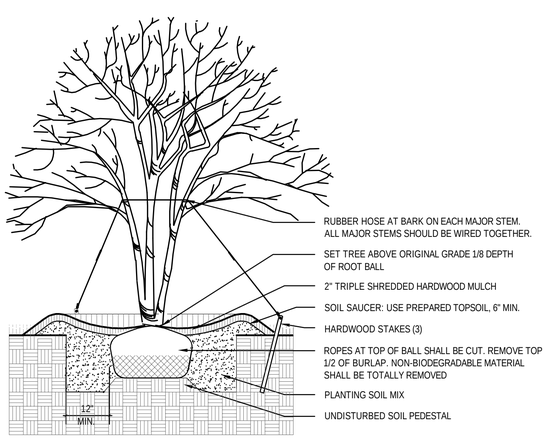
NOTE: GROUNDCOVERS AND PERENNIALS TO BE INSTALLED WITH TRIANGULAR SPACING



PLANT SPACING 'D'	ROW 'A'
8" O.C.	6.93" O.C.
10" O.C.	8.66" O.C.
12" O.C.	10.4" O.C.
18" O.C.	15.6" O.C.
24" O.C.	20.8" O.C.
36" O.C.	30.0" O.C.
48" O.C.	31.5" O.C.

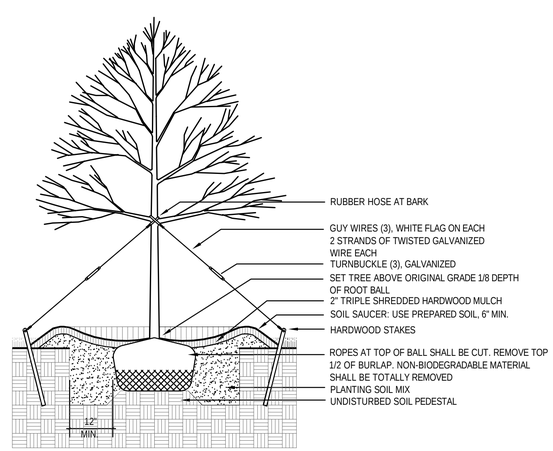
3 GROUNDCOVER SPACING

N.T.S.



4 ORNAMENTAL TREE PLANTING

NTS



5 DECIDUOUS TREE PLANTING

NTS

NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, TESTING AND LABOR REQUIRED TO FULLY INSTALL THE PLANT MATERIAL PER THE PLANS INCLUDING: SOIL TESTING, SOIL AMENDMENTS (AS NECESSARY), BED PREPARATION, PLANT INSTALLATION, FERTILIZING, MULCHING, WATERING, MAINTENANCE AND WARRANTY.
2. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF HIS WORK WITH THAT OF ALL OTHER CONTRACTORS. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITIES. PRIOR TO COMMENCEMENT OF ANY WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES.
3. THE QUALITY AND SIZE OF ALL PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT STANDARDS AS SET FORTH IN ANSI Z60.180 - AMERICAN STANDARD FOR NURSERY STOCK.
4. WHERE PLANT MATERIAL IS PROPOSED IN AREAS ADJACENT TO ANY PROPERTY LINE, THE LANDSCAPE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF THE PROPERTY LINE. ALL NEW PLANT MATERIAL SHALL BE INSTALLED SUCH THAT THE ENTIRE ROOT BALL OF THE PLANT LIES ON THE SUBJECT PROPERTY. UNDER NO CIRCUMSTANCES SHALL ANY PORTION OF THE ROOT BALL EXTEND BEYOND THE LIMITS OF THE SUBJECT PROPERTY.
5. ALL DISTURBED AREAS NOT COVERED BY HARDSCAPE OR PLANT MATERIALS SHALL BE COVERED WITH SEED AND STRAW UNLESS OTHERWISE NOTED.
6. ALL DECIDUOUS TREES SHALL BE A MINIMUM CALIPER AS SPECIFIED IN THE PLANT SCHEDULE BELOW WHEN PLANTED.
7. PRIOR TO PLANTING, THE CONTRACTOR SHALL CONTACT TENNESSEE ONE CALL, INC. (1-800-351-1111) TO LOCATE ALL UNDERGROUND UTILITIES.
8. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM 4" LAYER OF TOPSOIL.
9. PLANT SUBSTITUTION MAY BE PERMITTED ONLY AFTER PROOF THAT SPECIFIED PLANTS ARE UNAVAILABLE AND THE REQUEST HAS BEEN SUBMITTED TO THE OWNER OR LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL PROVIDE THE NEAREST EQUIVALENT OBTAINABLE SIZE AND VARIETY OF THE PLANT HAVING THE SAME ESSENTIAL CHARACTERISTICS AS THE PLANT SPECIFIED.
10. THE CONTRACTOR SHALL FURNISH QUANTITIES NECESSARY TO COMPLETE THE PLANTING PLANS SHOWN AND AS LOCATED ON THE PLANS.
11. MINOR PLANT LOCATION ADJUSTMENTS MAY BE MADE IN THE FIELD TO ENSURE ACCESS TO UTILITY JUNCTION BOXES, FREE SITE LIGHTING OF FUTURE TREE CANOPY INTERFERENCE AND ALLOW UNINHIBITED PEDESTRIAN / VEHICULAR CIRCULATION ON ALL PAVEMENTS OR FOUNDATIONS.
12. ALL SHRUB MASSES OF TWO OR MORE SHALL BE EDGED INTO A PLANTING BED AND MULCHED PER DETAIL. ALL INDIVIDUAL TREES AND SHRUBS SHALL HAVE A MULCH SAUCER EQUAL IN DIAMETER TO THE PLANTING PIT DIAMETER AND SHALL BE MULCHED AS SHOWN ON THE DETAILS. UNLESS OTHERWISE INDICATED, ALL BED EDGES SHALL BE A DEEP CUT CLEAN SPADE EDGE.
13. SYNTHETIC BURLAP OR TREATED BURLAP SHALL NOT BE USED IN BALLING AND BURLAPPING OF ANY PLANT MATERIAL FOR THIS PROJECT.
14. THE CONTRACTOR SHALL VERIFY THAT EACH TREE OR SHRUB PIT WILL DRAIN BEFORE INSTALLING PLANT MATERIAL. HE SHALL FILL THE HOLE WITH SIX INCHES (6") OF WATER THAT SHOULD PERCOLATE OUT WITHIN TWENTY-FOUR HOURS. SHOULD ANY AREA NOT DRAIN PROPERLY, A PERFORATED DRAIN LINE SHALL BE INSTALLED, OR THE PLANTS RELOCATED.
15. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF HE ENCOUNTERS ANY UNSUITABLE SURFACE OR SUBSURFACE DRAINAGE CONDITIONS, SOIL DEPTH, LATENT SOILS, HARD PAN, UTILITY LINES, OR OTHER CONDITIONS THAT WILL JEOPARDIZE THE HEALTH AND VIGOR OF THE PLANTS. SHOULD THE CONTRACTOR NOT NOTIFY THE OWNER OF A PROBLEM AREA, HE WARRANTS THAT THE AREAS ARE SUITABLE FOR PROPER GROWTH AND DEVELOPMENT OF ALL PLANTS INSTALLED.
16. NO EXCAVATION OR PLANTING PIT SHALL BE LEFT OPEN OVERNIGHT.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL PLANTS UNTIL THE OWNER FORMALLY ACCEPTS THEM. THE PLANTS SHALL BE THOROUGHLY WATERED AT THE TIME OF INSTALLATION AND AS OFTEN THEREAFTER AS NECESSARY TO MAINTAIN THEM IN A HEALTHY AND VIGOROUS STATE.
18. ALL PLANTS SHALL BE GUARANTEED FOR ONE (1) FULL YEAR FROM THE DATE OF FORMAL ACCEPTANCE BY THE OWNER AND SHALL BE ALIVE AND HAVE SATISFACTORY GROWTH AT THE END OF THE GUARANTEED PERIOD. ANY PLANT NOT IN HEALTHY AND VIGOROUS CONDITION SHALL BE REPLACED AT NO COST TO THE OWNER AT THE END OF THE GUARANTEED PERIOD. PLANTS SEVERELY DAMAGED BY VANDALS ARE NOT SUBJECT TO REPLACEMENT BY THIS CONTRACTOR. REPLACEMENT PLANTS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE PLANT LIST. THE OWNER SHALL INSPECT THE REPLACED PLANTS WHEN ALL REPLACEMENTS HAVE BEEN MADE. REPLACEMENT PLANTS ARE TO BE ALIVE, HEALTHY AND FREE OF PESTS AND DISEASE.
19. MAINTENANCE OF ALL PLANT MATERIAL AFTER FORMAL ACCEPTANCE BY THE OWNER IS THE RESPONSIBILITY OF THE OWNER UNLESS SPECIFIED OTHERWISE IN THE CONTRACTR THROUGH A MAINTENANCE AGREEMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH MAINTENANCE GUIDELINES TO ASSURE PROPER CARE AFTER THE CONTRACTOR'S ONE YEAR GUARANTEE PERIOD.
20. THE CONTRACTOR SHALL CLEAN UP THE SITE AT THE COMPLETION OF THE PROJECT AND MAINTAIN THE SITE IN A REASONABLY CLEAN AND NEAT CONDITION DURING INSTALLATION. STREETS AND DRIVES SHALL BE CLEANED REGULARLY TO REMOVE CONSTRUCTION DEBRIS AND DIRT RESULTING FROM THE WORK.
21. THE CONTRACTOR SHOULD VERIFY LANDSCAPING/TREE PLANTING LOCATIONS WITH THE PUBLIC UTILITIES DEPARTMENT TO AVOID CONFLICTS WITH WATER, SEWER, AND GAS LINES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF SOD WITHIN ALL LANDSCAPE BEDS, LOOSENING SUB-GRADE OF PLANTING BEDS TO A MINIMUM DEPTH OF 6", REMOVING STONES LARGER THAN 1" IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND LEGALLY DISPOSING OF THEM OFF OF THE OWNER'S PROPERTY. THE CONTRACTOR SHALL APPLY SNAPSHOT 2G GRANULAR PRE-EMERGENT HERBICIDE OR APPROVED SUBSTITUTE FOR BROADCAST SPECTRUM CONTROL AND POST-EMERGENT OR APPROVED SUBSTITUTE FOR POST-EMERGENT WEED CONTROL. THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDED APPLICATION RATES.
23. A TREEGATOR WATERING BAG SHALL BE LOCATED ON ALL CANOPY TREES FOR A MINIMUM OF ONE YEAR.
24. THE CONTRACTOR SHALL INSTALL LANDSCAPE EDGING BETWEEN ALL PLANTING BEDS AND SOD, BETWEEN ALL RIVER ROCK AND PLANTINGS, AS WELL AS BETWEEN ALL GROUNDCOVER AND SHRUB MASSINGS.

PLANT SCHEDULE

ABREV.	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	COMMENTS	SPACING
		CANOPY TREES				
AG	3	*Acer griseum* Paperbark Maple	3" cal.	B&B	SPECIMEN	AS SHOWN
		ORNAMENTAL TREES				
LF	31	*Lagerstroemia faurei 'Sarah's Favorite'* Sarah's Favorite Crapemyrtle	6-8'	B&B	Match 3 Canes	12' O.C.
PY	13	*Prunus x yedoensis* Yoshino Cherry	6-8'	B&B	Match 3 Canes	AS SHOWN
		SHRUBS				
CS	56	*Cornus stolonifera 'Farrow'* Arctic Fire Red Twig Dogwood	3 Gal.	CONT.	x	4' O.C.
LI	40	*Lagerstroemia indica 'Gamad I"* Razzle Dazzle Cherry Dwarf Crape Myrtle	3 Gal.	CONT.	x	4' O.C.
IC	62	*Ilex cornuta 'Dwarf Burford'* Dwarf Burford Holly	3 Gal.	CONT.	x	4' O.C.
		GRASSES				
ICR	397	*Imperata cylindrica* Japanese Blood Grass	1 Gal.	CONT.	x	1.5' O.C.
PA	133	*Pennisetum alopecuroides* Fountain Grass	1 Gal.	CONT.	x	2.5' O.C.
PH	109	*Pennisetum alopecuroides 'Hameln* Dwarf Fountain Grass	1 Gal.	CONT.	x	1.5' O.C.
		PERENNIALS / GROUNDCOVERS				
HC	1,698	*Hypericum calycinum* Creeping St. John's Wort	1 Gal.	CONT.	X	18" O.C.
OP	104	*Ophiopogon planiscapus 'Nigrescens'* Black Mondo Grass	1 Gal.	CONT.	X	18" O.C.
LS	149	*Liriope spicata* Creeping Lily Turf	1 Gal.	CONT.	X	
		STEEL LANDSCAPE EDGING				
LE	777 L.F.					

FILE NO.	10–0606	
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DRAWN BY:	ARE	
CHECKED BY:	DAC	
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DATE:	05/02/14	ARE
UPDATED DATE		

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

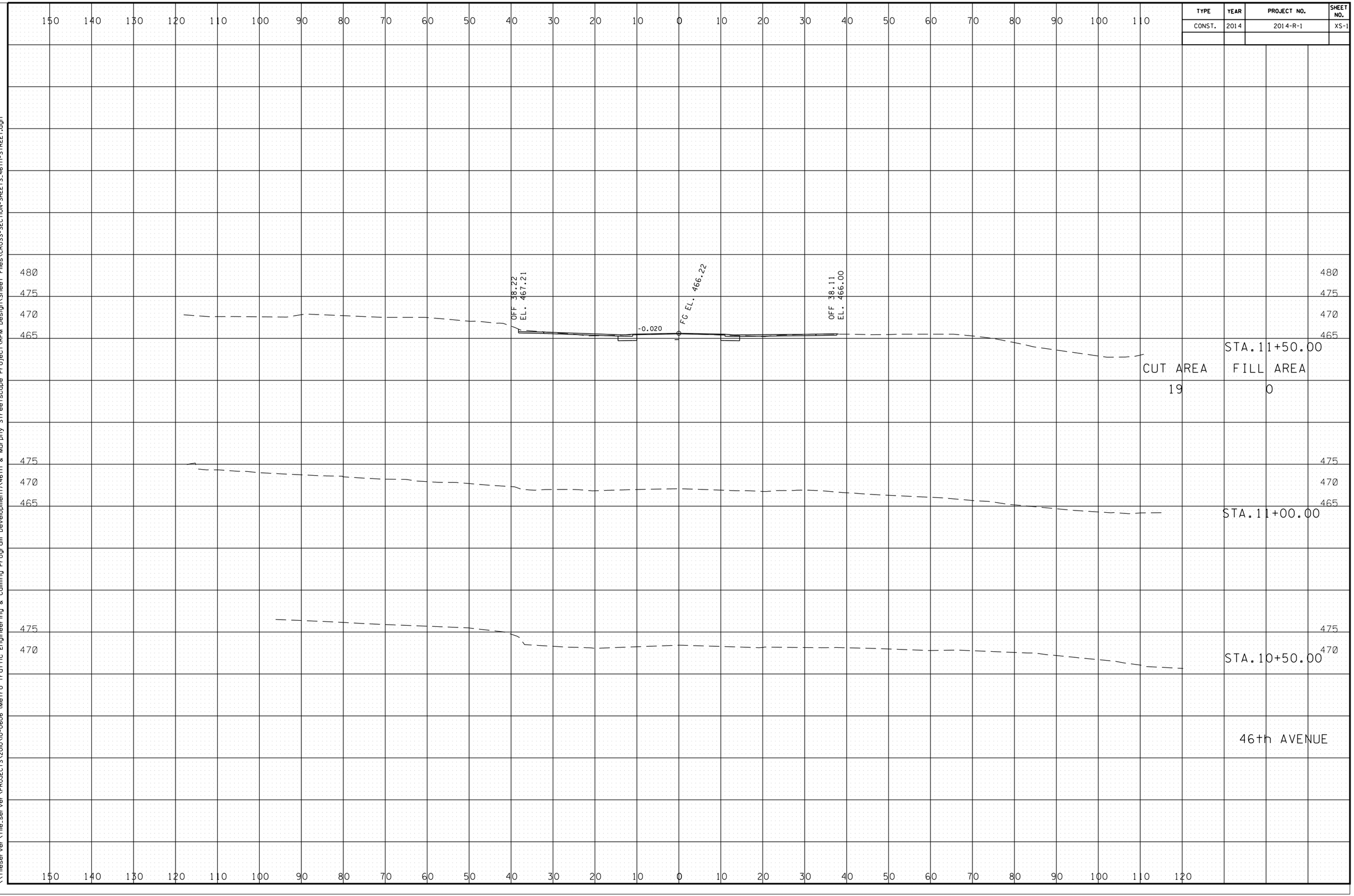
46th and Murphy Streetscape Project

Landscape Notes & Details

SCALE: N/A

SHEET L–4

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-1



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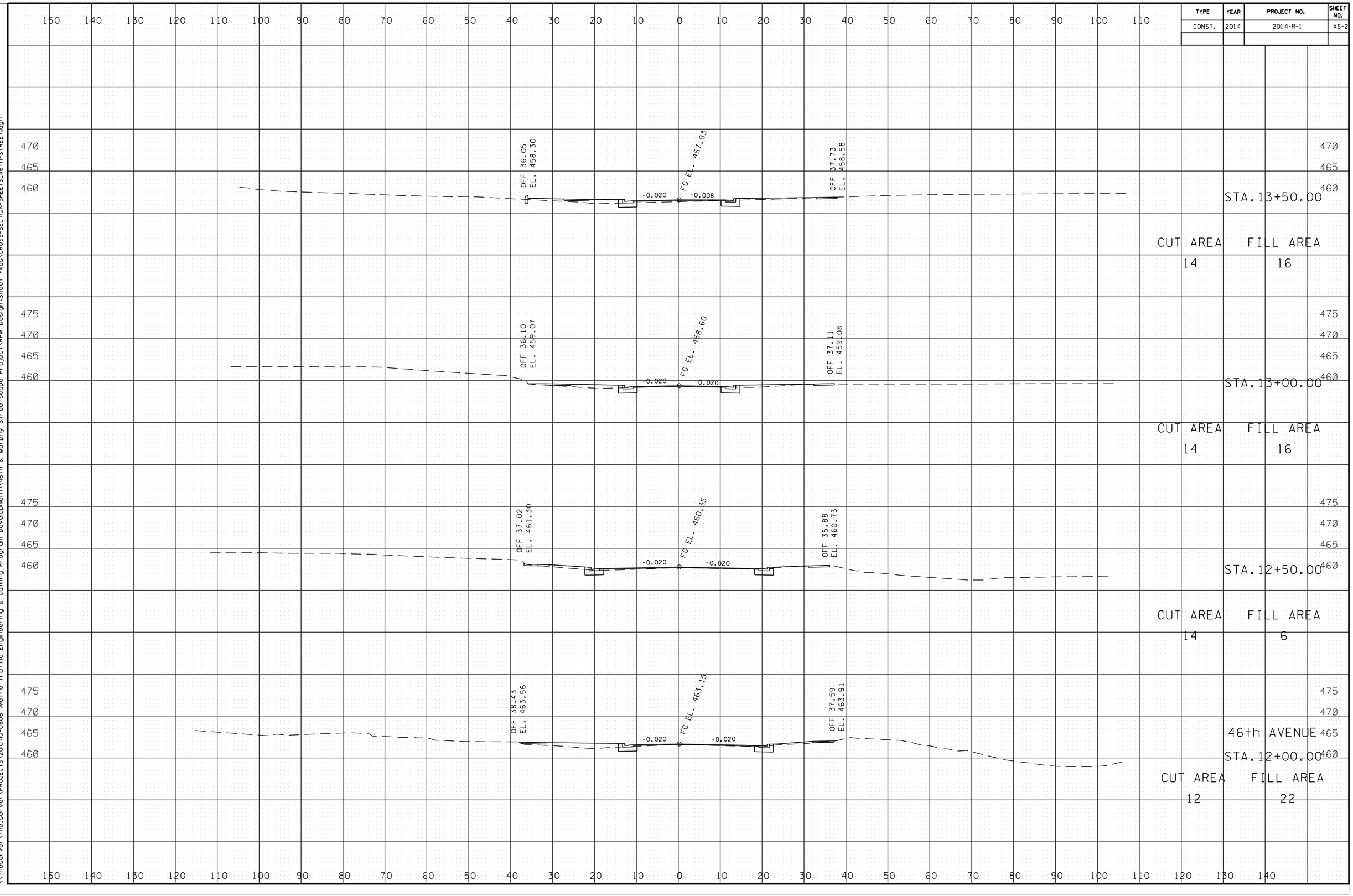
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-2



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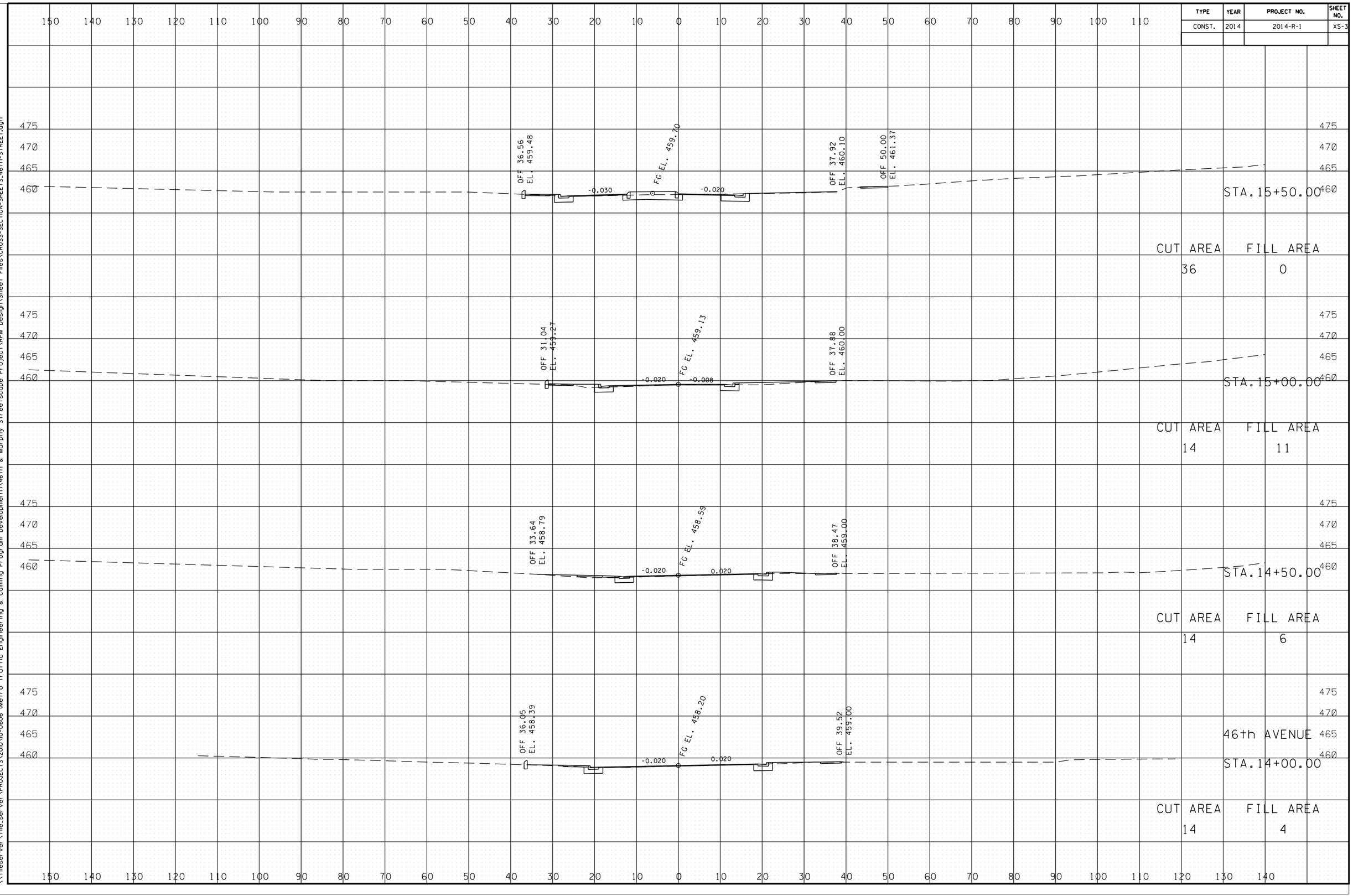
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-3



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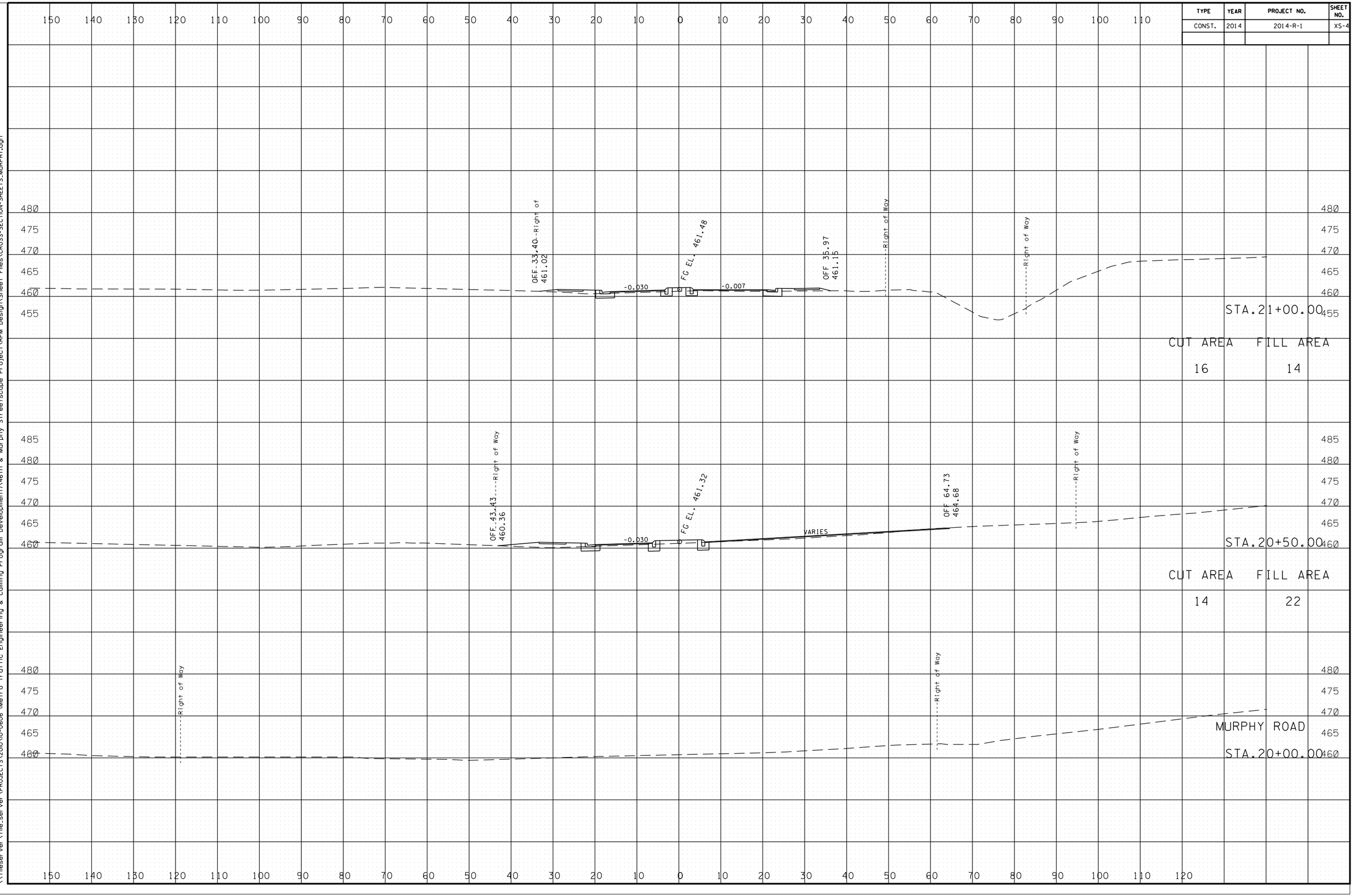
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-4



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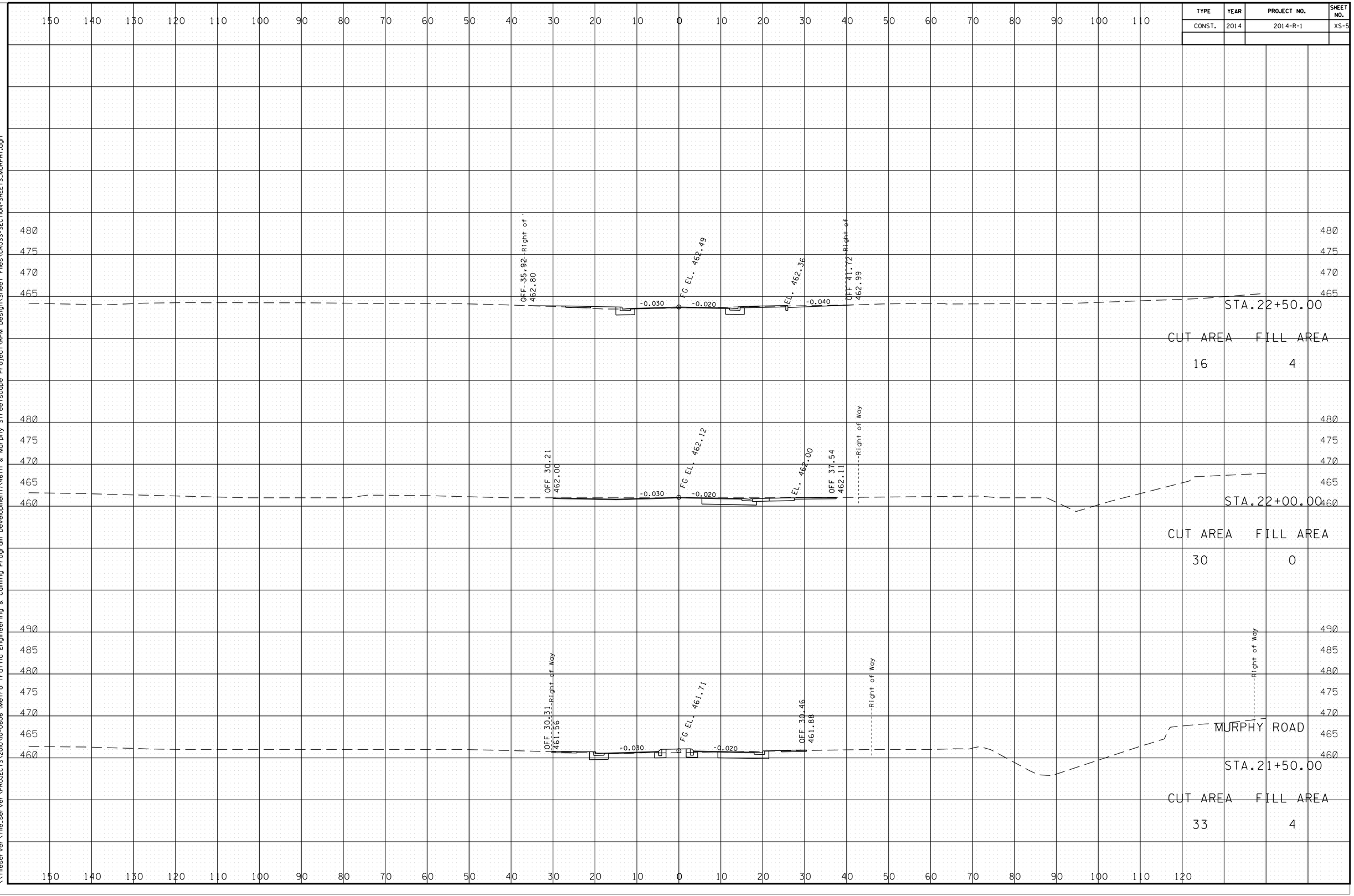
CONST.	2014	2014-R-1	XS-5



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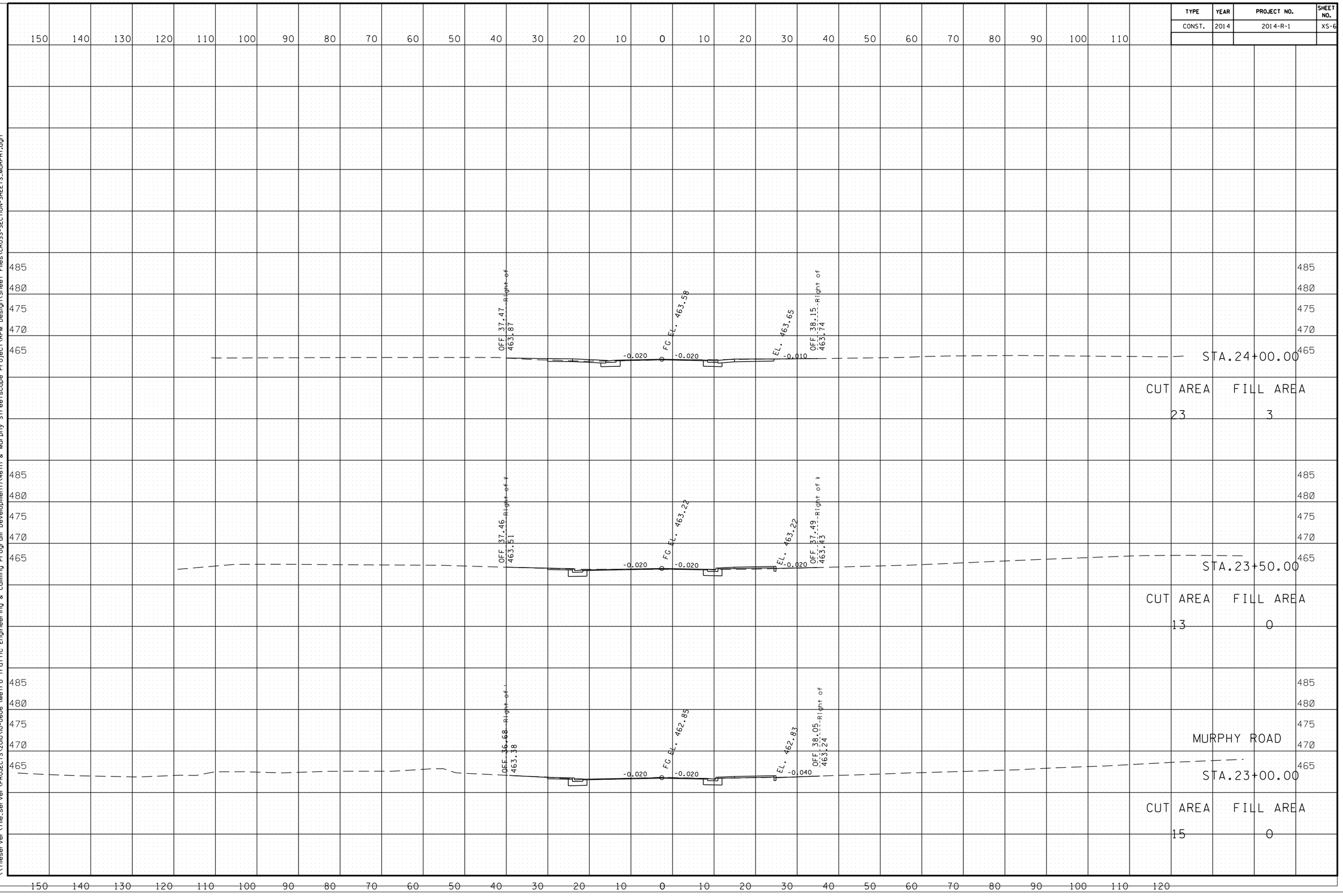
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-6



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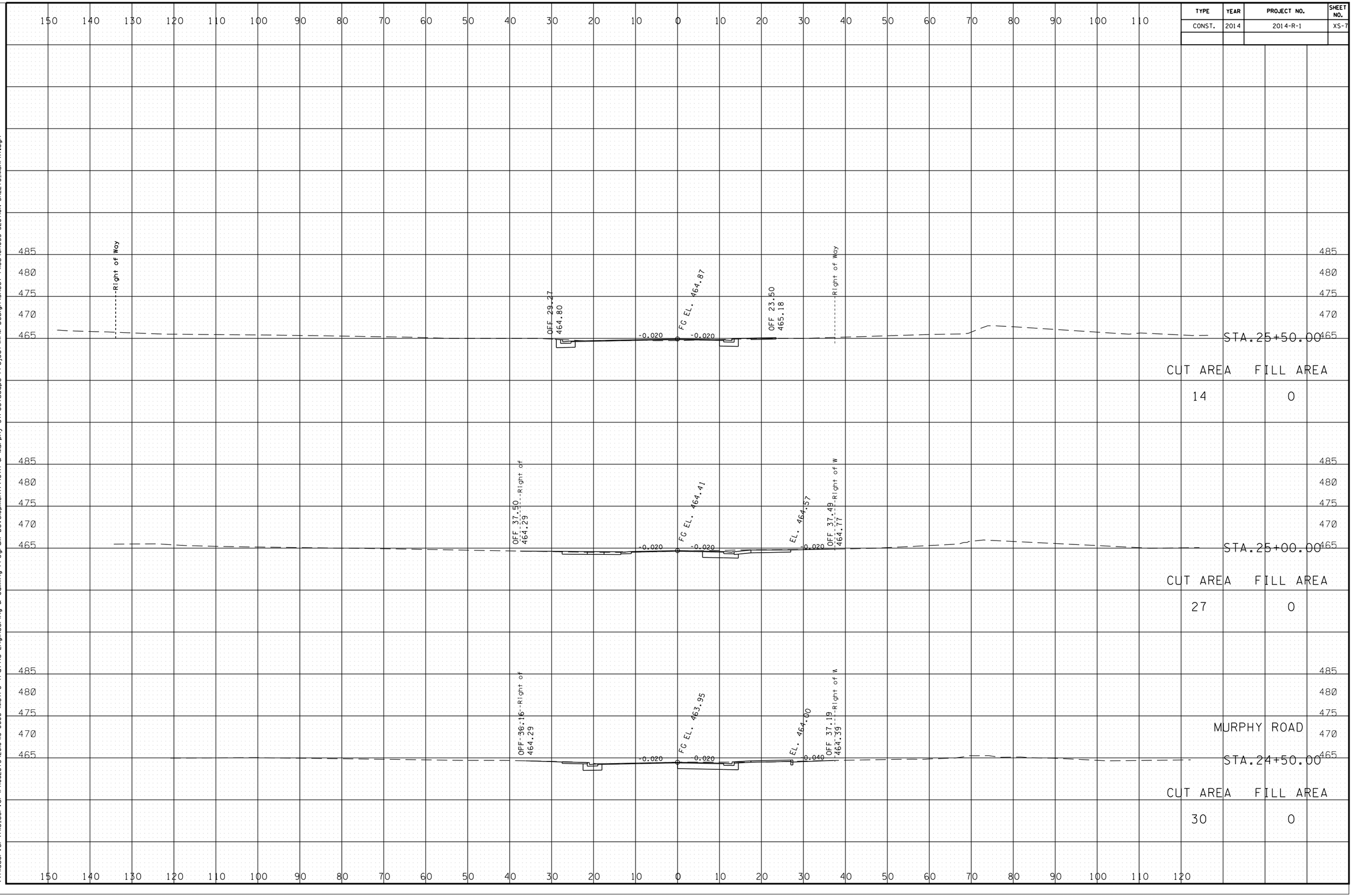
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-7



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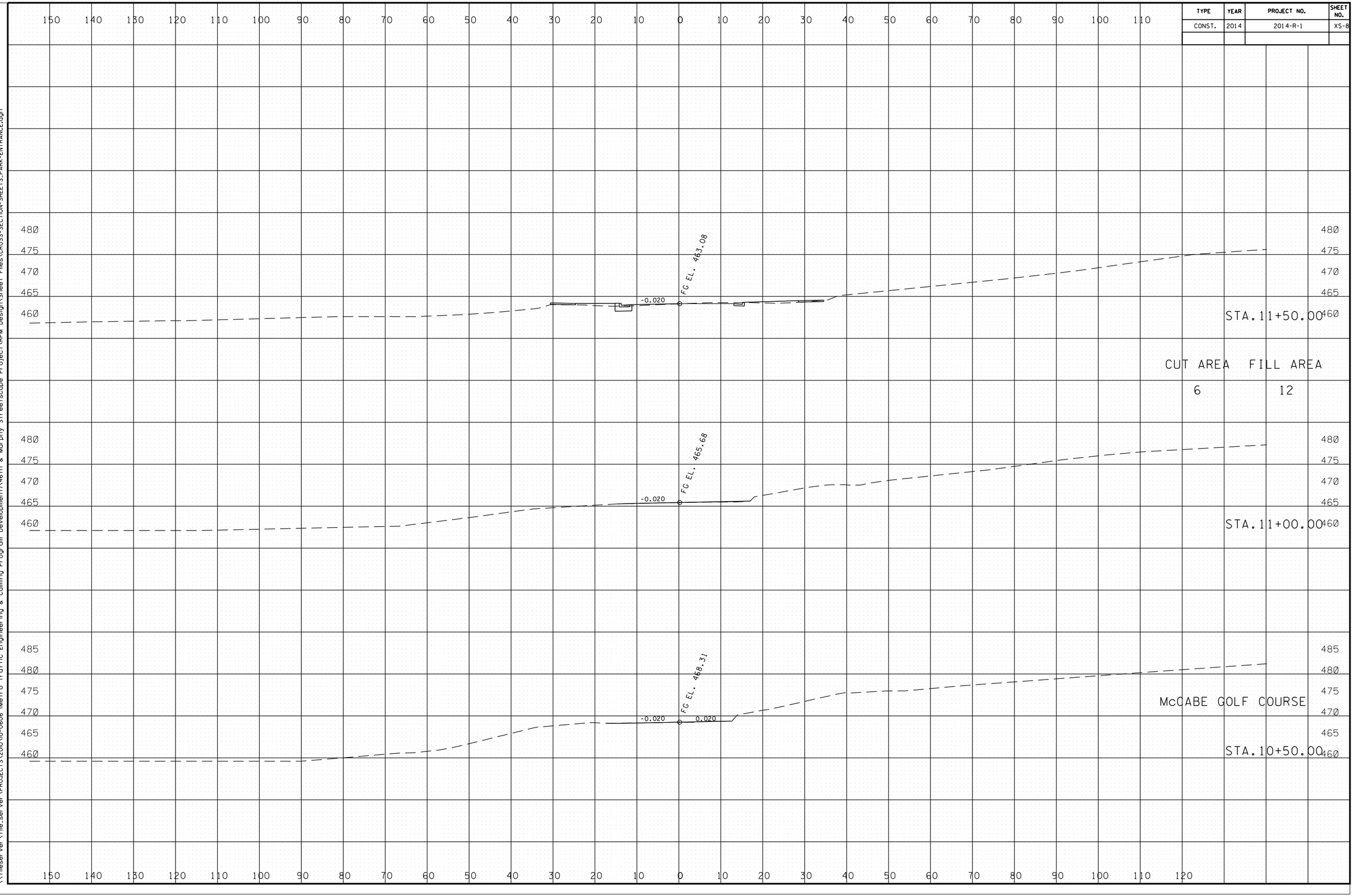
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-8



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CONST.	2014	2014-R-1	XS-9

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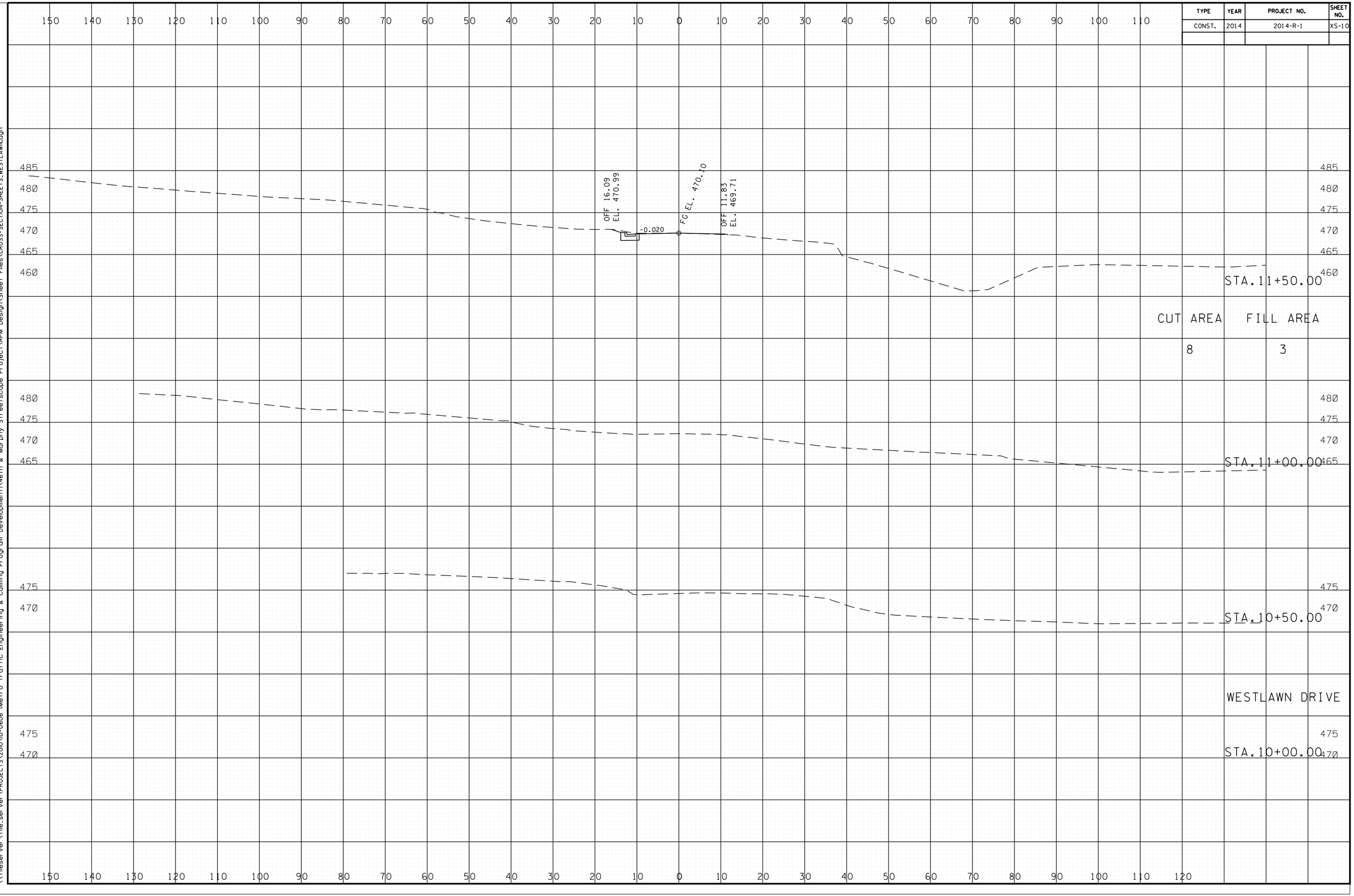
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-10



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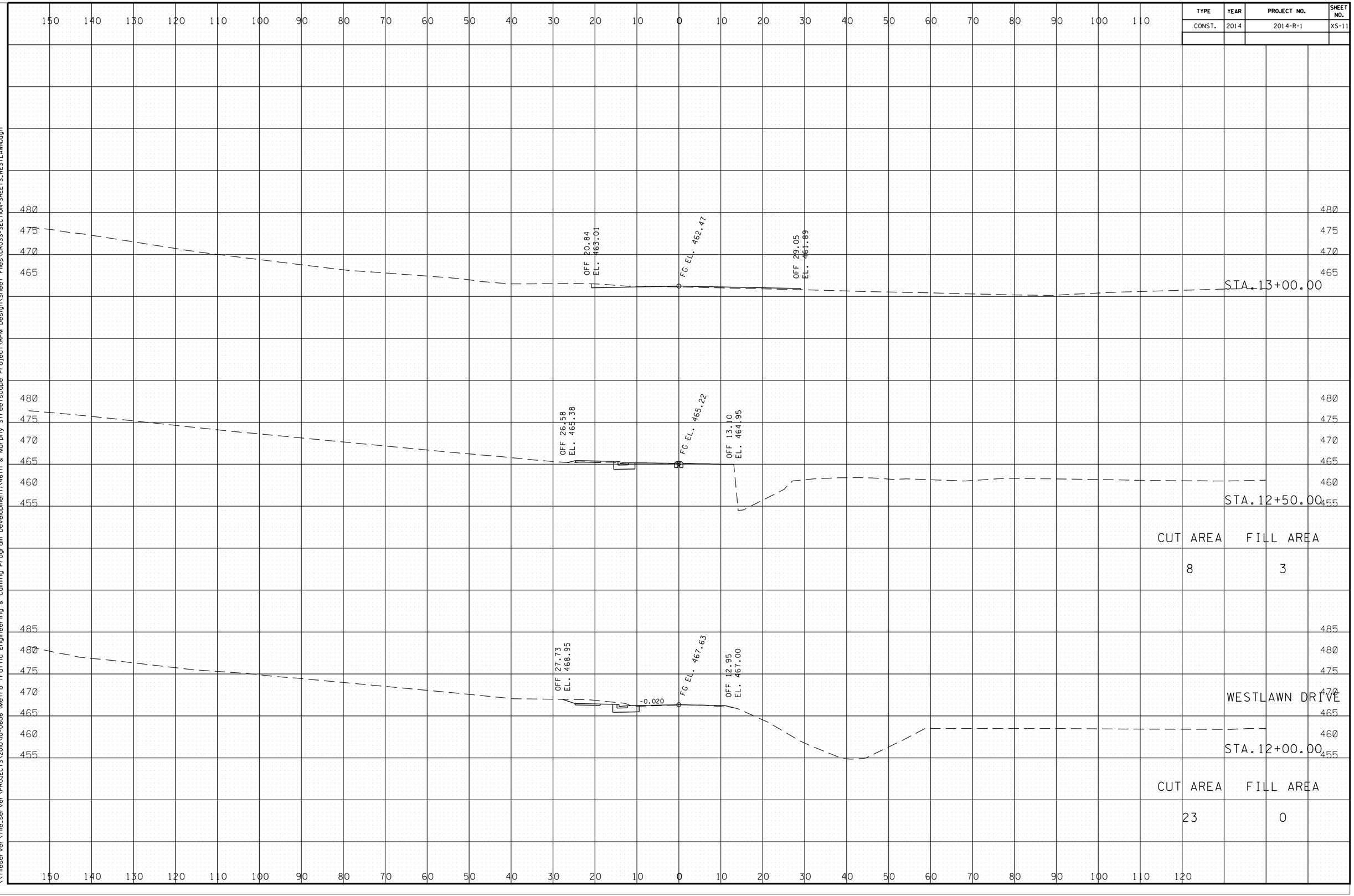
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	2014-R-1	XS-11



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FILE NO.	10-0606
DATE:	04/25/2014
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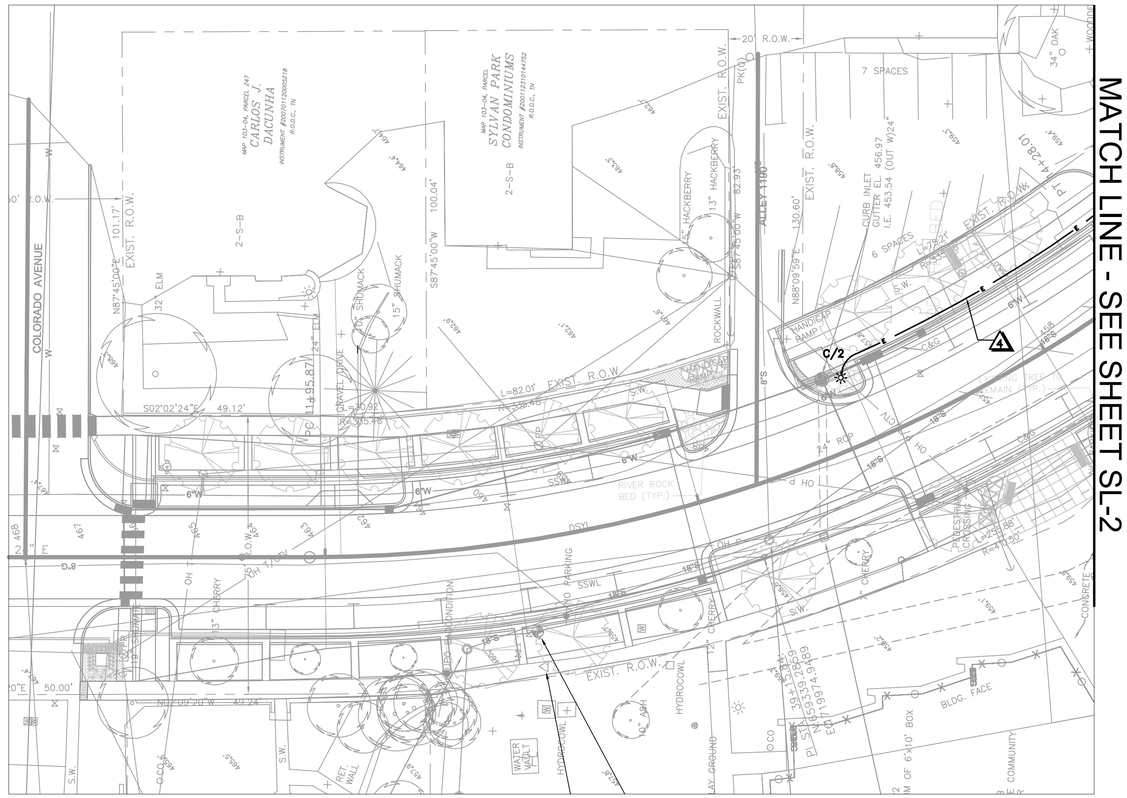
CONDUIT/CABLE SCHEDULE							
CIRCUIT			1	2	3	4	5
TYPE			PVC	PVC	HDPE	PVC	HDPE
SIZE			(2)2"*	2"	2"	2"	2"
AWG	#6	1C	4	4	4		
	#4	1C	4			4	4

CONDUIT/CABLE SCHEDULE						
CIRCUIT			6	7	8	
TYPE			PVC	HDPE	EXISTING	
SIZE			2"	2"		
AWG	#6	1C	3	3	3	

* – CIRCUITS SHALL BE SPLIT BETWEEN EACH OF THE CONDUITS.



LEGEND

- —— E —— ELECTRICAL CONDUIT AND CONDUCTORS. SEE CONDUIT AND CABLE SCHEDULE FOR SIZE, TYPE, AND QUANTITIES.
- NES STREET LIGHTING PULL BOX. SEE FIGURE 5 ON SHEET SL-6
- CONDUIT AND CABLE CALL OUT
- STREETSCAPE LIGHT AND RECEPTACLE CIRCUIT CALL OUT.
  - NUMERICAL VALUE DENOTES CIRCUIT NUMBER CONNECTION
- FLOOD LIGHT FIXTURE
- STREETSCAPE LIGHT FIXTURE

ELECTRICAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRIC CODE, NESC, AND NES STREET LIGHTING GUIDELINES.
2. ALL ELECTRICAL CONDUIT SHALL BE GREY IN COLOR. THE CONTRACTOR SHALL NOT MIX COLORS. PVC CONDUIT SHALL BE SCHEDULE 40 AND INSTALL BY TRENCHING. HDPE CONDUIT SHALL BE INSTALLED BY DIRECTIONAL DRILLING. ALL EXPOSED ABOVE GRADE CONDUIT SHALL BE RGS.
3. ALL ELECTRICAL WIRE SHALL BE TYPE THWN.
4. SEE LANDSCAPE DETAILS FOR FOOTER LOCATIONS ADJACENT TO CONCRETE BANDS.
5. CONDUCTORS SHALL BE COLOR CODED PER NES STREET LIGHTING GUIDELINES.
6. CONTRACTOR SHALL INSTALL LIGHTING FIXTURES ON PHASE "A" AND RECEPTACLES ON PHASE "B".

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

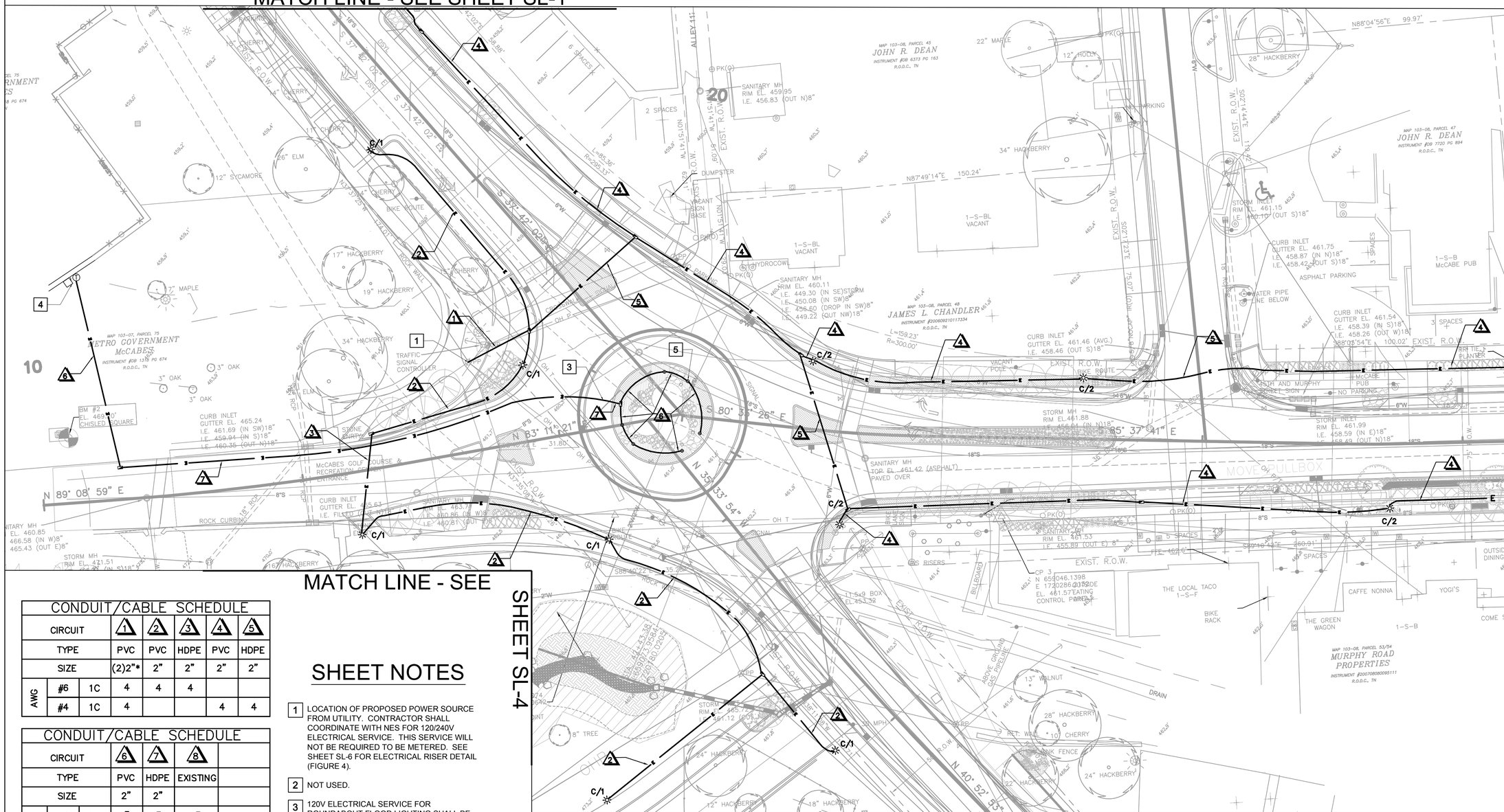
46th and Murphy Streetscape Project

Proposed Electrical Layout

SCALE: 1"=20'

SHEET SL-1

MATCH LINE - SEE SHEET SL-1



CONDUIT/CABLE SCHEDULE

CIRCUIT			1	2	3	4	5
TYPE			PVC	PVC	HDPE	PVC	HDPE
SIZE			(2)2"*	2"	2"	2"	2"
AWG	#6	1C	4	4	4		
	#4	1C	4			4	4

CONDUIT/CABLE SCHEDULE

CIRCUIT			6	7	8	
TYPE			PVC	HDPE	EXISTING	
SIZE			2"	2"		
AWG	#6	1C	3	3	3	

* – CIRCUITS SHALL BE SPLIT BETWEEN EACH OF THE CONDUITS.

SHEET NOTES

1. LOCATION OF PROPOSED POWER SOURCE FROM UTILITY. CONTRACTOR SHALL COORDINATE WITH NES FOR 120/240V ELECTRICAL SERVICE. THIS SERVICE WILL NOT BE REQUIRED TO BE METERED. SEE SHEET SL-6 FOR ELECTRICAL RISER DETAIL (FIGURE 4).
2. NOT USED.
3. 120V ELECTRICAL SERVICE FOR ROUNDABOUT FLOOD LIGHTING SHALL BE FED FROM THE COMMUNITY CENTER. CONTRACTOR SHALL COORDINATE WITH THE COMMUNITY CENTER STAFF FOR ELECTRICAL CONNECTION.
4. 20A FUSED DISCONNECT SWITCH AND TIMER CLOCK CONTROL FOR ROUNDABOUT LIGHTING.
5. ROUNDABOUT FLOOD LIGHTS SHALL BE 3' FROM BACK OF CURB AS SHOWN. CONTRACTOR SHALL STAKE FLOOD LIGHTING LOCATIONS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.

ELECTRICAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRIC CODE, NESC, AND NES STREET LIGHTING GUIDELINES.
2. ALL ELECTRICAL CONDUIT SHALL BE GREY IN COLOR. THE CONTRACTOR SHALL NOT MIX COLORS. PVC CONDUIT SHALL BE SCHEDULE 40 AND INSTALL BY TRENCHING. HDPE CONDUIT SHALL BE INSTALLED BY DIRECTIONAL DRILLING. ALL EXPOSED ABOVE GRADE CONDUIT SHALL BE RGS.
3. ALL ELECTRICAL WIRE SHALL BE TYPE THWN.
4. CONDUCTORS SHALL BE COLOR CODED PER NES STREET LIGHTING GUIDELINES
5. CONTRACTOR SHALL INSTALL LIGHTING FIXTURES ON PHASE "A" AND RECEPTACLES ON PHASE "B".

LEGEND

- —— E —— ELECTRICAL CONDUIT AND CONDUCTORS. SEE CONDUIT AND CABLE SCHEDULE FOR SIZE, TYPE, AND QUANTITIES.
- NES STREET LIGHTING PULL BOX. SEE FIGURE 5 ON SHEET SL-6
- CONDUIT AND CABLE CALL OUT
- FLOOD LIGHT FIXTURE
- STREETSCAPE LIGHT FIXTURE
- C/1 STREETSCAPE LIGHT AND RECEPTACLE CIRCUIT CALL OUT.
  - NUMERICAL VALUE DENOTES CIRCUIT NUMBER CONNECTION

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UPDATED DATE		

JON S. CHAMBERS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00107951
STATE OF TENNESSEE

05-02-14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

Proposed Electrical Layout

SCALE: 1"=20'

SHEET SL–2

FILE NO.	10-0606
DATE:	04/25/2014
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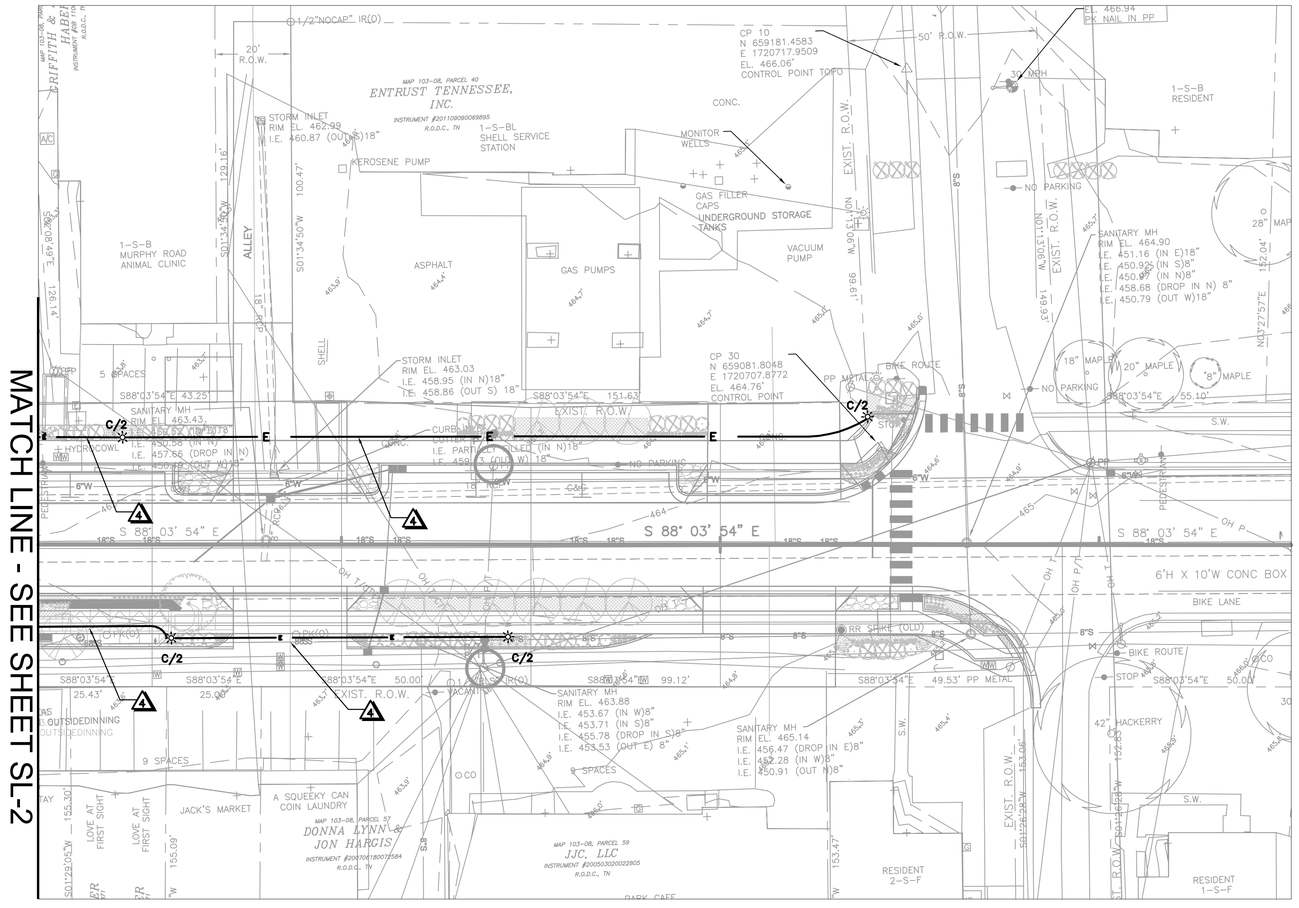
CONDUIT/CABLE SCHEDULE							
CIRCUIT			1	2	3	4	5
TYPE			PVC	PVC	HDPE	PVC	HDPE
SIZE			(2)2"*	2"	2"	2"	2"
AWG	#6	1C	4	4	4		
	#4	1C	4			4	4

CONDUIT/CABLE SCHEDULE						
CIRCUIT			6	7	8	
TYPE			PVC	HDPE	EXISTING	
SIZE			2"	2"		
AWG	#6	1C	3	3	3	

* – CIRCUITS SHALL BE SPLIT BETWEEN EACH OF THE CONDUITS.



LEGEND

— E — ELECTRICAL CONDUIT AND CONDUCTORS. SEE CONDUIT AND CABLE SCHEDULE FOR SIZE, TYPE, AND QUANTITIES.

NES STREET LIGHTING PULL BOX. SEE FIGURE 5 ON SHEET SL-6

CONDUIT AND CABLE CALL OUT

C/1 STREETSCAPE LIGHT AND RECEPTACLE CIRCUIT CALL OUT.
- NUMERICAL VALUE DENOTES CIRCUIT NUMBER CONNECTION

FLOOD LIGHT FIXTURE

STREETSCAPE LIGHT FIXTURE

ELECTRICAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRIC CODE, NESC, AND NES STREET LIGHTING GUIDELINES.
2. ALL ELECTRICAL CONDUIT SHALL BE GREY IN COLOR. THE CONTRACTOR SHALL NOT MIX COLORS. PVC CONDUIT SHALL BE SCHEDULE 40 AND INSTALL BY TRENCHING. HDPE CONDUIT SHALL BE INSTALLED BY DIRECTIONAL DRILLING. ALL EXPOSED ABOVE GRADE CONDUIT SHALL BE RGS.
3. ALL ELECTRICAL WIRE SHALL BE TYPE THWN.
4. CONDUCTORS SHALL BE COLOR CODED PER NES STREET LIGHTING GUIDELINES.
5. CONTRACTOR SHALL INSTALL LIGHTING FIXTURES ON PHASE "A" AND RECEPTACLES ON PHASE "B".

JON S. CHAMBERS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00107951
STATE OF TENNESSEE

Jon S. Chambers
05-02-14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Electrical Layout

SCALE: 1"=20'

SHEET SL-3

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BSL
DRAWN BY:	BSL
CHECKED BY:	JSC

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DATE:	05/02/2014	BSL
UPDATED DATE		

CONDUIT/CABLE SCHEDULE							
CIRCUIT			1	2	3	4	5
TYPE			PVC	PVC	HDPE	PVC	HDPE
SIZE			(2)2"*	2"	2"	2"	2"
AWG	#6	1C	4	4	4		
	#4	1C	4			4	4

CONDUIT/CABLE SCHEDULE						
CIRCUIT			6	7	8	
TYPE			PVC	HDPE	EXISTING	
SIZE			2"	2"		
AWG	#6	1C	3	3	3	

* – CIRCUITS SHALL BE SPLIT BETWEEN EACH OF THE CONDUITS.

LEGEND

- ELECTRICAL CONDUIT AND CONDUCTORS. SEE CONDUIT AND CABLE SCHEDULE FOR SIZE, TYPE, AND QUANTITIES.
- NES STREET LIGHTING PULL BOX. SEE FIGURE 5 ON SHEET SL-6.
- CONDUIT AND CABLE CALL OUT
- STREETSCAPE LIGHT AND RECEPTACLE CIRCUIT CALL OUT.
  - NUMERICAL VALUE DENOTES CIRCUIT NUMBER CONNECTION
- FLOOD LIGHTING FIXTURE
- STREETSCAPE LIGHT FIXTURE
- PARKING LOT LIGHT FIXTURE

ELECTRICAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRIC CODE, NESC, AND NES STREET LIGHTING GUIDELINES.
2. ALL ELECTRICAL CONDUIT SHALL BE GREY IN COLOR. THE CONTRACTOR SHALL NOT MIX COLORS. PVC CONDUIT SHALL BE SCHEDULE 40 AND INSTALL BY TRENCHING. HDPE CONDUIT SHALL BE INSTALLED BY DIRECTIONAL DRILLING. ALL EXPOSED ABOVE GRADE CONDUIT SHALL BE RGS.
3. ALL ELECTRICAL WIRE SHALL BE TYPE THWN.
4. CONDUCTORS SHALL BE COLOR CODED PER NES STREET LIGHTING GUIDELINES.

SHEET NOTES

1. NEW SERVICE RISER PER NES STANDARDS. SEE FIGURE 4 ON SL-6.
2. REUSE EXISTING CONDUIT FOR ALL PARKING LOT LIGHTING.

Jon S. Chambers
05-02-14

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Proposed Electrical Layout

SCALE: 1"=20'

SHEET SL-4

NOTE:

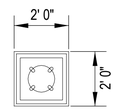
1. CONTRACTOR TO GROUND ALL EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

2. NASHVILLE ELECTRIC SERVICE LIGHTING SHALL COMPLY WITH THE NESC (IEEE C2).

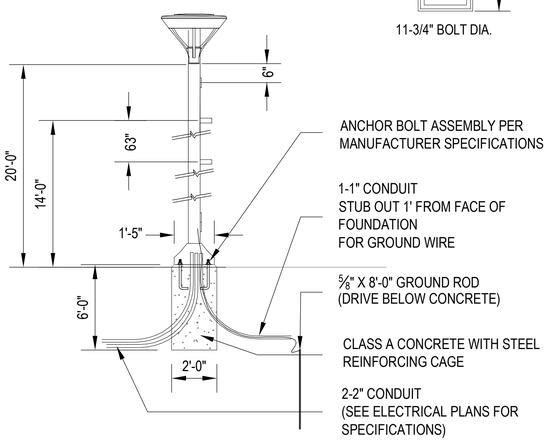
LAMP :
INVUE MSA MESA
PULSE START METAL HALIDE
MSA-100-MP-UNV-3S-FG-AP-R

SUPPLIER:
TENNESSEE LIGHTING SALES
2730 LARMON AVENUE
NASHVILLE,TN 37204
615.385.5566
WWW.COOPERLIGHTING.COM

POLE:
U.S. ARCHITECTURAL
RNTA - 205.188-PT27-RBC-SLM-FBA20-BEB



11-3/4" BOLT DIA.



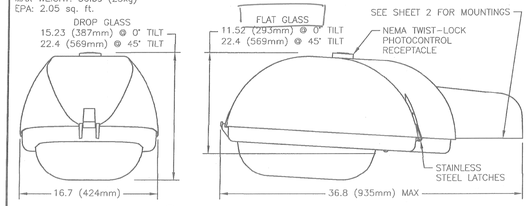
STREETSCAPE_LIGHT

NTS

SEE FIGURE 6 ON SL-6 FOR LIGHT POLE FOOTING DETAIL

MONGOOSE®

UL/CUL LISTED
MAX AMBIENT: 40°C
MAX WEIGHT: 50lbs (23kg)
EPA: 2.05 sq. ft.



G
CATALOG NUMBER

SOURCE AND WATTAGE
- 100HP 100W HPS
- 15AHP 150W HPS
- 250HP 250W HPS
- 25LHP 250W HPS
- 400HP 400W HPS
- 40LHP 400W HPS
- 175MH 175W MH
- 250MH 250W MH
- 25LMH 250W MH
- 400MH 400W MH
- 40LMH 400W MH

VOLTAGE
- 12 120V
- 20 208V
- 24 240V
- 27 277V
- 48 480V
- 34 347V
- MT MULTIVOLT 120,208,240,277V
- MA MULTIVOLT PRE-WIRED (120V)
- MB MULTIVOLT PRE-WIRED (208V)
- MC MULTIVOLT PRE-WIRED (240V)
- MD MULTIVOLT PRE-WIRED (277V)
- VT MULTIVOLT 120, 277, 347V

TILT RANGE
- L LOW TILT, 0°-18°
- H HIGH TILT, 27°-45°

OPTICS
- DC MEDIUM ROADWAY, CLEAR DROP GLASS
- DR MEDIUM ROADWAY, GLASS REFRACTOR
- FC FORWARD THROW, CLEAR DROP GLASS
- FF FORWARD THROW, FLAT GLASS
- NC NARROW ROADWAY, CLEAR DROP GLASS
- ND NARROW FLOOD
- NF NARROW ROADWAY, FLAT GLASS
- NR NARROW ROADWAY, GLASS REFRACTOR
- SC SQUARE, CLEAR DROP GLASS
- SF SQUARE, FLAT GLASS
- WC WIDE ROADWAY, CLEAR DROP GLASS
- WD WIDE FLOOD
- WF WIDE ROADWAY, FLAT GLASS
- WR WIDE ROADWAY, GLASS REFRACTOR

MOUNTING
- A ARCHITECTURAL
- H HORIZONTAL
- V VERTICAL

FINISH
- G GRAY
- K BLACK
- N GREEN
- W WHITE
- Z BRONZE

OPTIONS
- B TERMINAL BLOCK & NEMA DECAL
- C NEMA DECAL
- P PROTECTED STARTER
- R NEMA TWIST-LOCK PHOTOCONTROL RECEPTACLE
- T SPADE TERMINATION FOR BALLAST LEADS
- 3 3" TO 2" TENON ADAPTER
- 6 6' PIGTAIL

ACCESSORIES
- F1 SINGLE FUSING (120, 240, 277 & 347V)
- F2 DOUBLE FUSING (208, 240 & 480V)
- LAMP
- BKT-5-G GALVANIZED WOOD POLE BRACKET
- BR-1091-XX 3" TO 2" TENON ADAPTER

HOLOPHANE® LEADER IN LIGHTING SOLUTIONS
An Acuity Brands Company

ORDER NO: _____
TYPE: _____

DRAWING NO.
CAD MODEL: MONGOOSE.DWG
DATE: 12-09-05
Sheet 1 of 2

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H700 ARCHITECTURAL FLOOD LIGHT
50M-120 -FL- KM -HSMSA18- IHL- BD- HLP- LPI- BK

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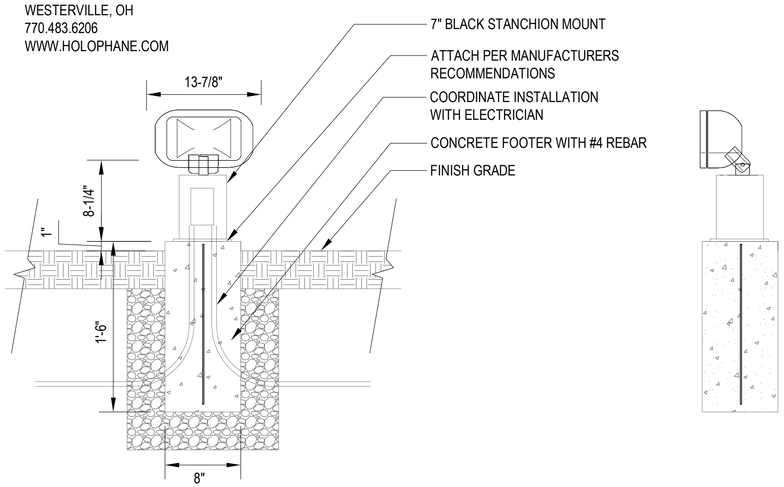
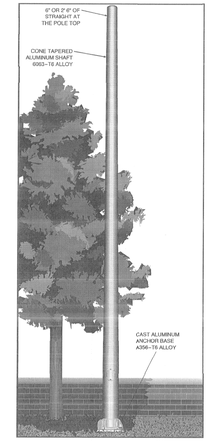


FLOOD_LIGHT

NTS

valmont STRUCTURES ALUMINUM

30' TO 50' ROUND TAPERED 4-BOLT ANCHOR BASE POLES



- 30' to 50' mounting heights.
- For single or multiple luminaire mounting.
- Luminaires may be mounted on tenons, brackets or shaft may be drilled to manufacturer's mounting specifications.

SPECIFICATIONS

All aluminum alloys shall comply with metallurgical and mechanical properties set forth in the Aluminum Association Standards.

Shaft: The shaft shall be spun tapered from all new seamless 6063 alloy aluminum and shall be heat treated to produce a T6 temper. Each shaft shall have a minimum 6" long straight section at the top to accommodate the center hub of the appropriate Valmont flood light bracket or tapered arm. Alternatively, the straight section may be drilled for mounting luminaires. All Valmont shafts shall be polished with fine grain aluminum oxide cloths, resulting in a high quality, circumferential satin brushed finish. After finishing each pole shall be fully wrapped with neutral PH krinkle/kraft paper for protection in shipment.

Anchor Base: The anchor base is cast from A356 alloy aluminum. The anchor base casting and shaft shall be joined by a continuous circumferential weld at the inside bottom of the anchor base. The completed assembly will be heat treated to T6 temper after all structural welding is completed. A356 alloy aluminum nut covers shall be included with each anchor base unless otherwise specified.

Handholes: Standards shall include a peripherally reinforced flush covered handhole centered 18" above the bottom of the pole. The opening in the 7", 8" and 10" diameter pole shall measure 4" x 6". An optional 4" x 8" opening is available for 8"and 10" diameter poles.

Anchor Bolts: Each pole shall include: (4) steel hot dip galvanized anchor bolts each with (2) nuts and (2) flat washers sized to match the anchor bolts.

Special Finishes: Natural anodize, duranodic, or painted finishes may be specified as an addition to the satin brushed finish, if required. All aluminum parts and accessories shall receive a finish similar to that specified.

CATALOG LOGIC

FEET AND INCHES		TOP DIAMETER	BASE DIAMETER	WALL THICKNESS	SHAPE OF SHAFT	BASE OR MOUNTING	FIXTURE MOUNTING	FINISHES	OPTIONS
2 9 0 8	-	6 0	7 0	5	T	4	D 1	D B L	_

FEET AND INCHES*: 2908 = 30' ; 3208 = 33' ; 3408 = 35' ; 3608 = 37' ; 3808 = 39' ; 4708 = 48' ; 4908 = 50'

TOP DIAMETER IN INCHES: 40 = 4" ; 45 = 4-1/2" ; 60 = 6"

BASE* DIAMETER IN INCHES: 70 = 7" ; 80 = 8" ; 10 = 10"

WALL* THICKNESS IN 32NDS OF AN INCH: 5 = 5/32"w 0.156" Wall ; 6 = 6/32"w 0.188" Wall ; 8 = 8/32"w 0.250" Wall

SHAPE OF SHAFT: T = Tapered Round

BASE OR MOUNTING: 4 = 4-Bolt Anchor Base

*For available Base Diameter, Wall Thickness and Length Combinations, see Dimensional Load Data folds that follows.

FIXTURE MOUNTING:
- D1 = 1@90°
- D2 = 2@180°
- D3 = 3@120°
- D4 = 4@90°
- D5 = 2@90°
- D6 = 3@90°
- P2 = 2-3/8"x 4 tenon
- P9 = Other Tenon (Please Specify)

OPTIONS See Accessory Section

FINISHES

POLYESTER POWDER
- DBL = Black
- DBR = Bright Red
- DCG = Charcoal Gray
- DDB = Dark Bronze
- DMB = Med Bronze
- DNA = Natural Alum
- DSB = Steel Blue
- DSS = Sandstone
- DYG = Dark Green
- DWH = White

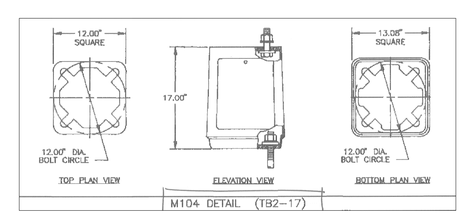
ANODIZED
- 204 = Clear Natural
- 311 = Light Bronze*
- 312 = Med Bronze*
- 313 = Dark Bronze*
- 335 = Black*
- * Duranodic Anodize

BRUSHED
- SBF = Satin Brushed Finish

Valmont Industries, Inc. ~ 20805 Eaton Avenue ~ Farmington, Minnesota 55024-7932 (800)899-7577 ~ www.valmont.com A2-5

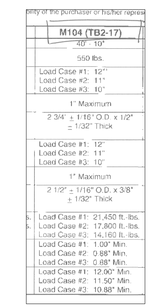
PARKING_LOT_LIGHT

NTS



M104 DETAIL (TB2-17)

FILE NO.	10-0606
DATE:	04/25/2014
DESIGNED BY:	BSL
DRAWN BY:	BSL
CHECKED BY:	JSC
REVISION BLOCK	
DATE: 05/02/2014	BSL
UPDATED DATE	



METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014-R-1

46th and Murphy Streetscape Project

Electrical Notes & Details

SCALE: N/A

SHEET SL-5

NOTE:

1. CONTRACTOR TO GROUND ALL EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

2. NASHVILLE ELECTRIC SERVICE LIGHTING SHALL COMPLY WITH THE NESC (IEEE C2).

FILE NO.	10–0606	
DATE:	04/25/2014	
DESIGNED BY:	BSL	
DRAWN BY:	BSL	
CHECKED BY:	JSC	
REVISION BLOCK		
DATE:	05/02/2014	BSL
UPDATED DATE		

INSTALLATION DETAILS

Underground Street Lighting Service from Riser

1. Two inch (2") conduit and 24 inch (24") radius shall be used for elbows.
2. Conduit must be laid so the imprint is visible.
3. The Customer is responsible for soil stabilization during and after construction. The Customer is also responsible for the disposal of soils from excavation.
4. NES to furnish and install stand-off brackets.
5. An NES Street Lighting pull-box is required within 25' of utility pole base.

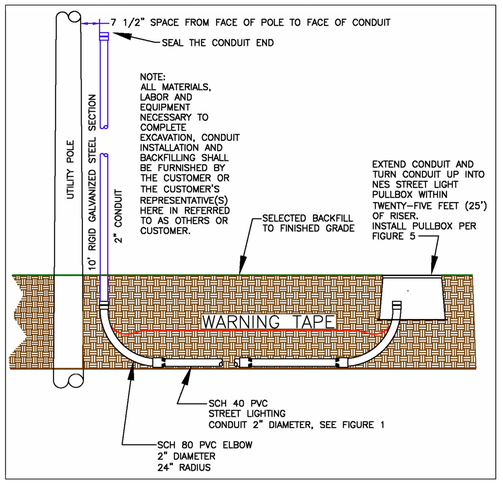


FIGURE 4

RISER DETAIL
NOT TO SCALE

42

INSTALLATION DETAILS

Street Lighting Pull-box Installation Detail

1. Excavate and backfill with minimum eighteen inch (18") thick layer of #67 crushed gravel.
2. Install box and backfill to within twelve inches (12") of finished grade with #67 crushed gravel.
3. Backfill inside box within three inches (3") of the top of the conduit with #67 crushed gravel.
4. The top of the pull-box must be flush with finished grade.
5. Pull-box to be furnished and installed by customer.
6. Schedule inspection of pull-box installation with NES Operations a minimum of three business days prior to inspection.
7. NES reserves the right to require a larger pull-box. If larger pull-box is required, NES will issue specifications and installation requirements for the larger pull-box.
8. Pull-boxes are required to be installed at the midpoint of any circuit run that exceeds 200 feet.
9. Pull-boxes are not to be installed in the path of vehicular travel.

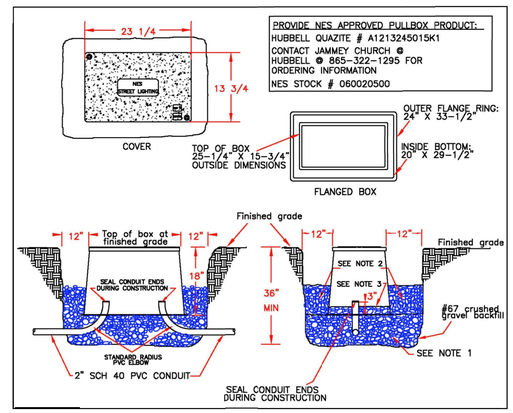


FIGURE 5

JUNCTION BOX DETAIL
NOT TO SCALE

43

INSTALLATION DETAILS

General Footing Detail – NES Poles, Height Greater than Fourteen Feet (14')

1. Concrete to be Class 'A', 3000 P.S.I. compressive strength in 28 days.
2. All conduits to be capped.
3. Protect anchor bolts from damage before and after concrete pour. NES will require damaged anchor bolts to be replaced.
4. Schedule footing inspection with NES Operations a minimum of three business days prior to the desired time of inspection. Do not pour concrete without inspection and approval by NES Operations.
5. This detail is for use with NES-approved lighting poles taller than fourteen feet (14') found in these guidelines.

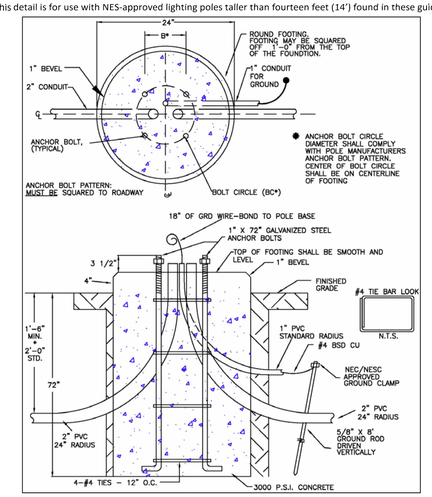


FIGURE 6

NOTES:

1. ALL PEDESTRIAN STREET LIGHT FOOTERS SHALL BE MODIFIED TO HAVE THE SQUARE 2'X2' FOOTER OPTION. SEE STREETSCAPE LIGHTING DETAIL ON SHEET SL-5 FOR BOLT CIRCLE PATTERN AND PLACEMENT.
2. THE STREETSCAPE LIGHT FOOTER SHALL EXTEND 2" ABOVE FINISHED GRADE.

LIGHT POLE FOOTING DETAIL
NOT TO SCALE

44

METROPOLITAN GOVERNMENT
OF NASHVILLE & DAVIDSON COUNTY, TENNESSEE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT NO. 2014–R–1

46th and Murphy Streetscape Project

Electrical Notes & Details

SCALE: N/A

SHEET SL–6

GENERAL NOTES TO CONTRACTOR

SPECIFICATIONS

ALL PROPOSED WATER AND/OR SEWER CONSTRUCTION SHALL MEET THE LATEST SPECIFICATIONS OF THE METROPOLITAN GOVERNMENT OF NASHVILLE DEPARTMENT OF WATER AND SEWERAGE SERVICES.

UTILITY VERIFICATION

ALL UTILITIES SHALL BE FIELD LOCATED PRIOR TO ANY CONSTRUCTION.

CONCRETE FLOWABLE DENSITY MATERIAL

EXISTING WATER AND/OR SEWER LINES TO BE ABANDONED SHALL BE CUT AND PLUGGED UNLESS OTHERWISE NOTED ON PLANS; LINES SHALL BE ABANDONED BY FILLING WITH FLOWABLE CONCRETE FILL MATERIAL. FLOWABLE FILL MIXTURES SHALL BE AS FOLLOWS:

1. 107#.........CEMENT
2. 427#.........FLY ASH
3. 2554#........SAND
4. 517#.........WATER

OR APPROVED EQUAL (100 PSI MINIMUM-150 PSI MAXIMUM)

COST FOR FLOWABLE FILL MATERIAL SHALL BE MERGED INTO THE TOTAL PRICE BID. NO ADDITIONAL PAYMENT WILL BE MADE.

DAMAGES TO EXISTING UTILITIES

REPAIRS AND/OR REPLACEMENTS TO ANY UTILITIES DAMAGED BY CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL PAYMENT WILL BE MADE.

PAVEMENT DAMAGE

CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE OF THE PAVEMENT OUTSIDE THE LIMITS SET FORTH ON THESE PLANS.

TRENCH LIMITS

CONTRACTOR WILL BE REIMBURSED FOR BINDER AND/OR FLOWABLE FILL (IF APPLICABLE) WITHIN THE LIMITS STATED IN SECTION 02222-1.3-B-1 OF THE METRO WATER SERVICES SPECIFICATIONS (FOUR-THIRDS THE DIAMETER OF THE PIPE BEING INSTALLED PLUS EIGHT INCHES BY THE TRENCH DEPTH SPECIFIED. TRENCH LIMITS ARE AS FOLLOWS:

36": 5 FOOT TRENCH
24": 4 FOOT TRENCH
18": 3 FOOT TRENCH
16": 3 FOOT TRENCH
12" AND BELOW: 2.5 FOOT TRENCH

WATER NOTES TO CONTRACTOR

PHASING WATER MAIN INSTALLATION

IMMEDIATELY UPON COMPLETION OF A MAXIMUM OF 1500 LINEAL FEET OF WATER MAIN OR PHASED SEGMENTS NOTED ON THE PLANS, THE CONTRACTOR SHALL BEGIN AND PROSECUTE TO COMPLETION THE FILLING, FLUSHING, DISINFECTION, TESTING, WATER SERVICE RENEWALS, TIE-INS, PAVEMENT RESTORATION, GENERAL SITE CLEANUP, AND PROPERTY RESTORATION FOR THIS EFFORT. THIS SHALL BE DONE PRIOR TO THE START OF ANOTHER SEGMENT OR PHASE, UNLESS A WRITTEN PERMISSION IS OBTAINED FROM THE OWNER OR ENGINEER. THIS PERMISSION WILL ONLY BE GIVEN IF THE FOLLOWING CONDITIONS AND SITUATION EXIST.

THE CONTRACTORS MAINTAIN A SUFFICIENT CLEANUP CREW ON THE PROJECT AT ALL TIMES, WEATHER PERMITTING, AND THAT THE PROGRESS SHALL NOT EXCEED A WORK AREA OF GREATER THAN 1500 LINEAL FEET. THIS SHALL BE SUBJECT TO WEATHER AND GROUND CONDITIONS.

DISINFECTION AND DECHLORINATION PROCEDURE

DISINFECTION PROCEDURES FOR WATER DISTRIBUTION LINES DURING CONSTRUCTION SHALL FOLLOW THE GUIDELINES OF THE STANDARD OPERATING PROCEDURES OF THE METROPOLITAN WATER SERVICES DISINFECTION POLICY.
DECHLORINATION PROCEDURES FOR ALL WATER DISTRIBUTION LINES SHALL BE IN ACCORDANCE WITH THE U.S. CLEAN WATER ACT AND SHALL FOLLOW THE STANDARD OPERATING PROCEDURES OF THE METROPOLITAN WATER SERVICES DISINFECTION POLICY.
DISINFECTION AND DECHLORINATION PROCEDURES SHALL BE MERGED INTO THE TOTAL PRICE PER LINEAR FOOT OF WATER MAIN.

MAXIMUM DEPTH FOR NEWLY INSTALLED WATER MAINS

MAXIMUM DEPTH OF NEWLY INSTALLED WATER MAINS SHALL NOT EXCEED 36" UNLESS SPECIFICALLY INDICATED TO CONSTRUCT AT GREATER DEPTH. WHEN REPLACING A WATER MAIN IN THE EXISTING TRENCH, THE WATER MAIN SHALL BE CONSTRUCTED NO DEEPER THAN THE MAXIMUM DEPTH OF 36". THE EXISTING MAIN SHALL BE ABANDONED AND LEFT IN PLACE IF EXISTING DEPTH EXCEEDS THE MAXIMUM REFERENCED ABOVE. IN THE EVENT OF CONFLICTS BETWEEN THE EXISTING PIPE AND THE NEWLY CONSTRUCTED PIPE, THE EXISTING PIPE SHALL BE REMOVED TO THE EXTENT OF THE CONFLICT AND THE TRENCH BACKFILLED WITH # 57 STONE TO THE DESIGN DEPTH.

RENEWAL OF WATER SERVICES

ALL WATER SERVICES TO BE CONNECTED TO PROPOSED WATER MAINS AND RENEWED AS NECESSARY, UNLESS OTHERWISE NOTED. ADJUST AND/OR RELOCATE EXISTING WATER METER BOXES AS NECESSARY. NO WATER METER SHALL BE MORE THAN 24" BELOW PROPOSED FINISHED GRADE. CONNECTIONS AT WATER MAIN ARE TO BE FLARED FITTINGS, CONNECTIONS AT THE METER CAN BE COMPRESSION OR FLARED.

LEAD WATER SERVICE LINES

ALL LEAD OR GALVANIZED WATER SERVICE LINES SHALL BE REPLACED WITH COPPER SERVICE LINES WITHIN THE LIMITS OF WORK.

LONG SIDE WATER SERVICE LINES

IF NECESSARY TO RENEW LONG SIDE WATER SERVICES THE CONTRACTOR WILL BE REQUIRED TO JACK OR BORE WATER SERVICE LINES UNDER EXISTING PAVEMENTS. (THIS ITEM TO BE USED ONLY IF JACKING OR BORING IS SET-UP AS A BID ITEM IN THE BIDDING SECTION OF THE CONTRACT).

MINIMUM COVER

ALL WATER MAINS LESS THAN 12" TO HAVE A MINIMUM COVER OF 30" TO FINISHED GRADE.
ALL WATER MAINS 12" AND LARGER TO HAVE A MINIMUM COVER OF 36" TO FINISHED GRADE.

DEFLECTION AND ROLLED BENDS

CONTRACTOR SHALL USE JOINT DEFLECTION AND ROLLED BENDS WHENEVER POSSIBLE.

TEMPORARY WATER MAINS

TO MAINTAIN UNINTERRUPTED WATER SERVICE, TEMPORARY WATER MAINS AND FIRE HYDRANTS MAY BE REQUIRED FOR THIS PROJECT. BACKFLOW PREVENTERS AND CHECK VALVES TO BE INSTALLED AT EACH FIRE HYDRANT CONNECTION. CONTRACTOR IS RESPONSIBLE FOR ANY COST OF SUCH WORK. COST WILL BE MERGED INTO TOTAL BID AND NO ADDITIONAL PAYMENT WILL BE MADE.

FIRE HYDRANT REMOVAL AND/OR INSTALLATION

PROPOSED FIRE HYDRANTS SHALL BE INSTALLED AT LOCATIONS DESIGNATED. EXISTING HYDRANTS SHALL BE REMOVED AND STOCKPILED FOR METRO FORCES TO COLLECT. CONTRACTOR TO FILL ALL VOIDS FROM EXISTING FIRE HYDRANT REMOVAL AS NECESSARY.

EXISTING WATER MAIN ABANDONED

EXISTING WATER MAINS TO BE ABANDONED SHALL REMAIN IN SERVICE UNTIL THE PROPOSED WATER MAIN IS COMPLETED AND ALL SERVICE LINES RENEWED IF NECESSARY FROM THE PROPOSED WATER MAIN TO THE METER BOX. EXISTING VALVE ASSEMBLIES CONNECTED TO THE ABANDONED MAIN SHALL BE REMOVED AND ALL VOIDS FILLED WITH APPROPRIATE MATERIAL. COST FOR THIS WORK SHALL BE CONSIDERED PART OF THE CONTRACT, NO ADDITIONAL PAYMENT WILL BE APPROVED. (VALVE ASSEMBLY: VALVE, VALVE BOX, FRAME AND COVER.)

SEWER NOTES TO CONTRACTOR

HANDLING LIVE SEWERAGE FLOW

COST FOR HANDLING LIVE SANITARY SEWER FLOW TO BE MERGED INTO THE TOTAL PRICE BID AND NO ADDITIONAL PAYMENT WILL BE ALLOWED. FLOW MUST BE BYPASSED INTO OTHER LIVE SANITARY SEWER MANHOLE.

EXISTING M.H. ADJUSTMENT

REMOVE EXISTING MANHOLE FRAME, COVER AND CONE SECTION AND REPLACE SAME AFTER MANHOLE HAS BEEN RAISED OR LOWERED. THE COST FOR MANHOLE SIDEWALL WILL BE PAID FOR UNDER BID ITEM FOR ADDITIONAL MANHOLE SIDEWALL.

EXISTING M.H. CASTING ADJUSTMENTS

FRAME AND COVER ADJUSTMENTS TO BE NO GREATER THAN 18" FROM CONE TAPER TO THE TOP OF THE CASTING. FOR ADJUSTMENTS OVER 18" THE CONE SECTION MUST BE REMOVED AND ADDITIONAL VERTICAL SIDEWALL INSTALLED.

EXISTING M.H. ABANDONMENT

MANHOLE ABANDONMENT SHALL BE PERFORMED AS FOLLOWS: REMOVE FRAME AND COVER, AND CONCRETE CONE SECTION. PLUG ALL PIPE CONNECTIONS TO MANHOLE AND FILL INVERT TO THE TOP OF HIGHEST PIPE ENTERING MANHOLE WITH CONCRETE. GRAVEL BACKFILL TO FINISH GRADE WHEN INSIDE ROADWAY. WHEN OUTSIDE ROADWAY THE TOP 12" SHALL BE TOPSOIL AND SEEDED. THE COST OF THIS WORK WILL BE PAID FOR UNDER BID ITEM (MANHOLE ABANDONMENT).

CONNECTION TO EXISTING M.H.

CONTRACTOR IS TO CONNECT PROPOSED SEWER LINE TO EXISTING MANHOLE BY CORE DRILLING MANHOLE SIDEWALL TO ACCOMMODATE PIPE BOOT. REWORK INVERT AND REPAIR MANHOLE SIDEWALL AS NEEDED.

ADA PROJECT COMPLIANCE

ADA COMPLIANCE

ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED IN FULL COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT ("ADA") AND ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD, FEDERAL REGISTER 36 CFR PARTS 1190 AND 1191, ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES; ARCHITECTURAL BARRIERS ACT (ABA) ACCESSIBILITY GUIDELINES; PROPOSED RULE, PUBLISHED IN THE FEDERAL REGISTER ON JULY 23, 2004, AS HAS BEEN ADOPTED BY METRO.)

METRO PUBLIC WORKS PAVEMENT NOTES

1.
PRIOR TO PLACEMENT OF CRUSHED STONE OR FLOWABLE FILL THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE WILL BE NOTIFIED AND AN INSPECTION OF THE TRENCH WILL BE MADE BY A REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE. AT THE COMPLETION OF THE INSTALLATION OF THE CRUSHED STONE OR FLOWABLE FILL, THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE WILL BE NOTIFIED AND AN INSPECTION OF THE BACKFILL WILL BE MADE BY A REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS. AFTER ACCEPTANCE OF THE BACKFILL BY THE REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS PERMITS OFFICE, THE ASPHALT PAVEMENT CAN BE APPLIED

2.
INSPECTION PERSONNEL OF THE DEPARTMENT OF PUBLIC WORKS SHALL BE NOTIFIED BY CONTRACTOR/PERMITEE AT LEAST TWO (2) DAYS PRIOR TO REQUEST FOR INSPECTION.

3.
THE WORK PERFORMED SHALL BE FREE FROM WORKMANSHIP DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF ACCEPTANCE BY THE DEPARTMENT OF PUBLIC WORKS PERMIT OFFICE..

4.
EXISTING PAVEMENTS, BASES, CURBS & GUTTERS AND SIDEWALKS SHALL BE CUT AND BROUGHT TO A NEAT LINE BY USE OF AN AIR HAMMER, SAW OR OTHER SUITABLE EQUIPMENT. EXPANSION JOINTS REMOVED SHALL BE REPLACED.

5.
IF PERMANENT PAVEMENT REPAIRS CANNOT BE MADE WITHIN THREE (3) DAYS, THEN TEMPORARY REPLACEMENT SHALL BE MADE WITH 2" HOT BITUMINOUS SEAL COAT OVER COMPACTED CRUSHED STONE. PERMANENT PAVEMENT REPAIR TO BE COMPLETED WITHIN THE TIME PERIOD AS PER METRO CODE 13.20.

6.
ALL EXCAVATIONS MADE WITHIN PUBLIC RIGHT-OF-WAY REQUIRE EXCAVATIONS AND STREET CLOSURE PERMITS FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO COMMENCING WORK AS PER METRO CODE 13.20.

7.
FLOWABLE FILL WILL BE REQUIRED ON ALL ARTERIALS, COLLECTORS AND DOWNTOWN STREETS. FLOWABLE FILL SHALL MEET THE REQUIREMENTS IN TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 204, EXCEPT AS MODIFIED BY PUBLIC WORKS TECHNICAL SPECIFICATIONS 02225, LATEST REVISION.

8.
ALL REPAIRS SHALL INCLUDE FULL LANE WIDTH RESURFACING EXCEPT WHEN UTILIZING INFRARED TECHNOLOGY. SEE INFRARED SPECIFICATIONS ATTACHED. THERE WILL BE A MAXIMUM OF 40 FT LONGITUDINAL REPAIR WHEN USING INFRARED TECHNOLOGY ON AN EXCAVATED PATCH.

9.
NEW UTILITY CUTS WILL BE MILLED AND PAVED TO ANY EXISTING UTILITY CUT OR DAMAGED PAVEMENT WITHIN 10-FEET. IF THE EXISTING CUT OR DAMAGED PAVEMENT IS LESS THAN 10-FEET IN LENGTH, THE EXISTING CUT SHALL ALSO BE MILLED AND PAVED.

10.
ASPHALT REPAIR ADJACENT TO CURB AND GUTTER ALONG A ROADWAY GREATER THAN 24-INCHES SHALL HAVE FULL LANE WIDTH PAVING.

11.
WHEN GRADED STONE (I.E. #57, #67, #78 STONE) IS USED THERE IS GENERALLY NO COMPACTION EQUIPMENT REQUIRED. THE MATERIAL DOES, HOWEVER, NEED TO BE PUT IN THE TRENCH IN APPROXIMATELY 12-INCH LIFTS.

12.
GRADED STONE PLACED IN TRENCH SHOULD BE CAPPED WITH 8 TO 12-INCHES OF PUG MIX (MIX IS ESSENTIALLY TYPE A BASE, GRADE D, OR MORE COMMONLY KNOWN AS "CRUSHER RUN"). SEE TDOT STANDARD SPECIFICATION 303.07.

13.
TYPE "A" BASE, GRADE "D" CAN BE USED FOR THE ENTIRE BACKFILL AND COMPACTED BY MECHANICAL METHODS IN NO MORE THAN 6-INCH LIFTS AS PROVIDED IN SECTION 204.11 OF TDOT STANDARD SPECIFICATIONS.

14.
THE PUG MIX SHOULD BE COMPACTED IN 6-INCH LIFTS WITH A STEEL SHELL ROLLER OR OTHER MECHANICAL VIBRATORY COMPACTION EQUIPMENT. SEE TDOT STANDARD SPECIFICATIONS 303.08 AND 303.09. MATERIAL SHOULD BE ALLOWED TO CURE UNTIL ALL THE MOISTURE IS GONE FROM STONE (USUALLY 24-48 HOURS).

15.
THE TRENCH SHOULD THEN HAVE 8-INCHES OF BINDER PLACED WITH THE ROADWAY IN A MINIMUM OF TWO (2) LIFTS AND COMPACTED WITH MECHANICAL COMPACTION EQUIPMENT.

16.
THE BINDER SURFACE SHALL BE MILLED OR HEATED USING INFRARED TECHNOLOGY TWO 2-INCHES IN DEPTH AND REPLACED WITH TWO (2) INCHES OF SURFACE MIX AND COMPACTED WITH MECHANICAL COMPACTION EQUIPMENT.

17.
INTERSECTION REPAIRS WILL ONLY REQUIRE FULL LANE PAVING.

18.
ANY DISTURBED PAVEMENT MARKINGS MUST BE RESTORED TO CURRENT METRO STANDARDS.

19.
DIAGONAL REPAIRS WILL BE REQUIRED TO BE SQUARED OFF AND MILLED AND PAVED. NO INFRARED TECHNOLOGY ALLOWED ON THIS TYPE OF REPAIR.

20.
ALL LONGITUDINAL REPAIRS MORE THAN 40 FT IN LENGTH WILL BE REQUIRED TO BE MILLED AND PAVED.

METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

NOTE SHEET

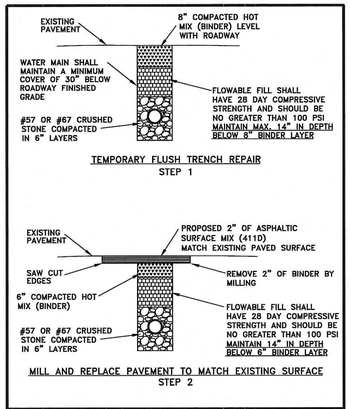
46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	
		REVISION DATES & DESCRIPTION

JOSEPH ROY WAUFORD III · REGISTERED ENGINEER · AGRICULTURE · COMMERCE · NO. 16334 · STATE OF TENNESSEE · 3/26/14

METRO WATER SERVICES

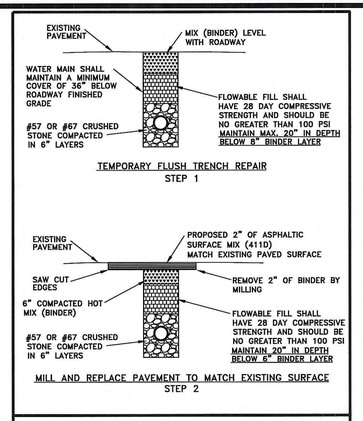
PROJECT NO.	SHEET NO.
13SG0134 13WG0159	W1 OF W6



TRENCH REPAIR AND SURFACE REPLACEMENT

METRO PUBLIC WORKS: WATER MAINS WITH 30-INCHES COVER TO FINISH GRADE

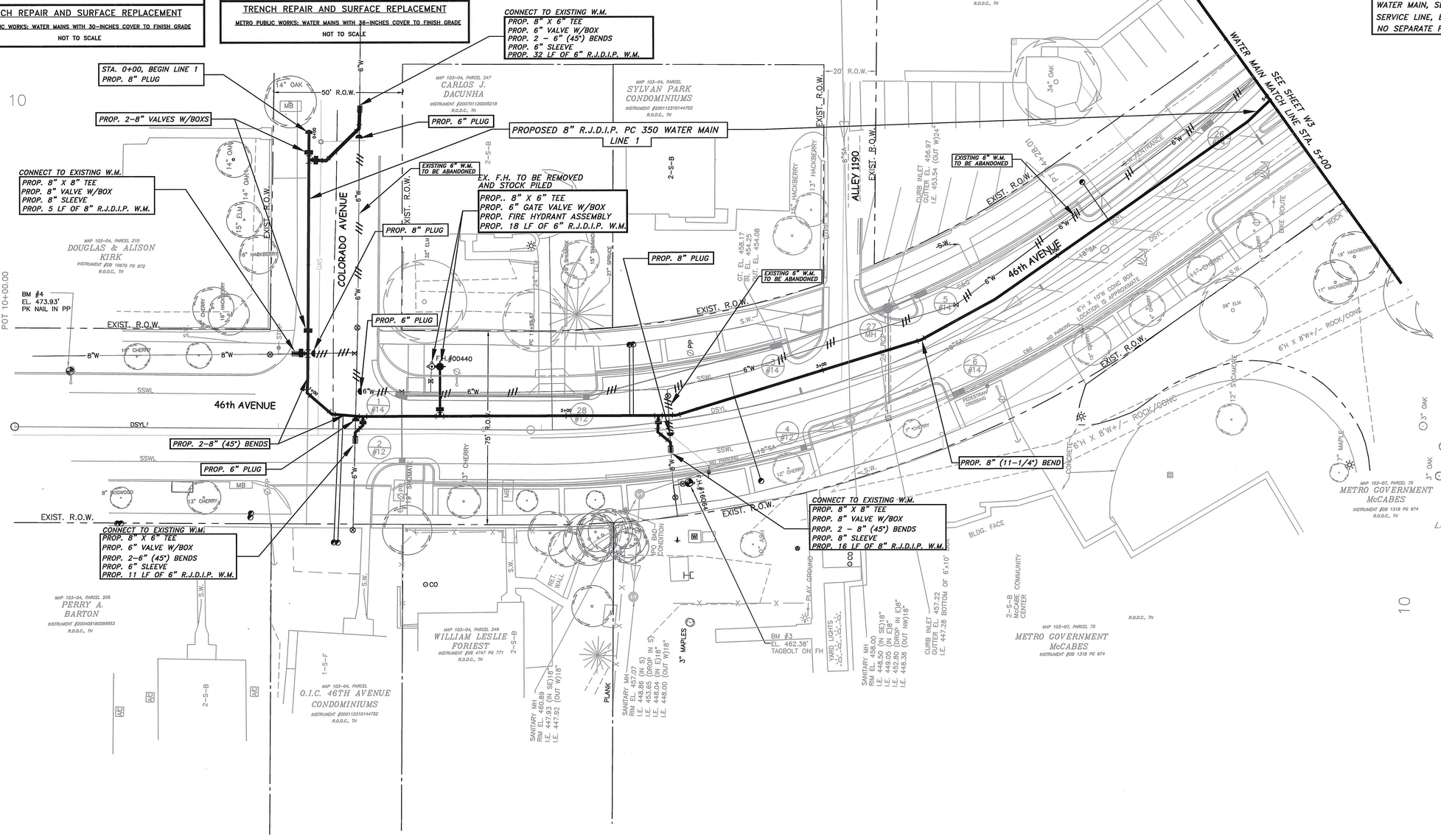
NOT TO SCALE



TRENCH REPAIR AND SURFACE REPLACEMENT

METRO PUBLIC WORKS: WATER MAINS WITH 36-INCHES COVER TO FINISH GRADE

NOT TO SCALE



NOTE:

- CONTRACTOR SHALL VERIFY ALL WATER SERVICE LINE SIZES AND REPLACE LEAD, GALVANIZED AND DAMAGED COPPER SERVICE LINES FROM WATER MAIN TO METER AS NEEDED.
- ALL SERVICE LINES TO BE CONNECTED TO PROPOSED WATER MAIN
- ALL ABANDONED VALVE BOXES SHALL BE REMOVED AND VOID FILLED WITH APPROPRIATE MATERIAL. COST TO BE MERGED INTO TOTAL BID
- SERVICE LINES DEPICTED ARE GENERAL IN NATURE.

NOTE:

SERVICE CONNECTION BID ITEM

THE SERVICE CONNECTION BID ITEM SHALL INCLUDE ALL COMPONENTS TO COMPLETELY RECONNECT THE EXISTING SERVICE LINE, INCLUDING, BUT NOT LIMITED TO , REGARDLESS OF SIZE, TAPPING THE PROPOSED WATER MAIN, SERVICE LINE, ANY FITTINGS, PLUGGING THE EXISTING SERVICE LINE, BACKFILL, EXCAVATION, AND ALL INCIDENTALS. NO SEPARATE PAVEMENT SHALL BE MADE.

0 20' 40'

SCALE: 1"= 20'

METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

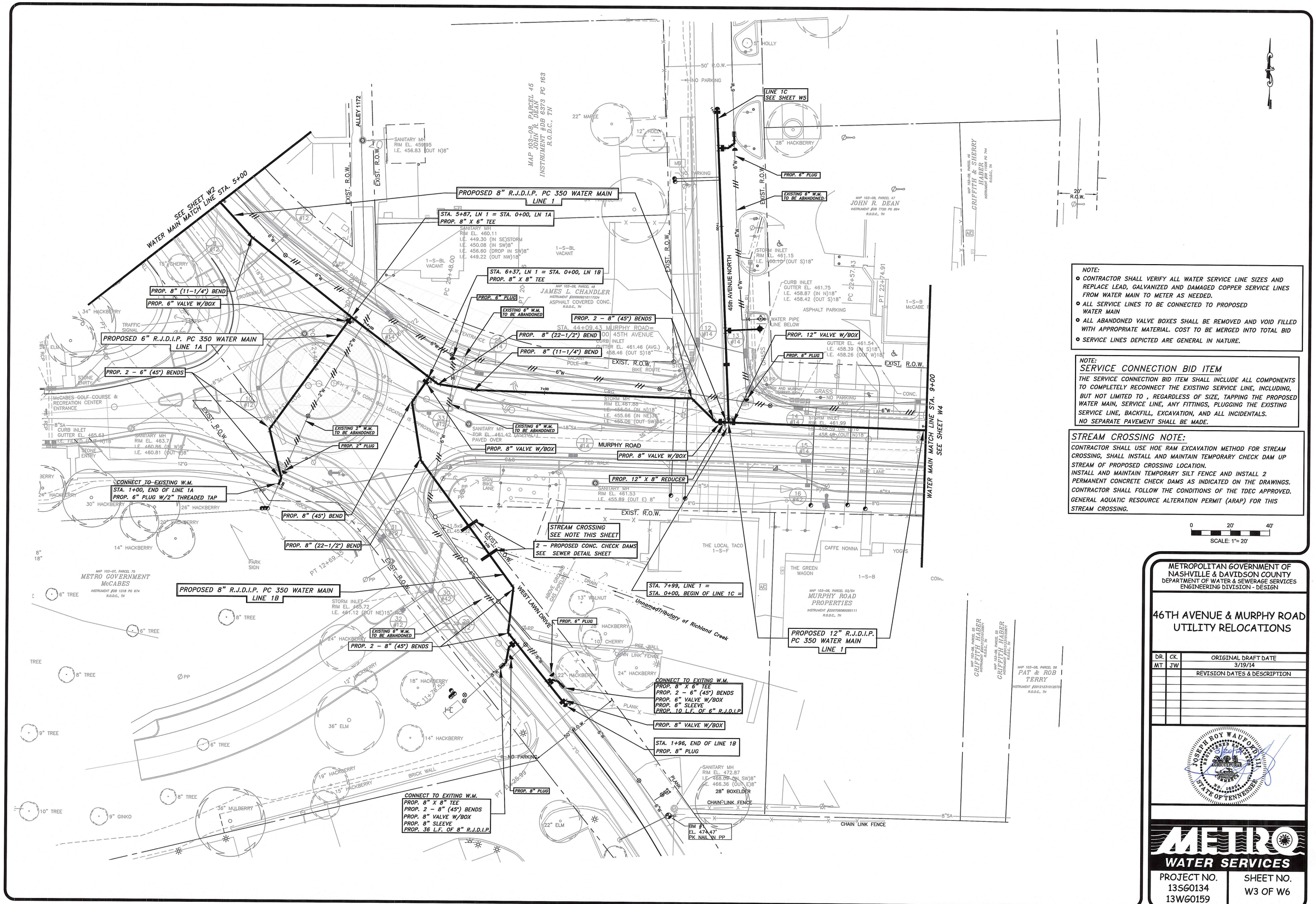
46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	3/19/14
		REVISION DATES & DESCRIPTION

JOSEPH ROY WAUFORD III
REGISTERED ENGINEER
AGRICULTURAL COMMODITIES
NO. 16054
STATE OF TENNESSEE

METRO WATER SERVICES

PROJECT NO.	SHEET NO.
13SG0134 13WG0159	W2 OF W6



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STREAM CROSSING NOTE:

CONTRACTOR SHALL USE HOE RAM EXCAVATION METHOD FOR STREAM CROSSING, SHALL INSTALL AND MAINTAIN TEMPORARY CHECK DAM UP STREAM OF PROPOSED CROSSING LOCATION.
INSTALL AND MAINTAIN TEMPORARY SILT FENCE AND INSTALL 2 PERMANENT CONCRETE CHECK DAMS AS INDICATED ON THE DRAWINGS.
CONTRACTOR SHALL FOLLOW THE CONDITIONS OF THE TDEC APPROVED GENERAL AQUATIC RESOURCE ALTERATION PERMIT (ARAP) FOR THIS STREAM CROSSING.

0 20' 40'
SCALE: 1"= 20'

METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

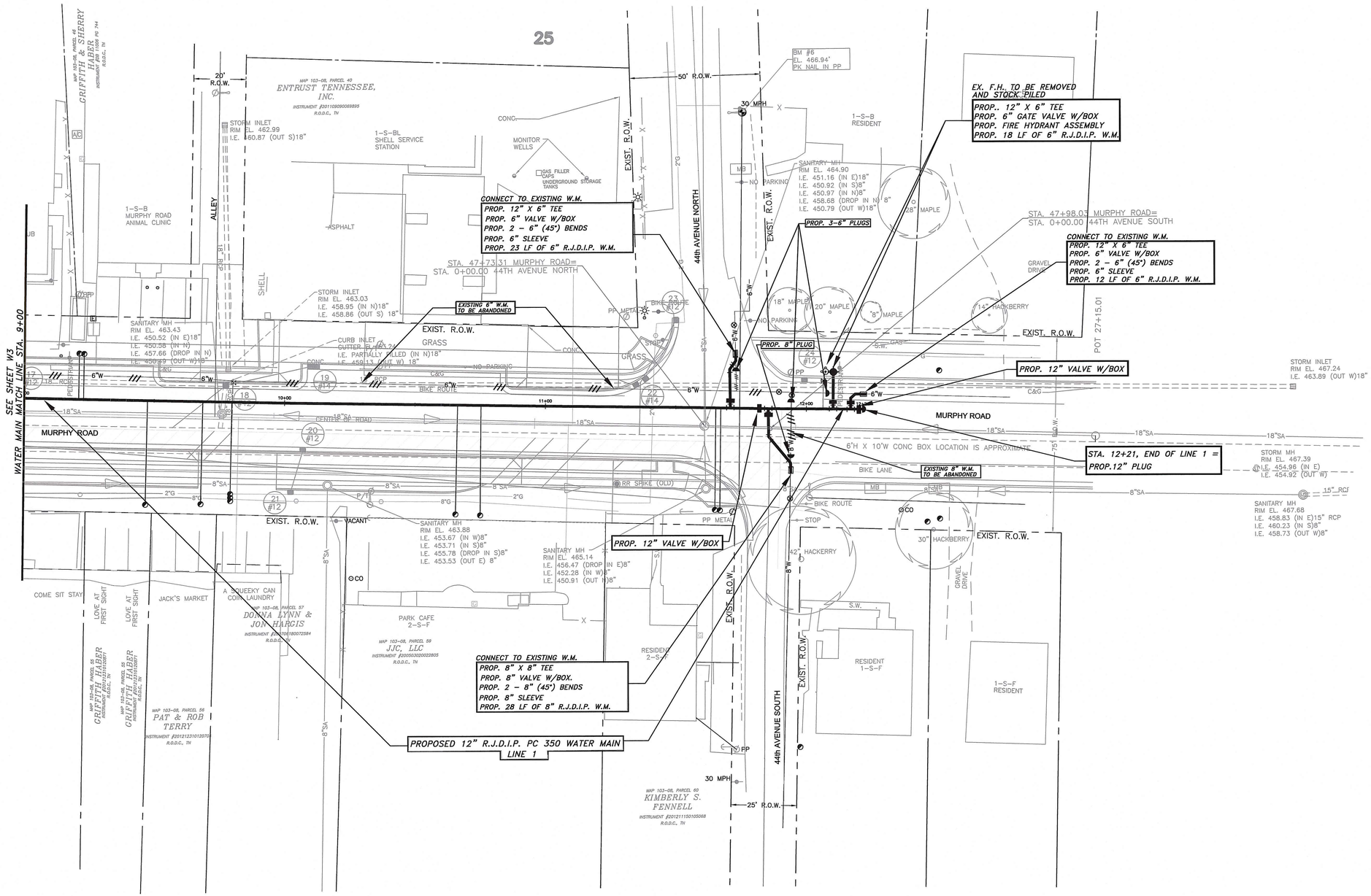
46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	3/19/14
		REVISION DATES & DESCRIPTION

JOSEPH ROY WAUGH, III
REGISTERED AGRICULTURAL COMMERCE
NO. 16255
STATE OF TENNESSEE
3/24/14

METRO WATER SERVICES

PROJECT NO.	SHEET NO.
13SG0134 13WG0159	W3 OF W6



0 20' 40'

SCALE: 1"= 20'

NOTE:
SERVICE CONNECTION BID ITEM
THE SERVICE CONNECTION BID ITEM SHALL INCLUDE ALL COMPONENTS TO COMPLETELY RECONNECT THE EXISTING SERVICE LINE, INCLUDING, BUT NOT LIMITED TO , REGARDLESS OF SIZE, TAPPING THE PROPOSED WATER MAIN, SERVICE LINE, ANY FITTINGS, PLUGGING THE EXISTING SERVICE LINE, BACKFILL, EXCAVATION, AND ALL INCIDENTALS. NO SEPARATE PAVEMENT SHALL BE MADE.

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METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

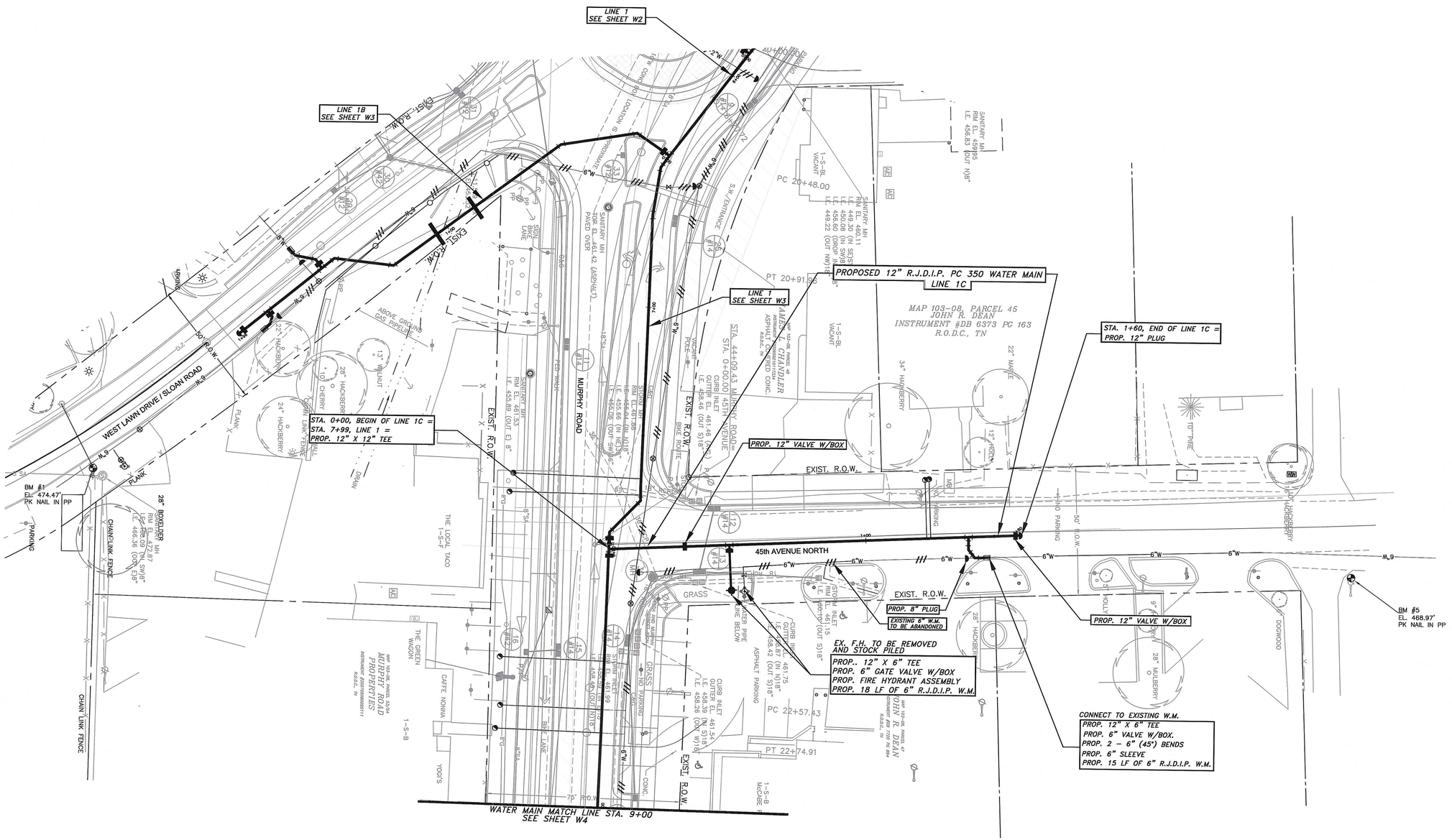
DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	XX/XX/XX
		REVISION DATES & DESCRIPTION

JOSEPH ROY WADFORD III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 16894
STATE OF TENNESSEE
3/20/2014

METRO WATER SERVICES

PROJECT NO.
13SG0134
13WG0159

SHEET NO.
W4 OF W6



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METROPOLITAN GOVERNMENT OF
NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

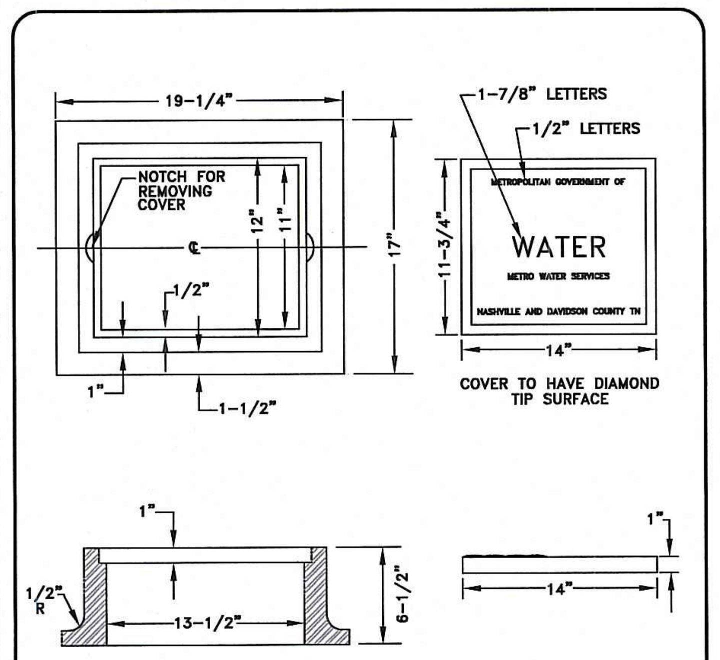
46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	3/19/14
		REVISION DATES & DESCRIPTION

JOSEPH ROY WAUFORD III
REGISTERED ENGINEER
AGRICULTURAL
NO. 16224
STATE OF TENNESSEE
3/20/14

METRO
WATER SERVICES

PROJECT NO.	SHEET NO.
13SG0134 13WG0159	W5 OF W6



8006 METRO COVER
JOHN BOUCHARD & SONS CO.
COVER LETTERED "WATER" OR "SEWER"
CLASS 35B GRAY IRON
HEAVY DUITY, H20 LOAD RATED
(OR APPROVED EQUAL)

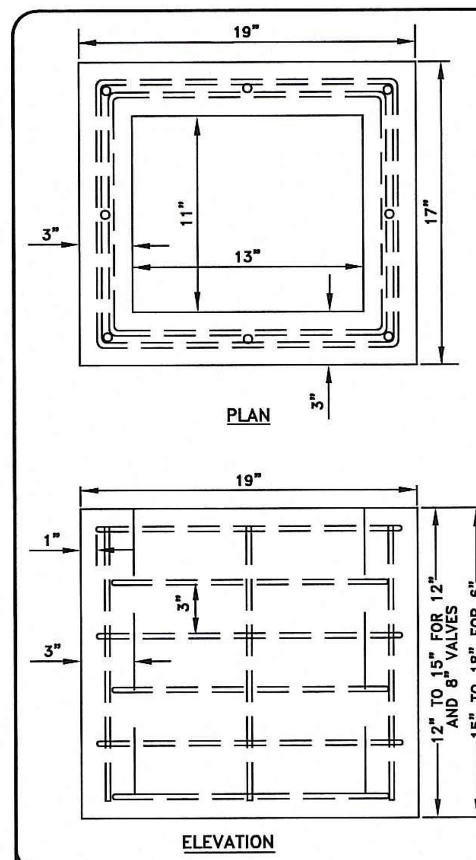
METRO WATER SERVICES

SMALL GRAY IRON VALVE BOX FRAME AND COVER

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 10/10/12
DWG. NO. WDET001

DIRECTOR OF WATER AND SEWERAGE SERVICES



NOTE: REINFORCING TO BE 1/4" STEEL REINFORCING RODS PLACED HORIZONTALLY IN SQUARES TO BE STAGGERED APPROXIMATELY AS SHOWN ON PLAN VIEW,ONE FOR EVERY 3" OF HIGH OF BOX .RODS SHALL BE PLACED IN EACH CORNER OF THE BOX AND AT THE HALF WAY POINT OF EACH SIDE OF THE BOX. USING EIGHT RISERS TO THE BOX.

TOTAL LENGTH OF REINFORCING RODS FOR BOX APPROXIMATELY 47 FEET

CONCRETE MIXTURE TO BE ONE PART CEMENT. TWO PARTS SAND & THREE PARTS NO.2 CRUSHED STONE OR GRAVEL. TOTAL VOLUME OF MIXTURE FOR BOX - APPROXIMATELY 2 CUBIC FEET

METRO WATER SERVICES

STANDARD CONCRETE VALVE BOX

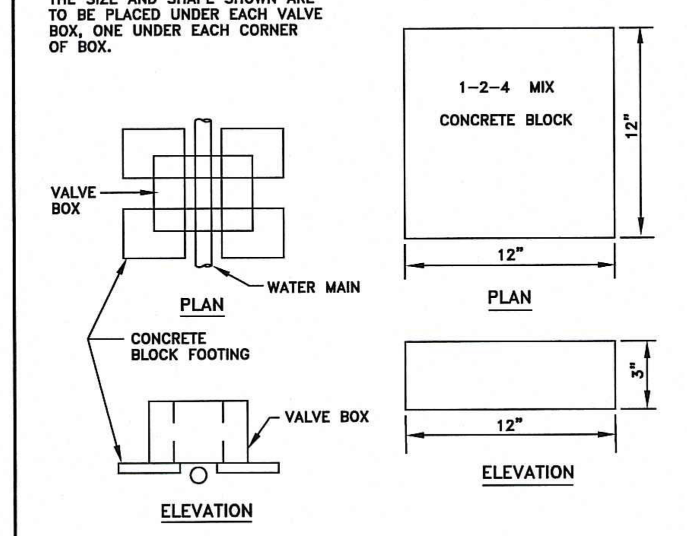
LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET012

DIRECTOR OF WATER AND SEWERAGE SERVICES

NOTE: BEFORE INSTALLATION OF VALVE BOXES AND FOOTINGS THE EARTH ON WHICH THE FOOTINGS AND VALVE BOXES ARE TO BE SET SHALL BE BACKFILLED AND THOROUGHLY TAMPED AND COMPACTED.

FOUR (4) CONCRETE BLOCKS OF THE SIZE AND SHAPE SHOWN ARE TO BE PLACED UNDER EACH VALVE BOX, ONE UNDER EACH CORNER OF BOX.



NO REINFORCING STEEL IN FOOTING CONCRETE MIX TO BE 1 PART CEMENT 2 PARTS SAND AND 4 PARTS NO. 2 CRUSHED STONE OR GRAVEL. VOLUME FOR ONE BLOCK = 0.333 CU.FT. FOR ALL BLOCKS VOLUME = 1.332 CU.FT. WEIGHT OF ONE BLOCK = APPROX. 50 LBS. FOR ALL FOUR BLOCKS, WEIGHT = 200 LBS. BEARING AREA ON SOIL = 576 SQ.IN.

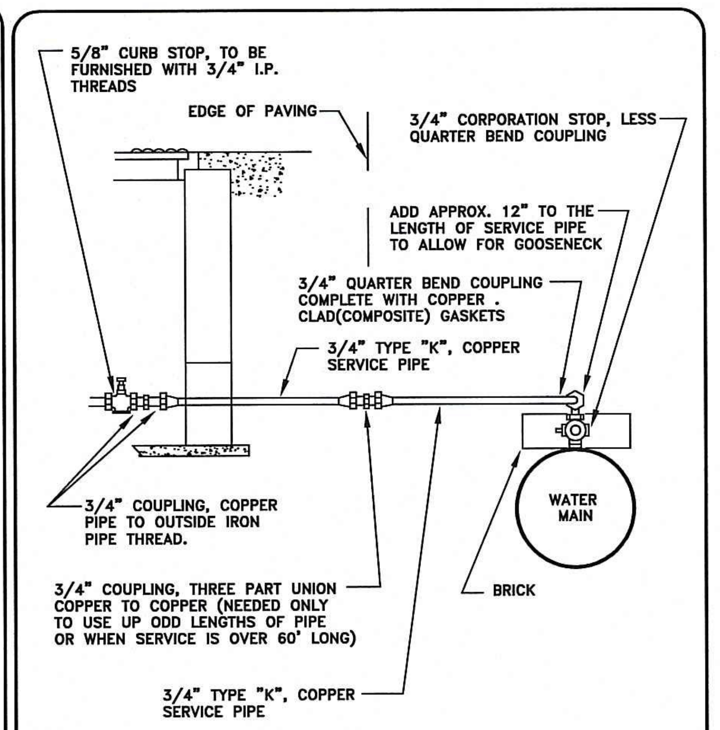
METRO WATER SERVICES

STANDARD CONCRETE VALVE BOX FOOTINGS

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET013

DIRECTOR OF WATER AND SEWERAGE SERVICES



NOTE: 3/4" COUPLING, THREE PART UNION, COPPER TO COPPER SHALL BE INSTALLED OUTSIDE STREET PAVING ONLY.

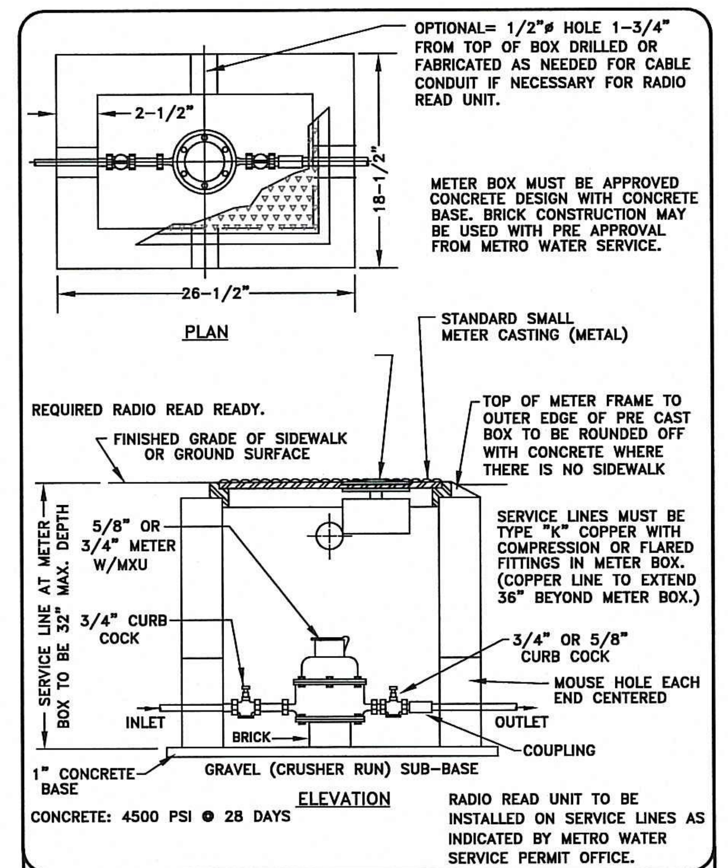
METRO WATER SERVICES

SERVICE LINE DETAIL

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 05/05/08
DWG. NO. WDET011

DIRECTOR OF WATER AND SEWERAGE SERVICES



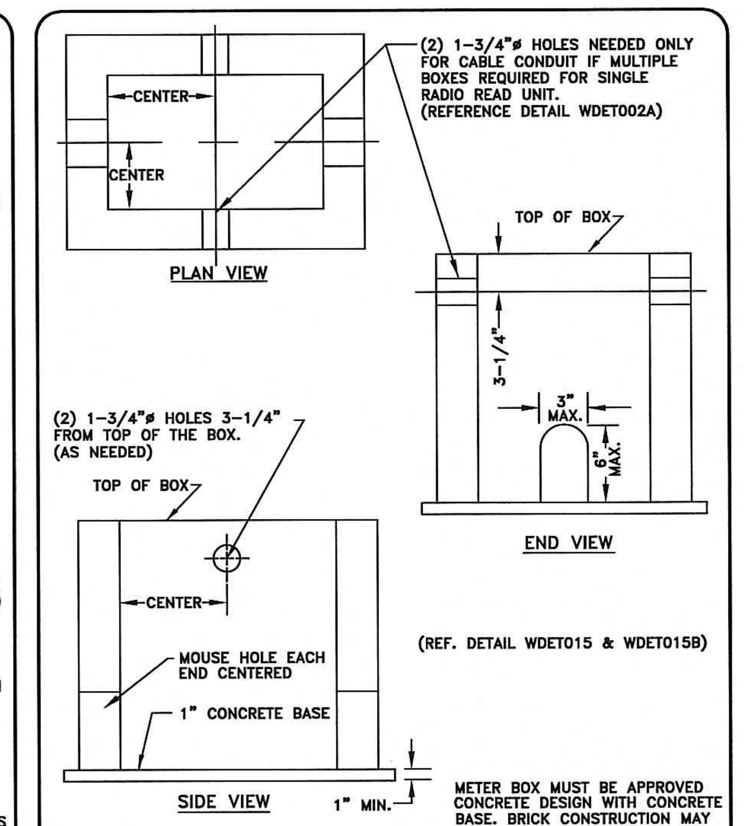
METRO WATER SERVICES

STANDARD 5/8" OR 3/4" METER AND BOX DETAIL

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 05/05/08
DWG. NO. WDET002

DIRECTOR OF WATER AND SEWERAGE SERVICES



METER BOX MUST BE APPROVED CONCRETE DESIGN WITH CONCRETE BASE. BRICK CONSTRUCTION MAY BE USED WITH PRE APPROVAL FROM METRO WATER SERVICE.

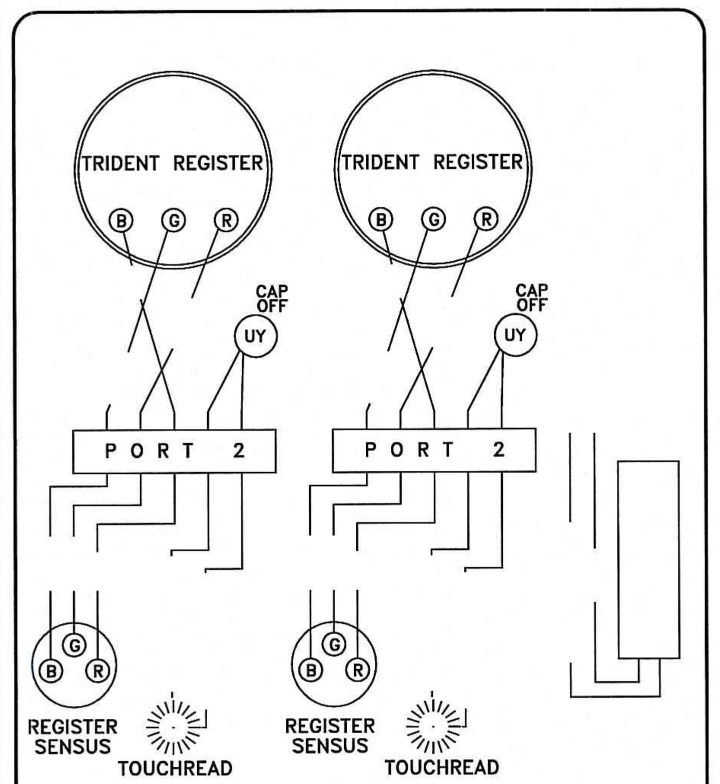
METRO WATER SERVICES

STANDARD METER BOX WITH RADIO READ CABLE ACCESS AS NEEDED

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 05/05/08
DWG. NO. WDET002A

DIRECTOR OF WATER AND SEWERAGE SERVICES



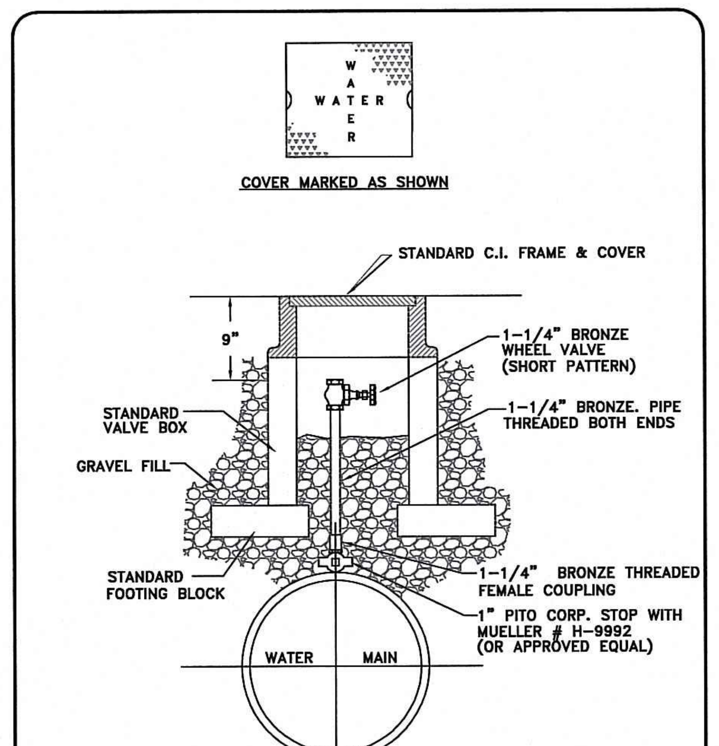
METRO WATER SERVICES

TRIDENT CODE FROM METER TRANSCEIVER UNIT (MXU)

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 05/05/08
DWG. NO. WDET002B

DIRECTOR OF WATER AND SEWERAGE SERVICES



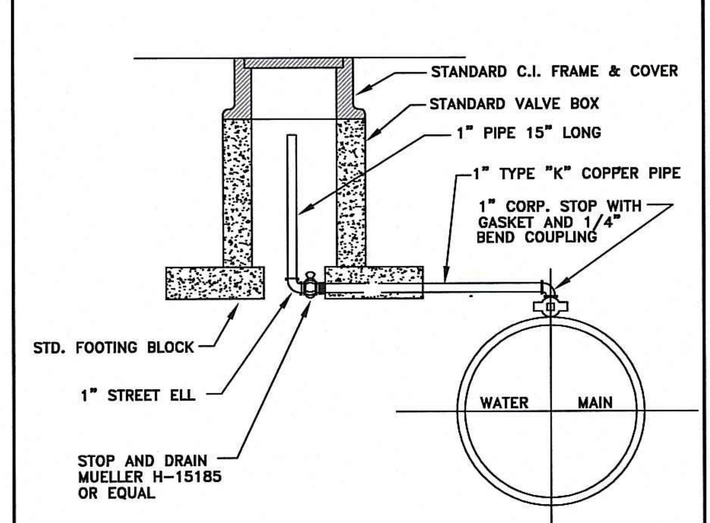
METRO WATER SERVICES

STANDARD PITO TAP IN BOX

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 05/05/08
DWG. NO. WDET032

DIRECTOR OF WATER AND SEWERAGE SERVICES



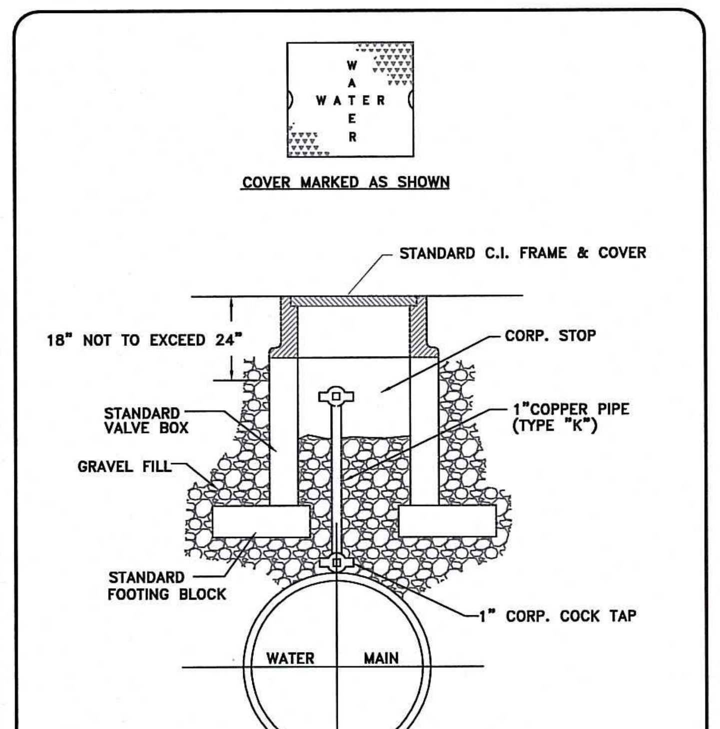
METRO WATER SERVICES

1"-AIR RELIEF DETAIL

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET003

DIRECTOR OF WATER AND SEWERAGE SERVICES



NOTE: SAMPLE POINTS SHALL BE INSTALLED EVERY 1200 FEET ALONG THE WATER MAIN BEING INSTALLED, OR AS DIRECTED BY MWS REPRESENTATIVE.

NOTE: BOX ASSEMBLY TO BE USED AS DIRECTED BY MWS REPRESENTATIVE. TAP AND BOX TO BE REMOVED AFTER SAMPLE HAS BEEN PERFORMED UNLESS OTHERWISE NOTED ON PLANS.

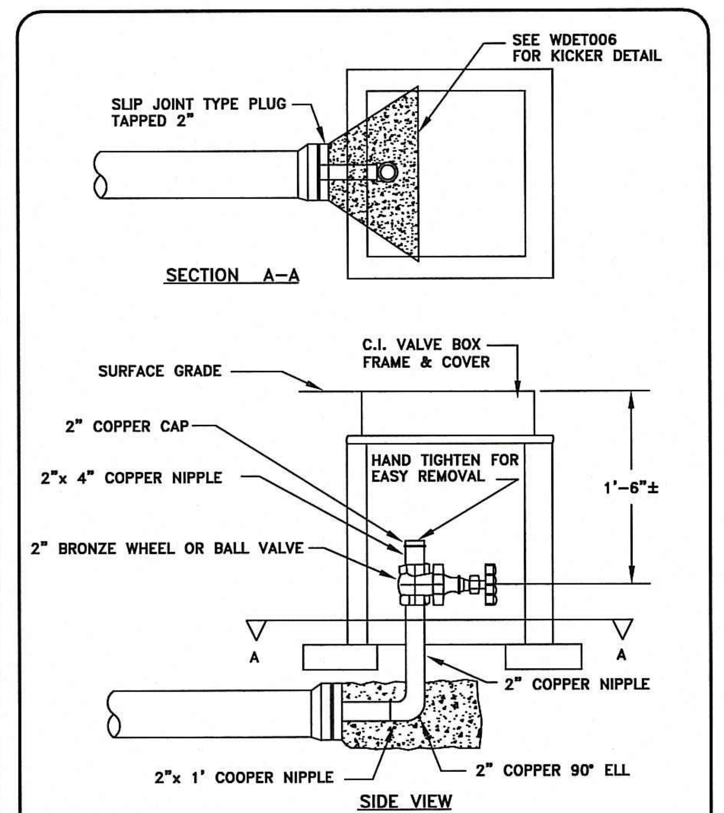
METRO WATER SERVICES

STANDARD SAMPLE POINT

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET035

DIRECTOR OF WATER AND SEWERAGE SERVICES



STRAIGHT PIPE BLOW-OFF (NO BENDS)
USE 2" BRASS PIPE AND FITTINGS.

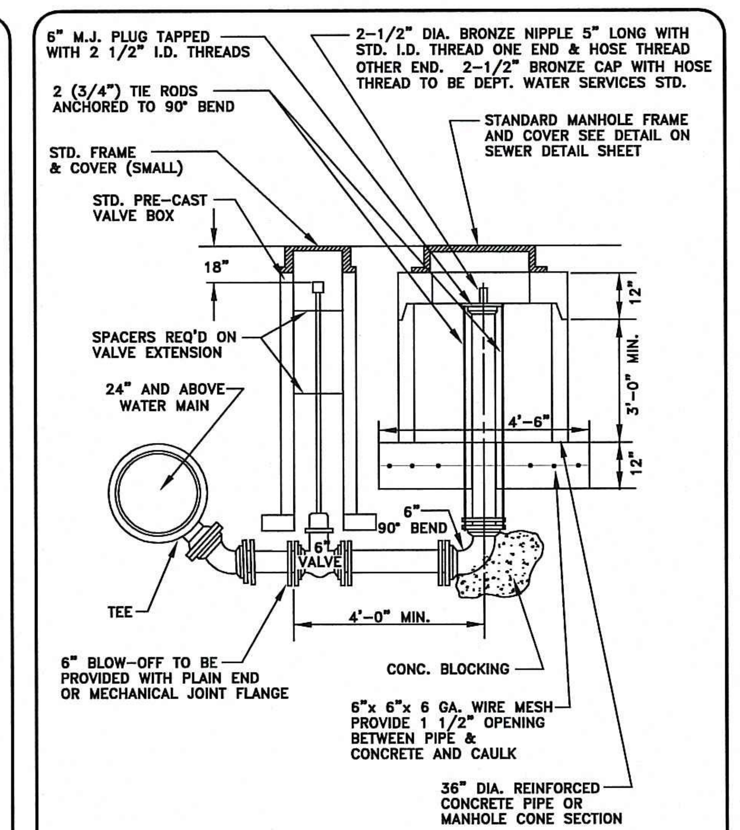
METRO WATER SERVICES

2" BLOW - OFF DETAIL

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET014

DIRECTOR OF WATER AND SEWERAGE SERVICES



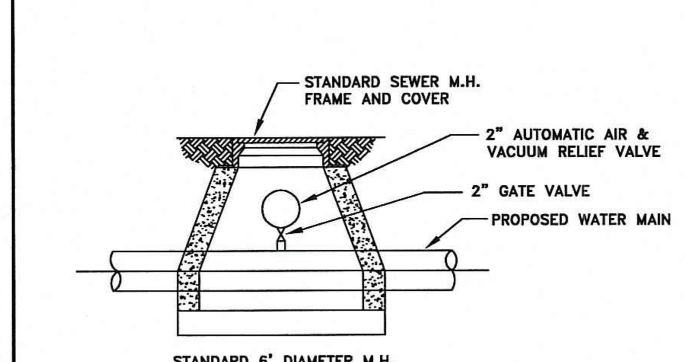
METRO WATER SERVICES

4" & 6" WATER BLOW-OFF VALVE ASSEMBLY DETAIL

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET017

DIRECTOR OF WATER AND SEWERAGE SERVICES



METRO WATER SERVICES

2" AIR RELIEF MANHOLE ASSEMBLY

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET004

DIRECTOR OF WATER AND SEWERAGE SERVICES

TABLE OF DIMENSIONS FOR CONCRETE KICKERS

SIZE OF PIPE (In.)		2" & 2-1/4"	3" & 4"	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"
TAPPING SLEEVES TEES & PLUGS	H1	18"	24"	24"	36"	48"	54"	66"					
	H2	10"	12"	16"	18"	24"	30"	34"	36"	38"	42"	52"	58"
	V	12"	12"	18"	18"	18"	24"	36"					
	D	18"	18"	18"	18"	24"	24"	24"	24"	24"	24"	24"	24"
	cu. ft.	1.90	2.25	3.50	5.05	7.15	13.40	22.50					
90° BENDS	H1	18"	24"	30"	39"	54"	54"	69"					
	H2	10"	12"	16"	18"	32"	32"	48"	48"	48"	60"	72"	96"
	V	12	12"	18"	24"	24"	36"	48"					
	D	18"	18"	18"	18"	18"	24"	24"	24"	24"	24"	24"	24"
	cu. ft.	1.90	2.25	4.05	7.30	10.25	18.15	29.00					
45° BENDS	H1	18"	18"	24"	30"	24"	42"	48"					
	H2	6"	8"	10"	11"	18"	18"	30"	30"	40"	48"	48"	72"
	V	12"	12"	16"	18"	21"	24"	36"					
	D	18"	18"	18"	18"	18"	24"	24"	24"	24"	24"	24"	24"
	cu. ft.	1.50	1.60	3.20	3.95	4.60	9.60	17.00					
22-1/2° BENDS	H1	18"	18"	24"	24"	24"	24"	36"					
	H2	6"	8"	10"	11"	18"	18"	30"	30"	36"	42"	48"	72"
	V	12"	12"	16"	18"	21"	24"	27"					
	D	18"	18"	18"	18"	18"	24"	24"	24"	24"	24"	24"	24"
	cu. ft.	1.50	1.60	3.20	3.40	4.60	6.80	11.80					
11-1/4° BENDS	H1	18"	18"	24"	24"	24"	24"	27"					
	H2	6"	8"	10"	11"	18"	18"	24"	30"	40"	42"	48"	48"
	V	12"	12"	16"	16"	21"	21"	27"					
	D	18"	18"	18"	18"	18"	24"	24"					
	cu. ft.	1.50	1.60	3.20	3.40	4.60	6.10	9.10					

NOTE:
CONCRETE USED FOR BLOCKING SHALL BE (CLASS "A"-3500# PER SQ. IN.). EARTH PRESSURES ARE FIGURED AT (4000# PER SQ. FT.) BEARING AREA OF KICKERS SHALL BE INCREASED WHEN POURED AGAINST SAND, LOOSE FILL, WET EARTH, CINDERS, ETC.

TABLE BASED ON 225 P.S.I. OR 150 P.S.I. WORKING PRESSURE PLUS 50% WATER HAMMER

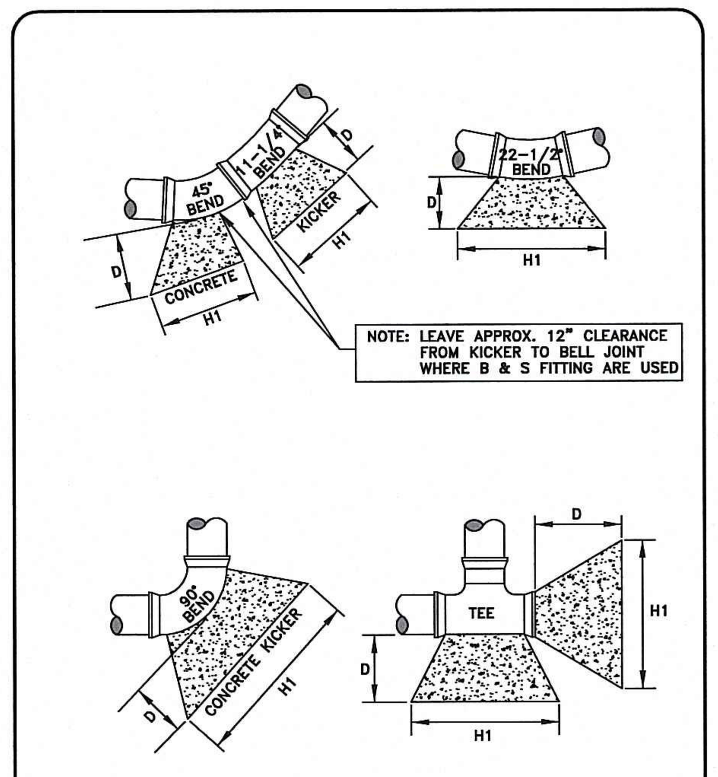
METRO WATER SERVICES

TABLE OF DIMENSIONS

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 05/05/08
DWG. NO. WDET006

DIRECTOR OF WATER AND SEWERAGE SERVICES



NOTE: SEE DRAWING WDET006 FOR TABLE OF DIMENSIONS FOR CONCRETE KICKERS

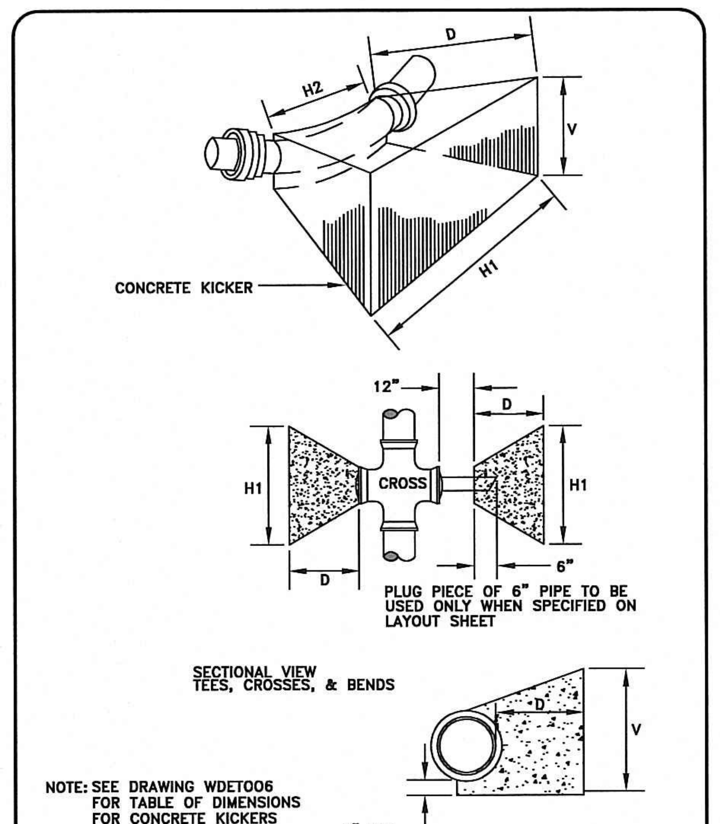
METRO WATER SERVICES

BLOCKING DETAIL (1 OF 2)

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET007

DIRECTOR OF WATER AND SEWERAGE SERVICES



NOTE: SEE DRAWING WDET006 FOR TABLE OF DIMENSIONS FOR CONCRETE KICKERS

METRO WATER SERVICES

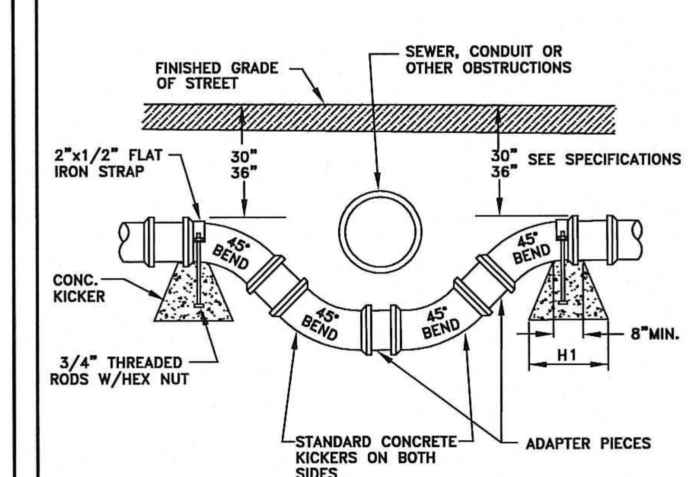
BLOCKING DETAIL (2 OF 2)

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET009

DIRECTOR OF WATER AND SEWERAGE SERVICES

NOTE: SEE DRAWING NO. WDET006 FOR TABLE OF DIMENSION FOR CONCRETE KICKERS



NOTE: SIZE OF KICKER, CLAMP & RODS SHALL BE INCREASED IF SPECIFIED ON LAYOUT SHEET OR BY THE ENGINEER.

METHOD OF CROSSING UNDER OBSTRUCTIONS

METRO WATER SERVICES

CROSSING UNDER OBSTRUCTIONS

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 02/22/08
DWG. NO. WDET010

DIRECTOR OF WATER AND SEWERAGE SERVICES

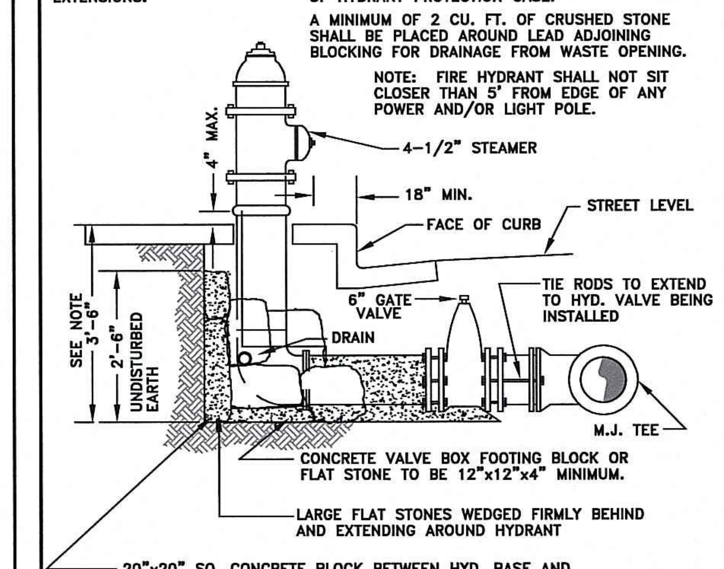
NOTE:
WHEN WATER MAIN OR LEADS HAVE DEPTHS GREATER THAN 3'-6" AN OFFSET BEND SHALL BE USED IN LIEU OF EXTENSIONS.

HYDRANT SHALL BE SET ON CONCRETE VALVE BOX FOOTING BLOCK. CONCRETE BLOCK OR POURED CONCRETE (CLASS A) SHALL BE WEDGED FIRMLY BEHIND AND EXTENDING AROUND HYDRANT TO UNDISTURBED EARTH.

CARE SHALL BE USED TO SET HYDRANT PLUMB. THE FIRE HYDRANT SHALL BE LOCATED NOT LESS THAN 18 INCHES FROM FACE OF CURB TO FRONT OF HYDRANT PROTECTION CASE.

A MINIMUM OF 2 CU. FT. OF CRUSHED STONE SHALL BE PLACED AROUND LEAD ADJOINING BLOCKING FOR DRAINAGE FROM WASTE OPENING.

NOTE: FIRE HYDRANT SHALL NOT SIT CLOSER THAN 5' FROM EDGE OF ANY POWER AND/OR LIGHT POLE.



20"x20" SQ. CONCRETE BLOCK BETWEEN HYD. BASE AND BACK OF TRENCH-4" MIN. THICKNESS
OR
POURED CONCRETE (CLASS A) MAY BE USED BUT MUST MEET BLOCK REQUIREMENTS AND MUST NOT CLOG WEEP HOLE.

ADA COMPLIANCE: ALL ACTIVITIES SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA)

METRO WATER SERVICES

FIRE HYDRANT INSTALLATION

LICENSED DISTRIBUTION OPERATOR

NOT TO SCALE | DATE: 05/05/08
DWG. NO. WDET005

DIRECTOR OF WATER AND SEWERAGE SERVICES

METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

WATER DETAIL SHEET

46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
XXX	XXX	XX/XX/XX
		REVISION DATES & DESCRIPTION

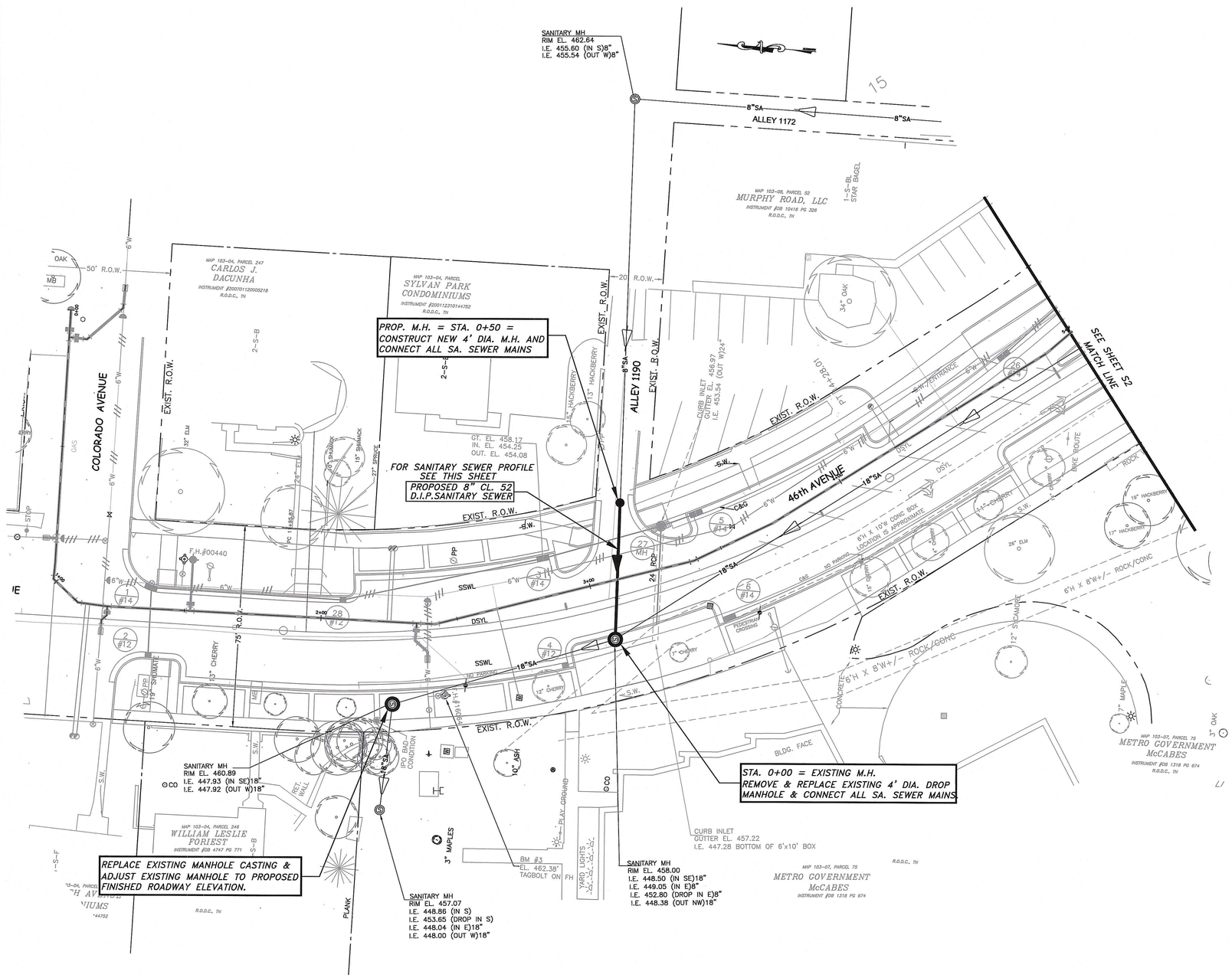
LATEST REVISION: 1/7/08

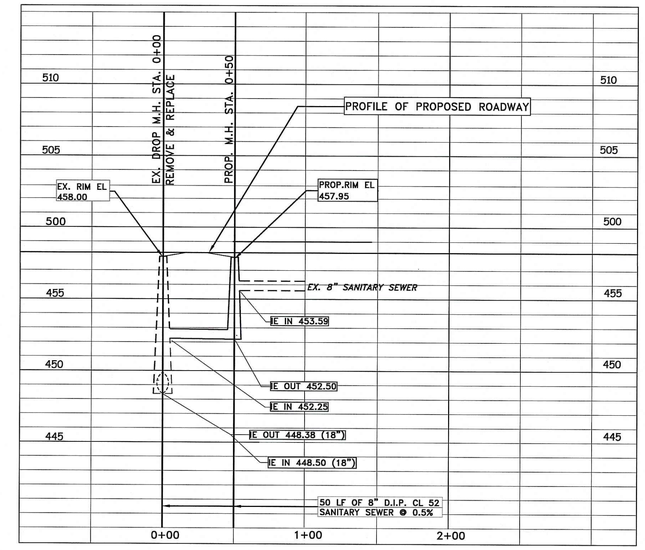
APPROVED BY: SAN | COMPLETED BY: WBR

WATER SERVICES

PROJECT NO. 13SG0134 13WG0159

SHEET NO. W6 OF W6





8" SANITARY SEWER PROFILE
SEE THIS SHEET

SCALE : HORZ. 1"=50' VERT. 1"=5'

0 20' 40'
SCALE: 1"= 20'

METROPOLITAN GOVERNMENT OF
NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

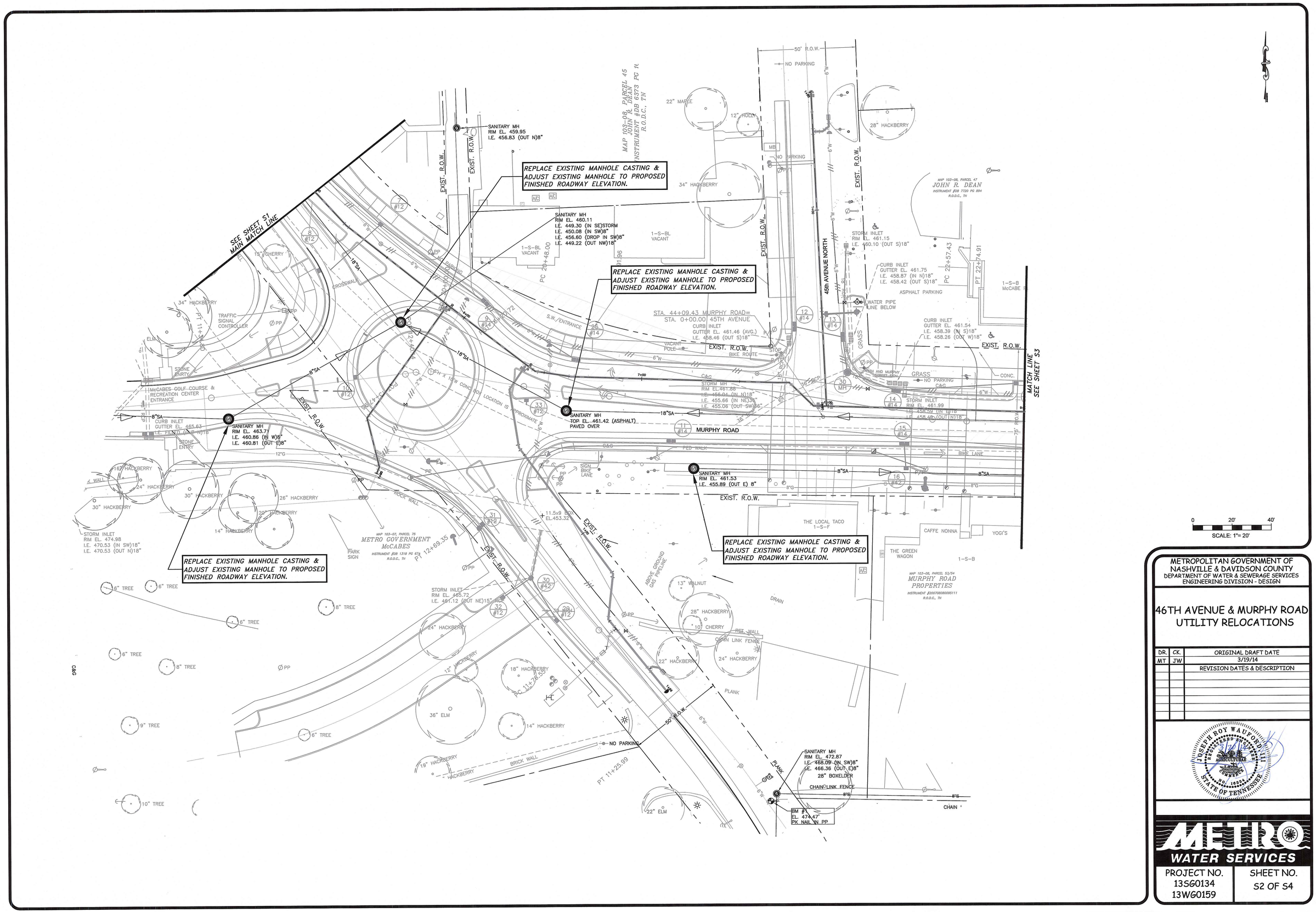
46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	3/19/14
		REVISION DATES & DESCRIPTION

JOSEPH ROY WAUFORD III
REGISTERED ENGINEER
AGRICULTURAL COMMERCE
NO. 16321
STATE OF TENNESSEE

METRO
WATER SERVICES

PROJECT NO.	SHEET NO.
13SG0134 13WG0159	S1 OF S4



METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

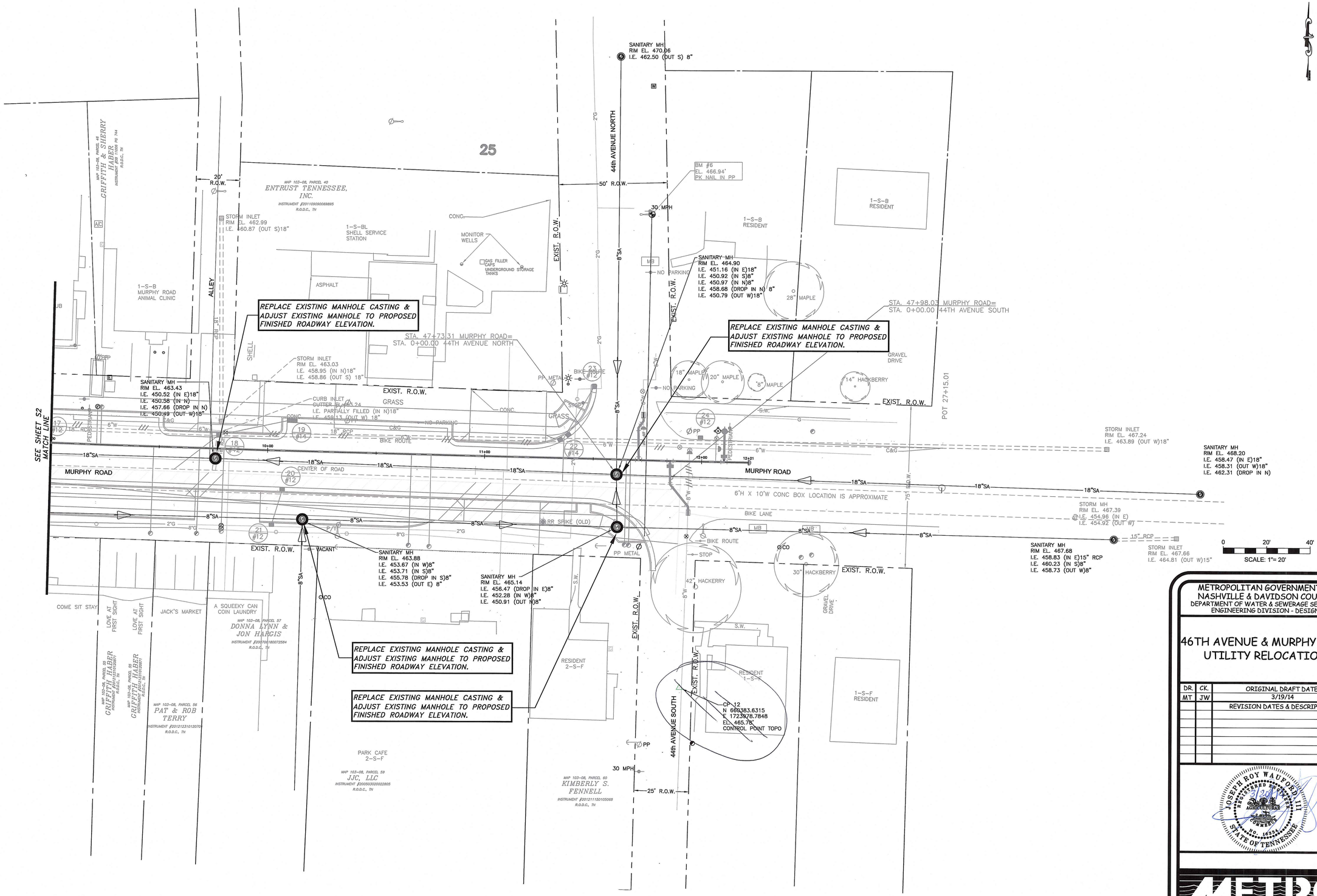
46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	3/19/14
		REVISION DATES & DESCRIPTION

JOSEPH ROY WAUFORD III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 16024
STATE OF TENNESSEE

METRO WATER SERVICES

PROJECT NO.	SHEET NO.
13SG0134 13WG0159	S2 OF S4



METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

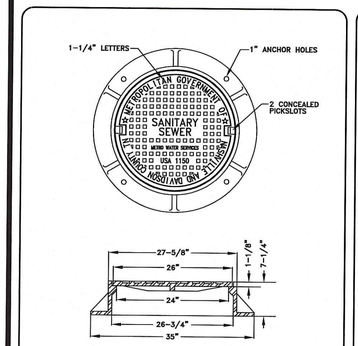
46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
MT	JW	3/19/14
		REVISION DATES & DESCRIPTION

JOSEPH ROY WAUFORD III
REGISTERED ENGINEER
AGRICULTURAL COMMERCE
NO. 16294
STATE OF TENNESSEE
3/20/14

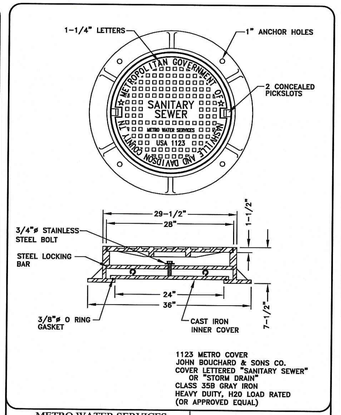
METRO WATER SERVICES

PROJECT NO.	SHEET NO.
13SG0134 13WG0159	S3 OF S4



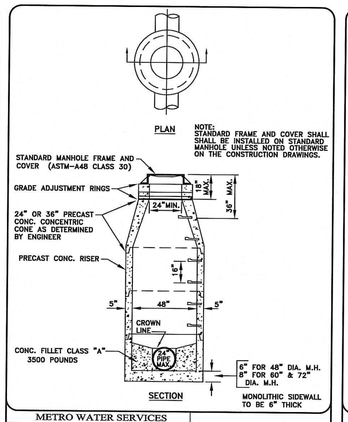
1150 METRO COVER
JOHN BOUCHARD & SONS CO.
COVER LETTERED "SANITARY SEWER" OR "STORM DRAIN"
CLASS 35B GRAY IRON
HEAVY DUITY, H20 LOAD RATED
(OR APPROVED EQUAL)

METRO WATER SERVICES
STANDARD MANHOLE FRAME AND COVER
NOT TO SCALE | DATE: 10/10/12 | DWG.NO. SDET001
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES

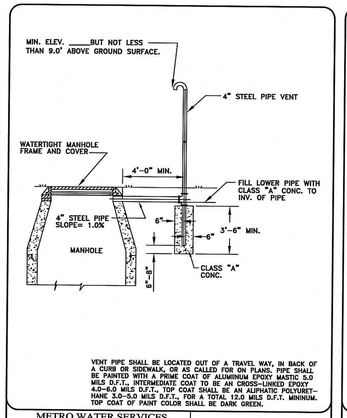


1123 METRO COVER
JOHN BOUCHARD & SONS CO.
COVER LETTERED "SANITARY SEWER" OR "STORM DRAIN"
CLASS 35B GRAY IRON
HEAVY DUITY, H20 LOAD RATED
(OR APPROVED EQUAL)

METRO WATER SERVICES
STANDARD WATERTIGHT MANHOLE FRAME AND COVER
NOT TO SCALE | DATE: 10/10/12 | DWG. NO. SDET002
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES

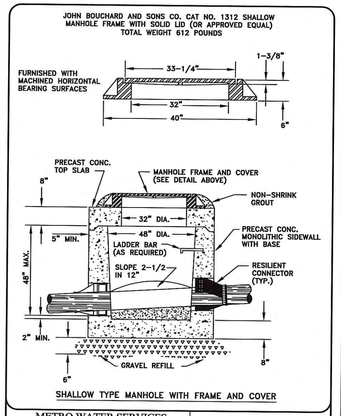


METRO WATER SERVICES
STD. PRECAST CONC. MANHOLE DETAIL
NOT TO SCALE | DATE: 05/05/08 | DWG. NO. SDET003
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



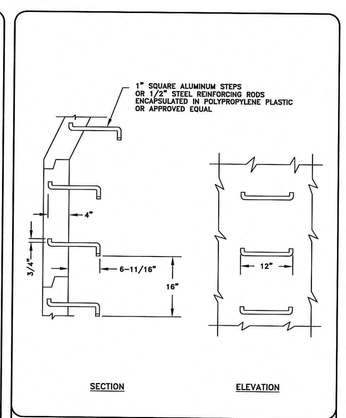
VENT PIPE SHALL BE LOCATED OUT OF A TRAVEL WAY, IN BACK OF A CURB OR SIDEWALK, OR AS CALLED FOR ON PLANS. PIPE SHALL BE PAINTED WITH A PRIME COAT OF ALUMINUM EPOXY MASTIC 5.0 MILS D.F.T., INTERMEDIATE COAT TO BE AN CROSS-LINKED EPOXY 4.0-6.0 MILS D.F.T., TOP COAT SHALL BE AN ALIPHATIC POLYURETHANE 3.0-5.0 MILS D.F.T., FOR A TOTAL 12.0 MILS D.F.T. MINIMUM. TOP COAT OF PAINT COLOR SHALL BE DARK GREEN.

METRO WATER SERVICES
VENT PIPE ASSEMBLY DETAILS
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET004
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES

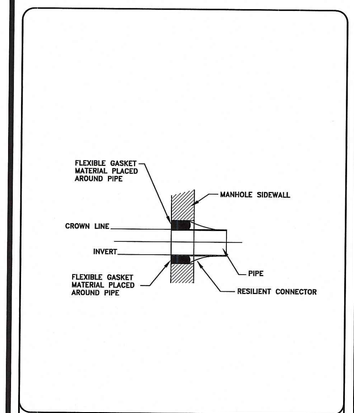


SHALLOW TYPE MANHOLE WITH FRAME AND COVER

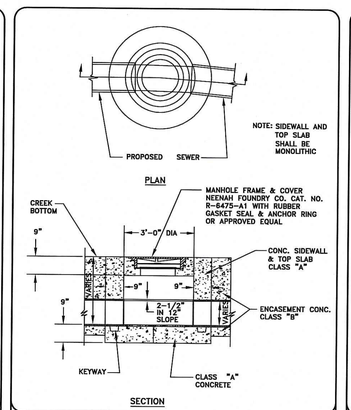
METRO WATER SERVICES
SPECIAL SHALLOW TYPE MANHOLE DETAIL
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET005
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



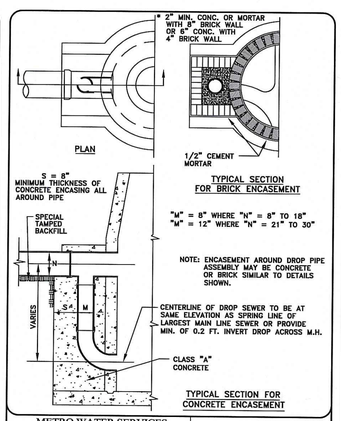
METRO WATER SERVICES
DETAIL OF STANDARD LADDER BARS
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET007
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



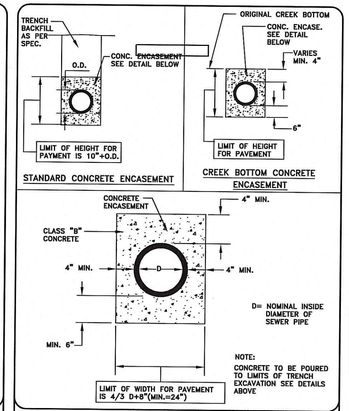
METRO WATER SERVICES
RESILIENT CONNECTOR FOR PIPE TO MANHOLE CONNECTION
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET008
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



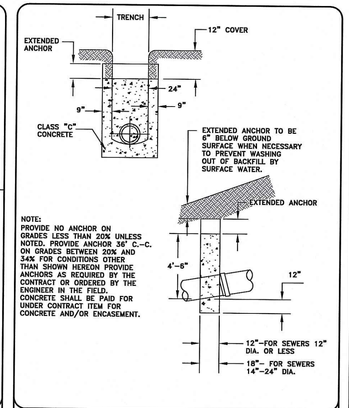
METRO WATER SERVICES
CREEK BOTTOM MANHOLE
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET010
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



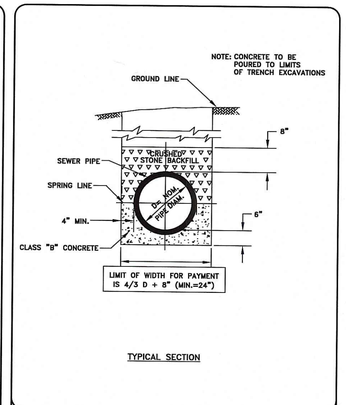
METRO WATER SERVICES
DROP PIPE ASSEMBLY FOR STANDARD MANHOLES
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET011
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



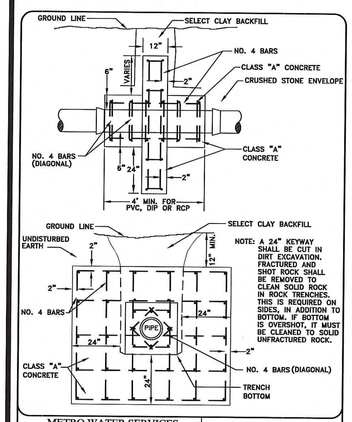
METRO WATER SERVICES
CONCRETE ENCASEMENT
NOT TO SCALE | DATE: 05/05/08 | DWG. NO. SDET006
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



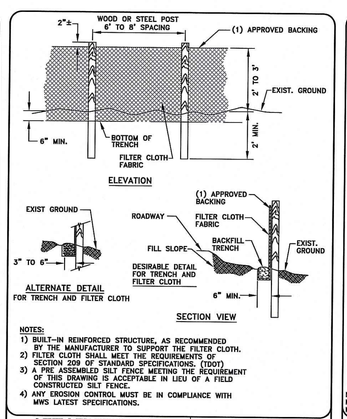
METRO WATER SERVICES
CONCRETE ANCHOR DETAILS
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET009
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



METRO WATER SERVICES
CONCRETE CRADLE
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET013
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES

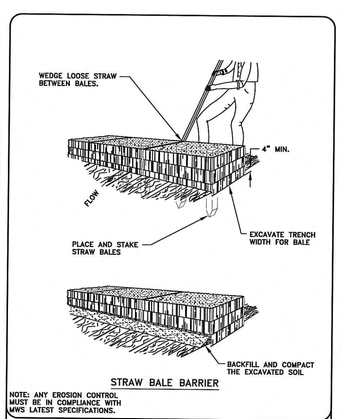


METRO WATER SERVICES
CONCRETE CHECK DAM
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET014
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



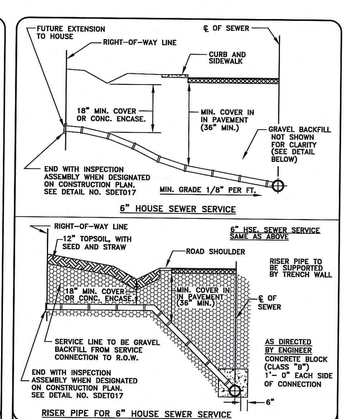
NOTES:
1) BUILT-IN REINFORCED STRUCTURE, AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE FILTER CLOTH.
2) FILTER CLOTH SHALL MEET THE REQUIREMENTS OF SECTION 209 OF STANDARD SPECIFICATIONS. (TDOT)
3) A PRE ASSEMBLED SILT FENCE MEETING THE REQUIREMENT OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE.
4) ANY EROSION CONTROL MUST BE IN COMPLIANCE WITH MWS LATEST SPECIFICATIONS.

METRO WATER SERVICES
TYPICAL TEMPORARY SILT FENCE
NOT TO SCALE | DATE: 05/05/08 | DWG. NO. SDET012
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



NOTE: ANY EROSION CONTROL MUST BE IN COMPLIANCE WITH MWS LATEST SPECIFICATIONS.

METRO WATER SERVICES
STRAW BALE BARRIER
NOT TO SCALE | DATE: 05/05/08 | DWG. NO. SDET015
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES



METRO WATER SERVICES
6" PVC HOUSE SEWER SERVICE
NOT TO SCALE | DATE: 02/22/08 | DWG. NO. SDET016
LICENSED COLLECTION OPERATOR | DIRECTOR OF WATER AND SEWERAGE SERVICES

METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY
DEPARTMENT OF WATER & SEWERAGE SERVICES
ENGINEERING DIVISION - DESIGN

SEWER DETAIL SHEET

46TH AVENUE & MURPHY ROAD UTILITY RELOCATIONS

DR.	CK.	ORIGINAL DRAFT DATE
XXX	XXX	XX/XX/XX
		REVISION DATES & DESCRIPTION
		LATEST REVISION: 1/7/08
APPROVED BY: SAN		COMPLETED BY: WBR

METRO WATER SERVICES

PROJECT NO.	SHEET NO.
13SG0134 13WG0159	S4 OF S4